



UMTS Ericsson MGW R5.1 Product Requirements

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1 Change History

Issue	Date	Author	Comments
1.0	27 March 2009	IBM	Final Release for Build1
2.0	10 April 2009	IBM	Final Release for Build2
3.0	04 February 2010	IBM	Final Release for Fixpack 1 (3.0.0.1)

2 Outstanding Issues

Number	Date	Description	Planned Resolution
N/A			

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3 Vendor Measurement Scope

The table below lists the vendor OM groups that are in scope for this tech pack module, broken down by network element, together with their corresponding tech pack KPI group.

Vendor Measurement	Tech Pack KPI Group
AAL1_Tp_Vcc_Tp - Mapped with TransportNetwork_Aal1TpVccTp.nEDistinguishedName_MeContext & "/" & TransportNetwork&"-Aal1TpVccTp_" & Aal1TpVccTp	
TransportNetwork_Aal1TpVccTp	AAL1_Tp_Vcc_Tp.Ericsson.UMTS.Errors
AAL2_Access_Point - Mapped with TransportNetwork_Aal2Sp_Aal2Ap.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Aal2Sp & "-Aal2Ap_" & Aal2Ap	
TransportNetwork_Aal2Sp_Aal2Ap	AAL2_Access_Point.Ericsson.UMTS.Connections
TransportNetwork_Aal2Sp_Aal2Ap	AAL2_Access_Point.Ericsson.UMTS.Signalling_Messages
AAL2_Signalling_Point - Mapped with TransportNetwork_Aal2Sp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Aal2Sp_" & Aal2Sp	
TransportNetwork_Aal2Sp	AAL2_Signalling_Point.Ericsson.UMTS.AAL2_Sig_Point
AAL2PathVccTp - Mapped with TransportNetwork_Aal2PathVccTp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Aal2PthVcTp_" & aal2pathvcctp	
TransportNetwork_Aal2PathVccTp	AAL2PathVccTp.Ericsson.UMTS.AAL2_CPS
TransportNetwork_Aal2PathVccTp	AAL2PathVccTp.Ericsson.UMTS.Errors
AAL5_Tp_Vcc_Tp - Mapped with TransportNetwork_Aal5TpVccTp.nEDistinguishedName_MeContext & "/" & TransportNetwork&"-Aal5TpVccTp_" & Aal5TpVccTp	
TransportNetwork_Aal5TpVccTp	AAL5_Tp_Vcc_Tp.Ericsson.UMTS.Errors
ATM_Port - Mapped with TransportNetwork_AtmPort.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmPort_" & AtmPort	

TransportNetwork_AttnPort	ATM_Port.Ericsson.UMTS.ATM_port_utilisation
TransportNetwork_AttnPort	ATM_Port.Ericsson.UMTS.Virtual_path_grouped_from_VpcTp
AtmTrafficDescriptor - Mapped with TransportNetwork_AttnTrafficDescriptor.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmTrafDesc_" & AtmTrafficDescriptor	
TransportNetwork_AttnTrafficDescriptor	AtmTrafficDescriptor.Ericsson.UMTS.Traffic_Descriptor
DChannel_Tp - Mapped with ManagedElement_AccessSignalling_DChannelTp.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-DChannel_Tp_" & DChannel_Tp	
ManagedElement_AccessSignalling_DChannelTp	DChannel_Tp.Ericsson.UMTS.DChannelTp_Util
E1 - Mapped with Ess_E1Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-" & Vc4Ttp & "-" & Vc12Ttp & "-" & E1Ttp_ & E1Ttp or Ess_E1PhysPathTerm.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & E1PhyTerm_ & E1PhysPathTerm	
Ess_E1Ttp	E1.Ericsson.UMTS.E1_Terminating_Point
Echo_Cancellation - Mapped with ECRouteParameterSet.nEDistinguishedName_MeContext & "/" & MSProcessing & "-" & RouteParameterGroup & "-EC_" & ECRouteParameterSet	
ECRouteParameterSet	Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_Rout
ECRouteParameterSet	Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_So
ECRouteParameterSet	Echo_Cancellation.Ericsson.UMTS.Echo_Return_Loss
ECRouteParameterSet	Echo_Cancellation.Ericsson.UMTS.Pure_Delay
Ethernet_Link - Mapped with EthernetLink.nEDistinguishedName_MeContext & "/" & IpOam & "-" & Ip & "-EthLk_" & EthernetLink	
EthernetLink	Ethernet_Link.Ericsson.UMTS.Interface_Traffic
Fast_Ethernet - Mapped with FastEthernet.nEDistinguishedName_MeContext & "/" &	

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Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&GeneralProcessorUnit&"-FastEth_"&FastEthernet	
FastEthernet	Fast_Ethernet.Ericsson.UMTS.Interface_Traffic
Gcp_Association - Mapped with MgwApplication_GcpAssociation.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Gcp_Association_" & Gcp_Association	
MgwApplication_GcpAssociation	Gcp_Association.Ericsson.UMTS.Gcp_Assoc_Quality
GigabitEthernet - Mapped with Ess_GigaBitEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&EtMfg&"-GB_"& GigaBitEthernet	
Ess_GigaBitEthernet	GigabitEthernet.Ericsson.UMTS.Interface_Traffic
IMA - Mapped with ImaGroup.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-ImaGrp_" & ImaGroup or ImaLink.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-ImaLink_" & ImaLink	
ImaGroup	IMA.Ericsson.UMTS.IMA_Group
ImaLink	IMA.Ericsson.UMTS.IMA_Link
Interactive_Messaging - Mapped with InteractiveMessaging_ImBasicMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImBscMsg_" & ImBasicMessage or InteractiveMessaging_ImMessageComposition.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImMsgComp_" & ImMessageComposition or InteractiveMessaging_ImVariableMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImVrblMsg_" & ImVariableMessage	
InteractiveMessaging_ImBasicMessage	Interactive_Messaging.Ericsson.UMTS.Interactive_Message
Ip_Atm_Link - Mapped with IpAtmLink.nEDistinguishedName_MeContext & "/" & IpSystem & "-Ip & "-IpAtmLk_" & IpAtmLink	
IpAtmLink	Ip_Atm_Link.Ericsson.UMTS.Link_Traffic
IP_Interface - Mapped with IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.nEDistinguishedName_MeContext & "/"&IpSystem&"-"&UdpHostMainMsb&"-Msb_"&IpAccessUdpHostMsb or Ess_IpInterface.nEDistinguishedName_MeContext & "/"&Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&EtMfg&"-"&GigaBitEthernet&"-IpIf_"&IpInterface or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext& "/"&IpSystem&"-IpAccessHostGpb_"&IpAccessHostGpb or IpSystem_IpAccessHostEt.nEDistinguishedName_MeContext& "/"&IpSystem&"-IpAccessHostEt_"&IpAccessHostEt	

Ess_IpInterface	IP_Interface.Ericsson.UMTS.GigabitEthernet_Interface
IpSystem_IpAccessHostEt	IP_Interface.Ericsson.UMTS.IP_Payload
Ip_Protocol_Layer - Mapped with ManagedElement_Ip.nEDistinguishedName_MeContext & "/" & IpOam & "-Ip_" & Ip	
ManagedElement_Ip	Ip_Protocol_Layer.Ericsson.UMTS.Interface_Traffic
IUA_App_Server - Mapped with ManagedElement_AccessSignalling_IuaApplicationServer.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-IUA_App_Server_" & IUA_App_Server	
ManagedElement_AccessSignalling_IuaApplicationServer	IUA_App_Server.Ericsson.UMTS.IUA_AppSvr_Quality
Medium_Access_Unit - Mapped with MediumAccessUnit.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&GeneralProcessorUnit&"-MAU_"& MediumAccessUnit	
MediumAccessUnit	Medium_Access_Unit.Ericsson.UMTS.Ethernet_Transceiver_Function
MGW - Mapped with MgwApplication.nEDistinguishedName_MeContext or MgwApplication_Aggregated.nEDistinguishedName_MeContext or Mgw_Aggregated_Ansi.nEDistinguishedName_MeContext or Mgw_Aggregated_China.nEDistinguishedName_MeContext or Mgw_Aggregated_Itu.nEDistinguishedName_MeContext or Mgw_Aggregated_Ttc.nEDistinguishedName_MeContext	
Mgw_Aggregated_Ansi	MGW.Ericsson.UMTS.Connection_Quality
Mgw_Aggregated_Ansi	MGW.Ericsson.UMTS.Signalling_Traffic
MgwApplication	MGW.Ericsson.UMTS.Service_and_software_licensing
MgwApplication_Aggregated	MGW.Ericsson.UMTS.Accessibility_Retainability
MGW_Resource_Pool - Mapped with MsProcessing_InmarsatService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Inmarsat_" & InmarsatService or MsProcessing_AmrService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-Amr_"&AmrService or MsProcessing_NrService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-Nr_"&NrService or MsProcessing_ContinuityCheckService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-ContinuityCheck_"&ContinuityCheckService or MsProcessing_ToneSenderService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-	

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ToneSender_ "&ToneSenderService or MsProcessing_ TfoService.nEDistinguishedName_MeContext
 & "/" & MsProcessing&"-Tfo_ "&TfoService or
 MsProcessing_ ImService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 Im_ "&ImService or MsProcessing_ EfrService.nEDistinguishedName_MeContext & "/" &
 MsProcessing&"-Efr_ "&EfrService or
 MsProcessing_ CsdDigitalService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 CsdDigital_ "&CsdDigitalService or
 MsProcessing_ CsdGsmFhService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 CsdGsmFh_ "&CsdGsmFhService or
 MsProcessing_ CsdGsmFaxService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 CsdGsmFax_ "&CsdGsmFaxService or
 MsProcessing_ CsdModemService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 CsdModem_ "&CsdModemService or
 MsProcessing_ DtmfReceiverService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 DtmfReceiver_ "&DtmfReceiverService or
 MsProcessing_ DtmfSenderService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 DtmfSender_ "&DtmfSenderService or MsProcessing_ EcService.nEDistinguishedName_MeContext &
 "/" & MsProcessing&"-Ec_ "&EcService or
 MsProcessing_ GttService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 Gtt_ "&GttService or MsProcessing_ IpbService.nEDistinguishedName_MeContext & "/" &
 MsProcessing&"-Ipb_ "&IpbService or
 MsProcessing_ JitterHandlingService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-
 JitterHandling_ "&JitterHandlingService

MsProcessing_AmrWbService	MGW_Resource_Pool.Ericsson.UMTS.Device_Pool
MsProcessing_CsdDigitalService	MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Digital_Pool
MsProcessing_CsdDigitalService	MGW_Resource_Pool.Ericsson.UMTS.Utilisation
MsProcessing_CsdDigitalService	MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Digital_Pool
MsProcessing_CsdGsmFaxService	MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Fax_Pool
MsProcessing_CsdModemService	MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Modem_Pool
MsProcessing_CsdModemService	MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Modem_Pool
MsProcessing_G729Service	MGW_Resource_Pool.Ericsson.UMTS.Device_Pool
MsProcessing_InmarsatService	MGW_Resource_Pool.Ericsson.UMTS.Device_Pool
MsProcessing_IpEtService	MGW_Resource_Pool.Ericsson.UMTS.Device_Pool
MsProcessing_JitterHandlingService	MGW_Resource_Pool.Ericsson.UMTS.Jitter_Measurement

MsProcessing_TfoService	MGW_Resource_Pool.Ericsson.UMTS.Tandem_Free_Op
MsProcessing_UpFhService	MGW_Resource_Pool.Ericsson.UMTS.Utilisation2
MS_Device_Group - Mapped with MsDeviceGroup.nEDistinguishedName_MeContext & "/" & Equipment&"-" & Subrack&"-" & Slot&"-" & PlugInUnit&"-" & "-MSDvcGrp_" & MsDeviceGroup	
MsDeviceGroup	MS_Device_Group.Ericsson.UMTS.Device_Group_Statistics
MS_Device_Pool - Mapped with MsProcessing_MsDevicePool.nEDistinguishedName_MeContext & "/" & MSProcessing & "-MSDPool_" & MsDevicePool	
MsProcessing_MsDevicePool	MS_Device_Pool.Ericsson.UMTS.Pool_Status
MS_Processing - Mapped with ManagedElement_MsProcessing.nEDistinguishedName_MeContext & "/" & MsProcessing	
ManagedElement_MsProcessing	MS_Processing.Ericsson.UMTS.DSP
MTP3B_AP - Mapped with TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-Mtp3bAp_" & Mtp3bAp	
TransportNetwork_Mtp3bSpItu_Mtp3bAp	MTP3B_AP.Ericsson.UMTS.MTP
MTP3B_SR - Mapped with TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr	
TransportNetwork_Mtp3bSpItu_Mtp3bSr	MTP3B_SR.Ericsson.UMTS.MTP

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bSrs_Mtp3bSr	
Nni_SAAL_Tp - Mapped with TransportNetwork_NniSaalTp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-NniTp_" & NniSaalTp	
TransportNetwork_NniSaalTp	Nni_SAAL_Tp.Ericsson.UMTS.SAAL
OS155 - Mapped with Ess_Os155SpiTtp.nEDistinguishedName_MeContext & "/" & Equipment & "-&Subrack & "-& Slot & "-& PlugInUnit& "-& ExchangeTerminal& "-Os155Tp_"& Os155SpiTtp	
Ess_Os155SpiTtp	OS155.Ericsson.UMTS.OS155_Terminating_Point
OSPF - Mapped with ManagedElement_IpSystem_Ospf.nEDistinguishedName_MeContext & "/" & IpSystem & "-OSPF_" & OSPF	
ManagedElement_IpSystem_Ospf	OSPF.Ericsson.UMTS.OSPF_Routing_Protocol
OSPF_Area - Mapped with ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext & "/" & IpSystem & "-& OSPF & "-OSPF_Ar_" & OSPFArea	
ManagedElement_IpSystem_Ospf_OspfArea	OSPF_Area.Ericsson.UMTS.Area_Route_Table
OSPF_Interface - Mapped with ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext & "/" & IpSystem & "-& OSPF & "-OSPF_If_" & OspfInterface	
ManagedElement_IpSystem_Ospf_OspfInterface	OSPF_Interface.Ericsson.UMTS.Interface
Plug_In_Unit - Mapped with Ess_PlugInUnit.nEDistinguishedName_MeContext & "/" & Equipment& "-&Subrack& "-& Slot& "-PIU_"& PlugInUnit	
Ess_PlugInUnit	Plug_In_Unit.Ericsson.UMTS.CPU_Load
RemoteSite - Mapped with MgwApplication_IpNetwork_RemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-& IpNetwork & "-Remote_" & RemoteSite	
MgwApplication_IpNetwork_RemoteSite	RemoteSite.Ericsson.UMTS.Connection_Quality
MgwApplication_IpNetwork_RemoteSite	RemoteSite.Ericsson.UMTS.Connection
Signalling_Point - Mapped with SccpAccountingCriteria.nEDistinguishedName_MeContext& "/"& TransportNetwork& "-& SccpSp& "-& SccpSrc& "-SccpAccCr_"& SccpAccountingCriteria or SccpPolicing.nEDistinguishedName_MeContext& "/"& TransportNetwork& "-& SccpSp& "-& SccpSrc& "-SccpPolicing_"& SccpPolicing or SccpSrc.nEDistinguishedName_MeContext& "/"& TransportNetwork& "-& SccpSp& "-	

SccpSrc_ "&SccpSrc or SccpSp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- SccpSp_ "&SccpSp or TransportNetwork_Mtp2TpAnsi.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp2TpAnsi_ "& Mtp2TpAnsi or TransportNetwork_Mtp2TpItu.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp2TpItu_ "& Mtp2TpItu Or TransportNetwork_Mtp2TpChina.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp2TpChina_ "& Mtp2TpChina or TransportNetwork_Mtp3bSpAnsi.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp3bSpAnsi_ "& Mtp3bSpAnsi or TransportNetwork_Mtp3bSpItu.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp3bSpItu_ "& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.nEDistinguishedName_MeContext&"/"&TransportNetw ork&"-Mtp3bSpAnsi_ "&Mtp3bSpAnsi&"-Mtp3bSrs_ "&Mtp3bSrs or Mtp3bSpItu_SI_Aggregated.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp3bSpItu_ "&Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.nEDistinguishedName_MeContext&"/"&TransportNetwo rk&"-Mtp3bSpAnsi_ "&Mtp3bSpAnsi&"-Mtp3bSls_ "&Mtp3bSls or Mtp3bSpItu_Srs_Aggregated.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- Mtp3bSpItu_ "&Mtp3bSpItu	
Mtp3bSpItu_SI_Aggregated	Signalling_Point.Ericsson.UMTS.Utilisation
Mtp3bSpItu_Srs_Aggregated	Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point2
SccpAccountingCriteria	Signalling_Point.Ericsson.UMTS.SCCP_Accounting
SccpPolicing	Signalling_Point.Ericsson.UMTS.SCCP_policing
SccpSrc	Signalling_Point.Ericsson.UMTS.SCCP_Routing_CRC
SccpSp	Signalling_Point.Ericsson.UMTS.SCCP_Relay_Signalling_P oint
TransportNetwork_Mtp2TpItu	Signalling_Point.Ericsson.UMTS.MTP2_Terminating_Point
TransportNetwork_Mtp3bSpItu	Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point
Sigtran - Mapped with TransportNetwork_Mtp3bSpItu_M3uAssociation.nEDistinguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpItu_ "& Mtp3bSpItu &"-M3uAsso_ "& M3uAssociation or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.nEDistinguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpAnsi_ "& Mtp3bSpAnsi &"-M3uAsso_ "& M3uAssociation or TransportNetwork_Mtp3bSpChina_M3uAssociation.nEDistinguishedName_MeContext &"/"&	

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TransportNetwork &"-Mtp3bSpChina_"& Mtp3bSpChina &"-M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpTtc_M3uAssociation.nEDistinguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpTtc_"& Mtp3bSpTtc &"-M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpItu.nEDistinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpItu_"& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi.nEDistinguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpAnsi_"& Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina.nEDistinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc.nEDistinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpTtc_"& Mtp3bSpTtc or TransportNetwork_Sctp.nEDistinguishedName_MeContext &"/"& TransportNetwork &"-SCTP_"& SCTP or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext &"/"& IpSystem &"- IpAccessHostGpb_"& IpAccessHostGpb	
IpSystem_IpAccessHostGpb	Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_IP
TransportNetwork_Mtp3bSpItu	Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_MTP3
TransportNetwork_Mtp3bSpItu_M3u Association	Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_M3UA
TransportNetwork_Sctp	Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol
STS1 - Mapped with Sts1SpeTtp.nEDistinguishedName_MeContext &"/"&Equipment &"-" & Subrack &"-" & Slot &"-" & PlugInUnit &"-" & ExchangeTerminal &"-" & Os155SpiTtp &"- Sts1SpeTtp_" & Sts1SpeTtp	
Sts1SpeTtp	STS1.Ericsson.UMTS.STS1_Terminating_Point
STS3 - Mapped with Sts3CspeTtp.nEDistinguishedName_MeContext&"/"&Equipment &"-" & Subrack &"-" & Slot &"-" & PlugInUnit &"-" & ExchangeTerminal &"-" & Os155SpiTtp &"- Sts3CspeTtp_" & Sts3CspeTtp	
Sts3CspeTtp	STS3.Ericsson.UMTS.STS3_Terminating_Point
Synchronization - Mapped with TransportNetwork_Synchronization.nEDistinguishedName_MeContext &"/"& TransportNetwork & "-Synchronization_" & Synchronization	
TransportNetwork_Synchronization	Synchronization.Ericsson.UMTS.Synchronization_Delay
T1 - Mapped with T1Ttp.nEDistinguishedName_MeContext&"/"&ManagedElement&"-"&Equipment&"-"&Subrack&"- "&Slot&"-"&PlugInUnit&"-"&ExchangeTerminal&"-"& Os155SpiTtp &"-" & Sts1SpeTtp &"-" & Vt15Ttp &"-T1Ttp_" & T1Ttp or T1PhysPathTerm.nEDistinguishedName_MeContext&"/"&ManagedElement&"-"&Equipment&"-"&S ubrack&"-"&Slot&"-"&PlugInUnit&"-"&ExchangeTerminal&"-T1PhysTerm_" & T1PhysPathTerm	

T1Ttp	T1.Ericsson.UMTS.T1_Terminating_Point
TdmTermGrp - Mapped with MgwApplication_TdmTermGrp.nEDistinguishedName_MeContext&"/"&ManagedElement&"- "&MgwApplication&"-TdmGrp_"&TdmTermGrp	
MgwApplication_TdmTermGrp	TdmTermGrp.Ericsson.UMTS.Utilisation
Unknown_RemoteSite - Mapped with MgwApplication_UnknownRemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Unknown_Remote_" & Unknown_RemoteSite	
MgwApplication_UnknownRemoteSite	Unknown_RemoteSite.Ericsson.UMTS.Connection_Quality
VC11 - Mapped with Ess_Vc11Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "- " & Subrack & "- " & Slot & "- " & PlugInUnit & "- " & ExchangeTerminal & "- " & Os155SpiTtp & "- " & Vc3Ttp & "-Vc11Ttp_" & Vc11Ttp	
Ess_Vc11Ttp	VC11.Ericsson.UMTS.VC11_Terminating_Point
VC12 - Mapped with Ess_Vc12Ttp.nEDistinguishedName_MeContext&"/"&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp&"- "&Vc4Ttp&"-Vc12Ttp_"&Vc12Ttp	
Ess_Vc12Ttp	VC12.Ericsson.UMTS.VC12_Terminating_Point
VC3 - Mapped with Ess_Vc3Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "- " & Subrack & "- " & Slot & "- " & PlugInUnit & "- " & ExchangeTerminal & "- " & Os155SpiTtp & "-Vc3Ttp_" & Vc3Ttp	
Ess_Vc3Ttp	VC3.Ericsson.UMTS.VC3_Terminating_Point
VC4 - Mapped with Ess_Vc4Ttp.nEDistinguishedName_MeContext&"/"&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp&"-Vc4Ttp_"&Vc4Ttp	
Ess_Vc4Ttp	VC4.Ericsson.UMTS.VC4_Terminating_Point
VclTp - Mapped with TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- "&AtmPort&"- "&VplTp&"- "&VpcTp&"-VclTp_"&VclTp	
TransportNetwork_AtmPort_VplTp_VpcTp_VclTp	VclTp.Ericsson.UMTS.Virtual_channel
VMGW - Mapped with	

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MgwApplication_Vmgw.nEDistinguishedName_MeContext&"/"&MgwApplication&"-Vmgw_"&Vmgw	
MgwApplication_Vmgw	VMGW.Ericsson.UMTS.BCTP
MgwApplication_Vmgw	VMGW.Ericsson.UMTS.IP_Bearer_Control_Protocol
MgwApplication_Vmgw	VMGW.Ericsson.UMTS.Iu_Interface
MgwApplication_Vmgw	VMGW.Ericsson.UMTS.Nb_Interface
MgwApplication_Vmgw	VMGW.Ericsson.UMTS.Utilisation
VpcTp - Mapped with TransportNetwork_AtmPort_VplTp_VpcTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-"&AtmPort&"-"&VplTp&"-VpcTp_"&VpcTp	
TransportNetwork_AtmPort_VplTp_VpcTp	VpcTp.Ericsson.UMTS.Virtual_path
VplTp - Mapped with TransportNetwork_AtmPort_VplTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-"&AtmPort&"-VplTp_"&VplTp	
TransportNetwork_AtmPort_VplTp	VplTp.Ericsson.UMTS.Traffic_agregated_from_VPCTP
TransportNetwork_AtmPort_VplTp	VplTp.Ericsson.UMTS.Traffic
VT15 - Mapped with Vt15Ttp.nEDistinguishedName_MeContext&"/"&Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&ExchangeTerminal&"-"&Os155SpiTtp&"-"&Sts1SpeTtp&"-Vt15Ttp_"&Vt15Ttp	
Vt15Ttp	VT15.Ericsson.UMTS.VT15_Terminating_Point

4 Tech Pack Prerequisites

This section lists the Tech Pack modules that the current Tech Pack is dependent on.

- Neutral Core GOM
- Neutral GPRS BSS GOM
- Neutral GPRS/UMTS CN GOM
- Neutral GSM BSS/NSS GOM
- Neutral UMTS UTRAN GOM
- ERI GOMlet
- PGM GOMlet
- VNL GOMlet

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5 Network Model

This section describes any network objects that are defined in this technology pack module, in terms of their configuration attributes.

5.1 AAL1_Tp_Vcc_Tp details

In the network hierarchy, the immediate parents of the AAL1_Tp_Vcc_Tp object are: Region, RNC and NodeB.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
AAL1_Tp_Vcc_Tp_Id	A unique identifier for the AAL1 interworking function in a circuit emulation in a UTRAN network.	Y		TransportNetwork_Aal1TpVccTp.nE DistinguishedName_MeContext & "/" & TransportNetwork&"- Aal1TpVccTp_" & Aal1TpVccTp
Relationship Attributes				
Region_Id	Region associated with the AAL1 Tp Vcc Tp.	Y	Y	TransportNetwork_Aal1TpVccTp.RE GION_ID
Network_Id	Network associated with the AAL1 TP VCC TP.	Y	Y	TransportNetwork_Aal1TpVccTp.NE TWORK_ID
RNC_Id	Identifier of the RNC	Y	Y	"No mapping"
NodeB_Id	Identifier of the NodeB	Y	Y	"No mapping"
Configuration Attributes				
AAL1_Tp_Vcc_Tp_Name	A user friendly name preferably unique for the AAL1 TP VCC TP.			TransportNetwork_Aal1TpVccTp.nE DistinguishedName_MeContext & "/" & TransportNetwork&"- Aal1TpVccTp_" & Aal1TpVccTp

Node_Id	The unique identifier for the node this object is connected to.	Y		TransportNetwork_Aal1TpVccTp.nE DistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			TransportNetwork_Aal1TpVccTp.nE DistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Version	Hardware/Software version of the AAL1 TP VCC TP.			"R5.1"
Vendor	Manufacturer of the AAL1_Tp_Vcc_Tp			"Ericsson"

5.2 AAL2_Access_Point details

In the network hierarchy, the immediate parent of the AAL2_Access_Point object is AAL2_Signalling_Point.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
AAL2_AP_Id	A unique string supplied by the Gateway in all AAL2 Access Point performance data	Y		TransportNetwork_Aal2Sp_Aal2Ap.n EDistinguishedName_MeContext & "/" & TransportNetwork & "-" & Aal2Sp & "-Aal2Ap_" & Aal2Ap
Relationship Attributes				
AAL2_SP_Id	AAL2 signalling point id relating to this access point	Y	Y	TransportNetwork_Aal2Sp_Aal2Ap.n EDistinguishedName_MeContext & "/" & TransportNetwork & "- Aal2Sp_" & Aal2Sp
Region_Id	Region identifier	Y	Y	TransportNetwork_Aal2Sp_Aal2Ap.

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				REGION_ID
Network_Id	The Network identifier	Y	Y	TransportNetwork_Aal2Sp_Aal2Ap.NETWORK_ID
RNC_Id	Identifier of the RNC	Y	Y	"No Mapping"
NodeB_Id	Identifier of the NodeB	Y	Y	"No Mapping"
Configuration Attributes				
AAL2_AP_Name	A user-friendly name for a AAL2 Access Point			TransportNetwork_Aal2Sp_Aal2Ap.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-" & Aal2Sp & "-Aal2Ap_" & Aal2Ap
AAL2_AP_Type	The type of this Access Point			TransportNetwork_Aal2Sp_Aal2Ap.UserLabel
Node_Id	The identifier of the Node associated with AAL2_Access_Point.	Y		TransportNetwork_Aal2Sp_Aal2Ap.nEDistinguishedName_MeContext
Node_Type	The type of node to which this AAL2 Access Point is connected	Y		"MGW"
Node_Name	The name of the node associated with the AAL2 Access Point			TransportNetwork_Aal2Sp_Aal2Ap.nEDistinguishedName_MeContext
Version	The equipment version			"R5.1"
Technology	The technology associated with this aal2 access point (e.g. 'GPRS', 'UMTS' etc)			"UMTS"
Vendor	Manufacturer of the AAL2_Access_Point			"Ericsson"

5.3 AAL2_Signalling_Point details

In the network hierarchy, the immediate parents of the AAL2_Signalling_Point object are: Region, RNC and NodeB.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
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Primary Identifier				
AAL2_SP_Id	Identifier of the AAL2 Signalling Point	Y		TransportNetwork_Aal2Sp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Aal2Sp_" & Aal2Sp
Relationship Attributes				
Region_Id	The Region associated with the AAL2 Signallink Point	Y	Y	TransportNetwork_Aal2Sp.REGION_ID
Network_Id	Network associated with the AAL2 Signallink Point.	Y	Y	TransportNetwork_Aal2Sp.NETWORK_ID
RNC_Id	Identifier of the RNC.	Y	Y	"No mapping"
NodeB_Id	Identifier of the NodeB.	Y	Y	"No mapping"
Configuration Attributes				
AAL2_SP_Name	Meaningful name for the AAL2 Signalling Point			TransportNetwork_Aal2Sp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Aal2Sp_" & Aal2Sp
Node_Id	The identifier of the Node associated with AAL2 Signalling Point	Y		TransportNetwork_Aal2Sp.nEDistinguishedName_MeContext
Node_Type_Id	The type of the Node associated with the AAL2 Signallink Point (e.g. MGW, RNC).	Y		"MGW"
Node_Name	The name of the Node associated with the AAL2 Signallink Point.			TransportNetwork_Aal2Sp.nEDistinguishedName_MeContext
Version	Hardware/Software version of the AAL2 / Node.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"

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Vendor	Manufacturer of the AAL2_Signalling_Point			"Ericsson"
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5.4 AAL2PathVccTp details

In the network hierarchy, the immediate parent of the AAL2PathVccTp object is MGW.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
AAL2PathVccTp_Id	A unique identifier for the AAL2PathVccTp	Y		TransportNetwork_Aal2PathVccTp.n EDistinguishedName_MeContext & "/" & TransportNetwork & "- Aal2PthVcTp_" & aal2pathvcctp
Relationship Attributes				
Region_Id	The region associated with the object	Y	Y	TransportNetwork_Aal2PathVccTp.R EGION_ID
Network_id	Network identifier	Y	Y	TransportNetwork_Aal2PathVccTp.N ETWORK_ID
MGW_Id	mgw_id	Y	Y	TransportNetwork_Aal2PathVccTp.n EDistinguishedName_MeContext
Configuration Attributes				
AAL2PathVccTp_Name	The user friendly name for the object			TransportNetwork_Aal2PathVccTp.n EDistinguishedName_MeContext & "/" & TransportNetwork & "- Aal2PthVcTp_" & aal2pathvcctp
Version	The hardware/software version of the object			"R5.1"
Vendor	Manufacturer of the AAL2PathVccTp			"Ericsson"

5.5 AAL5_Tp_Vcc_Tp details

In the network hierarchy, the immediate parents of the AAL5_Tp_Vcc_Tp object are: Region, RNC and NodeB.

Attribute Name	Description	Read-Only ?	Time-Tracked?	Mapping
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Primary Identifier				
AAL5_Tp_Vcc_Tp_Id	A unique identifier for the AAL5 virtual circuit in a UTRAN network.	Y		TransportNetwork_Aal5TpVccTp.nE DistinguishedName_MeContext & "/" & TransportNetwork&"-Aal5TpVccTp_" & Aal5TpVccTp
Relationship Attributes				
Region_Id	Region associated with AAL5 Tp Vcc Tp.	Y	Y	TransportNetwork_Aal5TpVccTp.REGION_ID
Network_Id	Network associated with the AAL5 TP VCC TP.	Y	Y	TransportNetwork_Aal5TpVccTp.NETWORK_ID
RNC_Id	Identifier of the RNC.	Y	Y	"No mapping"
NodeB_Id	Identifier of the NodeB.	Y	Y	"No mapping"
Configuration Attributes				
AAL5_Tp_Vcc_Tp_Name	A user friendly name for the object.			TransportNetwork_Aal5TpVccTp.nE DistinguishedName_MeContext & "/" & TransportNetwork&"-Aal5TpVccTp_" & Aal5TpVccTp
Node_Id	The unique identifier for the node this object is connected to	Y		TransportNetwork_Aal5TpVccTp.nE DistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to			TransportNetwork_Aal5TpVccTp.nE DistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Version	Hardware/Software version of the AAL5 TP VCC TP / Node			"R5.1"
Vendor	Manufacturer of the AAL5_Tp_Vcc_Tp			"Ericsson"

5.6 ATM_Port details

In the network hierarchy, the immediate parent of the ATM_Port object is Region.

Attribute Name	Description	Read-Only ?	Time-Tracked?	Mapping
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Primary Identifier				
ATM_Port_Id	A unique identifier for the ATM Port.	Y		TransportNetwork_AtmPort.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmPort_" & AtmPort
Relationship Attributes				
Network_Id	Network associated with the ATM Port.	Y	Y	TransportNetwork_AtmPort.NETWORK_ID
Region_Id	Region associated with the ATM Port.	Y	Y	TransportNetwork_AtmPort.REGION_ID
Configuration Attributes				
ATM_Port_Name	A user friendly name preferably unique for the ATM Port.			TransportNetwork_AtmPort.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmPort_" & AtmPort
ATM_Port_Type	Type of ATM Port.			TransportNetwork_AtmPort.userLabel
ATM_Port_Version	Hardware/Software version of the ATM Port.			"Populated by customer"
Node_Id	A unique identifier for the Node.			TransportNetwork_AtmPort.nEDistinguishedName_MeContext
Node_Name	A user friendly name preferably unique for the Node.			TransportNetwork_AtmPort.nEDistinguishedName_MeContext
Node_Type	Type of the Node.			"MGW"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the ATM_Port			"Ericsson"

5.7 AtmTrafficDescriptor details

In the network hierarchy, the immediate parent of the AtmTrafficDescriptor object is Region.

Attribute Name	Description	Read -	Time-Tracke	Mapping
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		Only ?	d?	
Primary Identifier				
AtmTraffic_Descriptor_Id	A unique identifier for the AtmTraffic_Descriptor	Y		TransportNetwork_AtmosphericTrafficDescriptor.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmosphericTrafficDescriptor"
Relationship Attributes				
Network_Id	Network associated with the AtmTraffic_Descriptor	Y	Y	TransportNetwork_AtmosphericTrafficDescriptor.NETWORK_ID
Region_Id	Region associated with the AtmTraffic_Descriptor	Y	Y	TransportNetwork_AtmosphericTrafficDescriptor.REGION_ID
Configuration Attributes				
AtmTraffic_Descriptor_Name	A user-friendly name preferably unique for the AtmTraffic_Descriptor			TransportNetwork_AtmosphericTrafficDescriptor.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-AtmosphericTrafficDescriptor"
Node_Id	The unique identifier for the node this object is connected to			TransportNetwork_AtmosphericTrafficDescriptor.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			TransportNetwork_AtmosphericTrafficDescriptor.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the			"R5.1"

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	equipment supporting the AtmTraffic_Descriptor			
Vendor	Manufacturer of the AtmTrafficDescriptor			"Ericsson"

5.8 DChannel_Tp details

In the network hierarchy, the immediate parent of the DChannel_Tp object is Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
DChannel_Tp_Id	A unique identifier for the DChannel_Tp	Y		ManagedElement_AccessSignalling_DChannelTp.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-DChannel_Tp_" & DChannel_Tp
Relationship Attributes				
Network_Id	Network associated with the DChannel_Tp	Y	Y	ManagedElement_AccessSignalling_DChannelTp.NETWORK_ID
Region_Id	Region associated with the DChannel_Tp	Y	Y	ManagedElement_AccessSignalling_DChannelTp.REGION_ID
Configuration Attributes				
DChannel_Tp_Name	A user-friendly name preferably unique for the DChannel_Tp			ManagedElement_AccessSignalling_DChannelTp.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-DChannel_Tp_" & DChannel_Tp
Node_Id	The unique identifier for the node this object is connected to			ManagedElement_AccessSignalling_DChannelTp.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			ManagedElement_AccessSignalling_DChannelTp.nEDistinguishedName_MeContext

Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the DChannel_Tp			"R5.1"
Vendor	Manufacturer of the DChannel_Tp			"Ericsson"

5.9 E1 details

In the network hierarchy, the immediate parent of the E1 object is MGW.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
E1_Id	A unique string supplied by the Gateway in all E1 performance data.	Y		Ess_E1Ttp.nEDistinguishedName_MeContext &"/"&Equipment&"/"&Subrack&"/"&Slot&"/"&PlugInUnit&"/"&ExchangeTerminal&"/"&Os155SpiTtp&"/"&Vc4Ttp&"/"&Vc12Ttp&"/ E1Ttp_"&E1Ttp or Ess_E1PhysPathTerm.nEDistinguishedName_MeContext &"/"&Equipment&"/"&Subrack&"/"&Slot&"/"&PlugInUnit&"/"&ExchangeTerminal&"/ E1PhyTerm_"&E1PhysPathTerm
Relationship Attributes				
MGW_Id	The MGW to which this E1 is connected.	Y	Y	Ess_E1Ttp.nEDistinguishedName_MeContext or Ess_E1PhysPathTerm.nEDistinguishedName_MeContext

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Region_Id	The Region containing the E1	Y	Y	Ess_E1Ttp.REGION_ID or Ess_E1PhysPathTerm.REGION_ID
Network_Id	The Network identifier	Y	Y	Ess_E1Ttp.NETWORK_ID or Ess_E1PhysPathTerm.NETWORK_ID
Configuration Attributes				
E1_Name	A user-friendly name for a E1.			Ess_E1Ttp.nEDistinguishedName_MeContext &"/"&Equipment&"-&Subrack&"-&Slot&"-&PlugInUnit&"-&ExchangeTerminal&"-&Os155SpiTtp&"-&Vc4Ttp&"-&Vc12Ttp&"- E1Ttp_"&E1Ttp or Ess_E1PhysPathTerm.nEDistinguishedName_MeContext &"/"&Equipment&"-&Subrack&"-&Slot&"-&PlugInUnit&"-&ExchangeTerminal&"- E1PhyTerm_"&E1PhysPathTerm
E1_Type	The network element type			Ess_E1Ttp."E1Ttp" or Ess_E1PhysPathTerm."E1PhysPathTerm"
Version	The equipment version			Ess_E1Ttp."R5.1" or Ess_E1PhysPathTerm."R5.1"
Vendor	Manufacturer of the E1			"Ericsson"

5.10 Echo_Cancellation details

In the network hierarchy, the immediate parent of the Echo_Cancellation object is MGW.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Echo_Cancellation_Id	A unique string supplied by the Gateway in all Echo_Cancellation performance data.	Y		ECRouteParameterSet.nEDistinguishedName_MeContext & "/" & MSProcessing & "-" & RouteParameterGroup & "-EC_" & ECRouteParameterSet
Relationship Attributes				

Network_Id	The Network identifier	Y	Y	ECRouteParameterSet.NETWORK_ID
MGW_Id	The MGW to which this Echo_Cancellation is connected.	Y	Y	ECRouteParameterSet.nEDistinguishedName_MeContext
Region_Id	The Region containing the Echo Cancellation	Y	Y	ECRouteParameterSet.REGION_ID
Configuration Attributes				
Echo_Cancellation_Name	A user-friendly name for a Echo_Cancellation.			ECRouteParameterSet.nEDistinguishedName_MeContext & "/" & MSProcessing & "-" & RouteParameterGroup & "-EC_" & ECRouteParameterSet
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the Echo_Cancellation			"Ericsson"

5.11 Ethernet_Link details

In the network hierarchy, the immediate parent of the Ethernet_Link object is IP_Interface.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Ethernet_Link_Id	A unique identifier for the Ethernet Link in a UTRAN network.	Y		EthernetLink.nEDistinguishedName_MeContext & "/" & IpOam & "-" & Ip & "-EthLk_" & EthernetLink
Relationship Attributes				
Interface_Id	IP link in a UTRAN network.	Y	Y	"No mapping"
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the	Y	Y	EthernetLink.REGION_ID

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	Ethernet Link.			
Network_Id	Network associated with the Ethernet Link.	Y	Y	EthernetLink.NETWORK_ID
NodeB_Id	Identifier of the NodeB	Y	Y	"No mapping"
Configuration Attributes				
Ethernet_Link_Name	A user-friendly name preferably unique for the Ethernet Link.			EthernetLink.nEDistinguishedName_MeContext & "/" & IpOam & "-" & Ip & "-EthLk_" & EthernetLink
Node_Id	The unique identifier for the node this object is connected to.	Y		EthernetLink.nEDistinguishedName_MeContext
Ip_System_Id	IP System in a UTRAN network.			"No Mapping"
Node_Type	The type of the Node associated with the Ethernet Link (e.g. MSC, BSC).	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			EthernetLink.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Version	Hardware/Software version of the Ethernet Link.			"R5.1"
Ip_Protocol_Layer_Id	The Ip Protocol layer associated with the object	Y		EthernetLink.nEDistinguishedName_MeContext & "/" & IpOam & "-Ip_" & Ip
Vendor	Manufacturer of the Ethernet_Link			"Ericsson"

5.12 Fast_Ethernet details

In the network hierarchy, the immediate parents of the Fast_Ethernet object are: Region and Plug_In_Unit.

Attribute	Description	Read-	Time-	Mapping
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Name		Only ?	Tracke d?	
Primary Identifier				
Fast_Ethernet_Id	A unique identifier for the Fast Ethernet.	Y		FastEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&GeneralProcessorUnit&"-FastEth_"& FastEthernet
Relationship Attributes				
Region_Id	Region associated with the Fast Ethernet.	Y	Y	FastEthernet.REGION_ID
Network_Id	Network associated with the Fast Ethernet.	Y	Y	FastEthernet.NETWORK_ID
Plug_In_Unit_Id	The Plug_In_Unit associated with the object.	Y	Y	FastEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-PIU_" & PlugInUnit
Configuration Attributes				
Fast_Ethernet_Name	A user-friendly name preferably unique for the Fast Ethernet.			FastEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&GeneralProcessorUnit&"-FastEth_"& FastEthernet
Node_Id	The unique identifier for the node this object is connected to.	Y		FastEthernet.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			FastEthernet.nEDistinguishedName_MeContext
Version	Hardware/Software version			"R5.1"

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	of the equipment supporting the Fast Ethernet.			
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the Fast_Ethernet			"Ericsson"

5.13 Gcp_Association details

In the network hierarchy, the immediate parent of the Gcp_Association object is Region.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Gcp_Association_Id	A unique identifier for the Gcp_Association	Y		MgwApplication_GcpAssociation.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Gcp_Association_" & Gcp_Association
Relationship Attributes				
Network_Id	Network associated with the Gcp_Association	Y	Y	MgwApplication_GcpAssociation.NETWORK_ID
Region_Id	Region associated with the Gcp_Association	Y	Y	MgwApplication_GcpAssociation.REGION_ID
Configuration Attributes				
Gcp_Association_Name	A user-friendly name preferably unique for the Gcp_Association			MgwApplication_GcpAssociation.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Gcp_Association_" & Gcp_Association
Node_Id	The unique identifier for the node this object is connected to			MgwApplication_GcpAssociation.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this			"MGW"

	object is connected to			
Node_Name	A user friendly name for this node the object is connected to			MgwApplication_GcpAssociation.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the Gcp_Association			"R5.1"
Vendor	Manufacturer of the Gcp_Association			"Ericsson"

5.14 GigabitEthernet details

In the network hierarchy, the immediate parents of the GigabitEthernet object are: Region and Plug_In_Unit.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
GigabitEthernet_Id	A unique identifier for the GigabitEthernet.	Y		Ess_GigaBitEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&EtMfg&"-GB_"& GigaBitEthernet
Relationship Attributes				
Region_Id	Region associated with the GigabitEthernet.	Y	Y	Ess_GigaBitEthernet.REGION_ID
Network_Id	Network associated with the GigabitEthernet.	Y	Y	Ess_GigaBitEthernet.NETWORK_ID

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Plug_In_Unit_Id	The Plug In Unit associated with the object.	Y	Y	Ess_GigaBitEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-PIU_"&PlugInUnit
Configuration Attributes				
GigabitEthernet_Name	A user-friendly name preferably unique for the GigabitEthernet.			Ess_GigaBitEthernet.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&EtMfg&"-GB_"& GigaBitEthernet
Node_Id	The unique identifier for the node this object is connected to.	Y		Ess_GigaBitEthernet.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			Ess_GigaBitEthernet.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Version	Hardware/Software version of the equipment supporting the GigabitEthernet.			"R5.1"
Vendor	Manufacturer of the GigabitEthernet			"Ericsson"

5.15 IMA details

In the network hierarchy, the immediate parent of the IMA object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
IMA_Id	A unique string supplied by the Gateway in all IMA	Y		ImaGroup.nEDistinguishedName_MeContext & "/" & TransportNetwork &

	performance data.			"-ImaGrp_" & ImaGroup or ImaLink.nEDistinguishedName_MeC ontext & "/" & TransportNetwork & "-&" & ImaGroup & "-ImaLink_" & ImaLink
Relationship Attributes				
MGW_Id	The MGW to which this IMA is connected.	Y	Y	ImaGroup.nEDistinguishedName_Me Context or ImaLink.nEDistinguishedName_MeC ontext
Region_Id	The Region containing the IMA	Y	Y	ImaGroup.REGION_ID or ImaLink.REGION_ID
Network_Id	The Network identifier	Y	Y	ImaGroup.NETWORK_ID or ImaLink.NETWORK_ID
Configuration Attributes				
IMA_Name	A user-friendly name for a IMA			ImaGroup.nEDistinguishedName_Me Context & "/" & TransportNetwork & "-ImaGrp_" & ImaGroup or ImaLink.nEDistinguishedName_MeC ontext & "/" & TransportNetwork & "-&" & ImaGroup & "-ImaLink_" & ImaLink
IMA_Type	The network element type			ImaGroup."IMA Group" or ImaLink."IMA Link"
Version	The equipment version			ImaGroup."R5.1" or ImaLink."R5.1"
Vendor	Manufacturer of the IMA			"Ericsson"

5.16 Interactive_Messaging details

In the network hierarchy, the immediate parent of the Interactive_Messaging object is MGW.

Attribute Name	Description	Read - Only ?	Time- Tracke d?	Mapping
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Primary Identifier				
Interactive_Messaging_Id	A unique string supplied by the Gateway in all Interactive_Messaging performance data.	Y		InteractiveMessaging_ImBasicMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImBscMsg_" & ImBasicMessage or InteractiveMessaging_ImMessageComposition.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImMsgComp_" & ImMessageComposition or InteractiveMessaging_ImVariableMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImVrblMsg_" & ImVariableMessage
Relationship Attributes				
MGW_Id	The MGW to which this Interactive_Messaging is connected.	Y	Y	InteractiveMessaging_ImBasicMessage.nEDistinguishedName_MeContext or InteractiveMessaging_ImMessageComposition.nEDistinguishedName_MeContext or InteractiveMessaging_ImVariableMessage.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC	Y	Y	InteractiveMessaging_ImBasicMessage.REGION_ID or InteractiveMessaging_ImMessageComposition.REGION_ID or InteractiveMessaging_ImVariableMessage.REGION_ID
Network_Id	The Network identifier	Y	Y	InteractiveMessaging_ImBasicMessage.NETWORK_ID or InteractiveMessaging_ImMessageComposition.NETWORK_ID or InteractiveMessaging_ImVariableMessage.NETWORK_ID
Configuration Attributes				
Interactive_Messaging_Name	A user-friendly name for a Interactive_Messaging			InteractiveMessaging_ImBasicMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging & "-ImBscMsg_" & ImBasicMessage or InteractiveMessaging_ImMessageComposition.nEDistinguishedName_MeContext &

				"/" & InteractiveMessaging &"-ImMsgComp_" & InteractiveMessaging_ImVariableMessage.nEDistinguishedName_MeContext & "/" & InteractiveMessaging &"-ImVrblMsg_" & ImVariableMessage
Interactive_Messaging_Type	network element type			InteractiveMessaging_ImBasicMessage."Basic" or InteractiveMessaging_ImMessageComposition."Message" or InteractiveMessaging_ImVariableMessage."Composition"
Version	The equipment version			InteractiveMessaging_ImBasicMessage."R5.1" or InteractiveMessaging_ImMessageComposition."R5.1" or InteractiveMessaging_ImVariableMessage."R5.1"
Vendor	Manufacturer of the Interactive_Messaging			"Ericsson"

5.17 Ip_Atm_Link details

In the network hierarchy, the immediate parent of the Ip_Atm_Link object is IP_Interface.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Ip_Atm_Link_Id	A unique identifier for the Ip Atm Link	Y		IpAtmLink.nEDistinguishedName_MeContext & "/" & IpSystem &"-" & Ip & "-IpAtmLk_" & IpAtmLink
Relationship Attributes				
NodeB_Id	Identifier of the NodeB	Y	Y	"No mapping"
RNC_Id	RNC in a UMTS network	Y	Y	"No mapping"

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Interface_Id	IP Link in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the Ip Atm Link	Y	Y	IpAtmLink.REGION_ID
Network_Id	Network associated with the Ip Atm Link	Y	Y	IpAtmLink.NETWORK_ID
Ip_Protocol_Layer_Id	The Ip_Protocol_Layer associated with the object	Y	Y	IpAtmLink.nEDistinguishedName_MeContext & "/" & IpSystem & "-Ip_" & Ip
Configuration Attributes				
Ip_Attn_Link_Name	A user-friendly name preferably unique for the Ip Atm Link			IpAtmLink.nEDistinguishedName_MeContext & "/" & IpSystem & "-" & Ip & "-IpAtmLk_" & IpAtmLink
IP_System	IP_System in a network		Y	"No mapping"
Node_Id	The unique identifier for the node this object is connected to	Y		IpAtmLink.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to			IpAtmLink.nEDistinguishedName_MeContext
Version	Hardware/Software version of the of the equipment supporting the Ip Atm Link			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Vendor	Manufacturer of the Ip_Attn_Link			"Ericsson"

5.18 IP_Interface details

In the network hierarchy, the immediate parent of the IP_Interface object is Region.

Attribute Name	Description	Read -	Time-Tracke	Mapping
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		Only ?	d?	
Primary Identifier				
Interface_Id	A unique identifier for the IP Interface.	Y		IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.nEDistinguishedName_MeContext &"/"&IpSystem&"-"&UdpHostMainMsb&"-Msb_"&IpAccessUdpHostMsb or Ess_IpInterface.nEDistinguishedName_MeContext &"/"&Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&EtMfg&"-"&GigaBitEthernet&"-IpIf_"&IpInterface or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext&"/"&IpSystem &"- IpAccessHostGpb_"&IpAccessHostGpb or IpSystem_IpAccessHostEt.nEDistinguishedName_MeContext&"/"&IpSystem&"- IpAccessHostEt_"&IpAccessHostEt
Relationship Attributes				
Network_Id	Network associated with the IP Interface.	Y	Y	IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.NETWORK_ID or Ess_IpInterface.NETWORK_ID or IpSystem_IpAccessHostGpb.NETWORK_ID or IpSystem_IpAccessHostEt.NETWORK_ID
Region_Id	Region associated with the IP Interface.	Y	Y	IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.REGION_ID or Ess_IpInterface.REGION_ID or IpSystem_IpAccessHostGpb.REGION_ID or IpSystem_IpAccessHostEt.REGION_ID
Configuration Attributes				

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Interface_Name	A user friendly name preferably unique for the IP Interface.			IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.nEDistinguishedName_MeContext &"/"&IpSystem&"- "&UdpHostMainMsb&"-Msb_"&IpAccessUdpHostMsb or Ess_IpInterface.nEDistinguishedName_MeContext &"/"&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&EtMfg&"- "&GigaBitEthernet&"-IpIf_"&IpInterface or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext&"/"&IpSystem &"- IpAccessHostGpb_"&IpAccessHostGpb or IpSystem_IpAccessHostEt.nEDistinguishedName_MeContext&"/"&IpSystem&"- IpAccessHostEt_"&IpAccessHostEt
IP_Address	IP Address of the Node connected to the IP Interface.			"No mapping"
Interface_Duplex	Interface duplex allocation.			"No mapping"
Interface_Version	Hardware/Software version of the IP Interface.			IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb."R5.1" or Ess_IpInterface."R5.1" or IpSystem_IpAccessHostGpb."R5.1" or IpSystem_IpAccessHostEt."R5.1"
MTU	Maximum Transmission Unit of the IP Interface.			"No mapping"
Mib2_if_descr	Description of the Mib2 interface.			"No mapping"
Mib2_if_index	Index of the Mib2 interface.			"No mapping"
Mib2_if_name	A user friendly name preferably unique for the Mib2 interface.			"No mapping"
Mib2_if_type	Type of Mib2 interface.			"No mapping"
Node_Id	A unique identifier for			IpSystem_UdpHostMainMsb_IpAccess

	the Node (connected to the IP Interface).			UdpHostMsb.nEDistinguishedName_MeContext or Ess_IpInterface.nEDistinguishedName_MeContext or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext or IpSystem_IpAccessHostEt.nEDistinguishedName_MeContext
Node_Name	A user friendly name preferably unique for the Node (connected to the IP Interface).			IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.nEDistinguishedName_MeContext or Ess_IpInterface.nEDistinguishedName_MeContext or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext or IpSystem_IpAccessHostEt.nEDistinguishedName_MeContext
Node_Type	Type of Node (connected to the IP Interface).			IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb."MGW" or Ess_IpInterface."MGW" or IpSystem_IpAccessHostGpb."MGW" or IpSystem_IpAccessHostEt."MGW"
Physical_address	Physical address of the IP Interface.			"No mapping"
Speed	Transmission speed of the IP Interface.			"No mapping"
Subnet_Prefix_Length	Subnet prefix length allocation.			"No mapping"
Technology	Technology of the network/element (e.g. GPRS, UMTS).			IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb."UMTS" or Ess_IpInterface."UMTS" or IpSystem_IpAccessHostGpb."UMTS" or IpSystem_IpAccessHostEt."UMTS"
Vendor	Manufacturer of the IP_Interface			"Ericsson"

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5.19 Ip_Protocol_Layer details

In the network hierarchy, the immediate parent of the Ip_Protocol_Layer object is Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Ip_Protocol_La yer_Id	A unique identifier for the Ip Protocol Layer	Y		ManagedElement_Ip.nEDistinguishe dName_MeContext & "/" & IpOam & "-Ip_" & Ip
Relationship Attributes				
Network_Id	Network associated with the Ip Protocol Layer	Y	Y	ManagedElement_Ip.NETWORK_I D
Region_Id	Region associated with the Ip Protocol Layer	Y	Y	ManagedElement_Ip.REGION_ID
Configuration Attributes				
Ip_Protocol_La yer_Name	A user-friendly name preferably unique for the Ip Protocol Layer			ManagedElement_Ip.nEDistinguishe dName_MeContext & "/" & IpOam & "-Ip_" & Ip
Node_Id	The unique identifier for the node this object is connected to			ManagedElement_Ip.nEDistinguishe dName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			ManagedElement_Ip.nEDistinguishe dName_MeContext
Technology	Technology of the network/ element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the Ip Protocol Layer			"R5.1"
Vendor	Manufacturer of the Ip_Protocol_Layer			"Ericsson"

5.20 IUA_App_Server details

In the network hierarchy, the immediate parent of the IUA_App_Server object is Region.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
IUA_App_Server_Id	A unique identifier for the IUA_App_Server	Y		ManagedElement_AccessSignalling_Iua ApplicationServer.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-" IUA_App_Server_" & IUA_App_Server
Relationship Attributes				
Network_Id	Network associated with the IUA_App_Server	Y	Y	ManagedElement_AccessSignalling_Iua ApplicationServer.NETWORK_ID
Region_Id	Region associated with the IUA_App_Server	Y	Y	ManagedElement_AccessSignalling_Iua ApplicationServer.REGION_ID
Configuration Attributes				
IUA_App_Server_Name	A user-friendly name preferably unique for the IUA_App_Server			ManagedElement_AccessSignalling_Iua ApplicationServer.nEDistinguishedName_MeContext & "/" & ManagedElement & "-" & AccessSignalling & "-" IUA_App_Server_" & IUA_App_Server
Node_Id	The unique identifier for the node this object is connected to			ManagedElement_AccessSignalling_Iua ApplicationServer.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			ManagedElement_AccessSignalling_Iua ApplicationServer.nEDistinguishedName_MeContext

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Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the IUA_App_Server			"R5.1"
Vendor	Manufacturer of the IUA_App_Server			"Ericsson"

5.21 Medium_Access_Unit details

In the network hierarchy, the immediate parent of the Medium_Access_Unit object is Plug_In_Unit.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Medium_Ac c e s s _ U n i t _ I d	A unique identifier for the Medium Access Unit in a UTRAN network.	Y		MediumAccessUnit.nEDistinguishedName_MeContext & "/" & Equipment& "-"&Subrack& "-"&Slot& "-"&PlugInUnit& "-"&GeneralProcessor Unit& "-"&MAU_ "& MediumAccessUnit
Relationship Attributes				
Plug_in_Unit_I d	Plug in Unit for a UTRAN network.	Y	Y	MediumAccessUnit.nEDistinguishedName_MeContext & "/" & Equipment& "-"&Subrack& "-"&Slot& "-"&PIU_ "& PlugInUnit
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the Medium Access Unit.	Y	Y	MediumAccessUnit.REGION_ID
Network_Id	Network associated with the Medium Access Unit.	Y	Y	MediumAccessUnit.NETWORK_ID
Configuration Attributes				
Medium_Ac c e s s _ U n i t _ N a m e	A user-friendly name preferably unique for the Medium_Access_Unit.			MediumAccessUnit.nEDistinguishedName_MeContext & "/" & Equipment& "-"&Subrack& "-"&Slot& "

				-"&PlugInUnit&"-"&GeneralProcessorUnit&"-MAU_ "& MediumAccessUnit
Node_Id	The unique identifier for the node this object is connected to.	Y		MediumAccessUnit.nEDistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			MediumAccessUnit.nEDistinguishedName_MeContext
Version	Hardware/Software version of the Medium Access Unit.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the Medium_Access_Unit			"Ericsson"

5.22 MGW_Resource_Pool details

In the network hierarchy, the immediate parent of the MGW_Resource_Pool object is MGW.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
MGW_Resource_Pool_Id	A unique string supplied by the Gateway in all MGW_Resource_Pool performance data	Y		MsProcessing_InmarsatService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Inmarsat_" & InmarsatService or MsProcessing_AmrService.nEDistinguishedName_MeContext & "/" & MsProcessing&"-Amr_"&AmrService or MsProcessing_NrService.nEDistinguishedName_MeContext & "/" &

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			<p> MsProcessing&"-Nr_"&NrService or MsProcessing_ContinuityCheckService.n EDistinguishedName_MeContext & "/" & MsProcessing&"- ContinuityCheck_"&ContinuityCheckServ ice or MsProcessing_ToneSenderService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- ToneSender_"&ToneSenderService or MsProcessing_TfoService.nEDistinguishe dName_MeContext & "/" & MsProcessing&"-Tfo_"&TfoService or MsProcessing_ImService.nEDistinguished Name_MeContext & "/" & MsProcessing&"-Im_"&ImService or MsProcessing_EfrService.nEDistinguishe dName_MeContext & "/" & MsProcessing&"-Efr_"&EfrService or MsProcessing_CsdDigitalService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdDigital_"&CsdDigitalService or MsProcessing_CsdGsmFhService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdGsmFh_"&CsdGsmFhService or MsProcessing_CsdGsmFaxService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdGsmFax_"&CsdGsmFaxService or MsProcessing_CsdModemService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdModem_"&CsdModemService or MsProcessing_DtmfReceiverService.nEDI stinguishedName_MeContext & "/" & MsProcessing&"- DtmfReceiver_"&DtmfReceiverService or MsProcessing_DtmfSenderService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- DtmfSender_"&DtmfSenderService or MsProcessing_EcService.nEDistinguished Name_MeContext & "/" & MsProcessing&"-Ec_"&EcService or </p>
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			MsProcessing_GttService.nEDistinguish edName_MeContext & "/" & MsProcessing&"-Gtt_"&GttService or MsProcessing_IpbService.nEDistinguish edName_MeContext & "/" & MsProcessing&"-Ipb_"&IpbService or MsProcessing_JitterHandlingService.nEDi stinguishedName_MeContext & "/" & MsProcessing&"- JitterHandling_"&JitterHandlingService or MsProcessing_MccService.nEDistinguish edName_MeContext& "/"&MsProcessing&"- Mcc_"&MccService or MsProcessing_MpcService.nEDistinguish edName_MeContext&"/"&MsProcessing &"-Mpc_"&MpcService or MsProcessing_UpFhService.nEDistinguish edName_MeContext&"/"&MsProcessing &"-UpFh_"&UpFhService or MsProcessing_IpEtService.nEDistinguish edName_MeContext & "/" & MsProcessing&"- IpEtService_"&IpEtService or MsProcessing_AmrWbService.nEDistingu ishedName_MeContext & "/" & MsProcessing&"- AmrWbService_"&AmrWbService or MsProcessing_G729Service.nEDistinguish edName_MeContext & "/" & MsProcessing&"- G729Service_"&G729Service or MsProcessing_PcmService.nEDistinguish edName_MeContext & "/" &
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				MsProcessing&"- PcmService_ "&PcmService
Relationship Attributes				
MGW_Id	The MGW to which this MGW_Resource_Pool is connected	Y	Y	MsProcessing_InmarsatService.nEDisting uishedName_MeContext or MsProcessing_AmrService.nEDistinguish edName_MeContext or MsProcessing_NrService.nEDistinguished Name_MeContext or MsProcessing_ContinuityCheckService.n EDistinguishedName_MeContext or MsProcessing_ToneSenderService.nEDist inguishedName_MeContext or MsProcessing_TfoService.nEDistinguishe dName_MeContext or MsProcessing_ImService.nEDistinguished Name_MeContext or MsProcessing_EfrService.nEDistinguishe dName_MeContext or MsProcessing_CsdDigitalService.nEDisti nguishedName_MeContext or MsProcessing_CsdGsmFhService.nEDisti nguishedName_MeContext or MsProcessing_CsdGsmFaxService.nEDist inguishedName_MeContext or MsProcessing_CsdModemService.nEDisti nguishedName_MeContext or MsProcessing_DtmfReceiverService.nEDi stinguishedName_MeContext or MsProcessing_DtmfSenderService.nEDist inguishedName_MeContext or MsProcessing_EcService.nEDistinguished Name_MeContext or MsProcessing_GttService.nEDistinguishe dName_MeContext or MsProcessing_IpbService.nEDistinguishe dName_MeContext or MsProcessing_JitterHandlingService.nEDi stinguishedName_MeContext or MsProcessing_MccService.nEDistinguish edName_MeContext or MsProcessing_MpcService.nEDistinguish edName_MeContext or MsProcessing_UpFhService.nEDistinguis hedName_MeContext or

				MsProcessing_IpEtService.nEDistinguishedName_MeContext or MsProcessing_AmrWbService.nEDistinguishedName_MeContext or MsProcessing_G729Service.nEDistinguishedName_MeContext or MsProcessing_PcmService.nEDistinguishedName_MeContext
Region_Id	The Region containing the MGW_Resource Pool	Y	Y	MsProcessing_IpEtService.REGION_ID or MsProcessing_AmrWbService.REGION_ID or MsProcessing_G729Service.REGION_ID or MsProcessing_PcmService.REGION_ID or MsProcessing_InmarsatService.REGION_ID or MsProcessing_AmrService.REGION_ID or MsProcessing_NrService.REGION_ID or MsProcessing_ContinuityCheckService.REGION_ID or MsProcessing_ToneSenderService.REGION_ID or MsProcessing_TfoService.REGION_ID or MsProcessing_ImService.REGION_ID or MsProcessing_EfrService.REGION_ID or MsProcessing_CsdDigitalService.REGION_ID or MsProcessing_CsdGsmFhService.REGION_ID or MsProcessing_CsdGsmFaxService.REGION_ID or MsProcessing_CsdModemService.REGION_ID or MsProcessing_DtmfReceiverService.REGION_ID or MsProcessing_DtmfSenderService.REGION_ID

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				ON_ID or MsProcessing_EcService.REGION_ID or MsProcessing_GttService.REGION_ID or MsProcessing_IpbService.REGION_ID or MsProcessing_JitterHandlingService.REGION_ID or MsProcessing_MccService.REGION_ID or MsProcessing_MpcService.REGION_ID or MsProcessing_UpFhService.REGION_ID
Network_Id	The Network identifier	Y	Y	MsProcessing_IpEtService.NETWORK_ID or MsProcessing_AmrWbService.NETWORK_ID or MsProcessing_G729Service.NETWORK_ID or MsProcessing_PcmService.NETWORK_ID or MsProcessing_InmarsatService.NETWORK_ID or MsProcessing_AmrService.NETWORK_ID or MsProcessing_NrService.NETWORK_ID or MsProcessing_ContinuityCheckService.NETWORK_ID or MsProcessing_ToneSenderService.NETWORK_ID or MsProcessing_TfoService.NETWORK_ID or MsProcessing_ImService.NETWORK_ID or MsProcessing_EfrService.NETWORK_ID or MsProcessing_CsdDigitalService.NETWORK_ID or MsProcessing_CsdGsmFhService.NETWORK_ID or MsProcessing_CsdGsmFaxService.NETWORK_ID or MsProcessing_CsdModemService.NETWORK_ID or MsProcessing_DtmfReceiverService.NETWORK_ID or

				MsProcessing_DtmfSenderService.NETWORK_ID or MsProcessing_EcService.NETWORK_ID or MsProcessing_GttService.NETWORK_ID or MsProcessing_IpbService.NETWORK_ID or MsProcessing_JitterHandlingService.NETWORK_ID or MsProcessing_MccService.NETWORK_ID or MsProcessing_MpcService.NETWORK_ID or MsProcessing_UpFhService.NETWORK_ID
Configuration Attributes				
MGW_Resource_Pool_Name	A user-friendly name for a MGW_Resource_Pool			MsProcessing_InmarsatService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Inmarsat_" & InmarsatService or MsProcessing_AmrService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Amr_" & AmrService or MsProcessing_NrService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Nr_" & NrService or MsProcessing_ContinuityCheckService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-ContinuityCheck_" & ContinuityCheckService or MsProcessing_ToneSenderService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-ToneSender_" & ToneSenderService or MsProcessing_TfoService.nEDistinguishedName_MeContext & "/" & MsProcessing & "-Tfo_" & TfoService or MsProcessing_ImService.nEDistinguished

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			Name_MeContext & "/" & MsProcessing&"-Im_"&ImService or MsProcessing_EfrService.nEDistinguishe dName_MeContext & "/" & MsProcessing&"-Efr_"&EfrService or MsProcessing_CsdDigitalService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdDigital_"&CsdDigitalService or MsProcessing_CsdGsmFhService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdGsmFh_"&CsdGsmFhService or MsProcessing_CsdGsmFaxService.nEDist inguishedName_MeContext & "/" & MsProcessing&"- CsdGsmFax_"&CsdGsmFaxService or MsProcessing_CsdModemService.nEDisti nguishedName_MeContext & "/" & MsProcessing&"- CsdModem_"&CsdModemService or MsProcessing_DtmfReceiverService.nEDi stinguishedName_MeContext & "/" & MsProcessing&"- DtmfReceiver_"&DtmfReceiverService or MsProcessing_DtmfSenderService.nEDist inguishedName_MeContext & "/" & MsProcessing&"- DtmfSender_"&DtmfSenderService or MsProcessing_EcService.nEDistinguished Name_MeContext & "/" & MsProcessing&"-Ec_"&EcService or MsProcessing_GttService.nEDistinguishe dName_MeContext & "/" & MsProcessing&"-Gtt_"&GttService or MsProcessing_IpbService.nEDistinguishe dName_MeContext & "/" & MsProcessing&"-Ipb_"&IpbService or MsProcessing_JitterHandlingService.nEDi stinguishedName_MeContext & "/" & MsProcessing&"- JitterHandling_"&JitterHandlingService or MsProcessing_MccService.nEDistinguish edName_MeContext& "/"&MsProcessing&"-
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				Mcc_"&MccService or MsProcessing_MpcService.nEDistinguishedName_MeContext&"/"&MsProcessing &"-Mpc_"&MpcService or MsProcessing_UpFhService.nEDistinguishedName_MeContext&"/"&MsProcessing &"-UpFh_"&UpFhService or MsProcessing_IpEtService.nEDistinguishedName_MeContext & "/" & MsProcessing&"- IpEtService_"&IpEtService or MsProcessing_AmrWbService.nEDistinguishedName_MeContext & "/" & MsProcessing&"- AmrWbService_"&AmrWbService or MsProcessing_G729Service.nEDistinguishedName_MeContext & "/" & MsProcessing&"- G729Service_"&G729Service or MsProcessing_PcmService.nEDistinguishedName_MeContext & "/" & MsProcessing&"- PcmService_"&PcmService
MGW_Resource_Pool_Type	network element type			MsProcessing_InmarsatService."InmarsatService" or MsProcessing_AmrService."AmrService" or MsProcessing_NrService."NrService" or MsProcessing_ContinuityCheckService."ContinuityCheckService" or MsProcessing_ToneSenderService."ToneSenderService" or MsProcessing_TfoService."TfoService" or MsProcessing_ImService."ImService" or

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			<p>MsProcessing_EfrService."EfrService" or MsProcessing_CsdDigitalService."CsdDigitalService" or MsProcessing_CsdGsmFhService."CsdGsmFhService" or MsProcessing_CsdGsmFaxService."CsdGsmFaxService" or MsProcessing_CsdModemService."CsdModemService" or MsProcessing_DtmfReceiverService."DtmfReceiverService" or MsProcessing_DtmfSenderService."DtmfSenderService" or MsProcessing_EcService."EcService" or MsProcessing_GttService."GttService" or MsProcessing_IpbService."IpbService" or MsProcessing_JitterHandlingService."JitterHandlingService" or MsProcessing_MccService."MccService" or MsProcessing_MpcService."MpcService" or MsProcessing_UpFhService."UpFhService" or MsProcessing_IpEtService."IpEtService" or MsProcessing_AmrWbService."AmrWbService" or MsProcessing_G729Service."G729Service" or MsProcessing_PcmService."PcmService"</p>
Version	The equipment version		<p>MsProcessing_IpEtService."R5.1" or MsProcessing_AmrWbService."R5.1" or MsProcessing_G729Service."R5.1" or MsProcessing_PcmService."R5.1" or MsProcessing_InmarsatService."R5.1" or MsProcessing_AmrService."R5.1" or MsProcessing_NrService."R5.1" or MsProcessing_ContinuityCheckService."R5.1" or MsProcessing_ToneSenderService."R5.1" or MsProcessing_TfoService."R5.1" or MsProcessing_ImService."R5.1" or MsProcessing_EfrService."R5.1" or MsProcessing_CsdDigitalService."R5.1"</p>

				or MsProcessing_CsdGsmFhService."R5.1" or MsProcessing_CsdGsmFaxService."R5.1" or MsProcessing_CsdModemService."R5.1" or MsProcessing_DtmfReceiverService."R5.1" or MsProcessing_DtmfSenderService."R5.1" or MsProcessing_EcService."R5.1" or MsProcessing_GttService."R5.1" or MsProcessing_IpbService."R5.1" or MsProcessing_JitterHandlingService."R5.1" or MsProcessing_MccService."R5.1" or MsProcessing_MpcService."R5.1" or MsProcessing_UpFhService."R5.1"
Vendor	Manufacturer of the MGW_Resource_Pool			"Ericsson"

5.23 MGW details

In the network hierarchy, the immediate parent of the MGW object is Region.

This object is used for Data Availability tracking

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
MGW_Id	A unique identifier for the MGW.	Y		MgwApplication.nEDistinguishedName_MeContext or MgwApplication_Aggregated.nEDistinguishedName_MeContext or Mgw_Aggregated_Ansi.nEDistinguishedName_MeContext or Mgw_Aggregated_China.nEDistinguishedName_MeContext or

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				Mgw_Aggregated_Itu.nEDistinguishedName_MeContext or Mgw_Aggregated_Ttc.nEDistinguishedName_MeContext
Relationship Attributes				
Network_Id	Network associated with the MGW.	Y	Y	MgwApplication.NETWORK_ID or MgwApplication_Aggregated.NETWORK_ID or Mgw_Aggregated_Ansi.NETWORK_ID or Mgw_Aggregated_China.NETWORK_ID or Mgw_Aggregated_Itu.NETWORK_ID or Mgw_Aggregated_Ttc.NETWORK_ID
Region_Id	Region associated with the MGW.	Y	Y	MgwApplication.REGION_ID or MgwApplication_Aggregated.REGION_ID or Mgw_Aggregated_Ansi.REGION_ID or Mgw_Aggregated_China.REGION_ID or Mgw_Aggregated_Itu.REGION_ID or Mgw_Aggregated_Ttc.REGION_ID
Configuration Attributes				
MGW_Name	A user friendly name preferably unique for the MGW.			MgwApplication.nEDistinguishedName_MeContext or MgwApplication_Aggregated.nEDistinguishedName_MeContext or Mgw_Aggregated_Ansi.nEDistinguishedName_MeContext or Mgw_Aggregated_China.nEDistinguishedName_MeContext or Mgw_Aggregated_Itu.nEDistinguishedName_MeContext or Mgw_Aggregated_Ttc.nEDistinguishedName_MeContext
MGW_Type	Type of MGW.			MgwApplication."Populated by customer" or MgwApplication_Aggregated."Populated by customer" or Mgw_Aggregated_Ansi."Populated by

				customer" or Mgw_Aggregated_China."Populated by customer" or Mgw_Aggregated_Itu."Populated by customer" or Mgw_Aggregated_Ttc."Populated by customer"
MGW_Version	Hardware/Software version of the MGW.			MgwApplication."R5.1" or MgwApplication_Aggregated."R5.1" or Mgw_Aggregated_Ansi."R5.1" or Mgw_Aggregated_China."R5.1" or Mgw_Aggregated_Itu."R5.1" or Mgw_Aggregated_Ttc."R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			MgwApplication."UMTS" or MgwApplication_Aggregated."UMTS" or Mgw_Aggregated_Ansi."UMTS" or Mgw_Aggregated_China."UMTS" or Mgw_Aggregated_Itu."UMTS" or Mgw_Aggregated_Ttc."UMTS"
Vendor	Manufacturer of the MGW			"Ericsson"

5.24 MS_Device_Group details

In the network hierarchy, the immediate parent of the MS_Device_Group object is Plug_In_Unit.

Attribute Name	Description	Read - Only ?	Time- Tracke d?	Mapping
Primary Identifier				
MS_Device_Group_Id	A unique identifier for the MS Device Group	Y		MsDeviceGroup.nEDistinguishedName_MeContext & "/" & Equipment&"-" & Subrack&"-" & Slot&"-" & PlugInUnit&"-" & "-MSDvcGrp_"& MsDeviceGroup
Relationship Attributes				

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Network_Id	Network associated with MS Device Group.	Y	Y	MsDeviceGroup.NETWORK_ID
Region_Id	Region associated with the MS Device Group.	Y	Y	MsDeviceGroup.REGION_ID
Plug_In_Unit_Id	The Plug_In_Unit associated with the object	Y	Y	MsDeviceGroup.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-PIU_" & PlugInUnit
Configuration Attributes				
MS_Device_Group_Name	A user friendly name preferably unique for the MS Device Group.			MsDeviceGroup.nEDistinguishedName_MeContext & "/" & Equipment&"-" & Subrack&"-" & Slot&"-" & PlugInUnit&"-" & "-MSDvcGrp_" & MsDeviceGroup
Node_Name	A user friendly name for this node the object is connected to			MsDeviceGroup.nEDistinguishedName_MeContext
Node_Type	The unique identifier for the node this object is connected to			"MGW"
Node_Id	The unique identifier for the node this object is connected to			MsDeviceGroup.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the MS Device Group			"R5.1"
Vendor	Manufacturer of the MS_Device_Group			"Ericsson"

5.25 MS_Device_Pool details

In the network hierarchy, the immediate parent of the MS_Device_Pool object is MS_Processing.

Attribute Name	Description	Read-Only	Time-Tracke	Mapping
----------------	-------------	-----------	-------------	---------

		?	d?	
Primary Identifier				
MS_Device_Pool_Id	A unique identifier for the MS_Device_Pool	Y		MsProcessing_MsDevicePool.nEDistinguishedName_MeContext & "/" & MSProcessing & "-MSDPool_" & MsDevicePool
Relationship Attributes				
MGW_Id	The MGW associated with the MGW	Y	Y	MsProcessing_MsDevicePool.nEDistinguishedName_MeContext
Network_Id	Network associated with the MS_Device_Pool	Y	Y	MsProcessing_MsDevicePool.NETWORK_ID
Region_Id	Region associated with the MS_Device_Pool	Y	Y	MsProcessing_MsDevicePool.REGION_ID
MS_Processing_Id	The MS_Processing associated with the object	Y	Y	MsProcessing_MsDevicePool.nEDistinguishedName_MeContext & "/" & MSProcessing
Configuration Attributes				
MS_Device_Pool_Name	A user-friendly name preferably unique for the MS_Device_Pool			MsProcessing_MsDevicePool.nEDistinguishedName_MeContext & "/" & MSProcessing & "-MSDPool_" & MsDevicePool
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the MS_Device_Pool			"R5.1"
Vendor	Manufacturer of the MS_Device_Pool			"Ericsson"

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5.26 MS_Processing details

In the network hierarchy, the immediate parent of the MS_Processing object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
MS_Processing_Id	A unique identifier for the MS_Processing	Y		ManagedElement_MsProcessing.nEDi stinguishedName_MeContext & "/" & MsProcessing
Relationship Attributes				
Network_Id	Network associated with the MS_Processing	Y	Y	ManagedElement_MsProcessing.NET WORK_ID
Region_Id	Region associated with the MS_Processing	Y	Y	ManagedElement_MsProcessing.REG ION_ID
MGW_Id	The MGW associated with the object	Y	Y	ManagedElement_MsProcessing.nEDi stinguishedName_MeContext
Configuration Attributes				
MS_Processing_Name	A user-friendly name preferably unique for the MS_Processing			ManagedElement_MsProcessing.nEDi stinguishedName_MeContext & "/" & MsProcessing
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the MS_Processing			"R5.1"
Vendor	Manufacturer of the MS_Processing			"Ericsson"

5.27 MTP3B_AP details

In the network hierarchy, the immediate parents of the MTP3B_AP object are: RNC and Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
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Primary Identifier				
MTP3B_AP_Id	A unique identifier for the MTP3B_AP signaling in a UTRAN network.	Y		TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-Mtp3bAp_" & Mtp3bAp
Relationship Attributes				
Signalling_Point_Id	The signalling point associated with the object.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc

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RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the MTP3B AP.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bAp.REGION_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.REGION_ID or TransportNetwork_Mtp3bSpChina_Mtp3bAp.REGION_ID or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.REGION_ID
Network_Id	Network associated with the MTP3B SP.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bAp.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.NETWORK_ID or TransportNetwork_Mtp3bSpChina_Mtp3bAp.NETWORK_ID or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.NETWORK_ID
Configuration Attributes				
MTP3B_AP_Name	A user friendly name preferably unique for MTP3B AP.			TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-Mtp3bAp_" & Mtp3bAp or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-Mtp3bAp_" & Mtp3bAp
Node_Id	The unique identifier for the node this object is connected to.	Y		TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeCo

				ntext or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to.	Y		TransportNetwork_Mtp3bSpItu_Mtp3bAp."MGW" or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp."MGW" or TransportNetwork_Mtp3bSpChina_Mtp3bAp."MGW" or TransportNetwork_Mtp3bSpTtc_Mtp3bAp."MGW"
Node_Name	A user friendly name for this node the object is connected to.			TransportNetwork_Mtp3bSpItu_Mtp3bAp.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3bAp.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.nEDistinguishedName_MeContext
Version	Hardware/Software version of the MTP3B AP.			TransportNetwork_Mtp3bSpItu_Mtp3bAp."R5.1" or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp."R5.1" or TransportNetwork_Mtp3bSpChina_Mtp3bAp."R5.1" or TransportNetwork_Mtp3bSpTtc_Mtp3bAp."R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			TransportNetwork_Mtp3bSpItu_Mtp3bAp."UMTS" or TransportNetwork_Mtp3bSpAnsi_Mt

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				p3bAp."UMTS" or TransportNetwork_Mtp3bSpChina_M tp3bAp."UMTS" or TransportNetwork_Mtp3bSpTtc_Mtp 3bAp."UMTS"
Vendor	Manufacturer of the MTP3B_AP			"Ericsson"

5.28 MTP3B_SR details

In the network hierarchy, the immediate parent of the MTP3B_SR object is MTP3B_SRS.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
MTP3B_SR_Id	A unique identifier for the MTP3B signalling route.	Y		TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr
Relationship Attributes				

MTP3B_SP_Id	MTP3B signalling point.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
MTP3B_SRS_Id	MTP3B signalling route set.	Y	Y	"No mapping"
Region_Id	Region associated with the MTP3B SR.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.REGION_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.REGION_ID or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.REGION_ID or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.REGION_ID
Network_Id	Network associated with the MTP3B SR.	Y	Y	TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.NETWORK_ID or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.NETWORK_ID or

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				TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.NETWORK_ID
Configuration Attributes				
MTP3B_SR_Name	A user friendly name preferably unique for the MTP3B SR.			TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpItu_" & Mtp3bSpItu & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpAnsi_" & Mtp3bSpAnsi & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpChina_" & Mtp3bSpChina & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Mtp3bSpTtc_" & Mtp3bSpTtc & "-" & Mtp3bSrs & "-Mtp3bSr_" & Mtp3bSr
Node_Id	The unique identifier for the node this object is connected to.	Y		TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this	Y		TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr."MGW" or

	object is connected to.			TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr."MGW" or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr."MGW" or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr."MGW"
Node_Name	A user friendly name for this node the object is connected to.			TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.nEDistinguishedName_MeContext
Version	Hardware/Software version of the MTP3B SR.			TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr."R5.1" or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr."R5.1" or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr."R5.1" or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr."R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr."UMTS" or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs_Mtp3bSr."UMTS" or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr."UMTS" or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr."UMTS"
Vendor	Manufacturer of the MTP3B_SR			"Ericsson"

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5.29 Network details

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Network_Id	A unique identifier for the Network.	Y		MgwApplication.NETWORK_ID
Configuration Attributes				
Network_Name	A user friendly name preferably unique for the Network.			"Populated by customer"
Default_Link_Speed	The default speed of SS7 Signalling Links in this network.			"No mapping"
Network_Type	Type of Network (e.g. GSM-900, GSM-1800 or GSM-1900).			"Populated by customer"
Vendor	Manufacturer of the Network			"Ericsson"

5.30 Nni_SAAL_Tp details

In the network hierarchy, the immediate parents of the Nni_SAAL_Tp object are: RNC, NodeB and Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Nni_SAAL_Tp_Id	A unique identifier for the NniSAALtp signalling.	Y		TransportNetwork_NniSaalTp.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-NniTp_" & NniSaalTp
Relationship Attributes				
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
NodeB_Id	NodeB in a UTRAN	Y	Y	"No mapping"

	network.			
Region_Id	Region associated with the Nni SAAL Tp.	Y	Y	TransportNetwork_NniSaalTp.REGI ON_ID
Network_Id	Network associated with the NNI SAAL TP.	Y	Y	TransportNetwork_NniSaalTp.NETW ORK_ID
Configuration Attributes				
Nni_SAAL_Tp _Name	A user-friendly name preferably unique for the Nni SAAL Tp.			TransportNetwork_NniSaalTp.nEDist inguishedName_MeContext & "/" & TransportNetwork & "-NniTp_" & NniSaalTp
Node_Id	The unique identifier for the node this object is connected to.	Y		TransportNetwork_NniSaalTp.nEDist inguishedName_MeContext
Node_Name	A user friendly name for this node the object is connected to.			TransportNetwork_NniSaalTp.nEDist inguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Version	Hardware/Software version of the NNI SAAL TP.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the Nni_SAAL_Tp			"Ericsson"

5.31 OS155 details

In the network hierarchy, the immediate parent of the OS155 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				

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OS155_Id	A unique string supplied by the Gateway in all OSS155	Y		Ess_Os155SpiTtp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155Tp_ & Os155SpiTtp
Relationship Attributes				
MGW_Id	The MGW to which this OS155 is connected.	Y	Y	Ess_Os155SpiTtp.nEDistinguishedName_MeContext
Region_Id	The Region containing the OSS155	Y	Y	Ess_Os155SpiTtp.REGION_ID
Network_Id	The Network identifier	Y	Y	Ess_Os155SpiTtp.NETWORK_ID
Configuration Attributes				
OS155_Name	A user-friendly name for a OSS155			Ess_Os155SpiTtp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155Tp_ & Os155SpiTtp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the OS155			"Ericsson"

5.32 OSPF_Area details

In the network hierarchy, the immediate parent of the OSPF_Area object is OSPF.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
OSPF_Area_Id	A unique identifier for the OSPF routing protocol area.	Y		ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext & "/" & IpSystem & "-" & OSPF & "-OSPF_Ar_" & OSPFArea
Relationship Attributes				
OSPF_Id	Unique identifier for the OSPF routing protocol.	Y	Y	ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext & "/" & IpSystem & "-OSPF_" & OSPF

RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
NodeB_Id	NodeB in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the OSPF_Area.	Y	Y	ManagedElement_IpSystem_Ospf_OspfArea.REGION_ID
Network_Id	Network associated with the OSPF Area.	Y	Y	ManagedElement_IpSystem_Ospf_OspfArea.NETWORK_ID
Configuration Attributes				
OSPF_Area_Name	A user friendly name preferably unique for the OSPF Area.			ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext & "/" & IpSystem & "-" & OSPF & "-OSPF_Ar_" & OSPFArea
Node_Id	The unique identifier for the node this object is connected to.	Y		ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			ManagedElement_IpSystem_Ospf_OspfArea.nEDistinguishedName_MeContext
Version	Hardware/Software version of the OSPF Area.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the OSPF_Area			"Ericsson"

5.33 OSPF_Interface details

In the network hierarchy, the immediate parent of the OSPF_Interface object is OSPF.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
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Primary Identifier				
OSPF_Interface_Id	A unique identifier for the OSPF routing protocol Interface.	Y		ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext & "/" & IpSystem & "-" & OSPF & "-OSPF_If_" & OspfInterface
Relationship Attributes				
OSPF_Id	Identifier for OSPF routing protocol.	Y	Y	ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext & "/" & IpSystem & "-OSPF_" & OSPF
RNC_Id	RNC in a UTRAN network.		Y	"No mapping"
NodeB_Id	NodeB in a UTRAN network.		Y	"No mapping"
Region_Id	Region associated with the OSPF_Interface.	Y	Y	ManagedElement_IpSystem_Ospf_OspfInterface.REGION_ID
Network_Id	Network associated with the OSPF Interface.	Y	Y	ManagedElement_IpSystem_Ospf_OspfInterface.NETWORK_ID
Configuration Attributes				
OSPF_Interface_Name	A user friendly name preferably unique for the OSPF Interface.			ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext & "/" & IpSystem & "-" & OSPF & "-OSPF_If_" & OspfInterface
Node_Id	The unique identifier for the node this object is connected to.			ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			ManagedElement_IpSystem_Ospf_OspfInterface.nEDistinguishedName_MeContext
Version	Hardware/Software version of the OSPF Interface.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the OSPF_Interface			"Ericsson"

5.34 OSPF details

In the network hierarchy, the immediate parents of the OSPF object are: RNC, NodeB and Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
OSPF_Id	A unique identifier for the OSPF routing protocol.	Y		ManagedElement_IpSystem_Ospf.nE DistinguishedName_MeContext & "/" & IpSystem & "-OSPF_" & OSPF
Relationship Attributes				
RNC_Id	RNC in a UTRAN network.		Y	"No mapping"
NodeB_Id	NodeB in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the OSPF.	Y	Y	ManagedElement_IpSystem_Ospf.R EGION_ID
Network_Id	Network associated with the OSPF.	Y	Y	ManagedElement_IpSystem_Ospf.N ETWORK_ID
Configuration Attributes				
OSPF_Name	A user friendly name preferably unique for the OSPF.			ManagedElement_IpSystem_Ospf.nE DistinguishedName_MeContext & "/" & IpSystem & "-OSPF_" & OSPF
Node_Id	The unique identifier for the node this object is connected to.	Y		ManagedElement_IpSystem_Ospf.nE DistinguishedName_MeContext
Node_Type	Type of Node.	Y		"MGW"
Node_Name	A user friendly name for this node the object is connected to.			ManagedElement_IpSystem_Ospf.nE DistinguishedName_MeContext
Version	Hardware/Software version			"R5.1"

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	of the OSPF.			
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the OSPF			"Ericsson"

5.35 Plug_In_Unit details

In the network hierarchy, the immediate parents of the Plug_In_Unit object are: RNC and Region.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Plug_In_Unit_I d	A unique identifier for the Plug in Unit within a UTRAN network.	Y		Ess_PlugInUnit.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-PIU_"&PlugInUnit
Relationship Attributes				
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
Region_Id	Region associated with the Plug In Unit.	Y	Y	Ess_PlugInUnit.REGION_ID
Network_Id	Network associated with the Plug In Unit.	Y	Y	Ess_PlugInUnit.NETWORK_ID
Configuration Attributes				
Plug_In_Unit_Name	A user-friendly name preferably unique for the Plug In Unit.			Ess_PlugInUnit.nEDistinguishedName_MeContext & "/" & Equipment&"-"&Subrack&"-"&Slot&"-PIU_"&PlugInUnit
Node_Id	The unique identifier for the node this object is connected to.	Y		Ess_PlugInUnit.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to.	Y		"MGW"

Node_Name	A user friendly name for this node the object is connected to.			Ess_PlugInUnit.nEDistinguishedName_MeContext
Version	Hardware/Software version of the Plug In Unit.			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the Plug_In_Unit			"Ericsson"

5.36 Region details

In the network hierarchy, the immediate parent of the Region object is Network.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Region_Id	Region associated with the network object.	Y		MgwApplication.REGION_ID
Relationship Attributes				
Network_Id	Network associated with the Region.	Y	Y	MgwApplication.NETWORK_ID
Configuration Attributes				
Region_Name	A user friendly name preferably unique for the Region.			"Populated by customer"
Vendor	Manufacturer of the Region			"Ericsson"

5.37 RemoteSite details

In the network hierarchy, the immediate parent of the RemoteSite object is Region.

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Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
RemoteSite_Id	A unique identifier for the RemoteSite	Y		MgwApplication_IpNetwork_RemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-" & IpNetwork & "-Remote_" & RemoteSite
Relationship Attributes				
Network_Id	Network associated with the RemoteSite	Y	Y	MgwApplication_IpNetwork_RemoteSite.NETWORK_ID
Region_Id	Region associated with the RemoteSite	Y	Y	MgwApplication_IpNetwork_RemoteSite.REGION_ID
Configuration Attributes				
RemoteSite_Name	A user-friendly name preferably unique for the RemoteSite			MgwApplication_IpNetwork_RemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-" & IpNetwork & "-Remote_" & RemoteSite
Node_Id	The unique identifier for the node this object is connected to			MgwApplication_IpNetwork_RemoteSite.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			MgwApplication_IpNetwork_RemoteSite.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the RemoteSite			"R5.1"
Vendor	Manufacturer of the RemoteSite			"Ericsson"

5.38 Signalling_Point details

In the network hierarchy, the immediate parent of the Signalling_Point object is Region.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
SS7_Point_Id	A unique identifier for the SS7 Point.	Y		SccpAccountingCriteria.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- "&SccpSp&"- "&SccpSrc&"- SccpAccCr_ "&SccpAccountingCriteria or SccpPolicing.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- "&SccpSp&"- "&SccpSrc&"- SccpPolicing_ "&SccpPolicing or SccpSrc.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- "&SccpSp&"- SccpSrc_ "&SccpSrc or SccpSp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"- SccpSp_ "&SccpSp or TransportNetwork_Mtp2TpAnsi.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp2TpAnsi_ "&Mtp2TpAnsi or TransportNetwork_Mtp2TpItu.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp2TpItu_ "&Mtp2TpItu Or TransportNetwork_Mtp2TpChina.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp2TpChina_ "&Mtp2TpChina or TransportNetwork_Mtp3bSpAnsi.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpAnsi_ " &Mtp3bSpAnsi or TransportNetwork_Mtp3bSpItu.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpItu_ "&Mtp3bSpItu

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			<p>or</p> <p>TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpAnsi_"&Mtp3bSpAnsi&"-Mtp3bSrs_"&Mtp3bSrs or</p> <p>Mtp3bSpItu_SI_Aggregated.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpItu_"&Mtp3bSpItu or</p> <p>TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpAnsi_"&Mtp3bSpAnsi&"-Mtp3bSls_"&Mtp3bSls or</p> <p>Mtp3bSpItu_Srs_Aggregated.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpItu_"&Mtp3bSpItu&"-Mtp3bSls_"&Mtp3bSls or</p> <p>TransportNetwork_Mtp2TpTtc.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp2TpTtc_"&Mtp2TpTtc or</p> <p>TransportNetwork_Mtp3bSpChina.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpChina_"&Mtp3bSpChina or</p> <p>TransportNetwork_Mtp3bSpTtc.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpTtc_"&Mtp3bSpTtc or</p> <p>TransportNetwork_Mtp3bSpChina_Mtp3bSrs.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpChina_"&Mtp3bSpChina&"-Mtp3bSrs_"&Mtp3bSrs or</p> <p>TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpTtc_"&Mtp3bSpTtc&"-Mtp3bSrs_"&Mtp3bSrs or</p> <p>TransportNetwork_Mtp3bSpChina_Mtp3bSls.nEDistinguishedName_MeContext&"/&TransportNetwork&"-Mtp3bSpChina_"&Mtp3bSpChina&"-Mtp3bSls_"&Mtp3bSls or</p> <p>TransportNetwork_Mtp3bSpTtc_Mtp3bSl</p>
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				s.nEDistinguishedName_MeContext&"/" &TransportNetwork&"- Mtp3bSpTtc_"&Mtp3bSpTtc&"- Mtp3bSls_"&Mtp3bSls
Relationship Attributes				
Network_Id	Network associated with the SS7 Point.	Y	Y	SccpAccountingCriteria.NETWORK_ID or SccpPolicing.NETWORK_ID or SccpSerc.NETWORK_ID or SccpSp.NETWORK_ID or TransportNetwork_Mtp2TpAnsi.NETWORK_ID or TransportNetwork_Mtp2TpItu.NETWORK_ID or TransportNetwork_Mtp2TpChina.NETWORK_ID or TransportNetwork_Mtp2TpTtc.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi.NETWORK_ID or TransportNetwork_Mtp3bSpChina.NETWORK_ID or TransportNetwork_Mtp3bSpItu.NETWORK_ID or TransportNetwork_Mtp3bSpTtc.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.NETWORK_ID or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.NETWORK_ID or Mtp3bSpItu_Srs_Aggregated.NETWORK_ID or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.NETWORK_ID or Mtp3bSpItu_Sl_Aggregated.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.NETWORK_ID or TransportNetwork_Mtp3bSpChina_Mtp3bSls.NETWORK_ID or TransportNetwork_Mtp3bSpTtc_Mtp3bSl

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			<p> cpSp&"-"&SccpSrc&"- SccpPolicing_"&SccpPolicing or SccpSrc.nEDistinguishedName_MeCont ext&"/"&TransportNetwork&"-"&SccpSp &"-SccpSrc_"&SccpSrc or SccpSp.nEDistinguishedName_MeConte xt&"/"&TransportNetwork&"- SccpSp_"&SccpSp or TransportNetwork_Mtp2TpAnsi.nEDistin guishedName_MeContext&"/"&Transport Network&"-Mtp2TpAnsi_"& Mtp2TpAnsi or TransportNetwork_Mtp2TpItu.nEDisting uishedName_MeContext&"/"&Transport Network&"-Mtp2TpItu_"& Mtp2TpItu Or TransportNetwork_Mtp2TpChina.nEDisti nguishedName_MeContext&"/"&Transpo rtNetwork&"-Mtp2TpChina_"& Mtp2TpChina or TransportNetwork_Mtp3bSpAnsi.nEDisti nguishedName_MeContext&"/"&Transpo rtNetwork&"-Mtp3bSpAnsi_" & Mtp3bSpAnsi or TransportNetwork_Mtp3bSpItu.nEDisting uishedName_MeContext&"/"&Transport Network&"-Mtp3bSpItu_"& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi_Mtp3b Srs.nEDistinguishedName_MeContext&"/ "&TransportNetwork&"- Mtp3bSpAnsi_"&Mtp3bSpAnsi&"- Mtp3bSrs_"&Mtp3bSrs or Mtp3bSpItu_Sl_Aggregated.nEDistinguis hedName_MeContext&"/"&TransportNet work&"-Mtp3bSpItu_"&Mtp3bSpItu&"- Mtp3bSls_"&Mtp3bSls or TransportNetwork_Mtp3bSpAnsi_Mtp3b Sls.nEDistinguishedName_MeContext&"/ "&TransportNetwork&"- Mtp3bSpAnsi_"&Mtp3bSpAnsi&"- Mtp3bSls_"&Mtp3bSls or </p>
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				Mtp3bSpItu_Srs_Aggregated.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpItu_"&Mtp3bSpItu&"-Mtp3bSrs_"&Mtp3bSrs or TransportNetwork_Mtp2TpTtc.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp2TpTtc_"& Mtp2TpTtc or TransportNetwork_Mtp3bSpChina.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpChina_"& Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpTtc_"& Mtp3bSpTtc or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpChina_"&Mtp3bSpChina&"-Mtp3bSrs_"&Mtp3bSrs or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpTtc_"&Mtp3bSpTtc&"-Mtp3bSrs_"&Mtp3bSrs or TransportNetwork_Mtp3bSpChina_Mtp3bSls.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpChina_"&Mtp3bSpChina&"-Mtp3bSls_"&Mtp3bSls or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-Mtp3bSpTtc_"&Mtp3bSpTtc&"-Mtp3bSls_"&Mtp3bSls
Adjacent_Node_Id	A unique identifier for the Adjacent Node.			"No mapping"
Node_Id	A unique identifier for the Node.			SccpAccountingCriteria.nEDistinguishedName_MeContext or SccpPolicing.nEDistinguishedName_MeContext or SccpSrc.nEDistinguishedName_MeContext or SccpSp.nEDistinguishedName_MeContext

				t or TransportNetwork_Mtp2TpAnsi.nEDistin guishedName_MeContext or TransportNetwork_Mtp2TpItu.nEDisting uishedName_MeContext or TransportNetwork_Mtp2TpChina.nEDisti nguishedName_MeContext or TransportNetwork_Mtp2TpTtc.nEDisting uishedName_MeContext or TransportNetwork_Mtp3bSpAnsi.nEDisti nguishedName_MeContext or TransportNetwork_Mtp3bSpItu.nEDisting uishedName_MeContext or TransportNetwork_Mtp3bSpChina.nEDist inguishedName_MeContext or TransportNetwork_Mtp3bSpTtc.nEDistin guishedName_MeContext or Mtp3bSpItu_Sl_Aggregated.nEDistingui shedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3b Sls.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3 bSls.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSl s.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3b Srs.nEDistinguishedName_MeContext or Mtp3bSpItu_Srs_Aggregated.nEDistingui shedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3 bSrs.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSr s.nEDistinguishedName_MeContext
Node_Name	A user friendly name preferably unique for the Node.			SccpAccountingCriteria.nEDistinguished Name_MeContext or SccpPolicing.nEDistinguishedName_Me Context or SccpSrc.nEDistinguishedName_MeCont

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				<p>ext or SccpSp.nEDistinguishedName_MeContext or TransportNetwork_Mtp2TpAnsi.nEDistinguishedName_MeContext or TransportNetwork_Mtp2TpItu.nEDistinguishedName_MeContext or TransportNetwork_Mtp2TpChina.nEDistinguishedName_MeContext or TransportNetwork_Mtp2TpTtc.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpItu.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc.nEDistinguishedName_MeContext or Mtp3bSpItu_Sl_Aggregated.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3bSls.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.nEDistinguishedName_MeContext or Mtp3bSpItu_Srs_Aggregated.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.nEDistinguishedName_MeContext</p>
Node_Type	Type of Node.			<p>SccpAccountingCriteria."MGW" or SccpPolicing."MGW" or SccpSerc."MGW" or SccpSp."MGW" or TransportNetwork_Mtp2TpAnsi."MGW" or TransportNetwork_Mtp2TpItu.MGW" or TransportNetwork_Mtp2TpChina."MGW" or</p>

				TransportNetwork_Mtp2TpTtc."MGW" or TransportNetwork_Mtp3bSpAnsi.MGW" or TransportNetwork_Mtp3bSpItu."MGW" or TransportNetwork_Mtp3bSpChina."MGW" or TransportNetwork_Mtp3bSpTtc."MGW" or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs."MGW" or Mtp3bSpItu_Srs_Aggregated."MGW" or TransportNetwork_Mtp3bSpChina_Mtp3bSrs."MGW" or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs."MGW" or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls."MGW" or Mtp3bSpItu_Sl_Aggregated."MGW" or TransportNetwork_Mtp3bSpChina_Mtp3bSls."MGW" or TransportNetwork_Mtp3bSpTtc_Mtp3bSls."MGW"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			SccpAccountingCriteria."UMTS" or SccpPolicing."UMTS" or SccpSrc."UMTS" or SccpSp."UMTS" or TransportNetwork_Mtp2TpAnsi."UMTS" or TransportNetwork_Mtp2TpItu."UMTS" or TransportNetwork_Mtp2TpChina."UMTS" or TransportNetwork_Mtp2TpTtc."UMTS" or TransportNetwork_Mtp3bSpAnsi."UMTS" or TransportNetwork_Mtp3bSpItu."UMTS" or TransportNetwork_Mtp3bSpChina."UMTS"

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				S" or TransportNetwork_Mtp3bSpTtc."UMTS" or TransportNetwork_Mtp3bSpAnsi_Mtp3b Srs."UMTS" or Mtp3bSpItu_Srs_Aggregated."UMTS" or TransportNetwork_Mtp3bSpChina_Mtp3 bSrs."UMTS" or TransportNetwork_Mtp3bSpTtc_Mtp3bSr s."UMTS" or Mtp3bSpItu_Sl_Aggregated."UMTS" or TransportNetwork_Mtp3bSpAnsi_Mtp3b SlS."UMTS" or TransportNetwork_Mtp3bSpChina_Mtp3 bSlS."UMTS" or TransportNetwork_Mtp3bSpTtc_Mtp3bSl s."UMTS"
Vendor	Manufacturer of the Signalling_Point			"Ericsson"

5.39 Sigtran details

In the network hierarchy, the immediate parent of the Sigtran object is MGW.

Attribute Name	Description	Read - Only ?	Time- Tracke d?	Mapping
Primary Identifier				
Sigtran_Id	A unique string supplied by the Gateway in all Sigtran performance data.	Y		TransportNetwork_Mtp3bSpItu_M3uA ssociation.nEDistinguishedName_MeC ontext &"/"& TransportNetwork &"- Mtp3bSpItu_"& Mtp3bSpItu &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpAnsi_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpChina_M3 uAssociation.nEDistinguishedName_M eContext &"/"& TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina &"- M3uAsso_"& M3uAssociation or

				TransportNetwork_Mtp3bSpTtc_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpTtc_"& Mtp3bSpTtc &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpItu.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpItu_"& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi.nEDi stinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina.nE DistinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpTtc_"& Mtp3bSpTtc or TransportNetwork_Sctp.nEDistinguish edName_MeContext &"/"& TransportNetwork &"-SCTP_"& SCTP or IpSystem_IpAccessHostGpb.nEDisting uishedName_MeContext &"/"& IpSystem &"-IpAccessHostGpb_"& IpAccessHostGpb
Relationship Attributes				
MGW_Id	The MGW to which this Signalling_Transmission is connected.	Y	Y	TransportNetwork_Mtp3bSpItu_M3uA ssociation.nEDistinguishedName_MeC ontext or TransportNetwork_Mtp3bSpAnsi_M3u Association.nEDistinguishedName_Me Context or TransportNetwork_Mtp3bSpChina_M3 uAssociation.nEDistinguishedName_M eContext or TransportNetwork_Mtp3bSpTtc_M3u

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				Association.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpItu.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpAnsi.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpChina.nEDistinguishedName_MeContext or TransportNetwork_Mtp3bSpTtc.nEDistinguishedName_MeContext or TransportNetwork_Sctp.nEDistinguishedName_MeContext or IpSystem_IpAccessHostGpb.nEDistinguishedName_MeContext
Region_Id	The Region containing the Sigtran	Y	Y	TransportNetwork_Mtp3bSpItu_M3uAssociation.REGION_ID or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.REGION_ID or TransportNetwork_Mtp3bSpChina_M3uAssociation.REGION_ID or TransportNetwork_Mtp3bSpTtc_M3uAssociation.REGION_ID or TransportNetwork_Mtp3bSpItu.REGION_ID or TransportNetwork_Mtp3bSpAnsi.REGION_ID or TransportNetwork_Mtp3bSpChina.REGION_ID or TransportNetwork_Mtp3bSpTtc.REGION_ID or TransportNetwork_Sctp.REGION_ID or IpSystem_IpAccessHostGpb.REGION_ID
Network_Id	The Network identifier	Y	Y	TransportNetwork_Mtp3bSpItu_M3uAssociation.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.NETWORK_ID or TransportNetwork_Mtp3bSpChina_M3uAssociation.NETWORK_ID or TransportNetwork_Mtp3bSpTtc_M3uAssociation.NETWORK_ID or TransportNetwork_Mtp3bSpItu.NETWORK_ID or TransportNetwork_Mtp3bSpAnsi.NET

				WORK_ID or TransportNetwork_Mtp3bSpChina.NET WORK_ID or TransportNetwork_Mtp3bSpTtc.NET WORK_ID or TransportNetwork_Sctp.NETWORK_I D or IpSystem_IpAccessHostGpb.NETWO RK_ID
Configuration Attributes				
Sigtran_Name	A user-friendly name for a Signalling_Transmission.			TransportNetwork_Mtp3bSpItu_M3uA ssociation.nEDistinguishedName_MeC ontext &"/"& TransportNetwork &"- Mtp3bSpItu_"& Mtp3bSpItu &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpAnsi_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpChina_M3 uAssociation.nEDistinguishedName_M eContext &"/"& TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpTtc_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpTtc_"& Mtp3bSpTtc &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpItu.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpItu_"& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi.nEDi stinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina.nE DistinguishedName_MeContext &"/"&

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				TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpTtc_"& Mtp3bSpTtc or TransportNetwork_Sctp.nEDistinguish edName_MeContext &"/"& TransportNetwork &"-SCTP_"& SCTP or IpSystem_IpAccessHostGpb.nEDisting uishedName_MeContext &"/"& IpSystem &"-IpAccessHostGpb_"& IpAccessHostGpb
Sigtran_Type	network element type			TransportNetwork_Mtp3bSpItu_M3uA ssociation.nEDistinguishedName_MeC ontext &"/"& TransportNetwork &"- Mtp3bSpItu_"& Mtp3bSpItu &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpAnsi_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpChina_M3 uAssociation.nEDistinguishedName_M eContext &"/"& TransportNetwork &"- Mtp3bSpChina_"& Mtp3bSpChina &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpTtc_M3u Association.nEDistinguishedName_Me Context &"/"& TransportNetwork &"- Mtp3bSpTtc_"& Mtp3bSpTtc &"- M3uAsso_"& M3uAssociation or TransportNetwork_Mtp3bSpItu.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpItu_"& Mtp3bSpItu or TransportNetwork_Mtp3bSpAnsi.nEDi stinguishedName_MeContext &"/"& TransportNetwork &"- Mtp3bSpAnsi_"& Mtp3bSpAnsi or TransportNetwork_Mtp3bSpChina.nE DistinguishedName_MeContext &"/"& TransportNetwork &"-

				Mtp3bSpChina_"& Mtp3bSpChina or TransportNetwork_Mtp3bSpTtc.nEDist inguishedName_MeContext &"/"& TransportNetwork &"-Mtp3bSpTtc_"& Mtp3bSpTtc or TransportNetwork_Sctp.nEDisting uishedName_MeContext &"/"& TransportNetwork &"-SCTP_"& SCTP or IpSystem_IpAccessHostGpb.nEDisting uishedName_MeContext &"/"& IpSystem &"-IpAccessHostGpb_"& IpAccessHostGpb
Version	The equipment version			TransportNetwork_Mtp3bSpItu_M3uA ssociation."R5.1" or TransportNetwork_Mtp3bSpAnsi_M3u Association."R5.1" or TransportNetwork_Mtp3bSpChina_M3 uAssociation."R5.1" or TransportNetwork_Mtp3bSpTtc_M3u Association."R5.1" or TransportNetwork_Mtp3bSpItu."R5.1" or TransportNetwork_Mtp3bSpAnsi."R5. 1" or TransportNetwork_Mtp3bSpChina."R5 .1" or TransportNetwork_Mtp3bSpTtc."R5.1" or TransportNetwork_Sctp."R5.1" or IpSystem_IpAccessHostGpb."R5.1"
Vendor	Manufacturer of the Sigtran			"Ericsson"

5.40 STS1 details

In the network hierarchy, the immediate parent of the STS1 object is MGW.

Attribute Name	Description	Read- Only	Time- Tracke	Mapping
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		?	d?	
Primary Identifier				
STS1_Id	A unique string supplied by the Gateway in all STS1 performance data.	Y		Sts1SpeTtp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-Sts1SpeTtp_" & Sts1SpeTtp
Relationship Attributes				
MGW_Id	The MGW to which this STS1 is connected.	Y	Y	Sts1SpeTtp.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC	Y	Y	Sts1SpeTtp.REGION_ID
Network_Id	The Network identifier	Y	Y	Sts1SpeTtp.NETWORK_ID
Configuration Attributes				
STS1_Name	A user-friendly name for a STS1.			Sts1SpeTtp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-Sts1SpeTtp_" & Sts1SpeTtp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the STS1			"Ericsson"

5.41 STS3 details

In the network hierarchy, the immediate parent of the STS3 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
STS3_Id	A unique string supplied by the Gateway in all STS3 performance data.	Y		Sts3CspeTtp.nEDistinguishedName_MeContext& "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" &

				ExchangeTerminal & "-" & Os155SpiTtp & "-Sts3CspeTtp_" & Sts3CspeTtp
Relationship Attributes				
MGW_Id	The MGW to which this STS3 is connected.	Y	Y	Sts3CspeTtp.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC	Y	Y	Sts3CspeTtp.REGION_ID
Network_Id	The Network identifier	Y	Y	Sts3CspeTtp.NETWORK_ID
Configuration Attributes				
STS3_Name	A user-friendly name for a STS3.			Sts3CspeTtp.nEDistinguishedName_MeContext&"/"&Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-Sts3CspeTtp_" & Sts3CspeTtp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the STS3			"Ericsson"

5.42 Synchronization details

In the network hierarchy, the immediate parents of the Synchronization object are: NodeB and RNC.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Synchronization_Id	A unique identifier for the Synchronization	Y		TransportNetwork_Synchronization.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-" & Synchronization_" & Synchronization

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Relationship Attributes				
Network_Id	Network associated with the Synchronization	Y	Y	TransportNetwork_Synchronization.NETWORK_ID
Region_Id	Region associated with the Synchronization	Y	Y	TransportNetwork_Synchronization.REGION_ID
NodeB_Id	NodeB in a UTRAN network.	Y		"No mapping"
RNC_Id	RNC in a UTRAN network.	Y	Y	"No mapping"
Configuration Attributes				
Synchronization_Name	A user-friendly name preferably unique for the Synchronization			TransportNetwork_Synchronization.nEDistinguishedName_MeContext & "/" & TransportNetwork & "-Synchronization_" & Synchronization
Node_Id	The unique identifier for the node this object is connected to			TransportNetwork_Synchronization.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"
Node_Name	A user friendly name for this node the object is connected to			TransportNetwork_Synchronization.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the Synchronization			"R5.1"
Vendor	Manufacturer of the Synchronization			"Ericsson"

5.43 T1 details

In the network hierarchy, the immediate parent of the T1 object is MGW.

Attribute	Description	Read	Time-	Mapping
-----------	-------------	------	-------	---------

Name		- Only ?	Tracke d?	
Primary Identifier				
T1_Id	A unique string supplied by the Gateway in all T1 performance data.	Y		T1Ttp.nEDistinguishedName_MeContext&"/"&ManagedElement&"- "&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp & "- & Sts1SpeTtp & "- & Vt15Ttp & "-T1Ttp_" & T1Ttp or T1PhysPathTerm.nEDistinguishedName_MeContext&"/"&ManagedElement&"- "&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"-T1PhysTerm_" & T1PhysPathTerm
Relationship Attributes				
MGW_Id	The MGW to which this T1 is connected.	Y	Y	T1Ttp.nEDistinguishedName_MeContext or T1PhysPathTerm.nEDistinguishedName_MeContext
Region_Id	The Region containing the T1	Y	Y	T1Ttp.REGION_ID or T1PhysPathTerm.REGION_ID
Network_Id	The Network identifier	Y	Y	T1Ttp.NETWORK_ID or T1PhysPathTerm.NETWORK_ID
Configuration Attributes				
T1_Name	A user-friendly name for a T1.			T1Ttp.nEDistinguishedName_MeContext&"/"&ManagedElement&"- "&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp & "- & Sts1SpeTtp & "- & Vt15Ttp & "-T1Ttp_" & T1Ttp or T1PhysPathTerm.nEDistinguishedName_MeContext&"/"&ManagedElement&

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				"-&Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&ExchangeTerminal&"-T1PhysTerm_" & T1PhysPathTerm
T1_Type	Network element type			T1Ttp."T1Ttp" or T1PhysPathTerm."T1PhysPathTerm"
Version	The equipment version			T1Ttp."R5.1" or T1PhysPathTerm."R5.1"
Vendor	Manufacturer of the T1			"Ericsson"

5.44 TdmTermGrp details

In the network hierarchy, the immediate parent of the TdmTermGrp object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Tdmtg_Id	A unique string supplied by the Gateway in all TdmTermGrp performance data	Y		MgwApplication_TdmTermGrp.nEDistinguishedName_MeContext&"/"&ManagedElement&"-"&MgwApplication &"-TdmGrp_"&TdmTermGrp
Relationship Attributes				
MGW_Id	The MGW to which this TdmTermGrp is connected	Y	Y	MgwApplication_TdmTermGrp.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC	Y	Y	MgwApplication_TdmTermGrp.REGI ON_ID
Network_Id	An optional version identifier for the TdmTermGrp	Y	Y	MgwApplication_TdmTermGrp.NET WORK_ID
Configuration Attributes				
Tdmtg_Name	A user-friendly name for a TdmTermGrp			MgwApplication_TdmTermGrp.nEDistinguishedName_MeContext&"/"&ManagedElement&"-"&MgwApplication &"-TdmGrp_"&TdmTermGrp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the			"Ericsson"

	TdmTermGrp			
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5.45 Unknown_RemoteSite details

In the network hierarchy, the immediate parent of the Unknown_RemoteSite object is Region.

Attribute Name	Description	Read - Only ?	Time-Tracke d?	Mapping
Primary Identifier				
Unknown_Re moteSite_Id	A unique identifier for the Unknown_RemoteSite	Y		MgwApplication_UnknownRemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Unknown_Remote_" & Unknown_RemoteSite
Relationship Attributes				
Network_Id	Network associated with the Unknown_RemoteSite	Y	Y	MgwApplication_UnknownRemoteSite.NETWORK_ID
Region_Id	Region associated with the Unknown_RemoteSite	Y	Y	MgwApplication_UnknownRemoteSite.REGION_ID
Configuration Attributes				
Unknown_Re moteSite_Nam e	A user-friendly name preferably unique for the Unknown_RemoteSite			MgwApplication_UnknownRemoteSite.nEDistinguishedName_MeContext & "/" & MgwApplication & "-Unknown_Remote_" & Unknown_RemoteSite
Node_Id	The unique identifier for the node this object is connected to			MgwApplication_UnknownRemoteSite.nEDistinguishedName_MeContext
Node_Type	The type of network element of the node this object is connected to			"MGW"

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Node_Name	A user friendly name for this node the object is connected to			MgwApplication_UnknownRemoteSite.nEDistinguishedName_MeContext
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the Unknown_RemoteSite			"R5.1"
Vendor	Manufacturer of the Unknown_RemoteSite			"Ericsson"

5.46 VC11 details

In the network hierarchy, the immediate parent of the VC11 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VC11_Id	A unique identifier for the VC11	Y		Ess_Vc11Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-" & Vc3Ttp & "-" & Vc11Ttp_" & Vc11Ttp
Relationship Attributes				
Network_Id	Network associated with the VC11	Y	Y	Ess_Vc11Ttp.NETWORK_ID
Region_Id	Region associated with the VC11	Y	Y	Ess_Vc11Ttp.REGION_ID
MGW_Id	The MGW to which this VC11 is connected	Y	Y	Ess_Vc11Ttp.nEDistinguishedName_MeContext
Configuration Attributes				
VC11_Name	A user-friendly name preferably unique for the VC11			Ess_Vc11Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" &

				PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-" & Vc3Ttp & "-" & Vc11Ttp_" & Vc11Ttp
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS)			"UMTS"
Version	Hardware/Software version of the of the equipment supporting the VC11			"R5.1"
Vendor	Manufacturer of the VC11			"Ericsson"

5.47 VC12 details

In the network hierarchy, the immediate parent of the VC12 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VC12_Id	A unique string supplied by the Gateway in all VC12 performance data.	Y		Ess_Vc12Ttp.nEDistinguishedName_MeContext&"/"&Equipment& "-"&Subrack& "-"&Slot& "-"&PlugInUnit& "-"&ExchangeTerminal& "-"&Os155SpiTtp& "-"&Vc4Ttp& "-"&Vc12Ttp_"&Vc12Ttp
Relationship Attributes				
MGW_Id	The MGW to which this VC12 is connected	Y	Y	Ess_Vc12Ttp.nEDistinguishedName_MeContext
Region_Id	The Region containing the VC12	Y	Y	Ess_Vc12Ttp.REGION_ID
Network_Id	The network identifier	Y	Y	Ess_Vc12Ttp.NETWORK_ID
Configuration Attributes				
VC12_Name	A user-friendly name for a			Ess_Vc12Ttp.nEDistinguishedName_

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	VC12.			MeContext&"/"&Equipment&"-"&Subrack&"-"&Slot&"-"&PlugInUnit&"-"&ExchangeTerminal&"-"&Os155SpiTtp&"-"&Vc4Ttp&"-"&Vc12Ttp_"&Vc12Ttp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the VC12			"Ericsson"

5.48 VC3 details

In the network hierarchy, the immediate parent of the VC3 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VC3_Id	A unique identifier for the VC3	Y		Ess_Vc3Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-"&Vc3Ttp_" & Vc3Ttp
Relationship Attributes				
Network_Id	Network associated with the VC3	Y	Y	Ess_Vc3Ttp.NETWORK_ID
Region_Id	Region associated with the VC3	Y	Y	Ess_Vc3Ttp.REGION_ID
MGW_Id	The MGW to which this VC3 is connected	Y	Y	Ess_Vc3Ttp.nEDistinguishedName_MeContext
Configuration Attributes				
VC3_Name	A user-friendly name preferably unique for the VC3			Ess_Vc3Ttp.nEDistinguishedName_MeContext & "/" & Equipment & "-" & Subrack & "-" & Slot & "-" & PlugInUnit & "-" & ExchangeTerminal & "-" & Os155SpiTtp & "-"&Vc3Ttp_" & Vc3Ttp
Technology	Technology of the network/			"UMTS"

	element (e.g. GSM, GPRS, UMTS)			
Version	Hardware/Software version of the of the equipment supporting the VC3			"R5.1"
Vendor	Manufacturer of the VC3			"Ericsson"

5.49 VC4 details

In the network hierarchy, the immediate parent of the VC4 object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VC4_Id	A unique string supplied by the Gateway in all VC4 performance data.	Y		Ess_Vc4Ttp.nEDistinguishedName_MeContext&"/"&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp&"-Vc4Ttp_ "&Vc4Ttp
Relationship Attributes				
MGW_Id	The MGW to which this VC4 is connected.	Y	Y	Ess_Vc4Ttp.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC	Y	Y	Ess_Vc4Ttp.REGION_ID
Network_Id	The Network identifier	Y	Y	Ess_Vc4Ttp.NETWORK_ID
Configuration Attributes				
VC4_Name	A user-friendly name for a VC4			Ess_Vc4Ttp.nEDistinguishedName_MeContext&"/"&Equipment&"- "&Subrack&"- "&Slot&"- "&PlugInUnit&"- "&ExchangeTerminal&"- "&Os155SpiTtp&"-Vc4Ttp_ "&Vc4Ttp
Version	The equipment version			"R5.1"

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Vendor	Manufacturer of the VC4			"Ericsson"
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5.50 VclTp details

In the network hierarchy, the immediate parent of the VclTp object is VpcTp.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VclTp_Id	Virtual Channel Link Termination Point identifier	Y		TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.nEDistinguishedName_MeContext&"/"&TransportNetwork & "-&AtmPort& "-&VplTp& "-&VpcTp& "-VclTp_"&VclTp
Relationship Attributes				
ATM_Port_Id	ATM Port identifier associated with this VclTp	Y	Y	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.nEDistinguishedName_MeContext &"/"&TransportNetwork & "-AtmPort_" & AtmPort
VpcTp_Id	Virtual Path Connection Termination Point identifier associated with this VclTp	Y	Y	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.nEDistinguishedName_MeContext&"/"&TransportNetwork & "-&AtmPort& "-&VplTp& "-VpcTp_"&VpcTp
Configuration Attributes				
VclTP_Name	A user-friendly name for a VclTP			TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.nEDistinguishedName_MeContext&"/"&TransportNetwork & "-&AtmPort& "-&VplTp& "-&VpcTp& "-VclTp_"&VclTp
VplTp_Descrip tion	An optional descriptor			TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.userLabel
EgressPcr	Egress Peak Cell Rate			TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.egressAtmPcr
IngressPcr	Ingress Peak Cell Rate			TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ingressAtmPcr
Vendor	Manufacturer of the VclTp			"Ericsson"

5.51 VMGW details

In the network hierarchy, the immediate parent of the VMGW object is MGW.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VMGW_Id	A unique string supplied by the Gateway in all VMGW performance data	Y		MgwApplication_Vmgw.nEDistinguishedName_MeContext&"/"&MgwApplication&"-Vmgw_"&Vmgw
Relationship Attributes				
MGW_Id	The MGW to which this VMGW is connected	Y	Y	MgwApplication_Vmgw.nEDistinguishedName_MeContext
Region_Id	The Region containing the MSC (this is not derived from performance data)	Y	Y	MgwApplication_Vmgw.REGION_ID
Network_Id	An optional version identifier for the VMGW	Y	Y	MgwApplication_Vmgw.NETWORK_ID
Configuration Attributes				
VMGW_Name	A user-friendly name for a VMGW			MgwApplication_Vmgw.nEDistinguishedName_MeContext&"/"&MgwApplication&"-Vmgw_"&Vmgw
Version	The equipment version			"R5.1"
Technology	Technology of the network/element (e.g. GSM, GPRS, UMTS).			"UMTS"
Vendor	Manufacturer of the VMGW			"Ericsson"

5.52 VpcTp details

In the network hierarchy, the immediate parent of the VpcTp object is VplTp.

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Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VpcTP_Id	A unique string supplied by the Gateway in all VpcTP performance data	Y		TransportNetwork_AtmPort_VplTp_VpcTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-&AtmPort&"-&VplTp&"-VpcTp_"&VpcTp
Relationship Attributes				
VplTp_Id	The VplTp associated with the object	Y	Y	TransportNetwork_AtmPort_VplTp_VpcTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-&AtmPort&"-VplTp_"&VplTp
ATM_Port_Id	A unique string supplied by the Gateway in all ATM_Port performance data	Y	Y	TransportNetwork_AtmPort_VplTp_VpcTp.nEDistinguishedName_MeContext&"/"& TransportNetwork & "-AtmPort_" & AtmPort
Configuration Attributes				
VpcTP_Name	A user friendly name for the VpcTp			TransportNetwork_AtmPort_VplTp_VpcTp.nEDistinguishedName_MeContext&"/"&TransportNetwork&"-&AtmPort&"-&VplTp&"-VpcTp_"&VpcTp
EgressAtmPcr	Egress Peak Cell Rate			"No mapping"
IngressAtmPcr	Ingress Peak Cell Rate			"No mapping"
EgressAtmQos	egress ATM Quality of Service parameter			"No mapping"
IngressAtmQos	ingress ATM Quality of Service parameter			"No mapping"
EgressAtmMcr	egress Atm Minimum Cell Rate			"No mapping"
IngressAtmMcr	ingress Atm Minimum Cell Rate			"No mapping"
VpcTp_Descript ion	Optional descriptor			TransportNetwork_AtmPort_VplTp_VpcTp.userLabel
Vendor	Manufacturer of the VpcTp			"Ericsson"

5.53 VplTp details

In the network hierarchy, the immediate parent of the VplTp object is ATM_Port.

Attribute Name	Description	Read-Only ?	Time-Tracke d?	Mapping
Primary Identifier				
VplTp_Id	Virtual Path Link Termination Point identifier	Y		TransportNetwork_AtmPort_VplTp.nEDistinguishedName_MeContext& "/"&TransportNetwork& "-"&AtmPort& "-"&VplTp_"&VplTp
Relationship Attributes				
ATM_Port_Id	A unique string supplied by the Gateway in all ATM_Port performance data	Y	Y	TransportNetwork_AtmPort_VplTp.nEDistinguishedName_MeContext& "/"& TransportNetwork & "-"&AtmPort_" & AtmPort
Configuration Attributes				
VplTp_Name	A user-friendly name for a VplTP			TransportNetwork_AtmPort_VplTp.nEDistinguishedName_MeContext& "/"&TransportNetwork& "-"&AtmPort& "-"&VplTp_"&VplTp
EgressPcr	Egress Peak Cell Rate			TransportNetwork_AtmPort_VplTp.e gressAtmPcr
IngressPcr	Ingress Peak Cell Rate			TransportNetwork_AtmPort_VplTp.i ngressAtmPcr
EgressAtmQos	ingress Atm Quality of Service parameter			TransportNetwork_AtmPort_VplTp.e gressAtmQos
IngressAtmQos	ingress Atm Quality of Service parameter			TransportNetwork_AtmPort_VplTp.i ngressAtmQos
EgressAtmMcr	egress Atm Minimum Cell Rate			TransportNetwork_AtmPort_VplTp.e gressAtmMcr
IngressAtmMcr	ingress Atm Minimum Cell			TransportNetwork_AtmPort_VplTp.i

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	Rate			ngressAtmMcrr
VplTp_Descript ion	An optional descriptor			TransportNetwork_AttnPort_VplTp. userLabel
Vendor	Manufacturer of the VplTp			"Ericsson"

5.54 VT15 details

In the network hierarchy, the immediate parent of the VT15 object is MGW.

Attribute Name	Description	Read- Only ?	Time- Tracke d?	Mapping
Primary Identifier				
VT15_Id	A unique string supplied by the Gateway in all VT15 performance data	Y		Vt15Ttp.nEDistinguishedName_MeC ontext&"/"&Equipment&"- "&Subrac k&"- "&Slot&"- "&PlugInUnit&"- "&E xchangeTerminal&"- "&Os155SpiTtp &"- "&Sts1SpeTtp&"- Vt15Ttp_"&Vt15Ttp
Relationship Attributes				
MGW_Id	The MGW to which this VT15 is connected	Y	Y	Vt15Ttp.nEDistinguishedName_MeC ontext
Region_Id	The Region containing the MGW	Y	Y	Vt15Ttp.REGION_ID
Network_Id	The Network identifier	Y	Y	Vt15Ttp.NETWORK_ID
Configuration Attributes				
VT15_Name	A user-friendly name for a VT15			Vt15Ttp.nEDistinguishedName_MeC ontext&"/"&Equipment&"- "&Subrac k&"- "&Slot&"- "&PlugInUnit&"- "&E xchangeTerminal&"- "&Os155SpiTtp &"- "&Sts1SpeTtp&"- Vt15Ttp_"&Vt15Ttp
Version	The equipment version			"R5.1"
Vendor	Manufacturer of the VT15			"Ericsson"

6 Busy Hours

This section lists the busy hours which are defined for the technology pack module.

Each of the busy hours listed can be referenced within this document by way of a busy hour acronym, which is included in the table below.

Object	Busy Hour	Defining KPI	Acronym
ATM_Port	Ericsson_ATM_Port_Util_Total_Cells_TXRX_Busy_Hour	ATM_Port.Ericsson.ATM_port_utilisation.Total_cells	eraputctbh
MGW	Ericsson_MGW_Media_Strm_Ch_Busy_Hour	MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannelsBusy	ermgwmsbh
Plug_In_Unit	Ericsson_MGW_PlugInUnit_Load_Busy_Hour	Plug_In_Unit.Ericsson.CPU_Load.pmProcessorLoad	ermpluldbh
VplTp	Ericsson_VPltp_Total_Cells_TXRX_Busy_Hour	VplTp.Ericsson.Traffic.Total_cells	ervpltcbh

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7 Performance Indicators

This section describes the performance indicators (both one-to-one counter mappings, and complex KPIs) that are defined in this technology pack module, grouped by the network object to which they relate, as follows:

- [AAL1_Tp_Vcc_Tp performance indicators.](#)
- [AAL2_Access_Point performance indicators.](#)
- [AAL2_Signalling_Point performance indicators.](#)
- [AAL2PathVccTp performance indicators.](#)
- [AAL5_Tp_Vcc_Tp performance indicators.](#)
- [ATM_Port performance indicators.](#)
- [AtmTrafficDescriptor performance indicators.](#)
- [DChannel_Tp performance indicators.](#)
- [E1 performance indicators.](#)
- [Echo_Cancellation performance indicators.](#)
- [Ethernet_Link performance indicators.](#)
- [Fast_Ethernet performance indicators.](#)
- [Gcp_Association performance indicators.](#)
- [GigabitEthernet performance indicators.](#)
- [IMA performance indicators.](#)
- [Interactive_Messaging performance indicators.](#)
- [Ip_Atm_Link performance indicators.](#)
- [IP_Interface performance indicators.](#)
- [Ip_Protocol_Layer performance indicators.](#)
- [IUA_App_Server performance indicators.](#)
- [Medium_Access_Unit performance indicators.](#)
- [MGW performance indicators.](#)
- [MGW_Resource_Pool performance indicators.](#)
- [MS_Device_Group performance indicators.](#)
- [MS_Device_Pool performance indicators.](#)
- [MS_Processing performance indicators.](#)
- [MTP3B_AP performance indicators.](#)
- [MTP3B_SR performance indicators.](#)
- [Nni_SAAL_Tp performance indicators.](#)
- [OSI55 performance indicators.](#)
- [OSPF performance indicators.](#)
- [OSPF_Area performance indicators.](#)
- [OSPF_Interface performance indicators.](#)

- [Plug_In_Unit performance indicators.](#)
- [RemoteSite performance indicators.](#)
- [Signalling_Point performance indicators.](#)
- [Sigtran performance indicators.](#)
- [STS1 performance indicators.](#)
- [STS3 performance indicators.](#)
- [Synchronization performance indicators.](#)
- [T1 performance indicators.](#)
- [TdmTermGrp performance indicators.](#)
- [Unknown_RemoteSite performance indicators.](#)
- [VC11 performance indicators.](#)
- [VC12 performance indicators.](#)
- [VC3 performance indicators.](#)
- [VC4 performance indicators.](#)
- [VclTp performance indicators.](#)
- [VMGW performance indicators.](#)
- [VpcTp performance indicators.](#)
- [VplTp performance indicators.](#)
- [VT15 performance indicators.](#)

7.1 AAL1_Tp_Vcc_Tp Performance Indicators

This section shows the key performance indicators and other counters for the AAL1_Tp_Vcc_Tp object, divided into the following sub-sections:

- [AAL1_Tp_Vcc_Tp.Ericsson.UMTS.Errors](#)

7.1.1 AAL1_Tp_Vcc_Tp.Ericsson.UMTS.Errors

Terminating point error statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INTEGER	Number of backward error blocks.	TransportNetwork_Aal1TpVccTp.pmBwErrBlocks	Sum
pmBwLostCells	ACCUMULATION	INTEGER	Number of lost backward cells on the Virtual Channel	TransportNetwork_Aal1TpVccTp.pmBwLostCells	Sum

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			Connections (VCC) and Virtual Path Connections (VPC).		
pmBwMissinsCells	ACCUMULATION	INTEGER	Number of backward miss-inserted cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal1TpVccTp.pmBwMissinsCells	Sum
pmFwErrBlocks	ACCUMULATION	INTEGER	Number of forward error blocks.	TransportNetwork_Aal1TpVccTp.pmFwErrBlocks	Sum
pmFwLostCells	ACCUMULATION	INTEGER	Number of lost forward cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal1TpVccTp.pmFwLostCells	Sum
pmFwMissinsCells	ACCUMULATION	INTEGER	Number of forward miss-inserted cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal1TpVccTp.pmFwMissinsCells	Sum
pmLostBrCells	ACCUMULATION	INTEGER	Number of lost Backward Reporting (BR) cells.	TransportNetwork_Aal1TpVccTp.pmLostBrCells	Sum
pmLostFpmCells	ACCUMULATION	INTEGER	Number of lost	TransportNetwork_Aal1Tp	Sum

	TION	ER	Forward Performance Monitoring (FPM) cells.	pVccTp.pmLostFpmCells	
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7.2 AAL2_Access_Point Performance Indicators

This section shows the key performance indicators and other counters for the AAL2_Access_Point object, divided into the following sub-sections:

- [AAL2_Access_Point.Ericsson.UMTS.Connections](#)
- [AAL2_Access_Point.Ericsson.UMTS.Signalling_Messages](#)

7.2.1 AAL2_Access_Point.Ericsson.UMTS.Connections

Connection data

KPI	Type	Data Type	Description	Derivation	Aggregation
%_AAL2_Pipe_Utilization	PERCENTAGE	FLOAT	AAL2 pipe utilization rate	$100 * (\{pmExisOrigConns\} + \{pmExisTermConns\} + \{pmExisTransConns\}) / ((\{nrOfConfiguredAal2Paths\} - \{nrOfUnavailableAal2Paths\}) * 248)$	Average
%_Incoming_AAL2_Conn_Rsrv	PERCENTAGE	FLOAT	Incoming AAL2 connection reservation success rate	$100 * \{pmSuccInConnsRemoteQosClassA\} / (\{pmSuccInConnsRemoteQosClassA\} + \{pmUnSuccInConnsRemoteQosClassA\})$	Average
%_Outgoing_AAL2_Conn_Rsrv	PERCENTAGE	FLOAT	Outgoing AAL2 connection reservation success rate	$100 * \{pmSuccOutConnsRemoteQosClassA\} / (\{pmSuccOutConnsRemoteQosClassA\} + \{pmUnSuccOutConnsRemoteQosClassA\})$	Average

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				QosClassA}))	
$\overline{\%_pmSuccInConnsRemote}$	PERCENT AGE	FLO AT	Obsolete in R4.1:Connection success rate of incoming connections on the AP.	$100 * \frac{\{pmSuccInConnsRemote\}}{(\{pmSuccInConnsRemote\} + \{pmUnSuccInConnsRemote\})}$	Averag e
$\overline{\%_pmSuccOutConnsRemote}$	PERCENT AGE	FLO AT	Obsolete in R4.1:Connection success rate of outgoing connections from the AP.	$100 * \frac{\{pmSuccOutConnsRemote\}}{(\{pmSuccOutConnsRemote\} + \{pmUnSuccOutConnsRemote\})}$	Averag e
nrOfConfiguredAal2Paths	INTENSIT Y	INTE GER	The total number of Aal2PathVc cTp MOs configured on this Aal2 Ap.	TransportNetwork_Aal2Sp_Aal2Ap.nrOfConfiguredAal2Paths	Averag e, tot, min, max
nrOfRemotelyBlockedAal2Paths	INTENSIT Y	INTE GER	Number of all Aal2PathVc cTp's that are connected to this Aal2Ap and with remoteBlockingState set to REMOTELY_BLOCKED.	TransportNetwork_Aal2Sp_Aal2Ap.nrOfRemotelyBlockedAal2Paths	Averag e, tot, min, max
nrOfUnavailableAal2Paths	INTENSIT Y	INTE GER	The total number of unavailable Aal2PathVc cTp on this Aal2 Ap.	TransportNetwork_Aal2Sp_Aal2Ap.nrOfUnavailableAal2Paths	Averag e, tot, min, max

pmExisOrigConns	INTENSITY	INTEGER	Current number of existing connections for the Access Point (AP) originating in this node.	TransportNetwork_Aal2Sp_Aal2Ap.pmExisOrigConns	Average, tot, min, max
pmExisTermConns	INTENSITY	INT8	Current number of existing connections for the AP terminating in this node.	TransportNetwork_Aal2Sp_Aal2Ap.pmExisTermConns	Average, tot, min, max
pmExisTransConns	INTENSITY	INT8	Current number of existing connections for the AP transiting in this node.	TransportNetwork_Aal2Sp_Aal2Ap.pmExisTransConns	Average, tot, min, max
pmSuccInConnsRemote	ACCUMULATION	INT8	Obsolete in R4.1: Total number of successful establishment of incoming connections on the AP.	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccInConnsRemote	Sum
pmSuccInConnsRemoteQosClassA	ACCUMULATION	INTEGER	Number of successful establishments of incoming connections	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccInConnsRemoteQosClassA	Sum

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			on this AAL2 Access Point (AP).		
pmSuccInConnsRemoteQosClassB	ACCUMULATION	INTEGER	Number of successful establishments of incoming connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccInConnsRemoteQosClassB	Sum
pmSuccInConnsRemoteQosClassC	ACCUMULATION	INTEGER	Number of successful establishments of incoming connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccInConnsRemoteQosClassC	Sum
pmSuccInConnsRemoteQosClassD	ACCUMULATION	INTEGER	Number of successful establishments of incoming connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccInConnsRemoteQosClassD	Sum
pmSuccOutConnsRemote	ACCUMULATION	INT8	Obsolete in R4.1:Current number of successful establishment of outgoing connections from the	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccOutConnsRemote	Sum

			AP.		
pmSuccOutConnsRemoteQosClassA	ACCUMULATION	INTEGER	Number of successful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccOutConnsRemoteQosClassA	Sum
pmSuccOutConnsRemoteQosClassB	ACCUMULATION	INTEGER	Number of successful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccOutConnsRemoteQosClassB	Sum
pmSuccOutConnsRemoteQosClassC	ACCUMULATION	INTEGER	Number of successful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccOutConnsRemoteQosClassC	Sum
pmSuccOutConnsRemoteQosClassD	ACCUMULATION	INTEGER	Number of successful establishments of outgoing connections on this	TransportNetwork_Aal2Sp_Aal2Ap.pmSuccOutConnsRemoteQosClassD	Sum

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			AAL2 Access Point (AP).		
pmUnSuccInConnsLocalQosClassA	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 path resources (Common Part Sublayer) during establishment of incoming connections on this Access Point (AP) caused by Channel Identifier (CID) and/or bandwidth collision or mismatch of Call Admission Control (CAC) between peers.	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsLocalQosClassA	Sum
pmUnSuccInConnsLocalQosClassB	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 path resources (Common Part Sublayer) during establishment	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsLocalQosClassB	Sum

			nt of incoming connections on this Access Point (AP) caused by Channel Identifier (CID) and/or bandwidth collision or mismatch of Call Admission Control (CAC) between peers.		
pmUnSuccInConnsLocalQosClassC	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 path resources (Common Part Sublayer) during establishment of incoming connections on this Access Point (AP) caused by Channel Identifier	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsLocalQosClassC	Sum

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			(CID) and/or bandwidth collision or mismatch of Call Admission Control (CAC) between peers.		
pmUnSuccInConnsLocalQoSClassD	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 path resources (Common Part Sublayer) during establishment of incoming connections on this Access Point (AP) caused by Channel Identifier (CID) and/or bandwidth collision or mismatch of Call Admission Control (CAC) between peers.	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsLocalQoSClassD	Sum
pmUnSuccInConnsRemote	ACCUMULATION	INT8	Obsolete in R4.1: Total number of	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsRemote	Sum

			unsuccessful establishe nt of incoming connections from the AP.		
pmUnSuccInConnsRem oteQosClassA	ACCUMUL ATION	INTE GER	Number of unsuccessful establishe nts of incoming connections on this AAL2 Access Point caused by the reject from the AAL2 Access Point in the remote node.	TransportNetwork_Aal2Sp_A al2Ap.pmUnSuccInConnsRe moteQosClassA	Sum
pmUnSuccInConnsRem oteQosClassB	ACCUMUL ATION	INTE GER	Number of unsuccessful establishe nts of incoming connections on this AAL2 Access Point caused by the reject from the AAL2 Access Point in the remote	TransportNetwork_Aal2Sp_A al2Ap.pmUnSuccInConnsRe moteQosClassB	Sum

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			node.		
pmUnSuccInConnsRemoteQosClassC	ACCUMULATION	INTEGER	Number of unsuccessful establishments of incoming connections on this AAL2 Access Point caused by the reject from the AAL2 Access Point in the remote node.	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsRemoteQosClassC	Sum
pmUnSuccInConnsRemoteQosClassD	ACCUMULATION	INTEGER	Number of unsuccessful establishments of incoming connections on this AAL2 Access Point caused by the reject from the AAL2 Access Point in the remote node.	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccInConnsRemoteQosClassD	Sum
pmUnSuccOutConnsLocalQosClassA	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 resources (Common Part sublayer)	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsLocalQosClassA	Sum

			during establishment of outgoing connections on this Access Point (AP).		
pmUnSuccOutConnsLocalQosClassB	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 resources (Common Part sublayer) during establishment of outgoing connections on this Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsLocalQosClassB	Sum
pmUnSuccOutConnsLocalQosClassC	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 resources (Common Part sublayer) during establishment of outgoing connections on this	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsLocalQosClassC	Sum

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			Access Point (AP).		
pmUnSuccOutConnsLocalQosClassD	ACCUMULATION	INTEGER	Number of unsuccessful attempts to allocate AAL2 resources (Common Part sublayer) during establishment of outgoing connections on this Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsLocalQosClassD	Sum
pmUnSuccOutConnsRemote	ACCUMULATION	INT8	Obsolete in R4.1: Total number of unsuccessful establishment of outgoing connections from the AP.	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsRemote	Sum
pmUnSuccOutConnsRemoteQosClassA	ACCUMULATION	INTEGER	Number of unsuccessful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsRemoteQosClassA	Sum
pmUnSuccOutConnsRemoteQosClassB	ACCUMULATION	INTEGER	Number of unsuccessful establishments of	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsRemoteQosClassB	Sum

			outgoing connections on this AAL2 Access Point (AP).		
pmUnSuccOutConnsRemoteQosClassC	ACCUMULATION	INTEGER	Number of unsuccessful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsRemoteQosClassC	Sum
pmUnSuccOutConnsRemoteQosClassD	ACCUMULATION	INTEGER	Number of unsuccessful establishments of outgoing connections on this AAL2 Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnSuccOutConnsRemoteQosClassD	Sum

7.2.2 AAL2_Access_Point.Ericsson.UMTS.Signalling_Messages

AAL2 Access point signalling message statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmUnRecMessages	ACCUMULATION	INTEGER	Number of received unrecognized Q.2630 messages on this Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnRecMessages	Sum

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pmUnRecParams	ACCUMULATION	INTEGER	Number of received Q.2630 messages with unrecognized parameters on this Access Point (AP).	TransportNetwork_Aal2Sp_Aal2Ap.pmUnRecParams	Sum
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7.3 AAL2_Signalling_Point Performance Indicators

This section shows the key performance indicators and other counters for the AAL2_Signalling_Point object, divided into the following sub-sections:

- [AAL2_Signalling_Point.Ericsson.UMTS.AAL2_Sig_Point](#)

7.3.1 AAL2_Signalling_Point.Ericsson.UMTS.AAL2_Sig_Point

AAL2 Signalling point data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmUnsuccessfulConn sInternal	ACCUMULATION	INT8	Total number of unsuccessful attempts to establish connections due to node internal problems.	TransportNetwork_Aal2Sp. pmUnsuccessfulConnsInternal	Sum

7.4 AAL2PathVccTp Performance Indicators

This section shows the key performance indicators and other counters for the AAL2PathVccTp object, divided into the following sub-sections:

- [AAL2PathVccTp.Ericsson.UMTS.AAL2_CPS](#)
- [AAL2PathVccTp.Ericsson.UMTS.Errors](#)

7.4.1 AAL2PathVccTp.Ericsson.UMTS.AAL2_CPS

AAL2 Common Part Sublayer

KPI	Type	Data	Descrip	Derivation	Aggrega
-----	------	------	---------	------------	---------

		Type	tion		tion
pmDiscardedEgressCpsPackets	ACCUMULATION	INTEGER	Number of discarded AAL2 CPS packets in egress direction.	TransportNetwork_Aal2PathVccTp.pmDiscardedEgressCpsPackets	Sum, ermngwmsbh
pmEgressCpsPackets	ACCUMULATION	INTEGER	Number of AAL2 CPS egress packets sent.	TransportNetwork_Aal2PathVccTp.pmEgressCpsPackets	Sum, ermngwmsbh
pmIngressCpsPackets	ACCUMULATION	INTEGER	Number of AAL2 CPS ingress packets received.	TransportNetwork_Aal2PathVccTp.pmIngressCpsPackets	Sum, ermngwmsbh

7.4.2 AAL2PathVccTp.Ericsson.UMTS.Errors

Error data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INT8	Total number of backward errored blocks.	TransportNetwork_Aal2PathVccTp.pmBwErrBlocks	Sum, ermngwmsbh
pmBwLostCells	ACCUMULATION	INT8	Total number of lost backward	TransportNetwork_Aal2PathVccTp.pmBwLostCells	Sum, ermngwms

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			cells.		bh
pmBwMissinCells	ACCUMULATION	INT8	Obsolete in R4.1:The number of misinserted backward cells. This counter is no longer supported after R2.	TransportNetwork_Aal2PathVccTp.pmBwMissinCells	Sum, ermgwms bh
pmBwMissinsCells	ACCUMULATION	INT8	Total number of misinserted backward cells.	TransportNetwork_Aal2PathVccTp.pmBwMissinsCells	Sum, ermgwms bh
pmFwErrBlocks	ACCUMULATION	INT8	Total number of forward errored blocks.	TransportNetwork_Aal2PathVccTp.pmFwErrBlocks	Sum, ermgwms bh
pmFwLostCells	ACCUMULATION	INT8	Total number of lost forward cells.	TransportNetwork_Aal2PathVccTp.pmFwLostCells	Sum, ermgwms bh
pmFwMissinCells	ACCUMULATION	INT8	Obsolete in R4.1:The number of forward misinserted cells. This counter is no longer supported after R2.	TransportNetwork_Aal2PathVccTp.pmFwMissinCells	Sum, ermgwms bh
pmFwMissinsCells	ACCUMULATION	INT8	Total number of forward misinserted cells.	TransportNetwork_Aal2PathVccTp.pmFwMissinsCells	Sum, ermgwms bh
pmLostBrCells	ACCUMULATION	INT8	Total number of lost backward reporting cells.	TransportNetwork_Aal2PathVccTp.pmLostBrCells	Sum, ermgwms bh
pmLostFpmCells	ACCUMULATION	INT8	Total number of lost forward performance monitoring cells.	TransportNetwork_Aal2PathVccTp.pmLostFpmCells	Sum, ermgwms bh

7.5 AAL5_Tp_Vcc_Tp Performance Indicators

This section shows the key performance indicators and other counters for the AAL5_Tp_Vcc_Tp object, divided into the following sub-sections:

- [AAL5_Tp_Vcc_Tp.Ericsson.UMTS.Errors](#)

7.5.1 AAL5_Tp_Vcc_Tp.Ericsson.UMTS.Errors

Terminating point error statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INTEGER	Number of backward errored blocks.	TransportNetwork_Aal5TpVccTp.pmBwErrBlocks	Sum
pmBwLostCells	ACCUMULATION	INTEGER	Number of lost backward cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal5TpVccTp.pmBwLostCells	Sum
pmBwMissinsCells	ACCUMULATION	INTEGER	Number of backward miss-inserted cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal5TpVccTp.pmBwMissinsCells	Sum
pmFwErrBlocks	ACCUMULATION	INTEGER	Number of forward errored blocks.	TransportNetwork_Aal5TpVccTp.pmFwErrBlocks	Sum
pmFwLostCells	ACCUMULATION	INTEGER	Number of lost	TransportNetwork_Aal5Tp	Sum

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	TION	ER	forward cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	pVccTp.pmFwLostCells	
pmFwMissinsCells	ACCUMULATION	INTEGER	Number of forward miss-inserted cells on the Virtual Channel Connections (VCC) and Virtual Path Connections (VPC).	TransportNetwork_Aal5TpVccTp.pmFwMissinsCells	Sum
pmLostBrCells	ACCUMULATION	INTEGER	Number of lost Backward Reporting (BR) cells.	TransportNetwork_Aal5TpVccTp.pmLostBrCells	Sum
pmLostFpmCells	ACCUMULATION	INTEGER	Number of lost Forward Performance Monitoring (FPM) cells.	TransportNetwork_Aal5TpVccTp.pmLostFpmCells	Sum

7.6 ATM_Port Performance Indicators

This section shows the key performance indicators and other counters for the ATM_Port object, divided into the following sub-sections:

- [ATM_Port.Ericsson.UMTS.ATM_port_utilisation](#)
- [ATM_Port.Ericsson.UMTS.Virtual_path_grouped_from_VpcTp](#)

7.6.1 ATM_Port.Ericsson.UMTS.ATM_port_utilisation

Utilisation data

KPI	Type	Data Type	Description	Derivation	Aggregation
_	INTENSITY	FLOA	Port usage rate	((1 -	Average,

%_ATM_Port_Rcvd_Usage		T	of received ATM cells	$((\{pmReceivedAtmCells\} / \{measurement_seconds\}) / 353207)) * 100)$	eraputctb h, tot, min, max
%_ATM_Port_Sent_Usage	INTENSITY	FLOAT	Port usage rate of sent ATM cells	$((1 - ((\{pmTransmittedAtmCells\} / \{measurement_seconds\}) / 353207)) * 100)$	Average, eraputctb h, tot, min, max
pmReceivedAtmCells	ACCUMULATION	INT8	Number of ATM cells received through the ATM port.	TransportNetwork_AtmmPort.pmReceivedAtmCells	Sum, eraputctb h
pmSecondsWithUnexp	ACCUMULATION	INTEGER	Number of errored seconds with discarded cells due to protocol errors, unexpected events (UNEX). I.610:	TransportNetwork_AtmmPort.pmSecondsWithUnexp	Sum, eraputctb h
pmTransmittedAtmCells	ACCUMULATION	INT8	Number of ATM cells transmitted through the ATM port.	TransportNetwork_AtmmPort.pmTransmittedAtmCells	Sum, eraputctb h
Rx_bandwidth_per_second	INTENSITY	FLOAT	The amount of received bandwidth per second	$((\{pmReceivedAtmCells\} / \{measurement_seconds\}) * (53*8)/1000)/1000)$	Average, eraputctb h, tot, min, max
Rx_cells_per_second	INTENSITY	FLOAT	The number of received cells per second	$\{pmReceivedAtmCells\} / \{measurement_seconds\}$	Average, eraputctb h, tot, min, max
Total_cells	ACCUMULATION	INT8	Total number of ATM cells	$\{pmReceivedAtmCells\} + \{pmTransmittedAtmCells\}$	Sum, eraputctb h

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			transmitted and received through the ATM Port	}	h
Tx_bandwidth_per_second	INTENSITY	FLOAT	The amount of transmitted bandwidth per second	$((\{pmTransmittedAtmCells\} / \{measurement_seconds\}) * (53 * 8) / 1000) / 1000$	Average, eraputctbh, tot, min, max
Tx_cells_per_second	INTENSITY	FLOAT	The number of transmitted cells per second	$\{pmTransmittedAtmCells\} / \{measurement_seconds\}$	Average, eraputctbh, tot, min, max

7.6.2 ATM_Port.Ericsson.UMTS.Virtual_path_grouped_from_VpcTp

Virtual path data grouped up from VPCTP level. This data has a secondary key of VPLTP.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INT8	Total number of backward errored blocks, aggregated to vpltp level from vpctp.	TransportNetwork_AtmoPort.pmBwErrBlocks	Sum, eraputctbh
pmBwLostCells	ACCUMULATION	INT8	Total number of lost backward cells, aggregated to vpltp level from vpctp.	TransportNetwork_AtmoPort.pmBwLostCells	Sum, eraputctbh
pmBwMissinsCells	ACCUMULATION	INT8	Total number of misinserted backward cells, aggregated to vpltp level from vpctp.	TransportNetwork_AtmoPort.pmBwMissinsCells	Sum, eraputctbh
pmFwErrBlocks	ACCUMULATION	INT8	Total number of forward errored blocks, aggregated to vpltp level from vpctp.	TransportNetwork_AtmoPort.pmFwErrBlocks	Sum, eraputctbh

pmFwLostCells	ACCUMULATION	INT8	Total number of lost forward cells, aggregated to vpltp level from vpctp.	TransportNetwork_Atmoort.pmFwLostCells	Sum, eraputctbh
pmFwMissinsCells	ACCUMULATION	INT8	Total number of forward misinserted cells, aggregated to vpltp level from vpctp.	TransportNetwork_Atmoort.pmFwMissinsCells	Sum, eraputctbh
pmLostBrCells	ACCUMULATION	INT8	Total number of lost backward reporting cells, aggregated to vpltp level from vpctp.	TransportNetwork_Atmoort.pmLostBrCells	Sum, eraputctbh
pmLostFpmCells	ACCUMULATION	INT8	Total number of lost Forward Performance Monitoring (FPM) cells, aggregated to vpltp level from vpctp.	TransportNetwork_Atmoort.pmLostFpmCells	Sum, eraputctbh

7.7 AtmTrafficDescriptor Performance Indicators

This section shows the key performance indicators and other counters for the AtmTrafficDescriptor object, divided into the following sub-sections:

- [AtmTrafficDescriptor.Ericsson.UMTS.Traffic_Descriptor](#)

7.7.1 AtmTrafficDescriptor.Ericsson.UMTS.Traffic_Descriptor

ATM Traffic configuration data

KPI	Type	Data Type	Description	Derivation	Aggregation
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egressAtmMcr	INTENSITY	INTEGER	Egress ATM minimum desired cell rate.	TransportNetwork_AtmTrafficDescriptor.egressAtmMcr	Minimum, tot, min, max
egressAtmPcr	INTENSITY	INTEGER	Egress ATM Peak cell rate (cells/s).	TransportNetwork_AtmTrafficDescriptor.egressAtmPcr	Constant, tot, min, max
egressAtmQos	INTENSITY	INTEGER	Egress ATM quality of service.	TransportNetwork_AtmTrafficDescriptor.egressAtmQos	Average, tot, min, max
ingressAtmMcr	INTENSITY	INTEGER	Ingress minimum desired cell rate (cells/s).	TransportNetwork_AtmTrafficDescriptor.ingressAtmMcr	Minimum, tot, min, max
ingressAtmPcr	INTENSITY	INTEGER	Ingress ATM Peak cell rate (cells/s).	TransportNetwork_AtmTrafficDescriptor.ingressAtmPcr	Constant, tot, min, max
ingressAtmQos	INTENSITY	INTEGER	Ingress ATM quality of service.	TransportNetwork_AtmTrafficDescriptor.ingressAtmQos	Average, tot, min, max

7.8 DChannel_Tp Performance Indicators

This section shows the key performance indicators and other counters for the DChannel_Tp object, divided into the following sub-sections:

- [DChannel_Tp.Ericsson.UMTS.DChannelTp_Util](#)

7.8.1 DChannel_Tp.Ericsson.UMTS.DChannelTp_Util

DChannel termination point utilisation

KPI	Type	Data Type	Description	Derivation	Aggregation
pmDiscardedInboundFrames	ACCUMULATION	INTEGER	The number of discarded inbound frames.	ManagedElement_AccessSignalling_DChannelTp.pmDiscardedInboundFrames	Sum
pmDiscardedOutboundFrames	ACCUMULATION	INTEGER	The number	ManagedElement_AccessSignalling_DChannelTp.pmDiscardedOutboundFrames	Sum

			of discarded outbound frames.	tboundFrames	
pmOctetsInRecFrames	ACCUMULATION	INT8	The number of octets in received frames.	ManagedElement_AccessSignalling_DChannelTp.pmOctetsInRecFrames	Sum
pmOctetsInReTransmFrames	ACCUMULATION	INT8	The number of octets in retransmitted frames.	ManagedElement_AccessSignalling_DChannelTp.pmOctetsInReTransmFrames	Sum
pmOctetsInTransmFrames	ACCUMULATION	INT8	The number of octets in transmitted frames.	ManagedElement_AccessSignalling_DChannelTp.pmOctetsInTransmFrames	Sum
pmRecDmFramesRspToSabme	ACCUMULATION	INTEGER	Indicates the number of Disconnected Mode (DM) frames received as response to	ManagedElement_AccessSignalling_DChannelTp.pmRecDmFramesRspToSabme	Sum

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			transmitted Set Asynchronous Balanced Mode Extended (SABME) frames.		
pmRecFramesCtrlFieldUndef	ACCUMULATION	INTEGER	The number of received frames with control field that is undefined or not implemented.	ManagedElement_AccessSignalling_DChannelTp.pmRecFramesCtrlFieldUndef	Sum
pmRecFramesFcsError	ACCUMULATION	INTEGER	The number of received frames with Frame Check Sequence (FCS) error.	ManagedElement_AccessSignalling_DChannelTp.pmRecFramesFcsError	Sum
pmRecFramesN201Error	ACCUMULATION	INT8	The number of received frames with N201 error.	ManagedElement_AccessSignalling_DChannelTp.pmRecFramesN201Error	Sum

pmRecFramesNotPermInfoFldOrLngFr	ACCUMULATION	INTEGER	The number of received frames with not permitted information field, or too long unnumbered frame.	ManagedElement_AccessSignalling_DChannelTp.pmRecFramesNotPermInfoFldOrLngFr	Sum
pmRecFramesNrError	ACCUMULATION	INTEGER	The number of received frames with N(R) sequence error.	ManagedElement_AccessSignalling_DChannelTp.pmRecFramesNrError	Sum
pmRecFrames	ACCUMULATION	INTEGER	The number of received frames.	ManagedElement_AccessSignalling_DChannelTp.pmRecFrames	Sum
pmRecFrmr	ACCUMULATION	INTEGER	The number of received Frame Reject (FRMR) response frames.	ManagedElement_AccessSignalling_DChannelTp.pmRecFrmr	Sum

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pmRecInvalidFrames	ACCUMULATION	INTEGER	The number of received invalid frames.	ManagedElement_AccessSignalling_DChannelTp.pmRecInvalidFrames	Sum
pmRecUnexpectedFrames	ACCUMULATION	INTEGER	The number of received unexpected frames.	ManagedElement_AccessSignalling_DChannelTp.pmRecUnexpectedFrames	Sum
pmRecUnsolicSupervisFrames	ACCUMULATION	INTEGER	The number of received unsolicited supervisory frames.	ManagedElement_AccessSignalling_DChannelTp.pmRecUnsolicSupervisFrames	Sum
pmRetransmittedFrames	ACCUMULATION	INTEGER	The number of retransmitted frames.	ManagedElement_AccessSignalling_DChannelTp.pmRetransmittedFrames	Sum
pmTransmDmFramesRspToSabme	ACCUMULATION	INTEGER	The number of DM frames transmitted as response to received SABME frames.	ManagedElement_AccessSignalling_DChannelTp.pmTransmDmFramesRspToSabme	Sum
pmTransmittedFrames	ACCUMULATION	INTEGER	The number of transmitted	ManagedElement_AccessSignalling_DChannelTp.pmTransmittedFrames	Sum

			ed frames.		
pmUnsuccRetrmsOthFramesN200Times	ACCUMULATION	INTEGER	The number of unsuccessful retransmissions of Disconnect (DISC), Receive Ready (RR), and Receive Not Ready (RNR) command frames N200 times.	ManagedElement_AccessSignalling_DChannelTp.pmUnsuccRetrmsOthFramesN200Times	Sum
pmUnsuccRetrmsSabmeN200Times	ACCUMULATION	INTEGER	The number unsuccessful retransmissions of SABME command frames N200 times.	ManagedElement_AccessSignalling_DChannelTp.pmUnsuccRetrmsSabmeN200Times	Sum
Rx_frames_per_second	INTENSITY	FLOAT	The number	{pmRecFrames} / {measurement_seconds}	Average, tot,

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			of received frames per second.		min, max
Tot_octets	ACCUMULATION	INT8	Total number of octets in received and transmitted frames.	{pmOctetsInRecFrames} + {pmOctetsInTransmFrames} + {pmOctetsInReTransmFrames}	Sum
Tx_frames_per_second	INTENSITY	FLOAT	The number of transmitted frames per second.	{pmTransmittedFrames} / {measurement_seconds}	Average, tot, min, max

7.9 E1 Performance Indicators

This section shows the key performance indicators and other counters for the E1 object, divided into the following sub-sections:

- [E1.Ericsson.UMTS.E1_Terminating_Point](#)

7.9.1 E1.Ericsson.UMTS.E1_Terminating_Point

E1 termination point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmEs	ACCUMULATION	INT8	Total number of Errored Seconds.	Ess_E1Ttp.pmEs or Ess_E1PhysPathTerm.p mEs	Sum, ermgwms bh
pmSes	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Ess_E1Ttp.pmSes or Ess_E1PhysPathTerm.p mSes	Sum, ermgwms bh

pmUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES).	Ess_E1Ttp.pmUas or Ess_E1PhysPathTerm.p mUas	Sum, ermgwms bh
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7.10 Echo_Cancellation Performance Indicators

This section shows the key performance indicators and other counters for the Echo_Cancellation object, divided into the following sub-sections:

- [Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_Rout](#)
- [Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_Sout](#)
- [Echo_Cancellation.Ericsson.UMTS.Echo_Return_Loss](#)
- [Echo_Cancellation.Ericsson.UMTS.Pure_Delay](#)

7.10.1 Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_Rout

Active Speech Level at Rout data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmI10ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -17 and -16 dbm0.	ECRouteParameterSet.pmI10ValAslr	Sum, ermgwms bh
pmI11ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -15 and -14 dbm0.	ECRouteParameterSet.pmI11ValAslr	Sum, ermgwms bh
pmI12ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -13 and -12 dbm0.	ECRouteParameterSet.pmI12ValAslr	Sum, ermgwms bh
pmI13ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at	ECRouteParameterSet.pmI13ValAslr	Sum, ermgwms bh

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			-11 and -10 dbm0.		
pmI14ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -9 and -8 dbm0.	ECRouteParameterSet.pmI14ValAslr	Sum, erm gwms bh
pmI15ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -7 and -6 dbm0.	ECRouteParameterSet.pmI15ValAslr	Sum, erm gwms bh
pmI16ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -5 and -4 dbm0.	ECRouteParameterSet.pmI16ValAslr	Sum, erm gwms bh
pmI1ValAslr	ACCUMULATION	INT8	Total number of Active Speech Level at Rout (ASL-R) measurements at -35 and -34 dbm0.	ECRouteParameterSet.pmI1ValAslr	Sum, erm gwms bh
pmI2ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -33 and -32 dbm0.	ECRouteParameterSet.pmI2ValAslr	Sum, erm gwms bh
pmI3ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -31 and -30 dbm0.	ECRouteParameterSet.pmI3ValAslr	Sum, erm gwms bh
pmI4ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -29 and -28 dbm0.	ECRouteParameterSet.pmI4ValAslr	Sum, erm gwms bh
pmI5ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -27 and -26 dbm0.	ECRouteParameterSet.pmI5ValAslr	Sum, erm gwms bh

pmI6ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -25 and -24 dbm0.	ECRouteParameterSet.pml6ValAslr	Sum, ermngwms bh
pmI7ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -23 and -22 dbm0.	ECRouteParameterSet.pml7ValAslr	Sum, ermngwms bh
pmI8ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -21 and -20 dbm0.	ECRouteParameterSet.pml8ValAslr	Sum, ermngwms bh
pmI9ValAslr	ACCUMULATION	INT8	Total number of ASL-R measurements at -19 and -18 dbm0.	ECRouteParameterSet.pml9ValAslr	Sum, ermngwms bh

7.10.2 Echo_Cancellation.Ericsson.UMTS.Active_Speech_Level_Sout

Active speech level at Sout data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmI10ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -17 and -16 dbm0.	ECRouteParameterSet.pml10ValAsls	Sum, ermngwms bh
pmI11ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -15 and -14 dbm0.	ECRouteParameterSet.pml11ValAsls	Sum, ermngwms bh

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pmI12ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -13 and -12 dbm0.	ECRouteParameterSet.pml12ValAsls	Sum, erm gwms bh
pmI13ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -11 and -10 dbm0.	ECRouteParameterSet.pml13ValAsls	Sum, erm gwms bh
pmI14ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -9 and -8 dbm0.	ECRouteParameterSet.pml14ValAsls	Sum, erm gwms bh
pmI15ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -7 and -6 dbm0.	ECRouteParameterSet.pml15ValAsls	Sum, erm gwms bh
pmI16ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -5 and -4 dbm0.	ECRouteParameterSet.pml16ValAsls	Sum, erm gwms bh
pmI1ValAsls	ACCUMULATION	INT8	Total number of Active Speech Level at Sout (ASL-S) measurements at -35 and -34 dbm0.	ECRouteParameterSet.pml1ValAsls	Sum, erm gwms bh
pmI2ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -33 and -32 dbm0.	ECRouteParameterSet.pml2ValAsls	Sum, erm gwms bh
pmI3ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -31 and -30 dbm0.	ECRouteParameterSet.pml3ValAsls	Sum, erm gwms bh
pmI4ValAsls	ACCUMULATION	INT8	Total number of ASL-S	ECRouteParameterSet.pml4ValAsls	Sum, erm gwms

			measurements at -29 and -28 dbm0.		bh
pmI5ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -27 and -26 dbm0.	ECRouteParameterSet.pmI5ValAsls	Sum, ermngwms bh
pmI6ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -25 and -24 dbm0.	ECRouteParameterSet.pmI6ValAsls	Sum, ermngwms bh
pmI7ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -23 and -22 dbm0.	ECRouteParameterSet.pmI7ValAsls	Sum, ermngwms bh
pmI8ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -21 and -20 dbm0.	ECRouteParameterSet.pmI8ValAsls	Sum, ermngwms bh
pmI9ValAsls	ACCUMULATION	INT8	Total number of ASL-S measurements at -19 and -18 dbm0.	ECRouteParameterSet.pmI9ValAsls	Sum, ermngwms bh

7.10.3 Echo_Cancellation.Ericsson.UMTS.Echo_Return_Loss

Echo return loss data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmI10ValErl	ACCUMULATION	INT8	Total number of ERL	ECRouteParameterSet.pmI10ValErl	Sum, ermngwms

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			measurements at 18 and 19 db.		bh
pmI11ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 20 and 21 db.	ECRouteParameterSet.pmI11ValErl	Sum, erm gwms bh
pmI12ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 22 and 23 db.	ECRouteParameterSet.pmI12ValErl	Sum, erm gwms bh
pmI13ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 24 and 25 db.	ECRouteParameterSet.pmI13ValErl	Sum, erm gwms bh
pmI14ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 26 and 27 db.	ECRouteParameterSet.pmI14ValErl	Sum, erm gwms bh
pmI15ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 28 and 29 db.	ECRouteParameterSet.pmI15ValErl	Sum, erm gwms bh
pmI16ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 30 db.	ECRouteParameterSet.pmI16ValErl	Sum, erm gwms bh
pmI1ValErl	ACCUMULATION	INT8	Total number of Echo Return Loss (ERL) measurements at 0 and 1 db.	ECRouteParameterSet.pmI1ValErl	Sum, erm gwms bh
pmI2ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 2 and 3 db.	ECRouteParameterSet.pmI2ValErl	Sum, erm gwms bh
pmI3ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 4 and 5 db.	ECRouteParameterSet.pmI3ValErl	Sum, erm gwms bh
pmI4ValErl	ACCUMULATION	INT8	Total number of	ECRouteParameterSet.pmI	Sum,

	TION		ERL measurements at 6 and 7 db.	4ValErl	ermgwms bh
pmI5ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 8 and 9 db.	ECRouteParameterSet.pmI5ValErl	Sum, ermgwms bh
pmI6ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 10 and 11 db.	ECRouteParameterSet.pmI6ValErl	Sum, ermgwms bh
pmI7ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 12 and 13 db.	ECRouteParameterSet.pmI7ValErl	Sum, ermgwms bh
pmI8ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 14 and 15 db.	ECRouteParameterSet.pmI8ValErl	Sum, ermgwms bh
pmI9ValErl	ACCUMULATION	INT8	Total number of ERL measurements at 16 and 17 db.	ECRouteParameterSet.pmI9ValErl	Sum, ermgwms bh

7.10.4 Echo_Cancellation.Ericsson.UMTS.Pure_Delay

Pure delay data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmI10ValPd	ACCUMULATION	INT8	Total number of PD measurements between 72 and 79 ms.	ECRouteParameterSet.pmI10ValPd	Sum, ermgwms bh
pmI11ValPd	ACCUMULATION	INT8	Total number of PD measurements	ECRouteParameterSet.pmI11ValPd	Sum, ermgwms

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			between 80 and 87 ms.		bh
pmI12ValPd	ACCUMULATION	INT8	Total number of PD measurements between 88 and 95 ms.	ECRouteParameterSet.pmI12ValPd	Sum, ermngwms bh
pmI13ValPd	ACCUMULATION	INT8	Total number of PD measurements between 96 and 103 ms.	ECRouteParameterSet.pmI13ValPd	Sum, ermngwms bh
pmI14ValPd	ACCUMULATION	INT8	Total number of PD measurements between 104 and 111 ms.	ECRouteParameterSet.pmI14ValPd	Sum, ermngwms bh
pmI15ValPd	ACCUMULATION	INT8	Total number of PD measurements between 112 and 119 ms.	ECRouteParameterSet.pmI15ValPd	Sum, ermngwms bh
pmI16ValPd	ACCUMULATION	INT8	Total number of PD measurements between 120 and 127 ms.	ECRouteParameterSet.pmI16ValPd	Sum, ermngwms bh
pmI1ValPd	ACCUMULATION	INT8	Total number of Pure Delay (PD) measurements between 0 and 7 ms.	ECRouteParameterSet.pmI1ValPd	Sum, ermngwms bh
pmI2ValPd	ACCUMULATION	INT8	Total number of PD measurements between 8 and 15 ms.	ECRouteParameterSet.pmI2ValPd	Sum, ermngwms bh
pmI3ValPd	ACCUMULATION	INT8	Total number of PD measurements between 16 and 23 ms.	ECRouteParameterSet.pmI3ValPd	Sum, ermngwms bh
pmI4ValPd	ACCUMULATION	INT8	Total number of PD measurements between 24 and 31 ms.	ECRouteParameterSet.pmI4ValPd	Sum, ermngwms bh
pmI5ValPd	ACCUMULATION	INT8	Total number of	ECRouteParameterSet.pmI	Sum,

	TION		PD measurements between 32 and 39 ms.	5ValPd	ermgwmsbh
pmI6ValPd	ACCUMULATION	INT8	Total number of PD measurements between 40 and 47 ms.	ECRouteParameterSet.pmI6ValPd	Sum, ermgwmsbh
pmI7ValPd	ACCUMULATION	INT8	Total number of PD measurements between 48 and 55 ms.	ECRouteParameterSet.pmI7ValPd	Sum, ermgwmsbh
pmI8ValPd	ACCUMULATION	INT8	Total number of PD measurements between 56 and 63 ms.	ECRouteParameterSet.pmI8ValPd	Sum, ermgwmsbh
pmI9ValPd	ACCUMULATION	INT8	Total number of PD measurements between 64 and 71 ms.	ECRouteParameterSet.pmI9ValPd	Sum, ermgwmsbh
pmNInvalid	ACCUMULATION	INT8	Total number of invalid measurements.	ECRouteParameterSet.pmNInvalid	Sum, ermgwmsbh

7.11 Ethernet_Link Performance Indicators

This section shows the key performance indicators and other counters for the Ethernet_Link object, divided into the following sub-sections:

- [Ethernet_Link.Ericsson.UMTS.Interface_Traffic](#)

7.11.1 Ethernet_Link.Ericsson.UMTS.Interface_Traffic

Ethernet link interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfIfInDiscar	ACCUMULATION	INTEGER	The number	EthernetLink.pmNoOfIfInD	Sum

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ds	TION	ER	of input packets discarded due to resource limitations.	iscards	
pmNoOfIfInErrors	ACCUMULATION	INTEGER	The number of input packets discarded due to any error.	EthernetLink.pmNoOfIfInErrors	Sum
pmNoOfIfInNUcastPkts	ACCUMULATION	INTEGER	The number of input broadcast or multicast packets delivered to higher layer.	EthernetLink.pmNoOfIfInNUcastPkts	Sum
pmNoOfIfInUcastPkts	ACCUMULATION	INTEGER	The number of input unicast packets delivered to higher layer.	EthernetLink.pmNoOfIfInUcastPkts	Sum
pmNoOfIfOutDiscards	ACCUMULATION	INTEGER	The number of outbound packets discarded due to resource limitations.	EthernetLink.pmNoOfIfOutDiscards	Sum
pmNoOfIfOutNUcastPkts	ACCUMULATION	INTEGER	The number of output broadcast or multicast packets delivered to higher layer.	EthernetLink.pmNoOfIfOutNUcastPkts	Sum
pmNoOfIfOutUcastPkts	ACCUMULATION	INTEGER	The number of packets that higher-level protocols requested to	EthernetLink.pmNoOfIfOutUcastPkts	Sum

			be transmitted to a subnetwork-unicast address.		
--	--	--	---	--	--

7.12 Fast_Ethernet Performance Indicators

This section shows the key performance indicators and other counters for the Fast_Ethernet object, divided into the following sub-sections:

- [Fast_Ethernet.Ericsson.UMTS.Interface_Traffic](#)

7.12.1 Fast_Ethernet.Ericsson.UMTS.Interface_Traffic

Fast Ethernet interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
%_Rcvd_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, received IP datagrams	$100 * \{pmIfInDiscards\} / (\{pmIfInBroadcastPkts\} + \{pmIfInMulticastPkts\} + \{pmIfInUcastPkts\})$	Average, ermpiuldbh
%_Rcvd_Packets_Discard	PERCENTAGE	FLOAT	The ratio of discarded, received IP packets	$100 * \{pmIfInErrors\} / (\{pmIfInBroadcastPkts\} + \{pmIfInMulticastPkts\} + \{pmIfInUcastPkts\})$	Average, ermpiuldbh
%_Sent_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, sent IP datagrams	$100 * \{pmIfOutDiscards\} / (\{pmIfOutBroadcastPkts\} + \{pmIfOutMulticastPkts\} + \{pmIfOutUcastPkts\})$	Average, ermpiuldbh
%_Sent_Packets_Discard	PERCENTAGE	FLOAT	The ratio of discarded, sent IP packets	$100 * \{pmIfOutErrors\} / (\{pmIfOutBroadcastPkts\} + \{pmIfOutMulticastPkts\} + \{pmIfOutUcastPkts\})$	Average, ermpiuldbh
Avg_Rcvd_Bandwidth	INTENSITY	FLOAT	Average interface	$(\{pmIfInOctetsHi\} / (1000000 * \{pmIfInUcastPkts\}))$	Average, ermpiuldbh

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			received bandwidth	{measurement_seconds})) * 8	bh, tot, min, max
Avg_Tx_Bandwidth	INTENSITY	FLOAT	Average interface transmitted bandwidth	({pmIfOutOctetsHi} / (1000000 * {measurement_seconds})) * 8	Average, ermpiuld bh, tot, min, max
pmIfInBroadcastPkts	ACCUMULATION	INTEGER	The number of broadcast packets, delivered by this sublayer to a higher (sub-)layer, that were addressed to a broadcast address at this sublayer.	FastEthernet.pmIfInBroadcastPkts	Sum, ermpiuld bh
pmIfInDiscards	ACCUMULATION	INTEGER	The number of inbound packets that were chosen to be discarded even though no errors had been detected that prevented them from being delivered to a higher-layer protocol. One possible reason for discarding such a packet could be to free up buffer space.	FastEthernet.pmIfInDiscards	Sum, ermpiuld bh
pmIfInErrors	ACCUMULATION	INTEGER	Number of input packets discarded due to any error.	FastEthernet.pmIfInErrors	Sum, ermpiuld bh
pmIfInMulticastPkts	ACCUMULATION	INTEGER	The number of multicast packets, delivered by this sublayer to a	FastEthernet.pmIfInMulticastPkts	Sum, ermpiuld bh

			higher (sub-)layer, that were addressed to a multicast address at this sublayer.		
pmIfInOctetsHi	ACCUMULATION	INT8	The total number of octets transmitted out from the interface, including framing characters.	FastEthernet.TotIfInOctets	Sum, ermpiuld bh
pmIfInOctetsLo	ACCUMULATION	INT8	The total number of octets transmitted out from the interface, including framing characters.	FastEthernet.pmIfInOctets Lo	Sum, ermpiuld bh
pmIfInUcastPkts	ACCUMULATION	INTEGER	The number of unicast packets, delivered by this sublayer to a higher (sub-)layer, that were not addressed to a multicast or broadcast address at this sublayer.	FastEthernet.pmIfInUcast Pkts	Sum, ermpiuld bh
pmIfInUnknownProtos	ACCUMULATION	INTEGER	The number of packets received that had a protocol not	FastEthernet.pmIfInUnknownProtos	Sum, ermpiuld bh

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			supported or unknown.		
pmIfOutBroadcastPkts	ACCUMULATION	INTEGER	The total number of broadcast packets that higher-level protocols requested to be transmitted, and which were addressed to a broadcast address at this sublayer, including those that were discarded or not sent.	FastEthernet.pmIfOutBroadcastPkts	Sum, ermpiuld bh
pmIfOutDiscards	ACCUMULATION	INTEGER	The number of packets requested to be transmitted, but which were discarded due to lack of resources (for example, buffer space).	FastEthernet.pmIfOutDiscards	Sum, ermpiuld bh
pmIfOutErrors	ACCUMULATION	INTEGER	The number of packets requested to be transmitted, but which were discarded due to errors found in the packets.	FastEthernet.pmIfOutErrors	Sum, ermpiuld bh
pmIfOutMulticastPkts	ACCUMULATION	INTEGER	The total number of multicast packets that higher-level protocols requested to be	FastEthernet.pmIfOutMulticastPkts	Sum, ermpiuld bh

			transmitted, and which were addressed to a multicast address at this sublayer, including those that were discarded or not sent.		
pmIfOutOctetsHi	ACCUMULATION	INT8	The total number of octets transmitted out from the interface, including framing characters.	FastEthernet.TotIfOutOctets	Sum, ermpiuldbh
pmIfOutOctetsLo	ACCUMULATION	INT8	The total number of octets transmitted out from the interface, including framing characters.	FastEthernet.pmIfOutOctetsLo	Sum, ermpiuldbh
pmIfOutUcastPkts	ACCUMULATION	INTEGER	The total number of unicast packets that higher-level protocols requested to be transmitted, and which were not addressed to a multicast or broadcast address at this sublayer,	FastEthernet.pmIfOutUcastPkts	Sum, ermpiuldbh

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			including those that were discarded or not sent.		
Tot_Rcvd_IP_Datagrams	ACCUMULATION	INTEGER	The total number of received IP datagrams	{pmIfInBroadcastPkts} + {pmIfInMulticastPkts} + {pmIfInUcastPkts}	Sum, ermpiuldbh
Tot_Sent_IP_Datagrams	ACCUMULATION	INTEGER	The total number of sent IP datagrams	{pmIfOutBroadcastPkts} + {pmIfOutMulticastPkts} + {pmIfOutUcastPkts} - {pmIfOutDiscards} - {pmIfOutErrors}	Sum, ermpiuldbh
TotIfInOctetsLo	ACCUMULATION	INT8	Obsolete in R5.1 and replace by pmIfInOctetsHi: Total number of octets transmitted out from the interface, including framing characters.	(2147483648.0 * {pmIfInOctetsHi}) + {pmIfInOctetsLo}	Sum, ermpiuldbh
TotIfOutOctetsLo	ACCUMULATION	INT8	Obsolete in R5.1 and replace by pmIfOutOctetsHi: Total number of octets transmitted out on the interface, including framing characters.	(2147483648.0 * {pmIfOutOctetsHi}) + {pmIfOutOctetsLo}	Sum, ermpiuldbh

7.13 Gcp_Association Performance Indicators

This section shows the key performance indicators and other counters for the Gcp_Association object, divided into the following sub-sections:

- [Gcp_Association.Ericsson.UMTS.Gcp_Assoc_Quality](#)

7.13.1 Gcp_Association.Ericsson.UMTS.Gcp_Assoc_Quality

GCP association quality

KPI	Type	Data Type	Description	Derivation	Aggregation
%_pmNoOfSctpSuccessAssocEstablish	PERCENTAGE	FLOAT	Failure rate of established signalling associations.	$100 * \frac{\text{pmNoOfSctpSuccessAssocEstablish}}{(\text{pmNoOfSctpSuccessAssocEstablish} + \text{pmNoOfSctpUnsuccessAssocEstablish})}$	Average
pmNoOfSctpCommunicationErr	ACCUMULATION	INTEGER	The number of SCTP communication errors.	MgwApplication_GcpAssociation.p mNoOfSctpCommunicationErr	Sum
pmNoOfSctpCommunicationLost	ACCUMULATION	INTEGER	The number of communication lost indications from the SCTP.	MgwApplication_GcpAssociation.p mNoOfSctpCommunicationLost	Sum
pmNoOfSctpCongestionCeasedIndication	ACCUMULATION	INTEGER	The number of SCTP data sending resumes.	MgwApplication_GcpAssociation.p mNoOfSctpCongestionCeasedIndication	Sum

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pmNoOfSctpCongestionIndication	ACCUMULATION	INTEGER	The number of SCTP data sending stops due to buffer overflow.	MgwApplication_GcpAssociation.p mNoOfSctpCongestionIndication	Sum
pmNoOfSctpGcpMsgDiscarded	ACCUMULATION	INTEGER	The number of discarded GCP messages that the STC was not able to send over SCTP.	MgwApplication_GcpAssociation.p mNoOfSctpGcpMsgDiscarded	Sum
pmNoOfSctpMaxTrialsForAssocEstabReached	ACCUMULATION	INTEGER	The number of times the maximum limit to establish an association has been reached.	MgwApplication_GcpAssociation.p mNoOfSctpMaxTrialsForAssocEstabReached	Sum
pmNoOfSctpNetworkStatusChange	ACCUMULATION	INTEGER	The number of SCTP network status	MgwApplication_GcpAssociation.p mNoOfSctpNetworkStatusChange	Sum

			changes .		
pmNoOfSctpSendFailure	ACCUMULATION	INTEGER	The number of SCTP sending failures.	MgwApplication_GcpAssociation.p mNoOfSctpSendFailure	Sum
pmNoOfSctpSuccessAssocAbort	ACCUMULATION	INTEGER	The number of successful abortions of signaling associations.	MgwApplication_GcpAssociation.p mNoOfSctpSuccessAssocAbort	Sum
pmNoOfSctpSuccessAssocEstablish	ACCUMULATION	INTEGER	The number of successfully established signaling associations.	MgwApplication_GcpAssociation.p mNoOfSctpSuccessAssocEstablish	Sum
pmNoOfSctpUnsuccessAssocEstablish	ACCUMULATION	INTEGER	The number of unsuccessfully established signaling	MgwApplication_GcpAssociation.p mNoOfSctpUnsuccessAssocEstablish	Sum

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			ng associat ions.		
Tot_associations_attempts	ACCUMU LATION	INT8	Total number of signalli ng associat ions attempt s.	{pmNoOfSctpSuccessAssocAbort} + {pmNoOfSctpSuccessAssocEstabli sh} + {pmNoOfSctpUnsuccessAssocEsta blish}	Sum

7.14 GigabitEthernet Performance Indicators

This section shows the key performance indicators and other counters for the GigabitEthernet object, divided into the following sub-sections:

- [GigabitEthernet.Ericsson.UMTS.Interface_Traffic](#)

7.14.1 GigabitEthernet.Ericsson.UMTS.Interface_Traffic

Gigabit Interface statistics

KPI	Type	Data Type	Description	Derivation	Aggre gation
pmDot1qTpVlanPortInDiscardsLink1	ACCUMU LATION	INTE GER	The number of valid frames discarded due to VLAN reasons (e.g. VLAN id not configured).	Ess_GigaBitEthernet.pmDot1qTpVlanPortInDiscardsLink1	Sum, ermpiu ldbh
pmDot1qTpVlanPortInDiscardsLink2	ACCUMU LATION	INTE GER	The number of valid frames discarded due to VLAN reasons (e.g. VLAN id not configured).	Ess_GigaBitEthernet.pmDot1qTpVlanPortInDiscardsLink2	Sum, ermpiu ldbh
pmIfInBroadcastPktsLink1	ACCUMU LATION	INTE GER	The number of packets received with	Ess_GigaBitEthernet.pmIfInBroadcastPktsLink1	Sum, ermpiu ldbh

			a broadcast address delivered to a higher sub-layer.		
pmIfInBroadcastPktsLink2	ACCUMULATION	INTEGER	The number of packets received with a broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfInBroadcastPktsLink2	Sum, ermpiu ldbh
pmIfInDiscardsLink1	ACCUMULATION	INTEGER	The number of received packets discarded due to lack of resources (e.g. buffer space).	Ess_GigaBitEthernet.pmIfInDiscardsLink1	Sum, ermpiu ldbh
pmIfInDiscardsLink2	ACCUMULATION	INTEGER	The number of received packets discarded due to lack of resources (e.g. buffer space).	Ess_GigaBitEthernet.pmIfInDiscardsLink2	Sum, ermpiu ldbh
pmIfInErrorsLink1	ACCUMULATION	INTEGER	The number of packets received which were discarded due to errors found in the packets.	Ess_GigaBitEthernet.pmIfInErrorsLink1	Sum, ermpiu ldbh
pmIfInErrorsLink2	ACCUMULATION	INTEGER	The number of packets received which were	Ess_GigaBitEthernet.pmIfInErrorsLink2	Sum, ermpiu ldbh

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			discarded due to errors found in the packets.		
pmIfInMulticastPktsLink1	ACCUMULATION	INTEGER	The number of packets received with a multicast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfInMulticastPktsLink1	Sum, ermpiu ldbh
pmIfInMulticastPktsLink2	ACCUMULATION	INTEGER	The number of packets received with a broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfInMulticastPktsLink2	Sum, ermpiu ldbh
pmIfInOctetsLink1Hi	ACCUMULATION	INT8	The total number of octets received on the interface, including framing characters.	Ess_GigaBitEthernet.pmIfInOctetsLink1Hi	Sum, ermpiu ldbh
pmIfInOctetsLink1Lo	ACCUMULATION	INT8	The total number of octets received on the interface, including framing characters.	Ess_GigaBitEthernet.pmIfInOctetsLink1Lo	Sum, ermpiu ldbh
pmIfInOctetsLink2Hi	ACCUMULATION	INT8	The total number of octets received on the interface, including framing characters.	Ess_GigaBitEthernet.pmIfInOctetsLink2Hi	Sum, ermpiu ldbh

pmIfInOctetsLink2Lo	ACCUMULATION	INT8	The total number of octets received on the interface, including framing characters.	Ess_GigaBitEthernet.pmIfInOctetsLink2Lo	Sum, ermpiu ldbh
pmIfInUcastPktsLink1	ACCUMULATION	INTEGER	The number of packets received which was not addressed to a broadcast or broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfInUcastPktsLink1	Sum, ermpiu ldbh
pmIfInUcastPktsLink2	ACCUMULATION	INTEGER	The number of packets received which was not addressed to a broadcast or broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfInUcastPktsLink2	Sum, ermpiu ldbh
pmIfInUnknownProtosLink1	ACCUMULATION	INTEGER	The number of packets received which had a protocol not supported or unknown.	Ess_GigaBitEthernet.pmIfInUnknownProtosLink1	Sum, ermpiu ldbh
pmIfInUnknownProto	ACCUMULATION	INTEGER	The number of	Ess_GigaBitEthernet.pmIfInUn	Sum,

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sLink2	LATION	GER	packets received which had a protocol not supported or unknown.	knownProtosLink2	ermpiu ldbh
pmIfOutBroadcastPktsLink1	ACCUMULATION	INTEGER	The number of packets requested to be transmitted with a broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutBroadcastPktsLink1	Sum, ermpiu ldbh
pmIfOutBroadcastPktsLink2	ACCUMULATION	INTEGER	The number of packets requested to be transmitted with a broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutBroadcastPktsLink2	Sum, ermpiu ldbh
pmIfOutDiscardsLink1	ACCUMULATION	INTEGER	The number of packets requested to be transmitted discarded due to lack of resources (e.g. buffer space).	Ess_GigaBitEthernet.pmIfOutDiscardsLink1	Sum, ermpiu ldbh
pmIfOutDiscardsLink2	ACCUMULATION	INTEGER	The number of packets requested to be transmitted discarded due to lack of resources (e.g. buffer space).	Ess_GigaBitEthernet.pmIfOutDiscardsLink2	Sum, ermpiu ldbh
pmIfOutErrorsLink1	ACCUMULATION	INTEGER	The number of	Ess_GigaBitEthernet.pmIfOutEr	Sum,

	LATION	GER	packets requested to be transmitted discarded due to errors found in the packets.	rorsLink1	ermpiu ldbh
pmIfOutErrorsLink2	ACCUMU LATION	INTE GER	The number of packets requested to be transmitted discarded due to errors found in the packets.	Ess_GigaBitEthernet.pmIfOutEr rorsLink2	Sum, ermpiu ldbh
pmIfOutMulticastPkts Link1	ACCUMU LATION	INTE GER	The number of packets requested to be transmitted with a multicast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutM ulticastPktsLink1	Sum, ermpiu ldbh
pmIfOutMulticastPkts Link2	ACCUMU LATION	INTE GER	The number of packets requested to be transmitted with a multicast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutM ulticastPktsLink2	Sum, ermpiu ldbh
pmIfOutOctetsLink1 Hi	ACCUMU LATION	INT8	The total number of octets transmitted out of the	Ess_GigaBitEthernet.pmIfOutO ctetsLink1Hi	Sum, ermpiu ldbh

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			interface, including framing characters.		
pmIfOutOctetsLink1Lo	ACCUMULATION	INT8	The total number of octets transmitted out of the interface, including framing characters.	Ess_GigaBitEthernet.pmIfOutOctetsLink1Lo	Sum, ermpiu ldbh
pmIfOutOctetsLink2Hi	ACCUMULATION	INT8	The total number of octets transmitted out of the interface, including framing characters.	Ess_GigaBitEthernet.pmIfOutOctetsLink2Hi	Sum, ermpiu ldbh
pmIfOutOctetsLink2Lo	ACCUMULATION	INT8	The total number of octets transmitted out of the interface, including framing characters.	Ess_GigaBitEthernet.pmIfOutOctetsLink2Lo	Sum, ermpiu ldbh
pmIfOutUcastPktsLink1	ACCUMULATION	INTEGER	The number of packets requested to be transmitted which was not addressed to a broadcast or broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutUcastPktsLink1	Sum, ermpiu ldbh

pmIfOutUcastPktsLink2	ACCUMULATION	INTEGER	The number of packets requested to be transmitted which was not addressed to a broadcast or broadcast address delivered to a higher sub-layer.	Ess_GigaBitEthernet.pmIfOutUcastPktsLink2	Sum, ermpiu ldbh
Received_Bandwidth_Link1	INTENSITY	FLOAT	Average received bandwidth on link 1	$((2147483648.0 * \{pmIfInOctetsLink1Hi\}) + \{pmIfInOctetsLink1Lo\}) / (1000000 * \{measurement_seconds\}) * 8$	Average, ermpiu ldbh, tot, min, max
Received_Bandwidth_Link2	INTENSITY	FLOAT	Average received bandwidth on link 2	$((2147483648.0 * \{pmIfInOctetsLink2Hi\}) + \{pmIfInOctetsLink2Lo\}) / (1000000 * \{measurement_seconds\}) * 8$	Average, ermpiu ldbh, tot, min, max
TotIfInOctetsLink1	ACCUMULATION	INT8	Link1: Total number of octets received on the interface, including framing characters. (pmIfInOctetsLink1Hi + pmIfInOctetsLink1Lo)	$(2147483648.0 * \{pmIfInOctetsLink1Hi\}) + \{pmIfInOctetsLink1Lo\}$	Sum, ermpiu ldbh

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TotIfInOctetsLink2	ACCUMULATION	INT8	Link2: Total number of octets received on the interface, including framing characters. (pmIfInOctetsLink2Hi + pmIfInOctetsLink2Lo)	$(2147483648.0 * \{pmIfInOctetsLink2Hi\}) + \{pmIfInOctetsLink2Lo\}$	Sum, ermpiu ldbh
TotIfOutOctetsLink1	ACCUMULATION	INT8	Link1: Total number of octets transmitted out of the interface, including framing characters. (pmIfOutOctetsLink1Hi+pmIfOutOctetsLink1Lo)	$(2147483648.0 * \{pmIfOutOctetsLink1Hi\}) + \{pmIfOutOctetsLink1Lo\}$	Sum, ermpiu ldbh
TotIfOutOctetsLink2	ACCUMULATION	INT8	Link2: Total number of octets transmitted out of the interface, including framing characters. (pmIfOutOctetsLink2Hi+pmIfOutOctetsLink2Lo)	$(2147483648.0 * \{pmIfOutOctetsLink2Hi\}) + \{pmIfOutOctetsLink2Lo\}$	Sum, ermpiu ldbh
Transmitted_Bandwidth_Link1	INTENSITY	FLOAT	Average transmitted bandwidth on link 1	$((2147483648.0 * \{pmIfOutOctetsLink1Hi\}) + \{pmIfOutOctetsLink1Lo\}) / (1000000 * \{measurement_seconds\}) * 8$	Average, ermpiu ldbh, tot, min,

					max
Transmitted_Bandwidth_Link2	INTENSITY	FLOAT	Average transmitted bandwidth on link 2	$((2147483648.0 * \{pmIfOutOctetsLink2Hi\}) + \{pmIfOutOctetsLink2Lo\}) / (1000000 * \{measurement_seconds\}) * 8$	Average, ermpiu dbh, tot, min, max

7.15 IMA Performance Indicators

This section shows the key performance indicators and other counters for the IMA object, divided into the following sub-sections:

- [IMA.Ericsson.UMTS.IMA_Group](#)
- [IMA.Ericsson.UMTS.IMA_Link](#)

7.15.1 IMA.Ericsson.UMTS.IMA_Group

IMA group data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmGrFcFe	ACCUMULATION	INT8	Total number of far end group failure condition entrances.	ImaGroup.pmGrFcFe	Sum, ermgwms bh
pmGrFc	ACCUMULATION	INT8	Total number of local end group failure condition entrances.	ImaGroup.pmGrFc	Sum, ermgwms bh
pmGrUasIma	ACCUMULATION	INT8	Total number of one second intervals, where the Group Traffic State Machine (GTSM) is down.	ImaGroup.pmGrUasIma	Sum, ermgwms bh

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7.15.2 IMA.Ericsson.UMTS.IMA_Link

IMA link data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmIvIma	ACCUMULATION	INT8	Total number of IMA Control Protocol (ICP) Violations.	ImaLink.pmIvIma	Sum, ermgwms bh
pmOifIma	ACCUMULATION	INT8	Total number of Out of IMA Frame (OIF) anomalies.	ImaLink.pmOifIma	Sum, ermgwms bh
pmRxFcFe	ACCUMULATION	INT8	Total number of far end Rx link failures.	ImaLink.pmRxFcFe	Sum, ermgwms bh
pmRxFc	ACCUMULATION	INT8	Total number of local end Rx link failures.	ImaLink.pmRxFc	Sum, ermgwms bh
pmRxStuffIma	ACCUMULATION	INT8	Total number of stuff events inserted in the receive direction, except during SES-IMA or UAS-IMA conditions.	ImaLink.pmRxStuffIma	Sum, ermgwms bh
pmRxUusImaFe	ACCUMULATION	INT8	Total number of Rx Unusable Seconds indications from the Rx far end LSM.	ImaLink.pmRxUusImaFe	Sum, ermgwms bh
pmRxUusIma	ACCUMULATION	INT8	Total number of Rx Unusable Seconds.	ImaLink.pmRxUusIma	Sum, ermgwms bh
pmSesImaFe	ACCUMULATION	INT8	Total number of one second intervals containing one or more Remote Defect Indicator	ImaLink.pmSesImaFe	Sum, ermgwms bh

			for IMA (RDI-IMA) defects, except during Unavailable Seconds for IMA at far end (UASIMA-FE) conditions.		
pmSesIma	ACCUMULATION	INT8	Total number of one second intervals containing 30% of the ICP cells counted as IV-IMAs or one or more link defects, Loss of IMA Frame (LIF) or Link Out of Delay Synchronization (LODS) defects, except during UAS-IMA conditions.	ImaLink.pmSesIma	Sum, ermgwms bh
pmTxFcFe	ACCUMULATION	INT8	Total number of far end Tx link failures.	ImaLink.pmTxFcFe	Sum, ermgwms bh
pmTxFc	ACCUMULATION	INT8	Total number of local end Tx link failures.	ImaLink.pmTxFc	Sum, ermgwms bh
pmTxStuffIma	ACCUMULATION	INT8	Total number of stuff events inserted in the transmit direction.	ImaLink.pmTxStuffIma	Sum, ermgwms bh
pmTxUusImaFe	ACCUMULATION	INT8	Total number of Tx Unusable Second indications from the Tx far	ImaLink.pmTxUusImaFe	Sum, ermgwms bh

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			end LSM.		
pmTxUusIma	ACCUMULATION	INT8	Total number of Tx Unusable Seconds.	ImaLink.pmTxUusIma	Sum, ermgwms bh
pmUasImaFe	ACCUMULATION	INT8	Total number of Unavailable Seconds at far end.	ImaLink.pmUasImaFe	Sum, ermgwms bh
pmUasIma	ACCUMULATION	INT8	Total number of Unavailable Seconds at local end.	ImaLink.pmUasIma	Sum, ermgwms bh

7.16 Interactive_Messaging Performance Indicators

This section shows the key performance indicators and other counters for the Interactive_Messaging object, divided into the following sub-sections:

- [Interactive_Messaging.Ericsson.UMTS.Interactive_Message](#)

7.16.1 Interactive_Messaging.Ericsson.UMTS.Interactive_Message

Interactive message data.

KPI	Type	Data Type	Description	Derivation	Aggregation
%_pmCallAttempts	PERCENTAGE	FLOAT	Invocations success rate of this message.	$100 * \{pmCallAttempts\} / (\{pmCallAttempts\} + \{pmFailedCallAttempts\})$	Average, ermgwms bh
pmCallAttempts	ACCUMULATION	INT8	Total number of successful invocations of this message.	InteractiveMessaging_ImBasicMessage.pmCallAttempts or InteractiveMessaging_ImMessageComposition.pmCallAttempts or InteractiveMessaging_ImVariableMessage.pmCallAttempts	Sum, ermgwms bh
pmFailedCallAttempts	ACCUMULATION	INT8	Total number of unsuccessful invocations of this message.	InteractiveMessaging_ImBasicMessage.pmFailedCallAttempts or InteractiveMessaging_ImMessageComposition.pmFailedCallAttempts or InteractiveMessaging_ImVariableMessage.pmFailedCallAttempts	Sum, ermgwms bh

7.17 Ip_Atm_Link Performance Indicators

This section shows the key performance indicators and other counters for the Ip_Atm_Link object, divided into the following sub-sections:

- [Ip_Atm_Link.Ericsson.UMTS.Link_Traffic](#)

7.17.1 Ip_Atm_Link.Ericsson.UMTS.Link_Traffic

IP on ATM link statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfIfInDiscards	ACCUMULATION	INTEGER	The number of input packets discarded due to resource limitations.	IpAtmLink.pmNoOfIfInDiscards	Sum
pmNoOfIfInErrors	ACCUMULATION	INTEGER	The number of input packets discarded due to any error.	IpAtmLink.pmNoOfIfInErrors	Sum
pmNoOfIfInNUcastPkts	ACCUMULATION	INTEGER	The number of input broadcast or multicast packets delivered to higher layer.	IpAtmLink.pmNoOfIfInNUcastPkts	Sum
pmNoOfIfInUcastPkts	ACCUMULATION	INTEGER	The number of input unicast packets delivered to higher layer.	IpAtmLink.pmNoOfIfInUcastPkts	Sum
pmNoOfIfOutDiscards	ACCUMULATION	INTEGER	The number of outbound packets	IpAtmLink.pmNoOfIfOutDiscards	Sum

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			discarded due to resource limitations.		
pmNoOfIfOutNUcastPkts	ACCUMULATION	INTEGER	The number of output broadcast or multicast packets delivered to higher layer.	IpAtmLink.pmNoOfIfOutNUcastPkts	Sum
pmNoOfIfOutUcastPkts	ACCUMULATION	INTEGER	The number of packets that higher-level protocols requested to be transmitted to a subnetwork-unicast address.	IpAtmLink.pmNoOfIfOutUcastPkts	Sum

7.18 IP_Interface Performance Indicators

This section shows the key performance indicators and other counters for the IP_Interface object, divided into the following sub-sections:

- [IP_Interface.Ericsson.UMTS.GigabitEthernet_Interface](#)
- [IP_Interface.Ericsson.UMTS.IP_Payload](#)

7.18.1 IP_Interface.Ericsson.UMTS.GigabitEthernet_Interface

GigabitEthernet interface IP statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
%_Rcvd_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded , received IP datagrams	$100 * \{\text{pmIfStatsIpInDiscards}\} / \{\text{pmIfStatsIpInReceives}\}$	Average
_	PERCENTAGE	FLOAT	The ratio	$100 *$	Average

%_Received_IP_Packet_Err_Intf	GE	T	of errored, received IP packets at Interface	$(\{pmIfStatsIpAddrErrors\} + \{pmIfStatsIpInHdrErrors\} + \{pmIfStatsIpUnknownProtos\}) / \{pmIfStatsIpInReceives\}$	
%_Sent_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, sent IP datagrams	$100 * \{pmIfStatsIpOutDiscards\} / \{pmIfStatsIpOutRequests\}$	Average
pmDot1qTpVlanPortInFrames	ACCUMULATION	INTEGER	The number of valid frames received on this port belonging to this VLAN and with a protocol processed by the local forwarding process.	Ess_IpInterface.pmDot1qTpVlanPortInFrames	Sum
pmDot1qTpVlanPortOutFrames	ACCUMULATION	INTEGER	The number of valid frames transmitted from this port	Ess_IpInterface.pmDot1qTpVlanPortOutFrames	Sum

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			belongin g to this VLAN.		
pmIfStatsIpAddrErrors	ACCUMUL ATION	INTE GER	Number of received IP datagram s discarded due to invalid header address.	Ess_IpInterface.pmIfStatsIpAd drErrors	Sum
pmIfStatsIpInDiscards	ACCUMUL ATION	INTE GER	Number of received IP datagram s discarded due to resource problems (for example, lack of buffer space).	Ess_IpInterface.pmIfStatsIpInD iscards	Sum
pmIfStatsIpInHdrErrors	ACCUMUL ATION	INTE GER	Number of received IP datagram s with an error in the header.	Ess_IpInterface.pmIfStatsIpInH drErrors	Sum
pmIfStatsIpInReceives	ACCUMUL ATION	INTE GER	Number of received IP datagram	Ess_IpInterface.pmIfStatsIpInR eceives	Sum

			s, including those with errors.		
pmIfStatsIpOutDiscards	ACCUMULATION	INTEGER	The number of IP datagrams that should be sent, but which were discarded due to resource problems (for example, lack of buffer space).	Ess_IpInterface.pmIfStatsIpOutDiscards	Sum
pmIfStatsIpOutRequests	ACCUMULATION	INTEGER	Number of IP datagrams requested by the IP user protocol to be processed for sending.	Ess_IpInterface.pmIfStatsIpOutRequests	Sum
pmIfStatsIpUnknownProtos	ACCUMULATION	INTEGER	Number of IP datagrams	Ess_IpInterface.pmIfStatsIpUnknownProtos	Sum

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			received, with an unknown or not supported protocol.		
pmNoOfFailedPingsDefaultRouter0	ACCUMULATION	INTEGER	The total number of failed pings towards the defaultRouter0 on the active link only. The counter value survives the link switch when applicable.	Ess_IpInterface.pmNoOfFailedPingsDefaultRouter0	Sum
pmNoOfFailedPingsDefaultRouter1	ACCUMULATION	INTEGER	The total number of failed pings towards the defaultRouter1 on the active link only. The counter value survives the link switch when applicable.	Ess_IpInterface.pmNoOfFailedPingsDefaultRouter1	Sum

pmNoOfFailedPingsDefaultRouter2	ACCUMULATION	INTEGER	The total number of failed pings towards the defaultRouter2 on the active link only. The counter value survives the link switch when applicable.	Ess_IpInterface.pmNoOfFailedPingsDefaultRouter2	Sum
Tot_IP_Datagram_Sent	ACCUMULATION	INTEGER	The total number of sent IP datagrams	{pmIfStatsIpOutRequests} - {pmIfStatsIpOutDiscards}	Sum

7.18.2 IP_Interface.Ericsson.UMTS.IP_Payload

Payload data

KPI	Type	Data Type	Description	Derivation	Aggregation
%_Rcvd_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, received IP datagrams	$100 * \frac{\{pmIpInDiscards\}}{\{pmIpInReceives\}}$	Average
%_Received_IP_Packet_Err_Host	PERCENTAGE	FLOAT	The ratio of errored, received IP packets at	$100 * ((\{pmIpInAddrErrors\} + \{pmIpInHdrErrors\} + \{pmIpInUnknownProtos\}) / \{pmIpInReceives\})$	Average

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			Host		
%_Sent_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, transmitted IP datagrams	$100 * \{\text{pmIpOutDiscards}\} / \{\text{pmIpOutRequests}\}$	Average
pmIcmpInDestUnreachs	ACCUMULATION	INT8	Total number of ICMP Destination Unreachable messages received.	IpSystem_IpAccessHostEt.pmIcmpInDestUnreachs or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIcmpInDestUnreachs or IpSystem_IpAccessHostGpb.pmIcmpInDestUnreachs	Sum
pmIcmpInEchoReps	ACCUMULATION	INTEGER	The number of received ICMP Echo Reply messages.	IpSystem_IpAccessHostEt.pmIcmpInEchoReps	Sum
pmIcmpInEchos	ACCUMULATION	INTEGER	The number of received ICMP Echo Request messages.	IpSystem_IpAccessHostEt.pmIcmpInEchos	Sum
pmIcmpInErrors	ACCUMULATION	INT8	Total number of ICMP messages which the entity received but determined as having ICMP-specific errors.	IpSystem_IpAccessHostEt.pmIcmpInErrors or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIcmpInErrors or IpSystem_IpAccessHostGpb.pmIcmpInErrors	Sum
pmIcmpInMsgs	ACCUMULATION	INT8	Total number of ICMP messages which the entity received.	IpSystem_IpAccessHostEt.pmIcmpInMsgs or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIcmpInMsgs or IpSystem_IpAccessHostGpb.pmIcmpInMsgs	Sum

pmIcmpInParam Probs	ACCUMULATION	INTEGER	The number of received ICMP messages indicating Parameter Problem.	IpSystem_IpAccessHostEt.pmIcmpInParamProbs	Sum
pmIcmpInRedirects	ACCUMULATION	INTEGER	The number of received ICMP Redirect messages.	IpSystem_IpAccessHostEt.pmIcmpInRedirects	Sum
pmIcmpInSrcQuenches	ACCUMULATION	INTEGER	The number of received ICMP Source Quench messages.	IpSystem_IpAccessHostEt.pmIcmpInSrcQuenches	Sum
pmIcmpInTimeExcds	ACCUMULATION	INTEGER	The number of received ICMP Time Exceeded messages.	IpSystem_IpAccessHostEt.pmIcmpInTimeExcds	Sum
pmIcmpOutDestUnreachs	ACCUMULATION	INT8	Total number of ICMP Destination Unreachable messages sent.	IpSystem_IpAccessHostEt.pmIcmpOutDestUnreachs or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIcmpOutDestUnreachs or IpSystem_IpAccessHostGpb.pmIcmpOutDestUnreachs	Sum
pmIcmpOutEchoReps	ACCUMULATION	INTEGER	The number of sent ICMP Echo Reply messages.	IpSystem_IpAccessHostEt.pmIcmpOutEchoReps	Sum
pmIcmpOutEchoes	ACCUMULATION	INTEGER	The number of sent	IpSystem_IpAccessHostEt.pmIcmpOutEchos	Sum

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			ICMP Echo Request messages.		
pmIcmpOutErrors	ACCUMULATION	INTEGER	The number of ICMP messages not sent out due to internal capacity problem.	IpSystem_IpAccessHostEt.pmIcmpOutErrors	Sum
pmIcmpOutMsgs	ACCUMULATION	INT8	Total number of ICMP messages which this entity attempted to send.	IpSystem_IpAccessHostEt.pmIcmpOutMsgs or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIcmpOutMsgs or IpSystem_IpAccessHostGpb.pmIcmpOutMsgs	Sum
pmIcmpOutParamProbs	ACCUMULATION	INTEGER	The number of sent ICMP messages indicating problem with the header parameters (e.g incorrect arguments in an option) such that it cannot complete processing the datagram and it must discard the datagram.	IpSystem_IpAccessHostEt.pmIcmpOutParamProbs	Sum
pmIpInAddrErrors	ACCUMULATION	INT8	Total number of	IpSystem_IpAccessHostEt.pmIpInAddrErrors or	Sum

			input datagrams discarded because the IP address in their IP headers destination field was not a valid address to be received at this entity.	IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInAddrErrors or IpSystem_IpAccessHostGpb.pmIpInAddrErrors	
pmIpInDelivers	ACCUMULATION	INT8	Total number of input datagrams successfully delivered to IP user-protocols (including ICMP).	IpSystem_IpAccessHostEt.pmIpInDelivers or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInDelivers or IpSystem_IpAccessHostGpb.pmIpInDelivers	Sum
pmIpInDiscards	ACCUMULATION	INTEGER	The number of input IP datagrams, for which no problems were encountered that prevent their continued processing, but which were discarded, for example, due to lack	IpSystem_IpAccessHostEt.pmIpInDiscards or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInDiscards or IpSystem_IpAccessHostGpb.pmIpInDiscards	Sum

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			of buffer space. Note that this counter does not include any datagrams discarded while awaiting reassembly.		
pmIpInHdrErrors	ACCUMULATION	INT8	Total number of input datagrams discarded due to errors in their IP headers.	IpSystem_IpAccessHostEt.pmIpInHdrErrors or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInHdrErrors or IpSystem_IpAccessHostGpb.pmIpInHdrErrors	Sum
pmIpInReceives	ACCUMULATION	INT8	Total number of input datagrams received from interfaces.	IpSystem_IpAccessHostEt.pmIpInReceives or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInReceives or IpSystem_IpAccessHostGpb.pmIpInReceives	Sum
pmIpInUnknown Protos	ACCUMULATION	INT8	Total number of locally-addressed datagrams received successfully but discarded because of an unknown or unsupported protocol.	IpSystem_IpAccessHostEt.pmIpInUnknownProtos or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpInUnknownProtos or IpSystem_IpAccessHostGpb.pmIpInUnknownProtos	Sum
pmIpOutDiscards	ACCUMULATION	INTEGER	The number of output IP datagrams,	IpSystem_IpAccessHostEt.pmIpOutDiscards or IpSystem_UdpHostMainMsb_Ip	Sum

			for which no problem was encountered to prevent transmission to their destination, but which were discarded (for example, due to lack of buffer space). Note that this counter includes datagrams counted in ipForwData grams, if any such packets met this (discretionary) discard criterion.	AccessUdpHostMsb.pmIpOutDiscards or IpSystem_IpAccessHostGpb.pmlpOutDiscards	
pmIpOutRequests	ACCUMULATION	INT8	Total number of IP datagrams which local IP userprotocols (including ICMP) supplied to IP in	IpSystem_IpAccessHostEt.pmIpOutRequests or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmIpOutRequests or IpSystem_IpAccessHostGpb.pmlpOutRequests	Sum

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			requests for transmission		
pmUdpInDatagrams	ACCUMULATION	INT8	Total number of UDP datagrams delivered to UDP users.	IpSystem_IpAccessHostEt.pmUdpInDatagrams or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmUdpInDatagrams or IpSystem_IpAccessHostGpb.pmUdpInDatagrams	Sum
pmUdpInErrors	ACCUMULATION	INT8	Total number of received UDP datagrams that could not be delivered for reasons other than the lack of an application at the destination port.	IpSystem_IpAccessHostEt.pmUdpInErrors or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmUdpInErrors or IpSystem_IpAccessHostGpb.pmUdpInErrors	Sum
pmUdpNoPorts	ACCUMULATION	INT8	Total number of received UDP datagrams for which there was no application at the destination port.	IpSystem_IpAccessHostEt.pmUdpNoPorts or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmUdpNoPorts or IpSystem_IpAccessHostGpb.pmUdpNoPorts	Sum
pmUdpOutDatagrams	ACCUMULATION	INT8	Total number of UDP datagrams sent from this entity.	IpSystem_IpAccessHostEt.pmUdpOutDatagrams or IpSystem_UdpHostMainMsb_IpAccessUdpHostMsb.pmUdpOutDatagrams or IpSystem_IpAccessHostGpb.pm	Sum

				UdpOutDatagrams	
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7.19 Ip_Protocol_Layer Performance Indicators

This section shows the key performance indicators and other counters for the Ip_Protocol_Layer object, divided into the following sub-sections:

- [Ip_Protocol_Layer.Ericsson.UMTS.Interface_Traffic](#)

7.19.1 Ip_Protocol_Layer.Ericsson.UMTS.Interface_Traffic

IP interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfHdrErrors	ACCUMULATION	INTEGER	The number of datagrams discarded due to format error.	ManagedElement_Ip.pmNoOfHdrErrors	Sum
pmNoOfIpAddrErrors	ACCUMULATION	INTEGER	The number of datagrams discarded due to error in the address.	ManagedElement_Ip.pmNoOfIpAddrErrors	Sum
pmNoOfIpForwDatagrams	ACCUMULATION	INTEGER	The number of datagrams forwarded.	ManagedElement_Ip.pmNoOfIpForwDatagrams	Sum
pmNoOfIpInDiscards	ACCUMULATION	INTEGER	The number of datagrams discarded due to resource limitations.	ManagedElement_Ip.pmNoOfIpInDiscards	Sum
pmNoOfIpInReceives	ACCUMULATION	INTEGER	Total number of datagrams received.	ManagedElement_Ip.pmNoOfIpInReceives	Sum
pmNoOfIpOutDiscards	ACCUMULATION	INTEGER	The number of datagrams	ManagedElement_Ip.pmNoOfIpOutDiscards	Sum

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			discarded due to lack of resources.		
pmNoOfIpReasmOKs	ACCUMULATION	INTEGER	The number of datagrams successfully reassembled.	ManagedElement_Ip.pmNoOfIpReasmOKs	Sum
pmNoOfIpReasmReqds	ACCUMULATION	INTEGER	The number of fragments received that need reassembly.	ManagedElement_Ip.pmNoOfIpReasmReqds	Sum

7.20 IUA_App_Server Performance Indicators

This section shows the key performance indicators and other counters for the IUA_App_Server object, divided into the following sub-sections:

- [IUA_App_Server.Ericsson.UMTS.IUA_AppSvr_Quality](#)

7.20.1 IUA_App_Server.Ericsson.UMTS.IUA_AppSvr_Quality

IUA application server quality

KPI	Type	Data Type	Description	Derivation	Aggregation
pmIuaSctpComLostExtReasons	ACCUMULATION	INTEGER	The number of times the underlying Stream Control Transmission Protocol (SCTP) communication for the IUA layer is lost due to external	ManagedElement_AccessSignalling_IuaApplicationServer.pmIuaSctpComLostExtReasons	Sum

			reasons.		
pmIuaSctpComLostIntReasons	ACCUMULATION	INTEGER	The number of times the underlying SCTP communication for the IUA layer is lost due to node internal reasons.	ManagedElement_AccessSignalling_IuaApplicationServer.pmIuaSctpComLostIntReasons	Sum
pmRecAspdnMessages	ACCUMULATION	INTEGER	The number of received Application Server Process (ASP) Down (ASPDN) messages.	ManagedElement_AccessSignalling_IuaApplicationServer.pmRecAspdnMessages	Sum
pmRecAspiaMessages	ACCUMULATION	INTEGER	The number of received ASP Inactive (ASPIA) messages.	ManagedElement_AccessSignalling_IuaApplicationServer.pmRecAspiaMessages	Sum
pmSentIuaMessages	ACCUMULATION	INTEGER	The number	ManagedElement_AccessSignalling_IuaApplicationServer.pmSentIua	Sum

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			of sent IUA messages .	Messages	
pmSentQptmMessages	ACCUMULATION	INTEGER	The number of sent Q.921/Q. 931 Boundary Primitive s Transport (QPTM) Messages .	ManagedElement_AccessSignalling_IuaApplicationServer.pmSentQptmMessages	Sum
pmUnsentIuaMessages	ACCUMULATION	INTEGER	The number of unsent IUA messages .	ManagedElement_AccessSignalling_IuaApplicationServer.pmUnsentIuaMessages	Sum
pmUnsentQptmMessages	ACCUMULATION	INTEGER	The number of unsent QPTM Messages .	ManagedElement_AccessSignalling_IuaApplicationServer.pmUnsentQptmMessages	Sum

7.21 Medium_Access_Unit Performance Indicators

This section shows the key performance indicators and other counters for the Medium_Access_Unit object, divided into the following sub-sections:

- [Medium_Access_Unit.Ericsson.UMTS.Ethernet_Transceiver_Function](#)

7.21.1 Medium_Access_Unit.Ericsson.UMTS.Ethernet_Transceiver_Function

Ethernet transceiver statistics on the General Processor Board

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfDot3StatsFC	ACCUMULATION	INTEGER	The	MediumAccessUnit.pmNoOfDot3S	Sum,

SErrors	ATION	GER	number of frames that did not pass the Frame Check Sequence (FCS) check. (When the packet is received, its value is compared with the FCS and if the package is damaged it is removed).	tatsFCSErrors	ermpiuldbh
pmNoOfDot3StatsLateCollisions	ACCUMULATION	INTEGER	The number of times that a collision was detected on	MediumAccessUnit.pmNoOfDot3StatsLateCollisions	Sum, ermpiuldbh

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			the interfac e after the minimu m length of a frame.		
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7.22 MGW Performance Indicators

This section shows the key performance indicators and other counters for the MGW object, divided into the following sub-sections:

- [MGW.Ericsson.UMTS.Accessibility_Retainability](#)
- [MGW.Ericsson.UMTS.Connection_Quality](#)
- [MGW.Ericsson.UMTS.Service_and_software_licensing](#)
- [MGW.Ericsson.UMTS.Signalling_Traffic](#)

7.22.1 MGW.Ericsson.UMTS.Accessibility_Retainability

M-MGW Accessibility and Retainability

KPI	Type	Data Type	Description	Derivation	Aggregation
_%_MGW_Accessibility	INTENSITY	FLOAT	The M-MGW accessibility	$(1 - ((\{\text{pmNrOfAal2TermsRej}\} + \{\text{pmNrOfIpTermsRej}\} + \{\text{pmNrOfTDMTermsRej}\}) / (\{\text{pmNrOfAal2TermsReq}\} + \{\text{pmNrOfIpTermsReq}\} + \{\text{pmNrOfTDMTermsReq}\} - \{\text{pmNrOfMediaStreamChannelsRejectedDueToCapacity}\}))) * 100$	Average, ermgwmsb, tot, min, max
_%_MGW_Retainability	INTENSITY	FLOAT	The M-MGW connection retainability	$(1 - (\{\text{pmNrOfGcpNotifyCsdFaultAEst}\} + \{\text{pmNrOfGcpNotifySpeechFaultAEst}\}) / (\{\text{pmNrOfAal2TermsReq}\} + \{\text{pmNrOfIpTermsReq}\} + \{\text{pmNrOfTDMTermsReq}\} - \{\text{pmNrOfAal2TermsRej}\} - \{\text{pmNrOfIpTermsRej}\} -$	Average, ermgwmsb, tot, min, max

				{pmNrOfTDMTermsRej})) * 100	
pmNrOfAal2TermsRej	ACCUM ULATIO N	INT EGE R	Aggre gated: Total numbe r of unsuc cessfu l AAL2 termin ation reques ts in this VMG w.	MgwApplication_Aggregated.VMG W_pmNrOfAal2TermsRej	Sum, ermg wmsb h
pmNrOfAal2TermsReq	ACCUM ULATIO N	INT EGE R	Aggre gated: Total numbe r of AAL2 termin ation reques ts in this VMG w.	MgwApplication_Aggregated.VMG W_pmNrOfAal2TermsReq	Sum, ermg wmsb h
pmNrOfGcpNotifyCsdFault AEst	ACCUM ULATIO N	INT EGE R	Aggre gated: The total numbe r of encou ntered Circui	MgwApplication_Aggregated.VMG W_pmNrOfGcpNotifyCsdFaultAEs t	Sum, ermg wmsb h

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			t Switc hed Data (CSD) termin ation faults after bearer establi shmen t (betwe en establi shmen t of bearer and recepti on of Gatew ay Contr ol Protoc ol (GCP) Sub, resulti ng in the sendin g of a GCP Notify messa ge towar ds the MGC.		
pmNrOfGcpNotifySpeechFaultAEst	ACCUM ULATIO N	INT EGE R	Aggre gated: The	MgwApplication_Aggregated.VMG W_pmNrOfGcpNotifySpeechFault AEst	Sum, ermg wmsb

			total number of encountered speech termination faults after bearer establishment (between establishment of bearer and reception of Gateway Control Protocol (GCP) Sub that result in the sending of a GCP Notify message toward	h
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			ds the Media Gateway controller (MGC).		
pmNrOfIpTermsRej	ACCUMULATION	INTEGER	Aggregated: Total number of unsuccessful IP termination requests in this VMGw.	MgwApplication_Aggregated.VMGW_pmNrOfIpTermsRej	Sum, ermgsb
pmNrOfIpTermsReq	ACCUMULATION	INTEGER	Aggregated: Total number of IP termination requests in this VMGw.	MgwApplication_Aggregated.VMGW_pmNrOfIpTermsReq	Sum, ermgsb
pmNrOfMediaStreamChannelsRejectedDueToCapacity	ACCUMULATION	INTEGER	(From MGW - Service_and_software_licensing KPI	MgwApplication_Aggregated.pmNrOfMediaStreamChannelsRejectedDueToCapacity	Sum, ermgsb

			Group)		
pmNrOfTDMTermsRej	ACCUM ULATIO N	INT EGE R	Aggre gated: Total numbe r of TDM Reque sts Reject ed in TDM Termi nation Group .	MgwApplication_Aggregated.TDM Grp_pmNrOfTDMTermsRej	Sum, ermg wmsb h
pmNrOfTDMTermsReq	ACCUM ULATIO N	INT 8	Aggre gated: Total Numb er of TDM Seizur e Reque sts in TDM Termi nation Group .	MgwApplication_Aggregated.TDM Grp_pmNrOfTDMTermsReq	Sum, ermg wmsb h

7.22.2 MGW.Ericsson.UMTS.Connection_Quality

MGW connection quality data

KPI	Type	Data Type	Description	Derivation	Aggregat ion
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%_IP_Signalling_Quality	INTENSITY	FLOAT	The M-MGW IP signalling quality percentage	$(1 - (\text{thresholddiv}(\{pmIpInDiscards\} + \{pmIpOutDiscards\} + \{pmIpInAddrErrors\} + \{pmIpInHdrErrors\} + \{pmIpInUnknownProtos\}), (\{pmIpInReceives\} + \{pmIpOutRequests\})), 0, 1))) * 100$	Average, tot, min, max
%_IP_User_Plane_Quality	INTENSITY	FLOAT	The M-MGW IP user plane quality percentage	$(1 - (\text{thresholddiv}(\{R_pmRtpDiscardedPkts\} + \{R_pmRtpLostPkts\} + \{UR_pmRtpDiscardedPkts\} + \{UR_pmRtpLostPkts\}), ((\{R_pmRtpReceivedPktsHi\} * 2147483648.0) + \{R_pmRtpReceivedPktsLo\} + (\{UR_pmRtpReceivedPktsHi\} * 2147483648.0) + \{UR_pmRtpReceivedPktsLo\})), 0, 1))) * 100$	Average, tot, min, max
pmIpInAddrErrors	ACCUMULATION	INT8	Aggregated: Total number of input datagrams discarded because the IP address in their IP headers destination field was not a valid address to be received at this entity.	Mgw_Aggregated_Ansi.IpAHG_pmIpInAddrErrors or Mgw_Aggregated_China.IpAHG_pmIpInAddrErrors or Mgw_Aggregated_Itu.IpAHG_pmIpInAddrErrors or Mgw_Aggregated_Ttc.IpAHG_pmIpInAddrErrors	Sum
pmIpInDiscards	ACCUMULATION	INT8	Aggregated: Total number of input IP datagrams for which no problems were	Mgw_Aggregated_Ansi.IpAHG_pmIpInDiscards or Mgw_Aggregated_China.IpAHG_pmIpInDisca	Sum

			encountered to prevent their continued processing, but which were discarded.	rds or Mgw_Aggregated_Itu.I pAHG_pmIpInDiscards or Mgw_Aggregated_Ttc.I pAHG_pmIpInDiscards	
pmIpInHdrErrors	ACCUMULATION	INT8	Aggregated:Total number of input datagrams discarded due to errors in their IP headers.	Mgw_Aggregated_Ansi .IpAHG_pmIpInHdrErrors or Mgw_Aggregated_China.IpAHG_pmIpInHdrErrors or Mgw_Aggregated_Itu.I pAHG_pmIpInHdrErrors or Mgw_Aggregated_Ttc.I pAHG_pmIpInHdrErrors	Sum
pmIpInReceives	ACCUMULATION	INT8	Aggregated:Total number of input datagrams received from interfaces.	Mgw_Aggregated_Ansi .IpAHG_pmIpInReceives or Mgw_Aggregated_China.IpAHG_pmIpInReceives or Mgw_Aggregated_Itu.I pAHG_pmIpInReceives or Mgw_Aggregated_Ttc.I pAHG_pmIpInReceives	Sum
pmIpInUnknownProtos	ACCUMULATION	INT8	Aggregated:Total number of locally-addressed datagrams received successfully but discarded because of an unknown or unsupported	Mgw_Aggregated_Ansi .IpAHG_pmIpInUnknownProtos or Mgw_Aggregated_China.IpAHG_pmIpInUnknownProtos or Mgw_Aggregated_Itu.I pAHG_pmIpInUnknownProtos or Mgw_Aggregated_Ttc.I	Sum

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			protocol.	pAHG_pmIpInUnknownProtos	
pmIpOutDiscards	ACCUMULATION	INT8	Aggregated: Total number of output IP datagrams for which no problem was encountered to prevent their transmission to their destination, but which were discarded (for example, for lack of buffer space).	Mgw_Aggregated_Ansi.IpAHG_pmIpOutDiscards or Mgw_Aggregated_China.IpAHG_pmIpOutDiscards or Mgw_Aggregated_Itu.IpAHG_pmIpOutDiscards or Mgw_Aggregated_Ttc.IpAHG_pmIpOutDiscards	Sum
pmIpOutRequests	ACCUMULATION	INT8	Aggregated: Total number of IP datagrams which local IP user protocols (including ICMP) supplied to IP in requests for transmission.	Mgw_Aggregated_Ansi.IpAHG_pmIpOutRequests or Mgw_Aggregated_China.IpAHG_pmIpOutRequests or Mgw_Aggregated_Itu.IpAHG_pmIpOutRequests or Mgw_Aggregated_Ttc.IpAHG_pmIpOutRequests	Sum
R_pmRtpDiscardedPkts	ACCUMULATION	INTEGER	Aggregated: The number of discarded Real-time Transport Protocol (RTP) packets, that is, received RTP packets discarded due to header validity checks or due to misordered sequence numbers.	Mgw_Aggregated_Ansi.RSite_pmRtpDiscardedPkts or Mgw_Aggregated_China.RSite_pmRtpDiscardedPkts or Mgw_Aggregated_Itu.RSite_pmRtpDiscardedPkts or Mgw_Aggregated_Ttc.RSite_pmRtpDiscardedPkts	Sum
R_pmRtpLostPkts	ACCUMULATION	INTEGER	Aggregated: The	Mgw_Aggregated_Ansi	Sum

	TION	ER	total number of dropped Real-time Transport Protocol (RTP) packets.	.RSite_pmRtpLostPkts or Mgw_Aggregated_China.RSite_pmRtpLostPkts or Mgw_Aggregated_Itu.RSite_pmRtpLostPkts or Mgw_Aggregated_Ttc.RSite_pmRtpLostPkts	
R_pmRtpReceivedOctetsHi	ACCUMULATION	INT8	Aggregated:The total number of received RTP payload octets. This high-capacity Performance Management (PM) counter is split and presented by two 31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0).	Mgw_Aggregated_Ansi.RSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_China.RSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_Itu.RSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_Ttc.RSite_pmRtpReceivedOctetsHi	Sum
R_pmRtpReceivedOctetsLo	ACCUMULATION	INT8	Aggregated:The total number of received RTP payload octets. This high-capacity Performance Management (PM) counter is split and presented by two	Mgw_Aggregated_Ansi.RSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_China.RSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_Itu.RSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_Ttc.RSite_pmRtpReceived	Sum

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			31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0).	OctetsLo	
R_pmRtpReceivedPktsHi	ACCUMULATION	INTEGER	Aggregated:The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpReceivedPktsHi (bit 61-31) - pmRtpReceivedPktsLo (bit 30-0).	Mgw_Aggregated_Ansi.RSite_pmRtpReceivedPktsHi or Mgw_Aggregated_China.RSite_pmRtpReceivedPktsHi or Mgw_Aggregated_Itu.RSite_pmRtpReceivedPktsHi or Mgw_Aggregated_Ttc.RSite_pmRtpReceivedPktsHi	Sum
R_pmRtpReceivedPktsLo	ACCUMULATION	INTEGER	Aggregated:The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpReceivedPktsHi (bit 61-31) - pmRtpReceivedPktsLo (bit 30-0).	Mgw_Aggregated_Ansi.RSite_pmRtpReceivedPktsLo or Mgw_Aggregated_China.RSite_pmRtpReceivedPktsLo or Mgw_Aggregated_Itu.RSite_pmRtpReceivedPktsLo or Mgw_Aggregated_Ttc.RSite_pmRtpReceivedPktsLo	Sum
R_pmRtpSentOctetsHi	ACCUMULATION	INT8	Aggregated:The total number of sent RTP payload octets. This high-capacity PM	Mgw_Aggregated_Ansi.RSite_pmRtpSentOctetsHi or Mgw_Aggregated_China.RSite_pmRtpSentOctetsHi or	Sum

			counter is split and presented by two 31 bit attributes: - pmRtpSentOctet sHi (bit 61-31) - pmRtpSentOctet sLo (bit 30-0).	Mgw_Aggregated_Itu. RSite_pmRtpSentOctet sHi or Mgw_Aggregated_Ttc. RSite_pmRtpSentOctet sHi	
R_pmRtpSentOctetsLo	ACCUMULATION	INT8	Aggregated:The total number of sent RTP payload octets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpSentOctet sHi (bit 61-31) - pmRtpSentOctet sLo (bit 30-0).	Mgw_Aggregated_Ansi. RSite_pmRtpSentOctet sLo or Mgw_Aggregated_China. RSite_pmRtpSentOctetsLo or Mgw_Aggregated_Itu. RSite_pmRtpSentOctet sLo or Mgw_Aggregated_Ttc. RSite_pmRtpSentOctet sLo	Sum
R_pmRtpSentPktsHi	ACCUMULATION	INTEGER	Aggregated:The total number of sent RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0).	Mgw_Aggregated_Ansi. RSite_pmRtpSentPktsHi or Mgw_Aggregated_China. RSite_pmRtpSentPktsHi or Mgw_Aggregated_Itu. RSite_pmRtpSentPktsHi or Mgw_Aggregated_Ttc. RSite_pmRtpSentPktsHi	Sum
R_pmRtpSentPktsLo	ACCUMULATION	INTEGER	Aggregated:The total number of sent RTP	Mgw_Aggregated_Ansi. RSite_pmRtpSentPktsLo or	Sum

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			<p>packets. This high-capacity PM counter is split and presented by two 31 bit attributes:</p> <ul style="list-style-type: none"> - pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0). 	Mgw_Aggregated_China.RSite_pmRtpSentPktsLo or Mgw_Aggregated_Itu.RSite_pmRtpSentPktsLo or Mgw_Aggregated_Ttc.RSite_pmRtpSentPktsLo	
UR_pmRtpDiscardedPkts	ACCUMULATION	INTEGER	Aggregated:The number of discarded RTP packets, that is, received RTP packets discarded due to header validity checks or due to misordered sequence numbers.	Mgw_Aggregated_Ansi.UR_pmRtpDiscardedPkts or Mgw_Aggregated_China.UR_pmRtpDiscardedPkts or Mgw_Aggregated_Itu.UR_pmRtpDiscardedPkts or Mgw_Aggregated_Ttc.UR_pmRtpDiscardedPkts	Sum
UR_pmRtpLostPkts	ACCUMULATION	INTEGER	Aggregated:The total number of dropped RTP packets. The detection of dropped packets is based on sequence numbers in the RTP header as defined in Request for Comments (RFC) 1889.	Mgw_Aggregated_Ansi.UR_pmRtpLostPkts or Mgw_Aggregated_China.UR_pmRtpLostPkts or Mgw_Aggregated_Itu.UR_pmRtpLostPkts or Mgw_Aggregated_Ttc.UR_pmRtpLostPkts	Sum
UR_pmRtpReceivedOctetsHi	ACCUMULATION	INT8	Aggregated:The total number of received RTP payload octets. This high-capacity Performance	Mgw_Aggregated_Ansi.URSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_China.URSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_Itu.	Sum

			Management (PM) counter is split and presented by two 31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0).	URSite_pmRtpReceivedOctetsHi or Mgw_Aggregated_Ttc. URSite_pmRtpReceivedOctetsHi	
UR_pmRtpReceivedOctetsLo	ACCUMULATION	INT8	Aggregated: The total number of received RTP payload octets. This high-capacity Performance Management (PM) counter is split and presented by two 31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0).	Mgw_Aggregated_Ansi. URSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_China. URSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_Itu. URSite_pmRtpReceivedOctetsLo or Mgw_Aggregated_Ttc. URSite_pmRtpReceivedOctetsLo	Sum
UR_pmRtpReceivedPktsHi	ACCUMULATION	INTEGER	Aggregated: The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes:	Mgw_Aggregated_Ansi. URSite_pmRtpReceivedPktsHi or Mgw_Aggregated_China. URSite_pmRtpReceivedPktsHi or Mgw_Aggregated_Itu. URSite_pmRtpReceivedPktsHi or	Sum

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			<ul style="list-style-type: none"> - pmRtpReceivedPktsHi (bit 61-31) - pmRtpReceivedPktsLo (bit 30-0). 	Mgw_Aggregated_Ttc. URSite_pmRtpReceivedPktsHi	
UR_pmRtpReceivedPktsLo	ACCUMULATION	INTEGER	<p>Aggregated: The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes:</p> <ul style="list-style-type: none"> - pmRtpReceivedPktsHi (bit 61-31) - pmRtpReceivedPktsLo (bit 30-0). 	Mgw_Aggregated_Ansi. URSite_pmRtpReceivedPktsLo or Mgw_Aggregated_China. URSite_pmRtpReceivedPktsLo or Mgw_Aggregated_Itu. URSite_pmRtpReceivedPktsLo or Mgw_Aggregated_Ttc. URSite_pmRtpReceivedPktsLo	Sum
UR_pmRtpSentOctetsHi	ACCUMULATION	INT8	<p>Aggregated: The total number of sent RTP payload octets. This high-capacity PM counter is split and presented by two 31 bit attributes:</p> <ul style="list-style-type: none"> - pmRtpSentOctetsHi (bit 61-31) - pmRtpSentOctetsLo (bit 30-0). 	Mgw_Aggregated_Ansi. URSite_pmRtpSentOctetsHi or Mgw_Aggregated_China. URSite_pmRtpSentOctetsHi or Mgw_Aggregated_Itu. URSite_pmRtpSentOctetsHi or Mgw_Aggregated_Ttc. URSite_pmRtpSentOctetsHi	Sum
UR_pmRtpSentOctetsLo	ACCUMULATION	INT8	<p>Aggregated: The total number of sent RTP payload octets. This high-capacity PM counter is split and presented by two 31 bit</p>	Mgw_Aggregated_Ansi. URSite_pmRtpSentOctetsLo or Mgw_Aggregated_China. URSite_pmRtpSentOctetsLo or Mgw_Aggregated_Itu. URSite_pmRtpSentOctetsLo or	Sum

			attributes: - pmRtpSentOctetsHi (bit 61-31) - pmRtpSentOctetsLo (bit 30-0).	Mgw_Aggregated_Ttc. URSite_pmRtpSentOctetsLo	
UR_pmRtpSentPktsHi	ACCUMULATION	INTEGER	Aggregated: The total number of sent RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0).	Mgw_Aggregated_Ansi. URSite_pmRtpSentPktsHi or Mgw_Aggregated_China. URSite_pmRtpSentPktsHi or Mgw_Aggregated_Itu. URSite_pmRtpSentPktsHi or Mgw_Aggregated_Ttc. URSite_pmRtpSentPktsHi	Sum
UR_pmRtpSentPktsLo	ACCUMULATION	INTEGER	Aggregated: The total number of sent RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0).	Mgw_Aggregated_Ansi. URSite_pmRtpSentPktsLo or Mgw_Aggregated_China. URSite_pmRtpSentPktsLo or Mgw_Aggregated_Itu. URSite_pmRtpSentPktsLo or Mgw_Aggregated_Ttc. URSite_pmRtpSentPktsLo	Sum

7.22.3 MGW.Ericsson.UMTS.Service_and_software_licensing

Service and software license data.

KPI	Type	Dat	Description	Derivation	Aggr
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		a Type			egati on
%_Emergency_Call_Success	INTENSITY	FL OAT	Emergency call success rate	$(1 - (\{pmNrOfRejEmcCalls\} / \{pmNrOfEmergencyCalls\})) * 100$	Average, ermgs bh, tot, min, max
%_Media_Stream_Channel_Seizure	INTENSITY	FL OAT	Media stream channel seizure success rate	$(1 - (\{pmNrOfMediaStreamChannelsRejectedDueToCapacity\} / \{pmNrOfMediaStreamChannelsReq\})) * 100$	Average, ermgs bh, tot, min, max
%_Media_Stream_Channel_Utilization	PERCENTAGE	FL OAT	Media stream channel utilization rate	$100 * \{pmNrOfMediaStreamChannelsBusy\} / \{maxNrOfLicMediaStreamChannels\}$	Average, ermgs bh
Current_MGW_Traffic_Load	ERLANG	FL OAT	Estimated current MGW Load	$\{pmNrOfMediaStreamChannelsBusy\} / 2.005$	Sum, ermgs bh, tot, min, max
maxNrOfLicMediaStreamChannels	INTENSITY	INTEGER	The licensed number of simultaneous media stream channels.	MgwApplication.maxNrOfLicMediaStreamChannels	Constant, ermgs bh, tot, min, max
pmAverageBwAmrNbPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth	MgwApplication.pmAverageBwAmrNbPtime20	Average, ermgs

			that a single Adaptive Multi Rate (AMR) coded speech connection over Nb interface with packetization time 20 ms uses.		wms bh, tot, min, max
pmAverageBwAmrVoipPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single AMR coded speech connection over VoIP interface with packetization time 20 ms uses.	MgwApplication.pmAverageBwAmrVoipPtime20	Average, ermg wms bh, tot, min, max
pmAverageBwAmrVoipPtime40	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single AMR coded speech connection over VoIP interface with packetization time 40 ms uses.	MgwApplication.pmAverageBwAmrVoipPtime40	Average, ermg wms bh, tot, min, max
pmAverageBwAmrWbNbPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single	MgwApplication.pmAverageBwAmrWbNbPtime20	Average, ermg wms

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			AMR Wideband (AMR-WB) coded speech connection over Nb interface with packetization time 20 ms uses.		bh, tot, min, max
pmAverageBwAmrWbVoipPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single AMR-WB coded speech connection over VoIP interface with packetization time 20 ms uses.	MgwApplication.pmAverageBwAmrWbVoipPtime20	Average, ermg wms bh, tot, min, max
pmAverageBwAmrWbVoipPtime40	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single AMR-WB coded speech connection over VoIP interface with packetization time 40 ms uses.	MgwApplication.pmAverageBwAmrWbVoipPtime40	Average, ermg wms bh, tot, min, max
pmAverageBwEfrNbPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single Enhanced Full Rate (EFR) coded speech connection over Nb interface with	MgwApplication.pmAverageBwEfrNbPtime20	Average, ermg wms bh, tot, min, max

			packetization time 20 ms uses.		
pmAverageBwEfrVoipPtime20	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single EFR coded speech connection over VoIP interface with packetization time 20 ms uses.	MgwApplication.pmAverageBwEfrVoipPtime20	Average, ermg wms bh, tot, min, max
pmAverageBwEfrVoipPtime40	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single EFR coded speech connection over VoIP interface with packetization time 40 ms uses.	MgwApplication.pmAverageBwEfrVoipPtime40	Average, ermg wms bh, tot, min, max
pmAverageBwG729Ptime10	INTENSITY	INTEGER	The estimated IP transport bandwidth that a single G.729 coded speech connection with packetization time 10 ms uses.	MgwApplication.pmAverageBwG729Ptime10	Average, ermg wms bh, tot, min, max

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pmAverageBwG729Ptime20	INTENSITY	INTER	The estimated IP transport bandwidth that a single G.729 coded speech connection with packetization time 20 ms uses.	MgwApplication.pmAverageBwG729Ptime20	Average, ermg wms bh, tot, min, max
pmAverageBwG729Ptime30	INTENSITY	INTER	The estimated IP transport bandwidth that a single G.729 coded speech connection with packetization time 30 ms uses.	MgwApplication.pmAverageBwG729Ptime30	Average, ermg wms bh, tot, min, max
pmAverageBwG729Ptime40	INTENSITY	INTER	The estimated IP transport bandwidth that a single G.729 coded speech connection with packetization time 40 ms uses.	MgwApplication.pmAverageBwG729Ptime40	Average, ermg wms bh, tot, min, max
pmAverageBwInmarsatLuPtime20	INTENSITY	INTER	The estimated IP transport bandwidth that a single Advanced Multi-Band Excitation (AMBE+2) coded speech connection over Lu	MgwApplication.pmAverageBwInmarsatLuPtime20	Average, ermg wms bh, tot, min, max

			interface with packetization time 20 ms uses.		
pmNrOfAmrWbUnitsRejDueToCapacity	ACCUMULATION	INTEGER	The number of rejected channels due to exceeding the licensed capacity limit for AMR-WB.	MgwApplication.pmNrOfAmrWbUnitsRejDueToCapacity	Sum, ermg wms bh
pmNrOfEmergencyCalls	ACCUMULATION	INTEGER	The total number of emergency call setup requests in the M-MGw node. This counter matches to the number of resource reservation requests received over Gateway Control Protocol (GCP).	MgwApplication.pmNrOfEmergencyCalls	Sum, ermg wms bh
pmNrOfG729UnitsRejDueToCapacity	ACCUMULATION	INTEGER	The number of rejected channels due to exceeding the licensed capacity limit for G.729.	MgwApplication.pmNrOfG729UnitsRejDueToCapacity	Sum, ermg wms bh
pmNrOfMediaStreamCha	INTENS	INT	Current	MgwApplication.pmNrOfMediaSt	Aver

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nnelsBusy	ITY	8	number of busy media stream channels.	reamChannelsBusy	age, erm, g wms bh, tot, min, max
pmNrOfMediaStreamChannelsRejectedDueToCapacity	ACCUMULATION	INTEGER	Total number of rejected channels due to licensed capacity limit is exceeded.	MgwApplication.pmNrOfMediaStreamChannelsRejectedDueToCapacity	Sum, erm, g wms bh
pmNrOfMediaStreamChannelsReq	ACCUMULATION	INTEGER	The total number of requested media stream channels.	MgwApplication.pmNrOfMediaStreamChannelsReq	Sum, erm, g wms bh
pmNrOfMediaStreamChsUsedAmrWb	ACCUMULATION	INTEGER	The number of media stream channels used to transfer AMR-WB coded speech.	MgwApplication.pmNrOfMediaStreamChsUsedAmrWb	Sum, erm, g wms bh
pmNrOfMediaStreamChsUsedG729	ACCUMULATION	INTEGER	The number of media stream channels used to transfer G.729 coded speech.	MgwApplication.pmNrOfMediaStreamChsUsedG729	Sum, erm, g wms bh
pmNrOfRejEmcCalls	ACCUMULATION	INTEGER	Total number of rejected Emergency Calls.	MgwApplication.pmNrOfRejEmcCalls	Sum, erm, g wms bh
pmNrOfRejsByIslOverload	ACCUMULATION	INTEGER	The total number of rejected channels due to Inter Subrack Link	MgwApplication.pmNrOfRejsByIslOverload	Sum, erm, g wms bh

			(ISL) overload. Information of which device subrack has had overload can be found from "ISL overload" alarm.		
pmNrOfRejsByStaticAdmCtrl	ACCUMULATION	INTEGER	The number rejected connections due to static admission control for IP transport, see attribute maxBandwidthForIpTransport.	MgwApplication.pmNrOfRejsByStaticAdmCtrl	Sum, ermg wms bh
pmUsedBandwidthForIpTransport	INTENSITY	INTEGER	IP transport bandwidth currently in use	MgwApplication.pmUsedBandwidthForIpTransport	Average, ermg wms bh, tot, min, max
pmUsedBandwidthForSiteIntIpTrans	INTENSITY	INTEGER	The IP transport bandwidth currently in use by site internal traffic. The IP bandwidth measurement	MgwApplication.pmUsedBandwidthForSiteIntIpTrans	Average, ermg wms bh, tot, min, max

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			is dependent on the codec type, active codec set, protocol header size, speech activity factor and the packetization time.	
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7.22.4 MGW.Ericsson.UMTS.Signalling_Traffic

MGW signalling traffic data

KPI	Type	Data Type	Description	Derivation	Aggregation
MTP3B_M3UA_MSUs	ACCUMULATION	FLOAT	MTP3B and M3UA level MSU/s	$(\{pmNoOfDataMsgRec\} + \{pmNoOfDataMsgSent\} + \{pmNoOfMSURec\} + \{pmNoOfMSUSent\}) / \{measurement_seconds\}$	Sum
pmGcpNrOfReceivedMessages	ACCUMULATION	INT8	Aggregate d:Total number of GCP messages which have been received	Mgw_Aggregated_Ansi.V MGW_pmGcpNrOfReceivedMessages or Mgw_Aggregated_China.V MGW_pmGcpNrOfReceivedMessages or Mgw_Aggregated_Itu.V MGW_pmGcpNrOfReceivedMessages or Mgw_Aggregated_Ttc.V MGW_pmGcpNrOfReceivedMessages	Sum
pmGcpNrOfSentMessages	ACCUMULATION	INT8	Aggregate d:Total number of GCP messages which have been sent by the	Mgw_Aggregated_Ansi.V MGW_pmGcpNrOfSentMessages or Mgw_Aggregated_China.V MGW_pmGcpNrOfSentMessages or Mgw_Aggregated_Itu.V MGW_pmGcpNrOfSentMessages or	Sum

			VMGW	Mgw_Aggregated_Ttc.VM GW_pmGcpNrOfSentMes sages	
pmNoOfDataMsgRec	ACCUMUL ATION	INT8	Aggregate d:Total number of DATA (payload data) messages received through the associatio n.	Mgw_Aggregated_Ansi.M 3uA_pmNoOfDataMsgRec or Mgw_Aggregated_China. M3uA_pmNoOfDataMsgR ec or Mgw_Aggregated_Itu.M3u A_pmNoOfDataMsgRec or Mgw_Aggregated_Ttc.M3 uA_pmNoOfDataMsgRec	Sum
pmNoOfDataMsgSent	ACCUMUL ATION	INT8	Aggregate d:Number of DATA messages sent on the associatio ns related to this signalling point.	Mgw_Aggregated_Ansi.M 3uA_pmNoOfDataMsgSen t or Mgw_Aggregated_China. M3uA_pmNoOfDataMsgS ent or Mgw_Aggregated_Itu.M3u A_pmNoOfDataMsgSent or Mgw_Aggregated_Ttc.M3 uA_pmNoOfDataMsgSent	Sum
pmNoOfLUDTRec	ACCUMUL ATION	INT8	Aggregate d:Total number of received Long Unitdata (LUDT) messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfLUDTRec or Mgw_Aggregated_China.S ccpSp_pmNoOfLUDTRec or Mgw_Aggregated_Itu.Scc pSp_pmNoOfLUDTRec or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfLUDTRec	Sum
pmNoOfLUDTSSent	ACCUMUL ATION	INT8	Aggregate d:Total	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfLUDTSSent	Sum

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			number of sent Long Unitdata Service (LUDTS) messages.	or Mgw_Aggregated_China.SccpSp_pmNoOfLUDTSSENT or Mgw_Aggregated_Itu.SccpSp_pmNoOfLUDTSSENT or Mgw_Aggregated_Ttc.SccpSp_pmNoOfLUDTSSENT	
pmNoOfMSURec	ACCUMULATION	INT8	Aggregated: Number of received Message Signal Units (MSUs) on this signalling link.	Mgw_Aggregated_Ansi.Mtp3bSls_pmNoOfMSURec or Mgw_Aggregated_China.Mtp3bSls_pmNoOfMSURec or Mgw_Aggregated_Itu.Mtp3bSls_pmNoOfMSURec or Mgw_Aggregated_Ttc.Mtp3bSls_pmNoOfMSURec	Sum
pmNoOfMSUSent	ACCUMULATION	INT8	Aggregated: Number of sent MSUs from this signalling link.	Mgw_Aggregated_Ansi.Mtp3bSls_pmNoOfMSUSent or Mgw_Aggregated_China.Mtp3bSls_pmNoOfMSUSent or Mgw_Aggregated_Itu.Mtp3bSls_pmNoOfMSUSent or Mgw_Aggregated_Ttc.Mtp3bSls_pmNoOfMSUSent	Sum
pmNoOfRecUserData	ACCUMULATION	INT8	Aggregated: Amount of data received.	Mgw_Aggregated_Ansi.M3uA_pmNoOfRecUserData or Mgw_Aggregated_China.M3uA_pmNoOfRecUserData or Mgw_Aggregated_Itu.M3uA_pmNoOfRecUserData or Mgw_Aggregated_Ttc.M3uA_pmNoOfRecUserData	Sum
pmNoOfSentUserData	ACCUMULATION	INT8	Aggregated	Mgw_Aggregated_Ansi.M	Sum

	ATION		d:Amount of data sent.	3uA_pmNoOfSentUserData or Mgw_Aggregated_China.M3uA_pmNoOfSentUserData or Mgw_Aggregated_Itu.M3uA_pmNoOfSentUserData or Mgw_Aggregated_Ttc.M3uA_pmNoOfSentUserData	
pmNoOfUDTRec	ACCUMULATION	INT8	Aggregate d:Total number of received Unit Data (UDT) messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfUDTRec or Mgw_Aggregated_China.S ccpSp_pmNoOfUDTRec or Mgw_Aggregated_Itu.Scc pSp_pmNoOfUDTRec or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfUDTRec	Sum
pmNoOfUDTSent	ACCUMULATION	INT8	Aggregate d:Total number of sent UDT messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfUDTSent or Mgw_Aggregated_China.S ccpSp_pmNoOfUDTSent or Mgw_Aggregated_Itu.Scc pSp_pmNoOfUDTSent or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfUDTSent	Sum
pmNoOfUDTSRec	ACCUMULATION	INT8	Aggregate d:Total number of received Unit Data Service (UDTS) messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfUDTSRec or Mgw_Aggregated_China.S ccpSp_pmNoOfUDTSRec or Mgw_Aggregated_Itu.Scc pSp_pmNoOfUDTSRec or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfUDTSRec	Sum

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pmNoOfUDTSSent	ACCUMULATION	INT8	Aggregated: Total number of sent UDTs messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfUDTSSent or Mgw_Aggregated_China.S ccpSp_pmNoOfUDTSSent or Mgw_Aggregated_Itu.Scc pSp_pmNoOfUDTSSent or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfUDTSSent	Sum
pmNoOfXUDTRec	ACCUMULATION	INT8	Aggregated: Total number of received Extended Unit Data (XUDT) messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfXUDTRec or Mgw_Aggregated_China.S ccpSp_pmNoOfXUDTRec or Mgw_Aggregated_Itu.Scc pSp_pmNoOfXUDTRec or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfXUDTRec	Sum
pmNoOfXUDTSent	ACCUMULATION	INT8	Aggregated: Total number of sent XUDT messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfXUDTSent or Mgw_Aggregated_China.S ccpSp_pmNoOfXUDTSent or Mgw_Aggregated_Itu.Scc pSp_pmNoOfXUDTSent or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfXUDTSent	Sum
pmNoOfXUDTSRec	ACCUMULATION	INT8	Aggregated: Total number of received Extended Unit Data Service (XUDTS) messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfXUDTSRec or Mgw_Aggregated_China.S ccpSp_pmNoOfXUDTSRec or Mgw_Aggregated_Itu.Scc pSp_pmNoOfXUDTSRec or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfXUDTSRec	Sum

pmNoOfXUDTSSent	ACCUMULATION	INT8	Aggregated: Total number of sent XUDTS messages.	Mgw_Aggregated_Ansi.Sc cpSp_pmNoOfXUDTSSent or Mgw_Aggregated_China.S ccpSp_pmNoOfXUDTSSent or Mgw_Aggregated_Itu.Scc pSp_pmNoOfXUDTSSent or Mgw_Aggregated_Ttc.Scc pSp_pmNoOfXUDTSSent	Sum
pmSctpStatRecChunks	ACCUMULATION	INT8	Aggregated: Total number of complete data chunks received from the peers (no retransmissions included).	Mgw_Aggregated_Ansi.Sc tp_pmSctpStatRecChunks or Mgw_Aggregated_China.S ctp_pmSctpStatRecChunks or Mgw_Aggregated_Itu.Sctp _pmSctpStatRecChunks or Mgw_Aggregated_Ttc.Sct p_pmSctpStatRecChunks	Sum
pmSctpStatRecChunksDropped	ACCUMULATION	INT8	Aggregated: Total number of sent chunks that SCTP has been forced to drop due to buffer overflow in the receiving buffer.	Mgw_Aggregated_Ansi.Sc tp_pmSctpStatRecChunks Dropped or Mgw_Aggregated_China.S ctp_pmSctpStatRecChunks Dropped or Mgw_Aggregated_Itu.Sctp _pmSctpStatRecChunksDr opped or Mgw_Aggregated_Ttc.Sct p_pmSctpStatRecChunksD ropped	Sum
pmSctpStatReceivedControlChunks	ACCUMULATION	INT8	Aggregated: Total	Mgw_Aggregated_Ansi.Sc tp_pmSctpStatReceivedCo	Sum

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			number of datagrams received with chunk type id greater than 0.	ntrolChunks or Mgw_Aggregated_China.Sctp_pmSctpStatReceivedControlChunks or Mgw_Aggregated_Itu.Sctp_pmSctpStatReceivedControlChunks or Mgw_Aggregated_Ttc.Sctp_pmSctpStatReceivedControlChunks	
pmSctpStatReceivedPackages	ACCUMULATION	INT8	Aggregated: Total number of SCTP packages received.	Mgw_Aggregated_Ansi.Sctp_pmSctpStatReceivedPackages or Mgw_Aggregated_China.Sctp_pmSctpStatReceivedPackages or Mgw_Aggregated_Itu.Sctp_pmSctpStatReceivedPackages or Mgw_Aggregated_Ttc.Sctp_pmSctpStatReceivedPackages	Sum
pmSctpStatRetransChunks	ACCUMULATION	INT8	Aggregated: Total number of data chunks retransmitted to the peers.	Mgw_Aggregated_Ansi.Sctp_pmSctpStatRetransChunks or Mgw_Aggregated_China.Sctp_pmSctpStatRetransChunks or Mgw_Aggregated_Itu.Sctp_pmSctpStatRetransChunks or Mgw_Aggregated_Ttc.Sctp_pmSctpStatRetransChunks	Sum
pmSctpStatSentChunks	ACCUMULATION	INT8	Aggregated: Total number of complete data chunks sent to the peers (no retransmissions)	Mgw_Aggregated_Ansi.Sctp_pmSctpStatSentChunks or Mgw_Aggregated_China.Sctp_pmSctpStatSentChunks or Mgw_Aggregated_Itu.Sctp_pmSctpStatSentChunks or Mgw_Aggregated_Ttc.Sctp_pmSctpStatSentChunks	Sum

			included).		
pmSctpStatSentChunksDropped	ACCUMULATION	INT8	Aggregated: Total number of sent chunks that SCTP has been forced to drop due to buffer overflow in the sending buffer.	Mgw_Aggregated_Ansi.Sctp_pmSctpStatSentChunksDropped or Mgw_Aggregated_China.Sctp_pmSctpStatSentChunksDropped or Mgw_Aggregated_Itu.Sctp_pmSctpStatSentChunksDropped or Mgw_Aggregated_Ttc.Sctp_pmSctpStatSentChunksDropped	Sum
pmSctpStatSentControlChunks	ACCUMULATION	INT8	Aggregated: Total number of datagrams sent with chunk type id greater than 0.	Mgw_Aggregated_Ansi.Sctp_pmSctpStatSentControlChunks or Mgw_Aggregated_China.Sctp_pmSctpStatSentControlChunks or Mgw_Aggregated_Itu.Sctp_pmSctpStatSentControlChunks or Mgw_Aggregated_Ttc.Sctp_pmSctpStatSentControlChunks	Sum
pmSctpStatSentPackages	ACCUMULATION	INT8	Aggregated: Total number of SCTP packages sent.	Mgw_Aggregated_Ansi.Sctp_pmSctpStatSentPackages or Mgw_Aggregated_China.Sctp_pmSctpStatSentPackages or Mgw_Aggregated_Itu.Sctp_pmSctpStatSentPackages or Mgw_Aggregated_Ttc.Sctp_pmSctpStatSentPackages	Sum

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pmSentQptmMessages	ACCUMULATION	INT8	Aggregated: The number of sent Q.921/Q.931 Boundary Primitives Transport (QPTM) Messages	Mgw_Aggregated_Ansi.IUA_pmSentQptmMessages or Mgw_Aggregated_China.IUA_pmSentQptmMessages or Mgw_Aggregated_Itu.IUA_pmSentQptmMessages or Mgw_Aggregated_Ttc.IUA_pmSentQptmMessages	Sum
pmSuccInConnsRemoteQosClassA	ACCUMULATION	INTEGER	Aggregated: Number of successful establishments of incoming connections on this AAL2 Access Point (AP).	Mgw_Aggregated_Ansi.Aal2Ap_pmSuccInConnsRemoteQosClassA or Mgw_Aggregated_China.Aal2Ap_pmSuccInConnsRemoteQosClassA or Mgw_Aggregated_Itu.Aal2Ap_pmSuccInConnsRemoteQosClassA or Mgw_Aggregated_Ttc.Aal2Ap_pmSuccInConnsRemoteQosClassA	Sum
pmSuccOutConnsRemoteQosClassA	ACCUMULATION	INTEGER	Aggregated: Number of successful establishments of outgoing connections on this AAL2 Access Point (AP).	Mgw_Aggregated_Ansi.Aal2Ap_pmSuccOutConnsRemoteQosClassA or Mgw_Aggregated_China.Aal2Ap_pmSuccOutConnsRemoteQosClassA or Mgw_Aggregated_Itu.Aal2Ap_pmSuccOutConnsRemoteQosClassA or Mgw_Aggregated_Ttc.Aal2Ap_pmSuccOutConnsRemoteQosClassA	Sum
pmUnRecMessages	ACCUMULATION	INTEGER	Aggregated: Number of received unrecognized	Mgw_Aggregated_Ansi.Aal2Ap_pmUnRecMessages or Mgw_Aggregated_China.Aal2Ap_pmUnRecMessages or	Sum

			Q.2630 messages on this Access Point (AP).	Mgw_Aggregated_Itu.Aal2Ap_pmUnRecMessages or Mgw_Aggregated_Ttc.Aal2Ap_pmUnRecMessages	
pmUnSuccInConnsLocalQosClassA	ACCUMULATION	INTEGER	Aggregate d: Number of unsuccessful attempts to allocate AAL2 path resources (Common Part Sublayer) during establishment of incoming connections on this Access Point (AP) caused by Channel Identifier (CID) and/or bandwidth collision or mismatch of Call Admissio	Mgw_Aggregated_Ansi.Aal2Ap_pmUnSuccInConnsLocalQosClassA or Mgw_Aggregated_China.Aal2Ap_pmUnSuccInConnsLocalQosClassA or Mgw_Aggregated_Itu.Aal2Ap_pmUnSuccInConnsLocalQosClassA or Mgw_Aggregated_Ttc.Aal2Ap_pmUnSuccInConnsLocalQosClassA	Sum

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			n Control (CAC) between peers.		
pmUnSuccInConnsRemoteQosClassA	ACCUMULATION	INTEGER	Aggregated: Number of unsuccessful establishments of incoming connections on this AAL2 Access Point caused by the reject from the AAL2 Access Point in the remote node.	Mgw_Aggregated_Ansi.Aal2Ap_pmUnSuccInConnsRemoteQosClassA or Mgw_Aggregated_China.Aal2Ap_pmUnSuccInConnsRemoteQosClassA or Mgw_Aggregated_Itu.Aal2Ap_pmUnSuccInConnsRemoteQosClassA or Mgw_Aggregated_Ttc.Aal2Ap_pmUnSuccInConnsRemoteQosClassA	Sum
pmUnSuccOutConnsRemoteQosClassA	ACCUMULATION	INTEGER	Aggregated: Number of unsuccessful establishments of outgoing connections on this AAL2 Access Point (AP).	Mgw_Aggregated_Ansi.Aal2Ap_pmUnSuccOutConnsRemoteQosClassA or Mgw_Aggregated_China.Aal2Ap_pmUnSuccOutConnsRemoteQosClassA or Mgw_Aggregated_Itu.Aal2Ap_pmUnSuccOutConnsRemoteQosClassA or Mgw_Aggregated_Ttc.Aal2Ap_pmUnSuccOutConnsRemoteQosClassA	Sum
SEP_MSUs	ACCUMULATION	FLOAT	SEP MSU/s	({pmGcpNrOfReceivedMessages} + {pmGcpNrOfSentMessages} +	Sum

				$\begin{aligned} &({pmSuccInConnsRemoteQosClassA} * 4) + \\ &({pmSuccOutConnsRemoteQosClassA} * 4) + \\ &{pmUnRecMessages} + \\ &({pmUnSuccInConnsLocalQosClassA} * 2) + \\ &({pmUnSuccInConnsRemoteQosClassA} * 2) + \\ &({pmUnSuccOutConnsRemoteQosClassA} * 2)) / \\ &{measurement_seconds} \end{aligned}$	
SRP_MSUs	ACCUMULATION	FLOAT	SRP MSU/s	$\begin{aligned} &({pmNoOfLUDTRec} + \\ &{pmNoOfUDTRec} + \\ &{pmNoOfXUDTSRec} + \\ &{pmNoOfXUDTRec} + \\ &{pmNoOfXUDTSRec} + \\ &{pmNoOfLUDTSSent} + \\ &{pmNoOfUDTSSent} + \\ &{pmNoOfXUDTSent} + \\ &{pmNoOfXUDTSSent})) / \\ &2 / \\ &{measurement_seconds} \end{aligned}$	Sum
STP_SGW_MSUs	ACCUMULATION	FLOAT	STP&SGW MSU/s	$(((MTP3B_M3UA_MSUs} - \{SEP_MSUs\}) / 2) - \{SRP_MSUs\}$	Sum
Tot_BW_IUA_Signalling	ACCUMULATION	FLOAT	Total bandwidth for IUA signalling (kbps)	$({pmSentQptmMessages} * (28 + 25) * 8) / (1000 * {measurement_seconds})$	Sum
Tot_BW_Rcvd_IPload_MPLS	ACCUMULATION	FLOAT	Total bandwidth for received IP payload	$\begin{aligned} &((((\{Ericsson.Connection_Quality.R_pmRtpReceivedOctetsHi\} * \\ &2147483648.0) + \\ &\{Ericsson.Connection_Quality.R_pmRtpReceivedOct \end{aligned}$	Sum

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			(Mbps) using MPLS/PP P protocol	$\begin{aligned} & \text{etsLo} \} + \\ & (\{ \text{Ericsson.Connection_Quality.R_pmRtpReceivedPkt} \\ & \text{sHi} \} * 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.R_pmRtpReceivedPkts} \\ & \text{Lo} \} * 7) + \\ & (((\{ \text{Ericsson.Connection_Quality.UR_pmRtpReceived} \\ & \text{OctetsHi} \} * \\ & 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.UR_pmRtpReceivedO} \\ & \text{ctetsLo} \} + \\ & (\{ \text{Ericsson.Connection_Quality.UR_pmRtpReceivedP} \\ & \text{ktsHi} \} * 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.UR_pmRtpReceivedPk} \\ & \text{tsLo} \} * 15)) * 8 / \\ & (1000000 * \\ & \{ \text{measurement_seconds} \}) \end{aligned}$	
Tot_BW_Rcvd_IPload_PP P	ACCUMULATION	FLOAT	Total bandwidth for received IP payload (Mbps) using PPP protocol	$\begin{aligned} & (((\{ \text{Ericsson.Connection_Quality.R_pmRtpReceived} \\ & \text{OctetsHi} \} * \\ & 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.R_pmRtpReceivedOct} \\ & \text{etsLo} \} + \\ & (\{ \text{Ericsson.Connection_Quality.R_pmRtpReceivedPkt} \\ & \text{sHi} \} * 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.R_pmRtpReceivedPkts} \\ & \text{Lo} \} * 7) + \\ & (((\{ \text{Ericsson.Connection_Quality.UR_pmRtpReceived} \\ & \text{OctetsHi} \} * \\ & 2147483648.0) + \\ & \{ \text{Ericsson.Connection_Quality.UR_pmRtpReceivedO} \\ & \text{ctetsLo} \} + \\ & (\{ \text{Ericsson.Connection_Quality.UR_pmRtpReceivedP} \\ & \text{ktsHi} \} * 2147483648.0) + \end{aligned}$	Sum

				$\{Ericsson.Connection_Quality.UR_pmRtpReceivedPktsLo\} * 7) * 8 / (1000000 * \{measurement_seconds\})$	
Tot_BW_Rcvd_IPload_Sig_MPLS	ACCUMULATION	INT8	Total bandwidth for received IP payload including signalling (Mbps) using MPLS/PPP protocol	$\{Tot_BW_Rcvd_IPload_MPLS\} + \{Tot_BW_Rcvd_Signalling\}$	Sum
Tot_BW_Rcvd_IPload_Sig_PPP	ACCUMULATION	INT8	Total bandwidth for received IP payload including signalling (Mbps) using PPP protocol	$\{Tot_BW_Rcvd_IPload_PPP\} + \{Tot_BW_Rcvd_Signalling\}$	Sum
Tot_BW_Rcvd_Signalling	ACCUMULATION	FLOAT	Total bandwidth for received signalling (Mbps)	$((\{pmNoOfRecUserData\} * 1024) + (\{pmSctpStatRecChunksDropped\} * (\{pmNoOfRecUserData\} / \{pmNoOfDataMsgRec\}) * 1024)) + (\{pmSctpStatRecChunks\} * 16) + (\{pmSctpStatReceivedControlChunks\} * 16) + (\{pmSctpStatReceivedPackets\} * 16)$	Sum

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				$\text{kages} \} * (12 + 20))) * 8 / (1000000 * \{ \text{measurement_seconds} \})$	
Tot_BW_Sent_IPload_MPLS	ACCUMULATION	FLOAT	Total bandwidth for sent IP payload (Mbps) using MPLS/PPP protocol	$(((\{ \text{Ericsson.Connection_Quality.R_pmRtpSentOctetsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.R_pmRtpSentOctetsLo} \} + (\{ \text{Ericsson.Connection_Quality.R_pmRtpSentPktsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.R_pmRtpSentPktsLo} \}) * 15) + (((\{ \text{Ericsson.Connection_Quality.UR_pmRtpSentOctetsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.UR_pmRtpSentOctetsLo} \} + (\{ \text{Ericsson.Connection_Quality.UR_pmRtpSentPktsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.UR_pmRtpSentPktsLo} \}) * 15)) * 8 / (1000000 * \{ \text{measurement_seconds} \})$	Sum
Tot_BW_Sent_IPload_PPP	ACCUMULATION	FLOAT	Total bandwidth for sent IP payload (Mbps) using PPP protocol	$(((\{ \text{Ericsson.Connection_Quality.R_pmRtpSentOctetsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.R_pmRtpSentOctetsLo} \} + (\{ \text{Ericsson.Connection_Quality.R_pmRtpSentPktsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.R_pmRtpSentPktsLo} \}) * 7) + (((\{ \text{Ericsson.Connection_Quality.UR_pmRtpSentOctetsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.UR_pmRtpSentOctetsLo} \} + (\{ \text{Ericsson.Connection_Quality.UR_pmRtpSentPktsHi} \} * 2147483648.0) + \{ \text{Ericsson.Connection_Quality.UR_pmRtpSentPktsLo} \}) * 15)) * 8 / (1000000 * \{ \text{measurement_seconds} \})$	Sum

				$\text{Lo} \} +$ $(\{\text{Ericsson.Connection_Quality.UR_pmRtpSentPktsHi}\} * 2147483648.0) +$ $\{\text{Ericsson.Connection_Quality.UR_pmRtpSentPktsLo}\} * 7)) * 8 / (1000000 * \{\text{measurement_seconds}\})$	
Tot_BW_Sent_IPload_Sig_MPLS	ACCUMULATION	INT8	Total bandwidth for sent IP payload including signalling (Mbps) using MPLS/PPP protocol	$\{\text{Tot_BW_Sent_IPload_MPLS}\} +$ $\{\text{Tot_BW_Sent_Signalling}\}$	Sum
Tot_BW_Sent_IPload_Sig_PPP	ACCUMULATION	INT8	Total bandwidth for sent IP payload including signalling (Mbps) using PPP protocol	$\{\text{Tot_BW_Sent_IPload_PPP}\} +$ $\{\text{Tot_BW_Sent_Signalling}\}$	Sum
Tot_BW_Sent_Signalling	ACCUMULATION	FLOAT	Total bandwidth for sent signalling (Mbps)	$(((\{\text{pmNoOfSentUserData}\} * 1024) - (\{\text{pmSctpStatSentChunksDropped}\} * ((\{\text{pmNoOfSentUserData}\} / \{\text{pmNoOfDataMsgSent}\}) * 1024))) + (\{\text{pmSctpStatSentChunks}\} * 16) + (\{\text{pmSctpStatRetransChun$	Sum

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				$\begin{aligned} & \text{ks} \} * \\ & (((\{ \text{pmNoOfSentUserData} \} / \\ & \{ \text{pmNoOfDataMsgSent} \}) * \\ & 1024) + 16)) + \\ & (\{ \text{pmSctpStatSentControlC} \\ & \text{hunks} \} * 16) + \\ & (\{ \text{pmSctpStatSentPackages} \\ & \} * (12 + 20))) * 8 / \\ & (1000000 * \\ & \{ \text{measurement_seconds} \}) \end{aligned}$	
Tot_MGW_MSUs	ACCUMULATION	INT8	Total M-MGW MSU/s	{STP_SGW_MSUs} + {SEP_MSUs}	Sum

7.23 MGW_Resource_Pool Performance Indicators

This section shows the key performance indicators and other counters for the MGW_Resource_Pool object, divided into the following sub-sections:

- [MGW_Resource_Pool.Ericsson.UMTS.Device_Pool](#)
- [MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Digital_Pool](#)
- [MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Fax_Pool](#)
- [MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Modem_Pool](#)
- [MGW_Resource_Pool.Ericsson.UMTS.Jitter_Measurement](#)
- [MGW_Resource_Pool.Ericsson.UMTS.Tandem_Free_Op](#)
- [MGW_Resource_Pool.Ericsson.UMTS.Utilisation2](#)
- [MGW_Resource_Pool.Ericsson.UMTS.Utilisation](#)
- [MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Digital_Pool](#)
- [MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Modem_Pool](#)

7.23.1 MGW_Resource_Pool.Ericsson.UMTS.Device_Pool

Device pool data.

KPI	Type	Data Type	Description	Derivation	Aggregation
%_pmBusyInstances	PERCENTAGE	FLOAT	Percentage utilisation of service pool	$100 * \{ \text{pmBusyInstances} \} / (\{ \text{pmTotalSeizures} \} - \{ \text{pmUnsuccSeizures} \})$	Average, ermgwmsbh
%_pmTotalSeizures	PERCENTAGE	FLOAT	Obsolete in R4.1:Percentage utilisation of	$100 * \{ \text{pmBusyDevices} \} / (\{ \text{pmTotalSeizures} \} - \{ \text{pmUnsuccSeizures} \})$	Average, ermgwmsbh

			device.		
$\frac{\text{pmServiceReserveSucc}}{\text{pmServiceReserveSucc}}$	INTENSITY	FLOAT	Service reservation success rate	$(1 - (\frac{\text{pmUnsuccSeizures}}{\text{pmTotalSeizures}})) * 100$	Average, ermgwms bh, tot, min, max
pmBusyDevices	INTENSITY	INT8	Obsolete in R4.1:Current number of busy devices in the pool.	MsProcessing_InmarsatService.pmBusyDevices or MsProcessing_AmrService.pmBusyDevices or MsProcessing_NrService.pmBusyDevices or MsProcessing_ContinuityCheckService.pmBusyDevices or MsProcessing_ToneSenderService.pmBusyDevices or MsProcessing_TfoService.pmBusyDevices or MsProcessing_ImService.pmBusyDevices or MsProcessing_EfrService.pmBusyDevices or MsProcessing_CsdDigitalService.pmBusyDevices or MsProcessing_CsdGsmFhService.pmBusyDevices or MsProcessing_CsdGsmFaxService.pmBusyDevices or MsProcessing_CsdModemService.pmBusyDevices or MsProcessing_DtmfReceiverService.pmBusyDevices or MsProcessing_DtmfSenderService.pmBusyDevices or MsProcessing_EcService.pmBusyDevices or MsProcessing_GttService.pmBusyDevices or MsProcessing_IpbService.pmBusyDevices or MsProcessing_JitterHandlingS	Average, ermgwms bh, tot, min, max

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				ervice.pmBusyDevices or MsProcessing_MccService.pm BusyDevices or MsProcessing_MpcService.pm BusyDevices or MsProcessing_UpFhService.p mBusyDevices	
pmBusyInstances	INTENSITY	INTEG ER	The number of service instances of the correspondin g service type that are currently in use.	MsProcessing_IpEtService.pm BusyInstances or MsProcessing_PcmService.pm BusyInstances or MsProcessing_InmarsatService .pmBusyInstances or MsProcessing_AmrService.pm BusyInstances or MsProcessing_NrService.pmB usyInstances or MsProcessing_ContinuityChec kService.pmBusyInstances or MsProcessing_ToneSenderServ ice.pmBusyInstances or MsProcessing_TfoService.pmB usyInstances or MsProcessing_ImService.pmB usyInstances or MsProcessing_EfrService.pmB usyInstances or MsProcessing_CsdDigitalServi ce.pmBusyInstances or MsProcessing_CsdGsmFhServi ce.pmBusyInstances or MsProcessing_CsdGsmFaxSer vice.pmBusyInstances or MsProcessing_CsdModemServ ice.pmBusyInstances or MsProcessing_DtmfReceiverSe rvice.pmBusyInstances or MsProcessing_DtmfSenderSer vice.pmBusyInstances or MsProcessing_EcService.pmB usyInstances or MsProcessing_GttService.pmB usyInstances or MsProcessing_IpbService.pmB usyInstances or	Average, ermgwms bh, tot, min, max

				MsProcessing_JitterHandlingService.pmBusyInstances or MsProcessing_MccService.pmBusyInstances or MsProcessing_MpcService.pmBusyInstances or MsProcessing_UpFhService.p mBusyInstances	
pmBusyUnitsAmrWb	INTENSITY	INTEGER	The number of service instances currently in use for this user plane service.	MsProcessing_AmrWbService. pmBusyUnitsAmrWb	Average, ermgwms bh, tot, min, max
pmBusyUnitsG729	INTENSITY	INTEGER	The number of service instances currently in use for this user plane service.	MsProcessing_G729Service.p mBusyUnitsG729	Average, ermgwms bh, tot, min, max
pmForcedRelease	ACCUMULATION	INT8	Total number of forced device releases.	MsProcessing_IpEtService.pm ForcedRelease or MsProcessing_AmrWbService. pmForcedRelease or MsProcessing_G729Service.p mForcedRelease or MsProcessing_PcmService.pm ForcedRelease or MsProcessing_InmarsatService .pmForcedRelease or MsProcessing_AmrService.pm ForcedRelease or MsProcessing_NrService.pmFo rcedRelease or MsProcessing_ContinuityChec kService.pmForcedRelease or MsProcessing_ToneSenderServ	Sum, ermgwms bh

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				ice.pmForcedRelease or MsProcessing_TfoService.pmForcedRelease or MsProcessing_ImService.pmForcedRelease or MsProcessing_EfrService.pmForcedRelease or MsProcessing_CsdDigitalService.pmForcedRelease or MsProcessing_CsdGsmFhService.pmForcedRelease or MsProcessing_CsdGsmFaxService.pmForcedRelease or MsProcessing_CsdModemService.pmForcedRelease or MsProcessing_DtmfReceiverService.pmForcedRelease or MsProcessing_DtmfSenderService.pmForcedRelease or MsProcessing_EcService.pmForcedRelease or MsProcessing_GttService.pmForcedRelease or MsProcessing_IpbService.pmForcedRelease or MsProcessing_JitterHandlingService.pmForcedRelease or MsProcessing_MccService.pmForcedRelease or MsProcessing_MpcService.pmForcedRelease or MsProcessing_UpFhService.pmForcedRelease	
pmNormalRelease	ACCUMULATION	INT8	Total number of normal device releases.	MsProcessing_IpEtService.pmNormalRelease or MsProcessing_AmrWbService.pmNormalRelease or MsProcessing_G729Service.pmNormalRelease or MsProcessing_PcmService.pmNormalRelease or MsProcessing_InmarsatService.pmNormalRelease or MsProcessing_AmrService.pmNormalRelease or	Sum, ermgwmsbh

				MsProcessing_NrService.pmNormalRelease or MsProcessing_ContinuityCheckService.pmNormalRelease or MsProcessing_ToneSenderService.pmNormalRelease or MsProcessing_TfoService.pmNormalRelease or MsProcessing_ImService.pmNormalRelease or MsProcessing_EfrService.pmNormalRelease or MsProcessing_CsdDigitalService.pmNormalRelease or MsProcessing_CsdGsmFhService.pmNormalRelease or MsProcessing_CsdGsmFaxService.pmNormalRelease or MsProcessing_CsdModemService.pmNormalRelease or MsProcessing_DtmfReceiverService.pmNormalRelease or MsProcessing_DtmfSenderService.pmNormalRelease or MsProcessing_EcService.pmNormalRelease or MsProcessing_GttService.pmNormalRelease or MsProcessing_IpbService.pmNormalRelease or MsProcessing_JitterHandlingService.pmNormalRelease or MsProcessing_MccService.pmNormalRelease or MsProcessing_MpcService.pmNormalRelease or MsProcessing_UpFhService.pmNormalRelease	
pmSidActivated	ACCUMULATION	INTEGER	Obsolete in R5.1:The	MsProcessing_InmarsatService.pmSidActivated or	Sum, ermgwms

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			number of times the Silence Descriptor (SID) has been activated. (AMR and EFR service only)	MsProcessing_AmrService.pmSidActivated or MsProcessing_NrService.pmSidActivated or MsProcessing_ContinuityCheckService.pmSidActivated or MsProcessing_ToneSenderService.pmSidActivated or MsProcessing_TfoService.pmSidActivated or MsProcessing_ImService.pmSidActivated or MsProcessing_EfrService.pmSidActivated or MsProcessing_CsdDigitalService.pmSidActivated or MsProcessing_CsdGsmFhService.pmSidActivated or MsProcessing_CsdGsmFaxService.pmSidActivated or MsProcessing_CsdModemService.pmSidActivated or MsProcessing_DtmfReceiverService.pmSidActivated or MsProcessing_DtmfSenderService.pmSidActivated or MsProcessing_EcService.pmSidActivated or MsProcessing_GttService.pmSidActivated or MsProcessing_IpbService.pmSidActivated or MsProcessing_JitterHandlingService.pmSidActivated or MsProcessing_MccService.pmSidActivated or MsProcessing_MpcService.pmSidActivated or MsProcessing_UpFhService.pmSidActivated	bh
pmTotalSeizures	ACCUMULATION	INT8	Total number of seizure attempt of devices from this device	MsProcessing_IpEtService.pmTotalSeizures or MsProcessing_AmrWbService.pmTotalSeizures or MsProcessing_G729Service.p	Sum, erm gwms bh

			pool.	mTotalSeizures or MsProcessing_PcmService.pm TotalSeizures or MsProcessing_InmarsatService .pmTotalSeizures or MsProcessing_AmrService.pm TotalSeizures or MsProcessing_NrService.pmT otalSeizures or MsProcessing_ContinuityChec kService.pmTotalSeizures or MsProcessing_ToneSenderServ ice.pmTotalSeizures or MsProcessing_TfoService.pmT otalSeizures or MsProcessing_ImService.pmT otalSeizures or MsProcessing_EfrService.pmT otalSeizures or MsProcessing_CsdDigitalServi ce.pmTotalSeizures or MsProcessing_CsdGsmFhServi ce.pmTotalSeizures or MsProcessing_CsdGsmFaxSer vice.pmTotalSeizures or MsProcessing_CsdModemServ ice.pmTotalSeizures or MsProcessing_DtmfReceiverSe rvice.pmTotalSeizures or MsProcessing_DtmfSenderSer vice.pmTotalSeizures or MsProcessing_EcService.pmT otalSeizures or MsProcessing_GttService.pmT otalSeizures or MsProcessing_IpbService.pmT otalSeizures or MsProcessing_JitterHandlingS ervice.pmTotalSeizures or MsProcessing_MccService.pm TotalSeizures or	
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				MsProcessing_MpcService.pm TotalSeizures or MsProcessing_UpFhService.p mTotalSeizures	
pmUnsuccSeizures	ACCUMULATION	INT8	Total number of failed seizure attempts due to congestion.	MsProcessing_IpEtService.pm UnsuccSeizures or MsProcessing_AmrWbService. pmUnsuccSeizures or MsProcessing_G729Service.p mUnsuccSeizures or MsProcessing_PcmService.pm UnsuccSeizures or MsProcessing_InmarsatService .pmUnsuccSeizures or MsProcessing_AmrService.pm UnsuccSeizures or MsProcessing_NrService.pmU nsuccSeizures or MsProcessing_ContinuityChec kService.pmUnsuccSeizures or MsProcessing_ToneSenderServ ice.pmUnsuccSeizures or MsProcessing_TfoService.pm UnsuccSeizures or MsProcessing_ImService.pmU nsuccSeizures or MsProcessing_EfrService.pmU nsuccSeizures or MsProcessing_CsdDigitalServi ce.pmUnsuccSeizures or MsProcessing_CsdGsmFhServi ce.pmUnsuccSeizures or MsProcessing_CsdGsmFaxSer vice.pmUnsuccSeizures or MsProcessing_CsdModemServ ice.pmUnsuccSeizures or MsProcessing_DtmfReceiverSe rvice.pmUnsuccSeizures or MsProcessing_DtmfSenderSer vice.pmUnsuccSeizures or MsProcessing_EcService.pmU nsuccSeizures or MsProcessing_GttService.pmU nsuccSeizures or MsProcessing_IpbService.pmU	Sum, ermgwms bh

				nsuccSeizures or MsProcessing_JitterHandlingS ervice.pmUnsuccSeizures or MsProcessing_MccService.pm UnsuccSeizures or MsProcessing_MpcService.pm UnsuccSeizures or MsProcessing_UpFhService.p mUnsuccSeizures	
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7.23.2 MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Digital_Pool

GSM CSD digital pool data.

KPI	Type	Data Type	Description	Derivation	Aggregation
$\bar{\%_pmFtmSuccGsm}$	PERCENTAGE	FLOAT	Seizure success rate of non-transparent FTM GSM connections.	$100 * \{pmFtmSuccGsm\} / (\{pmFtmSuccGsm\} + \{pmFtmFailGsm\})$	Average, ermgwms bh
$\bar{\%_pmModemOSuccGsm}$	PERCENTAGE	FLOAT	Seizure success rate of originating MANT GSM connections.	$100 * \{pmModemOSuccGsm\} / (\{pmModemOSuccGsm\} + \{pmModemOFailGsm\})$	Average, ermgwms bh
$\bar{\%_pmModemTSuccGsm}$	PERCENTAGE	FLOAT	Seizure success rate of terminating MANT GSM connections.	$100 * \{pmModemTSuccGsm\} / (\{pmModemTSuccGsm\} + \{pmModemTFailGsm\})$	Average, ermgwms bh
$\bar{\%_pmUdiSuccGsm}$	PERCENTAGE	FLOAT	Seizure success rate of asynchronous non-transparent	$100 * \{pmUdiSuccGsm\} / (\{pmUdiSuccGsm\} + \{pmUdiFailGsm\})$	Average, ermgwms bh

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			UDI GSM connections.		
pmFtmFailGsm	ACCUMULATION	INT8	Total number of unsuccessful, non-transparent Frame Tunnel Mode (FTM) GSM connections.	MsProcessing_CsdDigitalService.pmFtmFailGsm	Sum, ermgwms bh
pmFtmSuccGsm	ACCUMULATION	INT8	Total number of successful, non-transparent FTM GSM connections.	MsProcessing_CsdDigitalService.pmFtmSuccGsm	Sum, ermgwms bh
pmModemOFailGsm	ACCUMULATION	INT8	Total number of unsuccessful originating MANT GSM connections.	MsProcessing_CsdDigitalService.pmModemOFailGsm	Sum, ermgwms bh
pmModemOSuccGsm	ACCUMULATION	INT8	Total number of successful originating, MANT GSM connections.	MsProcessing_CsdDigitalService.pmModemOSuccGsm	Sum, ermgwms bh
pmModemTFailGsm	ACCUMULATION	INT8	Total number of unsuccessful terminating MANT GSM connections.	MsProcessing_CsdDigitalService.pmModemTFailGsm	Sum, ermgwms bh
pmModemTSuccGsm	ACCUMULATION	INT8	Total number of successful terminating, MANT GSM connections.	MsProcessing_CsdDigitalService.pmModemTSuccGsm	Sum, ermgwms bh
pmNumFtmGsm	INTENSITY	INT8	Current number of	MsProcessing_CsdDigitalService.pmNumFtmGsm	Average, ermgwms

			non-transparent FTM GSM connections.		bh, tot, min, max
pmNumModemOGsm	INTENSITY	INT8	Current number of originating MANT GSM connections.	MsProcessing_CsdDigitalService.pmNumModemOGsm	Average, ermgwms bh, tot, min, max
pmNumModemTGsm	INTENSITY	INT8	Current number of terminating MANT GSM connections.	MsProcessing_CsdDigitalService.pmNumModemTGsm	Average, ermgwms bh, tot, min, max
pmNumUdiGsm	INTENSITY	INT8	Current number of asynchronous non-transparent Unrestricted Digital Information (UDI) GSM connections.	MsProcessing_CsdDigitalService.pmNumUdiGsm	Average, ermgwms bh, tot, min, max
pmUdiFailGsm	ACCUMULATION	INT8	Total number of unsuccessful asynchronous nontransparent UDI GSM connections.	MsProcessing_CsdDigitalService.pmUdiFailGsm	Sum, ermgwms bh
pmUdiSuccGsm	ACCUMULATION	INT8	Total number of successful asynchronous non-transparent UDI GSM connections.	MsProcessing_CsdDigitalService.pmUdiSuccGsm	Sum, ermgwms bh

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7.23.3 MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Fax_Pool

GSM CSD Fax pool data

KPI	Type	Data Type	Description	Derivation	Aggregation
_pmSuccCmm	PERCENTAGE	FLOAT	Percentage of successfully executed Channel Mode Modify (CMM) procedures. Condition: The counter is incremented when a Modify Resource Request with the new correct User Rate is received (CMM procedure completed).	$100 * \{pmSuccCmm\} / \{pmAttemptCmm\}$	Average, ermgwmsbh
pmAttemptCmm	ACCUMULATION	INTEGER	The number of Channel	MsProcessing_CsdGsmFaxService. pmAttemptCmm	Sum, ermgwmsbh

			Mode Modify (CMM) procedu re attempts . Conditio n: The counter is increme nted when the CSD fax device initiates the CMM request based on T.30 protocol message s, which are filtered out from the data stream between the end- to-end fax machine s. The CMM request is sent to the	
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			MGC to change the radio channel coding.		
pmSuccCmm	ACCUMULATION	INTEGER	The number of successfully executed Channel Mode Modify (CMM) procedures. Condition: The counter is incremented when a Modify Resource Request with the new correct User Rate is received (CMM procedure completed).	MsProcessing_CsdGsmFaxService .pmSuccCmm	Sum, ermngwm sbh
pmSyncTransFaxModemGsm	ACCUMULATION	INTEGER	The total number of synchro	MsProcessing_CsdGsmFaxService .pmSyncTransFaxModemGsm	Sum, ermngwm sbh

			nous transpar ent fax modem GSM connecti ons.		
pmUnsuccCmm	ACCUMUL ATION	INTE GER	The number of unsucc essful Channel Mode Modific ation (CMM) procedu res observe d by the Circuit Switche d Data (CSD) GSM fax device.	MsProcessing_CsdGsmFaxService .pmUnsuccCmm	Sum, ermgwm sbh
pmV27ter	ACCUMUL ATION	INTE GER	The total number of V.27 ter GSM fax modem connecti ons.	MsProcessing_CsdGsmFaxService .pmV27ter	Sum, ermgwm sbh
pmV29	ACCUMUL ATION	INTE GER	The total	MsProcessing_CsdGsmFaxService .pmV29	Sum, ermgwm

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			number of V.29 GSM fax modem connections.		sbh
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7.23.4 MGW_Resource_Pool.Ericsson.UMTS.GSM_CSD_Modem_Pool

GSM CSD Modem pool data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmAsyncNonTransModemGsm	ACCUMULATION	INT8	Total number of modem asynchronous non-transparent (MANT) GSM connections.	MsProcessing_CsdModemService. pmAsyncNonTransModemGsm	Sum, ermgwm sbh
pmAsyncTransModemGsm	ACCUMULATION	INT8	Total number of modem asynchronous transparent (MAT) GSM connections.	MsProcessing_CsdModemService. pmAsyncTransModemGsm	Sum, ermgwm sbh
pmSyncTransModemGsm	ACCUMULATION	INT8	Total number of modem synchro	MsProcessing_CsdModemService. pmSyncTransModemGsm	Sum, ermgwm sbh

			nous transpar ent (MST)		
pmV21Gsm	ACCUMUL ATION	INT8	Total number of V.21 GSM connecti ons.	MsProcessing_CsdModemService. pmV21Gsm	Sum, ermgwm sbh
pmV22bisGsm	ACCUMUL ATION	INT8	Total number of V.22bis GSM connecti ons.	MsProcessing_CsdModemService. pmV22bisGsm	Sum, ermgwm sbh
pmV22Gsm	ACCUMUL ATION	INT8	Total number of V.22 GSM connecti ons.	MsProcessing_CsdModemService. pmV22Gsm	Sum, ermgwm sbh
pmV32bis	ACCUMUL ATION	INTE GER	The total number of V.32bis WCDM A connecti ons.	MsProcessing_CsdModemService. pmV32bis	Sum, ermgwm sbh
pmV32Gsm	ACCUMUL ATION	INT8	Total number of V.32 GSM connecti ons.	MsProcessing_CsdModemService. pmV32Gsm	Sum, ermgwm sbh

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pmV34Gsm	ACCUMULATION	INT8	Total number of V.34 GSM connections.	MsProcessing_CsdModemService. pmV34Gsm	Sum, ermgwm sbh
pmV90Gsm	ACCUMULATION	INT8	Total number of V.90 GSM connections.	MsProcessing_CsdModemService. pmV90Gsm	Sum, ermgwm sbh
Tot_GSM_Modem_Connect	ACCUMULATION	INTEGER	The total number of GSM modem connections	{pmAsyncNonTransModemGsm} + {pmAsyncTransModemGsm} + {pmSyncTransModemGsm}	Sum, ermgwm sbh

7.23.5 MGW_Resource_Pool.Ericsson.UMTS.Jitter_Measurement

Resource pool jitter measurement

KPI	Type	Data Type	Description	Derivation	Aggregation
%_ATM_Conn_No_Disturbance	INTENSITY	FLOAT	The ratio of ATM connections that have had no disturbances due to jitter.	$1 - \frac{(\{pmAtmCnConnMeasuredJitter5\} + \{pmAtmRanConnMeasuredJitter5\})}{(\{pmAtmCnConnMeasuredJitter0\} + \{pmAtmRanConnMeasuredJitter0\} + \{pmAtmCnConnMeasuredJitter1\} + \{pmAtmRanConnMeasuredJitter1\} + \{pmAtmCnConnMeasuredJitter2\} + \{pmAtmRanConnMeasuredJitter2\} + \{pmAtmCnConnMeasuredJitter3\} + \{pmAtmRanConnMeasuredJitter3\} + \{pmAtmCnConnMeasuredJitter4\} + \{pmAtmRanConnMeasuredJitter4\})}$	Average, ermgw msbh, tot, min, max

				$\{pmAtmRanConnMeasuredJitter4\} + \{pmAtmCnConnMeasuredJitter5\} + \{pmAtmRanConnMeasuredJitter5\}) * 100$	
$\bar{\%_IP_Conn_No_Disturbance}$	INTENSITY	FLOAT	The ratio of IP connections that have had no disturbances due to jitter.	$(1 - ((\{pmIpCnConnMeasuredJitter5\}) / (\{pmIpCnConnMeasuredJitter0\} + \{pmIpCnConnMeasuredJitter1\} + \{pmIpCnConnMeasuredJitter2\} + \{pmIpCnConnMeasuredJitter3\} + \{pmIpCnConnMeasuredJitter4\} + \{pmIpCnConnMeasuredJitter5\}))) * 100$	Average, ermgw msbh, tot, min, max
$\bar{\%_Iu_Conn_No_Disturbance}$	INTENSITY	FLOAT	The ratio of Iu over IP connections that have had no disturbances due to jitter.	$(1 - ((\{pmIpRanConnMeasuredJitter5\}) / (\{pmIpRanConnMeasuredJitter0\} + \{pmIpRanConnMeasuredJitter1\} + \{pmIpRanConnMeasuredJitter2\} + \{pmIpRanConnMeasuredJitter3\} + \{pmIpRanConnMeasuredJitter4\} + \{pmIpRanConnMeasuredJitter5\}))) * 100$	Average, ermgw msbh, tot, min, max
$\bar{\%_VoIP_Conn_No_Disturbance}$	INTENSITY	FLOAT	The ratio of VoIP connections that have had no disturbances due to jitter.	$(1 - ((\{pmVoIpConnMeasuredJitter5\} + \{pmVoIpConnMeasuredJitter6\} + \{pmVoIpConnMeasuredJitter7\} + \{pmVoIpConnMeasuredJitter8\}) / (\{pmVoIpConnMeasuredJitter0\} + \{pmVoIpConnMeasuredJitter1\} + \{pmVoIpConnMeasuredJitter2\} + \{pmVoIpConnMeasuredJitter3\} + \{pmVoIpConnMeasuredJitter4\} + \{pmVoIpConnMeasuredJitter5\} + \{pmVoIpConnMeasuredJitter6\} + \{pmVoIpConnMeasuredJitter7\} +$	Average, ermgw msbh, tot, min, max

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				{pmVoIpConnMeasuredJitter8}}))* 100	
pmAtmCnConnLatePktsRatio0	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) when jitter compensation is used and where no packet has missed its processing time slot, that is, it has not been delayed more than the configured jitter protection time.	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio0	Sum, erm, gw, msbh
pmAtmCnConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN)	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio1	Sum, erm, gw, msbh

			when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet	
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			is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmAtmCnConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio2	Sum, erm_gwmsbh

			<p>the jitter compensation buffer is 0.0001 $< R \leq 0.001$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7</p>	
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			packets in the buffer, otherwise the packet is dropped.		
pmAtmCnConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.001 < R \leq 0.005$. Late packet means that it has missed its	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio3	Sum, erm, gw, msbh

			<p>processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.</p>		
pmAtmCnConnLatePktsRatio4	ACCUMULATION	INTEGER	The total number of ATM connections	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio4	Sum, ermghwmsbh

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		<p>towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is,</p>		
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			however , processe d in the next schedule d processi ng time slot if there are less than 7 packets in the buffer, otherwis e the packet is dropped.		
pmAtmCnConnLate PktsRatio5	ACCUMUL ATION	INTE GER	The total number of ATM connecti ons towards Core Network (CN) when jitter compen sation is used and the ratio (R) of late packets to total	MsProcessing_JitterHandlingServic e.pmAtmCnConnLatePktsRatio5	Sum, ermgw msbh

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		<p>number of packets through the jitter compensation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the</p>		
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			buffer, otherwise the packet is dropped.		
pmAtmCnConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has	MsProcessing_JitterHandlingService.pmAtmCnConnLatePktsRatio6	Sum, ermngwmsbh

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			missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmAtmCnConnMeasuredJitter0	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network	MsProcessing_JitterHandlingService.pmAtmCnConnMeasuredJitter0	Sum, ermgwmsbh

			(CN) with measured jitter (J) is 0 ms \leq J \leq 0.5 ms (very low input jitter). The jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor frames are not included in the measurement.		
pmAtmCnConnMeasuredJitter1	ACCUMULATION	INTEGER	The total	MsProcessing_JitterHandlingService.pmAtmCnConnMeasuredJitter1	Sum, erm-gw

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			<p>number of ATM connections towards Core Network (CN) with measured jitter (J) is $0.5 \text{ ms} < J \leq 1.0 \text{ ms}$ (low input jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.</p>		msbh
pmAtmCnConnMeasuredJitter2	ACCUMULATION	INTEGER	The total	MsProcessing_JitterHandlingService.pmAtmCnConnMeasuredJitter2	Sum, erm gw

			number of ATM connections towards Core Access Network (CN) with measured jitter (J) is 1.0 ms < J <= 2.0 ms (moderate input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not	msbh
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			included in the measurement.		
pmAtmCnConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) with measured jitter (J) is 2.0 ms < J <= 5.0 ms (high input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not	MsProcessing_JitterHandlingService.pmAtmCnConnMeasuredJitter3	Sum, erm_gw_msbh

			included in the measure ment.		
pmAtmCnConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number of ATM connections towards Core Network (CN) with measured jitter (J) is 5.0 ms < J <= 8.0 ms (very high input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate	MsProcessing_JitterHandlingService.pmAtmCnConnMeasuredJitter4	Sum, erm, gw, msbh

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			(AMR) Silence Descript or (SID) frames are not included in the measure ment.		
pmAtmCnConnMeas uredJitter5	ACCUMUL ATION	INTE GER	The total number of ATM connecti ons towards Core Network (CN) with measure d is greater than 8.0 ms (ultra high input jitter). Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. Adaptiv e Multi-	MsProcessing_JitterHandlingServic e.pmAtmCnConnMeasuredJitter5	Sum, erm gw msbh

			rate (AMR) Silence Descript or (SID) frames are not included in the measurement.		
pmAtmRanConnLatePktsRatio0	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) when jitter compensation is used and where no packet has missed its processing time slot, that is, it has not delayed more	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio0	Sum, ermgsb

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			than the configured jitter protection time.		
pmAtmRanConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processi	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio1	Sum, erm, gw, msbh

			ng time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmAtmRanConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of ATM connections towards	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio2	Sum, ermgsb

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		<p>Radio Access Network (RAN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.0001 < R \leq 0.001$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is,</p>	
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			however , processe d in the next schedule d processi ng time slot if there are less than 7 packets in the buffer, otherwis e the packet is dropped.		
pmAtmRanConnLate PktsRatio3	ACCUMUL ATION	INTE GER	The total number of ATM connecti ons towards Radio Access Network (RAN) when jitter compen sation is used and the ratio (R) of late packets	MsProcessing_JitterHandlingServic e.pmAtmRanConnLatePktsRatio3	Sum, ermgw msbh

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		<p>to total number of packets through the jitter compensation buffer is $0.001 < R \leq 0.005$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than</p> <p>7</p>	
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			packets in the buffer, otherwise the packet is dropped.		
pmAtmRanConnLatePktsRatio4	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.005 < R \leq 0.01$. Late	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio4	Sum, erm, gw, msbh

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			packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmAtmRanConnLatePktsRatio5	ACCUMULATION	INTEGER	The total number of ATM connecti	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio5	Sum, erm _{gw} msbh

			ons towards Radio Access Network (RAN) when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processi ng time slot, that is, it is delayed more than the configur	
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			<p>ed jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.</p>		
pmAtmRanConnLatePktsRatio6	ACCUMULATION	INTEGER	<p>The total number of ATM connections towards Radio Access Network (RAN) when jitter compensation is used and the ratio (R) of late</p>	MsProcessing_JitterHandlingService.pmAtmRanConnLatePktsRatio6	Sum, ermgsb

			packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing	
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			ng time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmAtmRanConnMeasuredJitter0	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) with measured jitter (J) is 0 ms \leq J \leq 0.5 ms (very low input jitter). Jitter is measured only for connections where jitter compensation has been perform	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter0	Sum, erm gw msbh

			ed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.		
pmAtmRanConnMeasuredJitter1	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) with measured jitter (J) is 0.5 ms < J <= 1.0 ms (low input Jitter). Jitter is measured only for connections	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter1	Sum, erm, gw, msbh

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			<p>where jitter compensation has been performed.</p> <p>Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.</p>		
pmAtmRanConnMeasuredJitter2	ACCUMULATION	INTEGER	<p>The total number of ATM connections towards Radio Network (RAN) with measured jitter (J) is 1.0 ms < J <= 2.0 ms (moderate input Jitter). Jitter is measured only for connecti</p>	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter2	Sum, erm, gw, msbh

			ons where jitter compensation has been performed. Adaptive Multi- rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.		
pmAtmRanConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network (RAN) with measured jitter (J) is 2.0 ms < J <= 5.0 ms (high input	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter3	Sum, ermgw msbh

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			Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.		
pmAtmRanConnMeasuredJitter4	ACCUMULATION	INTER	The total number of ATM connections towards Radio Access Network with measured jitter (J) is 5.0 ms < J ≤ 8.0 ms (very high	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter4	Sum, ermghwmsbh

			input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor frames are not included in the measurement.		
pmAtmRanConnMeasuredJitter5	ACCUMULATION	INTEGER	The total number of ATM connections towards Radio Access Network with measure	MsProcessing_JitterHandlingService.pmAtmRanConnMeasuredJitter5	Sum, erm, gw, msbh

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			<p>d jitter is greater than 8.0 ms (ultra high input jitter). The jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor frames are not included in the measurement.</p>		
pmIpCnConnLatePktsRatio0	ACCUMULATION	INTEGER	<p>The total number of IP connections towards Core Network</p>	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio0	Sum, erm_gw_msbh

			(CN) when jitter compensation is used and where no packet has missed its processing time slot, that is, it has not delayed more than the configured jitter protection time.		
pmIpCnConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of IP connections towards Core Network (CN) when jitter compensation is used and the ratio	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio1	Sum, ermgw msbh

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		(R) of late packets to total number of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if	
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			there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmIpCnConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of IP connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.0001 < R \leq$	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio2	Sum, ermgsbh

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			0.001. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmIpCnConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio3	Sum, ermngwmsbh

			of IP connecti ons towards Core Network (CN) when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is $0.001 < R \leq 0.005$. Late packet means that it has missed its processi ng time slot, that is, it is delayed more	
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			<p>than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.</p>		
pmIpCnConnLatePktsRatio4	ACCUMULATION	INTEGER	<p>The total number of IP connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of</p>	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio4	Sum, ermghwmsbh

			late packets to total number of packets through the jitter compensation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next schedule	
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			<p>d processi ng time slot if there are less than 7 packets in the buffer, otherwis e the packet is dropped.</p>		
pmIpCnConnLatePktsRatio5	ACCUMULATION	INTEGER	<p>The total number of IP connecti ons towards Core Network (CN) when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is $0.01 < R \leq 0.03$. Late</p>	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio5	Sum, erm, gwm, sbh

			packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.	
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pmIpCnConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of IP connections towards Core Network (CN) when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed its processing time slot, that is, it is delayed more than the configured jitter	MsProcessing_JitterHandlingService.pmIpCnConnLatePktsRatio6	Sum, ermghwmsbh
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			protecti on time. The packet is, however , processe d in the next schedule d processi ng time slot if there are less than 7 packets in the buffer, otherwis e the packet is dropped.		
pmIpCnConnMeasur edJitter0	ACCUMUL ATION	INTE GER	The total number of IP connecti ons towards Core Network (CN) with measure d jitter (J) is 0 ms <= J	MsProcessing_JitterHandlingServic e.pmIpCnConnMeasuredJitter0	Sum, ermgw msbh

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			<p>≤ 0.5 ms (very low input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.</p>		
pmIpCnConnMeasuredJitter1	ACCUMULATION	INTEGER	<p>The total number of IP connections towards Core Network (CN) with measured jitter (J) is 0.5</p>	MsProcessing_JitterHandlingService.pmIpCnConnMeasuredJitter1	Sum, erm_gwmsbh

			<p>ms < J <= 1.0 ms (low input Jitter). Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. Adaptiv e Multi- rate (AMR) Silence Descript or (SID) frames are not included in the measure ment.</p>		
pmIpCnConnMeasur edJitter2	ACCUMUL ATION	INTE GER	The total number of IP connecti ons towards Core Network	MsProcessing_JitterHandlingServic e.pmIpCnConnMeasuredJitter2	Sum, ermgw msbh

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			(CN) with measure d jitter (J) is 1.0 ms < J <= 2.0 ms (modera te input Jitter). Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. Adaptiv e Multi- rate (AMR) Silence Descript or (SID) frames are not included in the measure ment.		
pmIpCnConnMeasur edJitter3	ACCUMUL ATION	INTE GER	The total number of IP connecti ons towards Core	MsProcessing_JitterHandlingServic e.pmIpCnConnMeasuredJitter3	Sum, ermgw msbh

			Network (CN) with measured jitter (J) is 2.0 ms < J <= 5.0 ms (high input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.		
pmIpCnConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number	MsProcessing_JitterHandlingService.pmIpCnConnMeasuredJitter4	Sum, ermngwmsbh

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			<p>of IP connections towards Core Network (CN) with measured jitter (J) is 5.0 ms < J ≤ 8.0 ms (very high input Jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included in the measurement.</p>		
pmIpCnConnMeasur	ACCUMUL	INTE	The	MsProcessing_JitterHandlingServic	Sum,

edJitter5	ATION	GER	total number of IP connections towards Core Network (CN) with measured jitter is greater than 8.0 ms (ultra high input jitter). Jitter is measured only for connections where jitter compensation has been performed. Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames	e.pmIpCnConnMeasuredJitter5	ermgw msbh
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			are not included in the measurement.		
pmIpRanConnLatePktsRatio0	ACCUMULATION	INTEGER	The total number of IP connections towards RAN when jitter compensation is used and where no packet has missed its processing time slot, that is, no packet has caused jitter buffer under-run due to late arrival.	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio0	Sum, erm-gw msbh
pmIpRanConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of IP connections towards RAN	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio1	Sum, erm-gw msbh

			when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due	
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			to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmIpRanConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of IP connections towards RAN when jitter compensation is used and the ratio (R) of late packets	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio2	Sum, ermghwmsbh

			to total number of packets through the jitter compensation buffer is 0.0001 < R <= 0.001. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late	
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			packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmIpRanConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number of IP connections towards RAN when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio3	Sum, ermngwmsbh

			0.001 < R <= 0.005. Late packet means that it has missed its processi ng time slot, that is, a number of packets have caused jitter buffer under- run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processe d in the next schedule	
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			d processi ng time slot. In such a case the total delay will increase.		
pmIpRanConnLateP ktsRatio4	ACCUMUL ATION	INTE GER	The total number of IP connecti ons towards RAN when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed	MsProcessing_JitterHandlingServic e.pmIpRanConnLatePktsRatio4	Sum, ermgw msbh

			its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will	
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			increase.		
pmIpRanConnLatePktsRatio5	ACCUMULATION	INTEGER	The total number of IP connections towards RAN when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio5	Sum, erm-gw msbh

			jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmIpRanConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of IP connections towards RAN	MsProcessing_JitterHandlingService.pmIpRanConnLatePktsRatio6	Sum, ermgsb

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		<p>when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the</p>		
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			speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmIpRanConnMeasuredJitter0	ACCUMULATION	INTEGER	The total number of IP connections towards the RAN with measured jitter (J) is 0 ms \leq J \leq 0.5 ms. Jitter is measure	MsProcessing_JitterHandlingService.pmIpRanConnMeasuredJitter0	Sum, ermngwmsbh

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			d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmIpRanConnMeasu redJitter1	ACCUMUL ATION	INTE GER	The total number of IP connecti ons towards the RAN with measure d jitter (J) is 0.5 ms < J <= 1.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform	MsProcessing_JitterHandlingServic e.pmIpRanConnMeasuredJitter1	Sum, ermgw msbh

			ed. SID frames are not included in the measurement.		
pmIpRanConnMeasuredJitter2	ACCUMULATION	INTEGER	The total number of IP connections towards the RAN with measured jitter (J) is $1.0 \text{ ms} < J \leq 2.0 \text{ ms}$. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the	MsProcessing_JitterHandlingService.pmIpRanConnMeasuredJitter2	Sum, erm, gw, msbh

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			measure ment.		
pmIpRanConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of IP connections towards the RAN with measured jitter (J) is 2.0 ms < J <= 5.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.	MsProcessing_JitterHandlingService.pmIpRanConnMeasuredJitter3	Sum, erm, gw, msbh
pmIpRanConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number of IP connections towards the	MsProcessing_JitterHandlingService.pmIpRanConnMeasuredJitter4	Sum, erm, gw, msbh

			<p>RAN with measured jitter (J) is 5.0 ms < J ≤ 8.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.</p>		
pmIpRanConnMeasuredJitter5	ACCUMULATION	INTEGER	The total number of IP connections towards the RAN with measured jitter (J) is	MsProcessing_JitterHandlingService.pmIpRanConnMeasuredJitter5	Sum, ermghwmsbh

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			greater than 8.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.		
pmLatePktsAtmCn	ACCUMULATION	INTEGER	The total number of packets in the connections towards ATM-based Core Network (CN) where a packet has been so late that it has missed its processi	MsProcessing_JitterHandlingService.pmLatePktsAtmCn	Sum, ermgsb

			ng time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmLatePktsAtmRan	ACCUMULATION	INTEGER	The total number of packets in the connecti	MsProcessing_JitterHandlingService.pmLatePktsAtmRan	Sum, ermngwmsbh

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		<p>ons towards ATM- based Radio Access Network where a packet has been so late that it has missed its processi ng time slot, that is, it is delayed more than the configur ed jitter protecti on time. The packet is, however , processe d in the next schedule d processi ng time slot if there are less than 7 packets in the buffer, otherwis</p>		
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			e the packet is dropped.		
pmLatePktsIpCn	ACCUMULATION	INTEGER	The total number of packets in the connections towards IP-based Core Network where a packet has been so late that it has missed its processing time slot, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed	MsProcessing_JitterHandlingService.pmLatePktsIpCn	Sum, ermngwmsbh

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			d in the next scheduled processing time slot if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmLatePktsIpRan	ACCUMULATION	INTEGER	The total number of packets in the connections towards an IP-based RAN where a packet has been so late that it has missed its processing time slot, that is, a number of packets have	MsProcessing_JitterHandlingService.pmLatePktsIpRan	Sum, ermgsb

			caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmLatePktsVolp	ACCUMULATION	INTEGER	The total number of packets in the connecti	MsProcessing_JitterHandlingService.pmLatePktsVolp	Sum, ermngw msbh

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		<p>ons towards a VoIP interface where a packet has been so late that it has missed its processi ng time slot, that is, a number of packets have caused jitter buffer under- run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processe d in the next schedule d processi ng time</p>		
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			slot. In such a case the total delay will increase.		
pmSuccTransmittedPktsAtmCn	ACCUMULATION	INTEGER	The total number of successfully transmitted packets through the jitter compensation buffer for the connections towards ATM-based Core Network (CN). Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included	MsProcessing_JitterHandlingService.pmSuccTransmittedPktsAtmCn	Sum, erm, gw, msbh

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			.		
pmSuccTransmittedPktsAtmRan	ACCUMULATION	INTEGER	The total number of successfully transmitted packets through the jitter compensation buffer for the connections towards ATM-based Radio Access Network (RAN). Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.	MsProcessing_JitterHandlingService.pmSuccTransmittedPktsAtmRan	Sum, erm, gw, msbh
pmSuccTransmittedPktsIpCn	ACCUMULATION	INTEGER	The total number of successfully transmitted packets	MsProcessing_JitterHandlingService.pmSuccTransmittedPktsIpCn	Sum, erm, gw, msbh

			through the jitter compensation buffer for the connections towards IP-based Core Network (CN). Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmSuccTransmittedPktsIpRan	ACCUMULATION	INTEGER	The total number of successfully transmitted packets through the jitter compensation buffer for the connecti	MsProcessing_JitterHandlingService.pmSuccTransmittedPktsIpRan	Sum, erm, gw, msbh

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			ons towards an IP- based RAN. SID frames are not included in the measure ment.		
pmSuccTransmittedP ktsVoIp	ACCUMUL ATION	INTE GER	The total number of successf ully transmit ted packets through the jitter compen sation buffer for connecti ons towards a VoIP interface . SID frames are not included in the measure ment.	MsProcessing_JitterHandlingServic e.pmSuccTransmittedPktsVoIp	Sum, ermgw msbh
pmVoIpConnLatePkt sRatio0	ACCUMUL ATION	INTE GER	The total number of VoIP connecti ons	MsProcessing_JitterHandlingServic e.pmVoIpConnLatePktsRatio0	Sum, ermgw msbh

			when jitter compensation is used and no packet has missed its processing time slot, that is, no packet has caused jitter buffer under-run due to late arrival.		
pmVoIpConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compensation is used and the ratio (R) of late packets to total number	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio1	Sum, erm, gw, msbh

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		<p>of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the</p>		
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			next scheduled processing time slot. In such a case the total delay will increase.		
pmVoIpConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is 0.0001 < R <= 0.001. Late	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio2	Sum, ermgsb

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		<p>packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will</p>	
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			increase.		
pmVoIpConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.001 < R \leq 0.005$. Late packet means that it has missed its processing time slot, that is, a number	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio3	Sum, ermghwmsbh

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			of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmVoIpConnLatePktsRatio4	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compen	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio4	Sum, ermgsb

			sation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order	
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			to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase.		
pmVoIpConnLatePktsRatio5	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio5	Sum, ermngwmsbh

			<p>the jitter compensation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed</p>	
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			d in the next scheduled processing time slot. In such a case the total delay will increase.		
pmVoIpConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of VoIP connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed	MsProcessing_JitterHandlingService.pmVoIpConnLatePktsRatio6	Sum, erm, gw, msbh

			its processing time slot, that is, a number of packets have caused jitter buffer under-run due to late arrival. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will	
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			increase.		
pmVoIpConnMeasuredJitter0	ACCUMULATION	INTEGER	The total number of VoIP connections with measured jitter (J) is 0 ms \leq J \leq 0.5 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter0	Sum, erm, gw, msbh
pmVoIpConnMeasuredJitter1	ACCUMULATION	INTEGER	The total number of VoIP connections with measured jitter (J) is 0.5 ms \leq J \leq 1.0 ms. Jitter is	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter1	Sum, erm, gw, msbh

			measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmVoIpConnMeasur edJitter2	ACCUMUL ATION	INTE GER	The total number of VoIP connecti ons with measure d jitter (J) is 1.0 ms <= J <= 2.0 ms. Jitter is measure d only for connecti ons where jitter compen sation	MsProcessing_JitterHandlingServic e.pmVoIpConnMeasuredJitter2	Sum, ermgw msbh

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			has been performed. SID frames are not included in the measurement.		
pmVoIpConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of VoIP connections with measured jitter (J) is 2.0 ms \leq J \leq 5.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter3	Sum, erm, gw, msbh
pmVoIpConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number of VoIP connections	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter4	Sum, erm, gw, msbh

			ons with measure d jitter (J) is 5.0 ms <= J <= 8.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmVoIpConnMeasur edJitter5	ACCUMUL ATION	INTE GER	The total number of VoIP connecti ons with measure d jitter (J) is 8.0 ms < J <= 30.0 ms. Jitter is measure	MsProcessing_JitterHandlingServic e.pmVoIpConnMeasuredJitter5	Sum, ermgw msbh

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			d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmVoIpConnMeasur edJitter6	ACCUMUL ATION	INTE GER	The total number of VoIP connecti ons with measure d jitter (J) is 30.0 ms < J <= 60.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included	MsProcessing_JitterHandlingServic e.pmVoIpConnMeasuredJitter6	Sum, ermgw msbh

			in the measurement.		
pmVoIpConnMeasuredJitter7	ACCUMULATION	INTEGER	The total number of VoIP connections with measured jitter (J) is 60.0 ms < J <= 100.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter7	Sum, erm, gw, msbh
pmVoIpConnMeasuredJitter8	ACCUMULATION	INTEGER	The total number of VoIP connections	MsProcessing_JitterHandlingService.pmVoIpConnMeasuredJitter8	Sum, erm, gw, msbh

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			ons with measure d jitter (J) is greater than 100.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.	
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7.23.6 MGW_Resource_Pool.Ericsson.UMTS.Tandem_Free_Op

MGW Resource Pool on Tandem Free Operation

KPI	Type	Data Type	Description	Derivation	Aggregation
%_First_Nego_AMR_NB_Success	PERCENTAGE	FLOAT	The Tandem Free Operation first negotiation contact success rate for AMR-NB Codec	$100 * \frac{\{\text{pmTfoAmrNbNegotiations}\}}{\{\text{pmTfoAmrNbEndPointMode}\}}$	Average, ermgwm sbh

			types		
%_First_Nego_AMRWB_Success	PERCENTAGE	FLOAT	The Tandem Free Operation first negotiation contact success rate for AMR-WB Codec types	$100 * \frac{\{pmTfoAmrWbNegotiations\}}{\{pmTfoAmrWbEndPointMode\}}$	Average, ermgwm sbh
%_First_Nego_EFR_Success	PERCENTAGE	FLOAT	The Tandem Free Operation first negotiation contact success rate for EFR Codec types	$100 * \frac{\{pmTfoEfrNegotiations\}}{\{pmTfoEfrEndPointMode\}}$	Average, ermgwm sbh
%_TFO_AMRNB_Success	PERCENTAGE	FLOAT	The Tandem Free Operation success rate for AMR-NB Codec types	$100 * \frac{(\{pmTfoAmrNbEstablishments\} + \{pmTfoAmrNbReEstablishments\} - \{pmTfoAmrNbDroppedCalls\})}{(\{pmTfoAmrNbNegotiations\} + \{pmTfoAmrNbReNegotiations\})}$	Average, ermgwm sbh
_	PERCENTAGE	FLOAT	The	$100 *$	Average,

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%_TFO_AMRWB_Success	GE	T	Tandem Free Operation success rate for AMR-NB Codec types	$\left(\{pmTfoAmrWbEstablishments\} + \{pmTfoAmrWbReEstablishments\} - \{pmTfoAmrWbDroppedCalls\} \right) / \left(\{pmTfoAmrWbNegotiations\} + \{pmTfoAmrWbReNegotiations\} \right)$	ermgwm sbh
%_TFO_EFR_Success	PERCENTAGE	FLOAT	The Tandem Free Operation success rate for AMR-NB Codec types	$100 * \left(\{pmTfoEfrEstablishments\} + \{pmTfoEfrReEstablishments\} - \{pmTfoEfrDroppedCalls\} \right) / \left(\{pmTfoEfrNegotiations\} + \{pmTfoEfrReNegotiations\} \right)$	Average, erm gwm sbh
%_TFO_Fallback_PCM_AMR_Success	PERCENTAGE	FLOAT	The Tandem Free Operation fallbacks to PCM Success Rate (AMR Codec)	$100 * \{pmTfoAmrNbFallbacks\} / \left(\{pmTfoAmrNbFallbacks\} + \{pmTfoAmrNbDroppedCalls\} \right)$	Average, erm gwm sbh
%_TFO_Fallback_PCM_EFR_Success	PERCENTAGE	FLOAT	The Tandem Free Operation fallbacks to PCM Success Rate (EFR Codec)	$100 * \{pmTfoEfrFallbacks\} / \left(\{pmTfoEfrFallbacks\} + \{pmTfoEfrDroppedCalls\} \right)$	Average, erm gwm sbh
pmTfoAmrNbDroppedCalls	ACCUMULATION	INTEGER	The number of failed Tandem	MsProcessing_TfoService.pmTfoAmrNbDroppedCalls	Sum, erm gwm sbh

			Free Operation (TFO) fallbacks to PCM.		
pmTfoAmrNbEndPointMode	ACCUMULATION	INTEGER	The number times the Tandem Free Operation (TFO) service instance has been reserved in end point mode for Adaptive Multi Rate (AMR) narrow band codec types.	MsProcessing_TfoService.pmTfoAmrNbEndPointMode	Sum, ermngwm sbh
pmTfoAmrNbEstablishments	ACCUMULATION	INTEGER	The number of successfully established connections based on Tandem Free Operation	MsProcessing_TfoService.pmTfoAmrNbEstablishments	Sum, ermngwm sbh

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			(TFO) negotiations with another partner for Adaptive Multi Rate (AMR) narrow band codec types.		
pmTfoAmrNbFallbacks	ACCUMULATION	INTEGER	The number of Tandem Free Operation (TFO) fallbacks to PCM when using the Adaptive Multi Rate (AMR) narrow band speech codec.	MsProcessing_TfoService.pmTfoAmrNbFallbacks	Sum, ermgwmsbh
pmTfoAmrNbNegotiations	ACCUMULATION	INTEGER	The number of Tandem Free Operation (TFO) negotiations with another partner for	MsProcessing_TfoService.pmTfoAmrNbNegotiations	Sum, ermgwmsbh

			Adaptive Multi Rate (AMR) narrow band codec types.		
pmTfoAmrNbReEstablishments	ACCUMULATION	INTEGER	The number of successfully established connections based on Tandem Free Operation (TFO) renegotiations with another partner for Adaptive Multi Rate (AMR) narrow band codec types.	MsProcessing_TfoService.pmTfoAmrNbReEstablishments	Sum, ermngwm sbh
pmTfoAmrNbReNegotiations	ACCUMULATION	INTEGER	The number of Tandem Free	MsProcessing_TfoService.pmTfoAmrNbReNegotiations	Sum, ermngwm sbh

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			<p>Operation (TFO) renegotiations with another partner for Adaptive Multi Rate (AMR) narrow band codec types. The renegotiation is triggered after TFO fallback to PCM has occurred.</p>		
pmTfoAmrWbDroppedCalls	ACCUMULATION	INTEGER	<p>The number of unsuccessful TFO fallbacks to PCM when using the AMR Wideband (AMR-WB) speech codec. The connection is eventually released by the</p>	MsProcessing_TfoService.pm TfoAmrWbDroppedCalls	Sum, ermngwm sbh

			MGC based on an error notification sent by the M-MGw.		
pmTfoAmrWbEndPointMode	ACCUMULATION	INTEGER	The number of successful TFO service seizures for AMR-WB codec type, that is, the number of times the TFO service instance has been reserved in end point mode for AMR-WB codec type.	MsProcessing_TfoService.pmTfoAmrWbEndPointMode	Sum, ermngwm sbh
pmTfoAmrWbEstablishments	ACCUMULATION	INTEGER	The number of successful establishments based on	MsProcessing_TfoService.pmTfoAmrWbEstablishments	Sum, ermngwm sbh

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		<p>the first TFO negotiation with another partner for AMR-WB codec type. If the TFO negotiation does not lead to a TFO establishment it usually means that the TFO partner does not support compatible codec types in order to establish TFO. Other reasons can be expired timers or that the RC waiting timer prevents the TFO establishment. It cannot be determined which</p>	
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			one of the TFO partners is the reason for the unsuccessful TFO establishment.		
pmTfoAmrWbFallbacks	ACCUMULATION	INTEGER	The number of TFO connections falling back to PCM when using the AMR-WB speech codec. Possible causes for fallbacks are insertion of non-TFO compatible functions into the TFO link, such as tone senders, DTMF senders,	MsProcessing_TfoService.pm TfoAmrWbFallbacks	Sum, ermngwm sbh

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			announcements and conference calls.		
pmTfoAmrWbNegotiations	ACCUMULATION	INTEGER	The number of TFO negotiations with another partner for AMR-WB codec type, that is the number of times negotiation contact is reached with a distant TFO partner during the first TFO negotiation attempt. It is enough that the distant TFO partner responds, not necessarily leading to a TFO establishment. If the distant TFO	MsProcessing_TfoService.pm TfoAmrWbNegotiations	Sum, ermngwmsbh

			partner is unreachable the counter is not incremented. This could be the case when negotiating TFO towards networks not supporting TFO, for example PSTN.		
pmTfoAmrWbReEstablishments	ACCUMULATION	INTEGER	The number of successfully established connections based on TFO renegotiations with another partner for AMR-WB codec type.	MsProcessing_TfoService.pmTfoAmrWbReEstablishments	Sum, ermngwm sbh
pmTfoAmrWbReNegotiations	ACCUMULATION	INTEGER	The number	MsProcessing_TfoService.pmTfoAmrWbReNegotiations	Sum, ermngwm

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		<p>of TFO renegotiations with another partner for AMR-WB codec types, that is, the number of times a negotiation contact is reached with a distant TFO partner after the first TFO negotiation attempt. Renegotiations can be triggered for example after a TFO fallback to PCM, when the distant TFO partner starts a new TFO negotiation after it has changed its codec or when the</p>	sbh
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			distant TFO partner starts a TFO negotiation after the local partner has stopped its first TFO negotiation.		
pmTfoEfrDroppedCalls	ACCUMULATION	INTEGER	The number of failed Tandem Free Operation (TFO) fallbacks to PCM.	MsProcessing_TfoService.pmTfoEfrDroppedCalls	Sum, ermngwm sbh
pmTfoEfrEndPointMode	ACCUMULATION	INTEGER	The number of times the Tandem Free Operation (TFO) service instance has been reserved in end point mode for Enhanced	MsProcessing_TfoService.pmTfoEfrEndPointMode	Sum, ermngwm sbh

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			Full Rate (EFR) codec type.		
pmTfoEfrEstablishments	ACCUMULATION	INTEGER	The number of successfully established connections based on Tandem Free Operation (TFO) negotiations with another partner for Enhanced Full Rate (EFR) codec type.	MsProcessing_TfoService.pmTfoEfrEstablishments	Sum, ermngwm sbh
pmTfoEfrFallbacks	ACCUMULATION	INTEGER	The number of Tandem Free Operation (TFO) fallbacks to PCM when using the GSM Enhanced Full Rate (EFR) speech codec.	MsProcessing_TfoService.pmTfoEfrFallbacks	Sum, ermngwm sbh

pmTfoEfrNegotiations	ACCUMULATION	INTEGER	The number of Tandem Free Operation (TFO) negotiations with another partner for Enhanced Full Rate (EFR) codec type.	MsProcessing_TfoService.pmTfoEfrNegotiations	Sum, ermngwm sbh
pmTfoEfrReEstablishments	ACCUMULATION	INTEGER	The number of successfully established connections based on Tandem Free Operation (TFO) renegotiations with another partner for Enhanced Full Rate (EFR) codec type.	MsProcessing_TfoService.pmTfoEfrReEstablishments	Sum, ermngwm sbh

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pmTfoEfrReNegotiations	ACCUMULATION	INTEGER	The number of Tandem Free Operation (TFO) renegotiations with another partner for Enhanced Full Rate (EFR) codec type. The renegotiation is triggered after TFO fallback to PCM has occurred.	MsProcessing_TfoService.pmTfoEfrReNegotiations	Sum, ermgwmsbh
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7.23.7 MGW_Resource_Pool.Ericsson.UMTS.Utilisation2

Utilisation data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBitTransparentCalls	INTENSITY	INT8	Current Number of Bit Transparent Calls. Mapping changed in R3.	MsProcessing_UpFhService.pmNumBitTrans	Average, ermgwmsbh, tot, min, max
pmBitTransparentCallsFail	ACCUMULATION	INT8	Obsolete in R4.1: Total Number of Unsuccessful Bit Transparent Calls. Mapping changed in R3.	MsProcessing_UpFhService.pmBitTransFail	Sum, ermgwmsbh

pmBitTransparentCallsSuccess	ACCUMULATION	INT8	Total Number of successful Bit Transparent calls. Mapping changed in R3.	MsProcessing_UpFhService.pmBitTransSucc	Sum, ermngwms bh
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7.23.8 MGW_Resource_Pool.Ericsson.UMTS.Utilisation

Utilisation data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmFtmCallsFail	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Unsuccessful FTM Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmFtmCallsFail	Sum, ermngwms bh
pmFtmCalls	ACCUMULATION	INT8	Obsolete in R4.1:Current Number of FTM Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmFtmCalls	Sum, ermngwms bh
pmFtmCallsSuccesses	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Successful FTM Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmFtmCallsSuccess	Sum, ermngwms bh

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pmHandovers	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of CSD Handovers to GSM. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmHandovers	Sum, ermgwmsbh
pmModemOrigFail	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Unsuccessful Originating Modem Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemOrigFail	Sum, ermgwmsbh
pmModemOrig	ACCUMULATION	INT8	Obsolete in R4.1:Defines if IWF (Interworking Function) initiates a call (i.e. modem calls or answers). This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemOrig	Sum, ermgwmsbh
pmModemOrigSuccess	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Successful Originating Modem Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemOrigSuccess	Sum, ermgwmsbh

pmModemTermFail	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Unsuccessful Terminating Modem Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemTermFail	Sum, ermgwmsbh
pmModemTerm	ACCUMULATION	INT8	Obsolete in R4.1:Defines if IWF (Interworking Function) terminates a call (i.e. modem calls or answers). This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemTerm	Sum, ermgwmsbh
pmModemTermSuccess	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Successful Terminating Modem Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmModemTermSuccess	Sum, ermgwmsbh
pmUdiCallsFail	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of unsuccessful UDI calls. This counter	MsProcessing_CsdDigitalService.pmUdiCallsFail	Sum, ermgwmsbh

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			is no longer supported after R2.		
pmUdiCalls	ACCUMULATION	INT8	Obsolete in R4.1:Current Number of UDI Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmUdiCalls	Sum, erm gwms bh
pmUdiCallsSuccesses	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of Successful UDI Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmUdiCallsSuccess	Sum, erm gwms bh
pmV21Calls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V21 Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmV21Calls	Sum, erm gwms bh
pmV22bisCalls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V.22bis Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmV22bisCalls	Sum, erm gwms bh
pmV22Calls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V.22 Calls. This counter is no longer supported	MsProcessing_CsdDigitalService.pmV22Calls	Sum, erm gwms bh

			after R2.		
pmV32Calls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V.32 Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmV32Calls	Sum, ermgwms bh
pmV34Calls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V.34 Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmV34Calls	Sum, ermgwms bh
pmV90Calls	ACCUMULATION	INT8	Obsolete in R4.1:Total Number of V.90 Calls. This counter is no longer supported after R2.	MsProcessing_CsdDigitalService.pmV90Calls	Sum, ermgwms bh

7.23.9 MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Digital_Pool

WCDMA CSD digital pool data.

KPI	Type	Data Type	Description	Derivation	Aggregation
_%_pmFtmSucc	PERCENTAGE	FLOAT	Seizure success rate of non-transparent FTM connections.	$100 * \{pmFtmSucc\} / (\{pmFtmSucc\} + \{pmFtmFail\})$	Average, ermgwms bh
_%_pmModemOSu	PERCENTAGE	FLOAT	Seizure success rate of	$100 * \{pmModemOSucc\} / (\{pmModemOSucc\} + \{pmModemOSu\})$	Average, ermgwms

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cc			originating MANT WCDMA connections.	{pmModemOFail})	bh
$\bar{\%_pmModemTSucc}$	PERCENTAGE	FLOAT	Seizure success rate of terminating MANT WCDMA connections.	$100 * \{pmModemTSucc\} / (\{pmModemTSucc\} + \{pmModemTFail\})$	Average, ermgwms bh
$_ \%_pmUdiSucc$	PERCENTAGE	FLOAT	Seizure success rate of asynchronous non-transparent UDI WCDMA connections.	$100 * \{pmUdiSucc\} / (\{pmUdiSucc\} + \{pmUdiFail\})$	Average, ermgwms bh
pmFtmFail	ACCUMULATION	INT8	Total number of unsuccessful, non-transparent FTM.	MsProcessing_CsdDigital Service.pmFtmFail	Sum, ermgwms bh
pmFtmSucc	ACCUMULATION	INT8	Total number of successful non-transparent FTM WCDMA.	MsProcessing_CsdDigital Service.pmFtmSucc	Sum, ermgwms bh
pmModemOFail	ACCUMULATION	INT8	Total number of unsuccessful originating MANT WCDMA.	MsProcessing_CsdDigital Service.pmModemOFail	Sum, ermgwms bh
pmModemOSucc	ACCUMULATION	INT8	Total number of successful originating MANT WCDMA.	MsProcessing_CsdDigital Service.pmModemOSucc	Sum, ermgwms bh
pmModemTFail	ACCUMULATION	INT8	Total number of unsuccessful terminating MANT WCDMA connections.	MsProcessing_CsdDigital Service.pmModemTFail	Sum, ermgwms bh
pmModemTSucc	ACCUMULATION	INT8	Total number of	MsProcessing_CsdDigital	Sum,

	TION		successful terminating MANT WCDMA connections.	Service.pmModemTSucc	ermgwms bh
pmNumFtm	INTENSITY	INT8	Current number of non-transparent FTM WCDMA connections.	MsProcessing_CsdDigital Service.pmNumFtm	Average, ermgwms bh, tot, min, max
pmNumModemO	INTENSITY	INT8	Current number of originating MANT WCDMA connections.	MsProcessing_CsdDigital Service.pmNumModemO	Average, ermgwms bh, tot, min, max
pmNumModemT	INTENSITY	INT8	Current number of terminating MANT WCDMA.	MsProcessing_CsdDigital Service.pmNumModemT	Average, ermgwms bh, tot, min, max
pmNumUdi	INTENSITY	INT8	Current number of asynchronous non-transparent UDI WCDMA connections.	MsProcessing_CsdDigital Service.pmNumUdi	Average, ermgwms bh, tot, min, max
pmUdiFail	ACCUMULATION	INT8	Total number of unsuccessful asynchronous nontransparent UDI WCDMA connections.	MsProcessing_CsdDigital Service.pmUdiFail	Sum, ermgwms bh
pmUdiSucc	ACCUMULATION	INT8	Total number of successful asynchronous non-transparent UDI WCDMA connections.	MsProcessing_CsdDigital Service.pmUdiSucc	Sum, ermgwms bh

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7.23.10MGW_Resource_Pool.Ericsson.UMTS.WCDMA_CSD_Modem_Pool

WCDMA CSD modem pool data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmAsyncNonTransModemWcdma	ACCUMULATION	INT8	Total number of modem MANT WCDMA connections.	MsProcessing_CsdModemService. pmAsyncNonTransModemWcdma	Sum, ermgw msbh
pmV21	ACCUMULATION	INT8	Total number of V.21 WCDMA connections.	MsProcessing_CsdModemService. pmV21	Sum, ermgw msbh
pmV22bis	ACCUMULATION	INT8	Total number of V.22bis WCDMA connections.	MsProcessing_CsdModemService. pmV22bis	Sum, ermgw msbh
pmV22	ACCUMULATION	INT8	Total number of V.22 WCDMA connections.	MsProcessing_CsdModemService. pmV22	Sum, ermgw msbh
pmV32bisGsm	ACCUMULATION	INTEGER	The total number of V.32bis GSM connect	MsProcessing_CsdModemService. pmV32bisGsm	Sum, ermgw msbh

			ions.		
pmV32	ACCUMULATION	INT8	Total number of V.32 WCDMA connections.	MsProcessing_CsdModemService. pmV32	Sum, erm, gw, msbh
pmV34	ACCUMULATION	INT8	Total number of V.34 WCDMA connections.	MsProcessing_CsdModemService. pmV34	Sum, erm, gw, msbh
pmV90	ACCUMULATION	INT8	Total number of V.90 WCDMA connections.	MsProcessing_CsdModemService. pmV90	Sum, erm, gw, msbh

7.24 MS_Device_Group Performance Indicators

This section shows the key performance indicators and other counters for the MS_Device_Group object, divided into the following sub-sections:

- [MS_Device_Group.Ericsson.UMTS.Device_Group_Statistics](#)

7.24.1 MS_Device_Group.Ericsson.UMTS.Device_Group_Statistics

The statistics for the instance of MsDeviceGroup which represents all devices on one MSB and hence the media stream characteristics of the parent plug-in unit (PIU) instance.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmSerDetected	ACCUMULATION	INTEGER	Obsolete in R4.2.	MsDeviceGroup.pmSerD	Sum,

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	TION	ER	The number of Soft Error Rate (SER) faults detected by the DSP SER supervision functionality of the corresponding MSB3 board.	ected	ermpiuldbh
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7.25 MS_Device_Pool Performance Indicators

This section shows the key performance indicators and other counters for the MS_Device_Pool object, divided into the following sub-sections:

- [MS_Device_Pool.Ericsson.UMTS.Pool_Status](#)

7.25.1 MS_Device_Pool.Ericsson.UMTS.Pool_Status

Media stream pool resource statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
_Device_Utilization	INTENSITY	INTEGER	Device utilization rate	100 - {capacityIdle}	Average, ermgwmsbh, tot, min, max
capacityBusy	INTENSITY	INTEGER	The fraction (%) of busy device capacity in the pool.	MsProcessing_MsDevicePool.capacityBusy	Average, ermgwmsbh, tot, min, max
capacityDependencyFailed	INTENSITY	INTEGER	The fraction (%) of device capacity in the pool which are out of service due to dependent	MsProcessing_MsDevicePool.capacityDependencyFailed	Average, ermgwmsbh, tot, min,

			hardware being faulty. The total fraction (%) of faulty device capacity in the pool is the sum of capacityFailed + capacityDependencyFailed. The accuracy is (+/-)1% (percent).		max
capacityDependencyLocked	INTENSITY	INTEGER	The fraction (%) of device capacity in the pool which are out of service due to the maintenance locking of dependent hardware. The accuracy is (+/-)1% (percent).	MsProcessing_MsDevicePool.capacityDependencyLocked	Average, erm, gwmsbh, tot, min, max
capacityFailed	INTENSITY	INTEGER	The total fraction (%) of device capacity in the pool, which are faulty due to faults in the devices themselves. The total fraction (%) of faulty device in the pool is the sum of capacityFailed + capacityDependencyFailed. The accuracy is (+/-)1% (percent).	MsProcessing_MsDevicePool.capacityFailed	Average, erm, gwmsbh, tot, min, max

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			ncyFailed. The accuracy is (+/-)1% (percent).		
capacityIdle	INTENSITY	INTEGER	The fraction (%) of idle device capacity in the pool.	MsProcessing_MsDevicePool.capacityIdle	Average, ermgwmsbh, tot, min, max
capacityLevelReservedForPriorityCalls	INTENSITY	INTEGER	Defines the level of speech resources to be reserved for priority calls, to be used in case of congestion situations among normal (not reserved for priority calls) resources. The level is given as a fraction 1/1000 (promille) of the enabled capacity in the device pool.	MsProcessing_MsDevicePool.capacityLevelReservedForPriorityCalls	Average, ermgwmsbh, tot, min, max
deviceType	INTENSITY	INTEGER	Defines the types of services in this pool.	MsProcessing_MsDevicePool.deviceType	Average, tot, min, max
maxNrOfDevices	INTENSITY	INTEGER	A theoretical maximum number of configured devices in the pool.	MsProcessing_MsDevicePool.maxNrOfDevices	Constant, ermgwmsbh, tot, min, max

7.26 MS_Processing Performance Indicators

This section shows the key performance indicators and other counters for the MS_Processing object, divided into the following sub-sections:

- [MS_Processing.Ericsson.UMTS.DSP](#)

7.26.1 MS_Processing.Ericsson.UMTS.DSP

Media Stream Card Digital Signal Processing statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmSerDetectedTotal	ACCUMULATION	INTEGER	The total number of Soft Error Rate (SER) faults in the node detected by the Digital Signal Processor (DSP) SER supervision functionality of the MSB3 boards.	ManagedElement_MsProcessing.pmSerDetectedTotal	Sum, ermgwmsbh

7.27 MTP3B_AP Performance Indicators

This section shows the key performance indicators and other counters for the MTP3B_AP object, divided into the following sub-sections:

- [MTP3B_AP.Ericsson.UMTS.MTP](#)

7.27.1 MTP3B_AP.Ericsson.UMTS.MTP

MTP3B Access Point MTP statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfAdjacentSPNot Accessible	ACCUMULATION	INTEGER	Number of	TransportNetwork_Mtp3bSpItu_Mtp3bAp.pmNoOfAdjacentS	Sum

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			Adjacent Signalling Points (SPs) that are not accessible via all possible routes.	PNotAccessible or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.pmNoOfAdjacentSPNotAccessible or TransportNetwork_Mtp3bSpChina_Mtp3bAp.pmNoOfAdjacentSPNotAccessible or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.pmNoOfAdjacentSPNotAccessible	
pmNoOfUserPartUnavailRec	ACCUMULATION	INTEGER	Number of received User Part Unavailable messages.	TransportNetwork_Mtp3bSpItu_Mtp3bAp.pmNoOfUserPartUnavailRec or TransportNetwork_Mtp3bSpAnsi_Mtp3bAp.pmNoOfUserPartUnavailRec or TransportNetwork_Mtp3bSpChina_Mtp3bAp.pmNoOfUserPartUnavailRec or TransportNetwork_Mtp3bSpTtc_Mtp3bAp.pmNoOfUserPartUnavailRec	Sum

7.28 MTP3B_SR Performance Indicators

This section shows the key performance indicators and other counters for the MTP3B_SR object, divided into the following sub-sections:

- [MTP3B_SR.Ericsson.UMTS.MTP](#)

7.28.1 MTP3B_SR.Ericsson.UMTS.MTP

MTP3B Signalling route MTP statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfSecondsAccumulatedRouteUnavailable	ACCUMULATION	INTEGER	The (accumulated) number of	TransportNetwork_Mtp3bSpItu_Mtp3bSrs_Mtp3bSr.pmNoOfSecondsAccumulatedRouteUnavailable or TransportNetwork_Mtp3bSpAnsi	Sum

			seconds the route has been unavailable.	_Mtp3bSrs_Mtp3bSr.pmNoOfSecondsAccumulatedRouteUnavailable or TransportNetwork_Mtp3bSpChina_Mtp3bSrs_Mtp3bSr.pmNoOfSecondsAccumulatedRouteUnavailable or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs_Mtp3bSr.pmNoOfSecondsAccumulatedRouteUnavailable	
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7.29 Nni_SAAL_Tp Performance Indicators

This section shows the key performance indicators and other counters for the Nni_SAAL_Tp object, divided into the following sub-sections:

- [Nni_SAAL_Tp.Ericsson.UMTS.SAAL](#)

7.29.1 Nni_SAAL_Tp.Ericsson.UMTS.SAAL

ATM Adaptation Layer Signalling

KPI	Type	Data Type	Description	Derivation	Aggregation
%_SS7_Signal_Quality_ATM	INTENSITY	FLOAT	The SS7 broadband quality over ATM	$(1 - (\{\text{pmNoOfAllSLFailures}\} / (\{\text{pmNoOfSentSDUs}\} + \{\text{pmNoOfReceivedSDUs}\}))) * 100$	Average, tot, min, max
pmLinkInServiceTime	INTENSITY	INTEGER	The accumulated time (in seconds) the signalling link has been in service (in assured	TransportNetwork_NniSaalTp.pmLinkInServiceTime	Average, tot, min, max

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			data transfer mode) since it was created. If the link is down, the value is 0.		
pmNoOfAlignmentFailures	ACCUMULATION	INTEGER	Number of alignment or proving failures. This counter is increased when "alignment not successful". The counter is reset when the link is created or when the counter "overflows".	TransportNetwork_NniSaalTp. pmNoOfAlignmentFailures	Sum
pmNoOfAllISLFailures	ACCUMULATION	INTEGER	Number of all Signalling Link failures. Is a total sum of the error counters: Number of protocol errors - Number of unsuccessfully retransmissions -	TransportNetwork_NniSaalTp. pmNoOfAllISLFailures	Sum

			Number of NoResponse - Number of other errors.		
pmNoOfLocalCongestions	ACCUMULATION	INTEGER	Number of local congestions. This counter is incremented when the sum of SAAL send and retransmission buffers is filled to more than what the congestion OnSet attribute is configured for.	TransportNetwork_NniSaalTp.pmNoOfLocalCongestions	Sum
pmNoOfNoResponses	ACCUMULATION	INTEGER	Number of no responses. Counts the number of no responses detected during the last 30 minutes.	TransportNetwork_NniSaalTp.pmNoOfNoResponses	Sum
pmNoOfOtherErrors	ACCUMULATION	INTEGER	Number of other list element	TransportNetwork_NniSaalTp.pmNoOfOtherErrors	Sum

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			errors. Counts the number of other errors detected during the last 30 minutes.		
pmNoOfProtocolErrors	ACCUMULATION	INTEGER	Number of unsolicited or inappropriate Protocol Data Units (PDU). Counts the number of protocol errors detected during the last 30 minutes.	TransportNetwork_NniSaalTp. pmNoOfProtocolErrors	Sum
pmNoOfReceivedSDUs	ACCUMULATION	INTEGER	Number of successfully received Service Data Units (SDU). Counts the number of successfully received messages from the application using SAAL.	TransportNetwork_NniSaalTp. pmNoOfReceivedSDUs	Sum
pmNoOfRemoteCongestions	ACCUMULATION	INTEGER	Number of remote congestions. This counter is	TransportNetwork_NniSaalTp. pmNoOfRemoteCongestions	Sum

			incremented when the remote side gives SAAL no credit. Reset when the link goes InService or when the counter overflows.		
pmNoOfSentSDUs	ACCUMULATION	INTEGER	Number of successfully sent Service Data Units (SDU). Counts the number of successfully sent messages to the application using SAAL. Reset when the link goes InService or the counter overflows.	TransportNetwork_NniSaalTp. pmNoOfSentSDUs	Sum
pmNoOfSequenceDataLosses	ACCUMULATION	INTEGER	Number of Sequences Data (SD) loss. Counts the	TransportNetwork_NniSaalTp. pmNoOfSequenceDataLosses	Sum

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			number of SD loss detected during the last 30 minutes.		
pmNoOfUnsuccReTransmissions	ACCUMULATION	INTEGER	Number of unsuccessful retransmissions. Counts the number of unsuccessful retransmissions detected during the last 30 minutes.	TransportNetwork_NniSaalTp.pmNoOfUnsuccReTransmissions	Sum

7.30 OS155 Performance Indicators

This section shows the key performance indicators and other counters for the OS155 object, divided into the following sub-sections:

- [OS155.Ericsson.UMTS.OS155_Terminating_Point](#)

7.30.1 OS155.Ericsson.UMTS.OS155_Terminating_Point

OS155 Terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmMsBbe	ACCUMULATION	INTEGER	Transmission Background Block Errors (BBE).	Ess_Os155SpiTtp.pmMsBbe	Sum, ermgwms bh
pmMsEs	ACCUMULATION	INT8	Total number of Errored Seconds for multiplexer section.	Ess_Os155SpiTtp.pmMsEs	Sum, ermgwms bh
pmMsSes	ACCUMULATION	INT8	Total number of	Ess_Os155SpiTtp.pmMs	Sum,

	TION		Severely Errored Seconds for multiplexer section.	Ses	ermgwmsbh
pmMsUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive SES are detected (them being part of the unavailable time) and ends when 10 consecutive non-SES are detected.	Ess_Os155SpiTtp.pmMsUas	Sum, ermgwmsbh

7.31 OSPF Performance Indicators

This section shows the key performance indicators and other counters for the OSPF object, divided into the following sub-sections:

- [OSPF.Ericsson.UMTS.OSPF_Routing_Protocol](#)

7.31.1 OSPF.Ericsson.UMTS.OSPF_Routing_Protocol

OSPF Routing Protocol statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfOspfOriginateNewLsas	ACCUMULATION	INTEGER	The number of new Link-State Advertisements (LSA)	ManagedElement_IpSystem_Ospf.pmNoOfOspfOriginateNewLsas	Sum

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			that have been originated. This number is incremented each time the router originates a new LSA.		
pmNoOfOspfRxNewLsas	ACCUMULATION	INTEGER	The number of Link-State Advertisements (LSA) received that are determined to be new instantiations. This number does not include newer instantiations of self-originated link-state advertisements.	ManagedElement_IpSystem_Ospf.pmNoOfOspfRxNewLsas	Sum

7.32 OSPF_Area Performance Indicators

This section shows the key performance indicators and other counters for the OSPF_Area object, divided into the following sub-sections:

- [OSPF_Area.Ericsson.UMTS.Area_Route_Table](#)

7.32.1 OSPF_Area.Ericsson.UMTS.Area_Route_Table

OSPF Routing Area

KPI	Type	Data Type	Description	Derivation	Aggregation
-----	------	-----------	-------------	------------	-------------

pmNoOfOspfSpfRuns	ACCUMULATION	INTEGER	The number of times that the intra-area route table has been calculated using the link-state database for this area. This is typically done using Dijkstras algorithm.	ManagedElement_IpSystem_Ospf_OspfArea.pmNoOfOspfSpfRuns	Sum
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7.33 OSPF_Interface Performance Indicators

This section shows the key performance indicators and other counters for the OSPF_Interface object, divided into the following sub-sections:

- [OSPF_Interface.Ericsson.UMTS.Interface](#)

7.33.1 OSPF_Interface.Ericsson.UMTS.Interface

OSPF Routing Interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfOspfIfEvents	ACCUMULATION	INTEGER	The number of times this OSPF interface has changed its state or that an error has occurred.	ManagedElement_IpSystem_Ospf_OspfInterface.pmNoOfOspfIfEvents	Sum

7.34 Plug_In_Unit Performance Indicators

This section shows the key performance indicators and other counters for the Plug_In_Unit object, divided into the following sub-sections:

- [Plug_In_Unit.Ericsson.UMTS.CPU_Load](#)

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7.34.1 Plug_In_Unit.Ericsson.UMTS.CPU_Load

Plug In Unit processor load

KPI	Type	Data Type	Description	Derivation	Aggregation
pmProcessorLoad	INTENSITY	INTEGER	The average CPU load during the last 5 minutes. The value is stated in percent. Implemented only on MP and BP. (MP is Main Processor and BP is Board Processor. A GPB board has an MP Other boards have a BP that communicates with an MP).	Ess_PlugInUnit.pmProcessorLoad	Average, ermpiuldb h, tot, min, max

7.35 RemoteSite Performance Indicators

This section shows the key performance indicators and other counters for the RemoteSite object, divided into the following sub-sections:

- [RemoteSite.Ericsson.UMTS.Connection_Quality](#)
- [RemoteSite.Ericsson.UMTS.Connection](#)

7.35.1 RemoteSite.Ericsson.UMTS.Connection_Quality

Remote site connection quality

KPI	Type	Data Type	Description	Derivation	Aggregation
%_DSCP_Received_Packet	PERCENTAGE	FLOAT	The received DSCP remarked packet rate (introduced in R5.1)	$100 * \frac{\text{pmRtpReceivedDscpCongPackets}}{\text{pmRtpReceivedPktsHi}}$	Average

$\overline{\%_ECN_Received_Packet2}$	PERCENTAGE	FLOAT	The received ECN packet rate (introduced in R5.1 to replace previous ECN_Received_Packet formula)	$100 * \{pmIpReceivedEcnPkts\} / \{pmRtpReceivedPktsHi\}$	Average
$\overline{\%_ECN_Received_Packet}$	PERCENTAGE	FLOAT	Obsolete in R5.1: The received ECN packet rate	$100 * \{pmIpReceivedEcnPkts\} / \{pmRtpReceivedPkts\}$	Average
$\overline{\%_IP_User_Plane_Quality}$	INTENSITY	FLOAT	Obsolete in R5.1: The percentage of IP user plane quality	$(1 - ((\{pmRtpDiscardedPkts\} + \{pmRtpLostPkts\}) / (\{pmRtpReceivedPkts\} + \{pmRtpLostPkts\}))) * 100$	Average, tot, min, max
$\overline{\%_RTP_Discard2}$	PERCENTAGE	FLOAT	The RTP packet discard rate (introduced in R5.1 to	$100 * \{pmRtpDiscardedPkts\} / \{pmRtpReceivedPktsHi\}$	Average

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			replace previous RTP_Discard formula)		
_RTP_Discard	PERCENTAGE	FLOAT	Obsolete in R5.1: The RTP packet discard rate	$100 * \{\text{pmRtpDiscardedPkts}\} / \{\text{pmRtpReceivedPkts}\}$	Average
_RTP_Loss2	PERCENTAGE	FLOAT	The RTP packet loss rate (introduced in R5.1 to replace previous RTP_Loss formula)	$100 * \{\text{pmRtpLostPkts}\} / (\{\text{pmRtpLostPkts}\} + \{\text{pmRtpReceivedPktsHi}\})$	Average
_RTP_Loss	PERCENTAGE	FLOAT	Obsolete in R5.1: The RTP packet loss rate	$100 * \{\text{pmRtpLostPkts}\} / \{\text{pmRtpLostPkts}\} + \{\text{pmRtpReceivedPkts}\}$	Average
pmCallsWithRtpPacketLoss0	ACCUMULATION	INTEGER	The total number of connections where no packet loss on Real-time Transpo	MgwApplication_IpNetwork_RemoteSite.pmCallsWithRtpPacketLoss0	Sum

			rt Protocol (RTP) layer has been detected , that is, packet loss ratio is zero.		
pmCallsWithRtpPacketLoss1	ACCUMULATION	INTEGER	The total number of connections where packet loss ratio on the Real-time Transport Protocol (RTP) layer has been less than 0.0001.	MgwApplication_IpNetwork_RemoteSite.pmCallsWithRtpPacketLoss1	Sum
pmCallsWithRtpPacketLoss2	ACCUMULATION	INTEGER	The total number of connections where packet	MgwApplication_IpNetwork_RemoteSite.pmCallsWithRtpPacketLoss2	Sum

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			loss ratio on the Real-time Transport Protocol (RTP) layer has been greater than or equal to 0.0001 but less than 0.001.		
pmCallsWithRtpPacketLoss3	ACCUMULATION	INTEGER	The total number of connections where packet loss ratio on the Real-time Transport Protocol (RTP) layer has been greater than or equal to 0.001 but less than 0.005.	MgwApplication_IpNetwork_RemoteSite.pmCallsWithRtpPacketLoss3	Sum
pmCallsWithRtpPacketL	ACCUMUL	INTE	The	MgwApplication_IpNetwork_Re	Sum

oss4	ATION	GER	total number of connections where packet loss ratio on the Real-time Transport Protocol (RTP) layer has been greater than or equal to 0.005 but less than 0.01.	moteSite.pmCallsWithRtpPacketLoss4	
pmCallsWithRtpPacketLoss5	ACCUMULATION	INTEGER	The total number of connections where packet loss ratio on the Real-time Transport	MgwApplication_IpNetwork_Re moteSite.pmCallsWithRtpPacketLoss5	Sum

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			Protocol (RTP) layer has been greater than or equal to 0.01 but less than 0.03.		
pmCallsWithRtpPacketLoss6	ACCUMULATION	INTEGER	The total number of connections where packet loss ratio on the Real-time Transport Protocol (RTP) layer has been greater than or equal to 0.03.	MgwApplication_IpNetwork_RemoteSite.pmCallsWithRtpPacketLoss6	Sum
pmConnLatePktsRatio0	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and where	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio0	Sum

			no packets has missed its processing time, that is, it has not delayed more than the configured jitter protection time.		
pmConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio1	Sum

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			<p> $0 < R \leq 0.0001$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time if there are less than 7 packets in the buffer, otherwise the packet is dropped. </p>		
pmConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio2	Sum

			of connecti ons when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is 0.0001 < R <= 0.001. Late packet means that it has missed its processi ng time, that is, it is delayed more than the configur ed jitter protecti	
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			on time. The packet is, however, processed in the next scheduled processing time if there are less than 7 packets in the buffer, otherwise the packet is dropped.		
pmConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compen	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio3	Sum

			sation buffer is $0.001 < R \leq 0.005$. Late packet means that it has missed its processi ng time, that is, it is delayed more than the configur ed jitter protecti on time. The packet is, however , processe d in the next schedule d processi ng time if there are less than 7 packets in the buffer,		
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			otherwise the packet is dropped.		
pmConnLatePktsRatio4	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through jitter compensation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed its processing time, that is, it is delayed more than the	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio4	Sum

			configur ed jitter protecti on time. The packet is, however , processe d in the next schedule d processi ng time if there are less than 7 packets in the buffer, otherwis e the packet is dropped.		
pmConnLatePktsRatio5	ACCUMUL ATION	INTE GER	The total number of connecti ons when jitter compen sation is used and the ratio (R) of late	MgwApplication_IpNetwork_Re moteSite.pmConnLatePktsRatio 5	Sum

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			<p>packets to total number of packets through the jitter compensation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time if there are less than 7 packets</p>	
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			in the buffer, otherwise the packet is dropped.		
pmConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed its processi	MgwApplication_IpNetwork_RemoteSite.pmConnLatePktsRatio6	Sum

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			<p>ng time, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time if there are less than 7 packets in the buffer, otherwise the packet is dropped.</p>		
pmConnMeasuredJitter0	ACCUMULATION	INTEGER	<p>The total number of connections with measured jitter (J) is 0 ms \leq J \leq 0.5 ms (very low</p>	<p>MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter0</p>	Sum

			input jitter). Jitter is measured only for connections where jitter compensation has been performed. The Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmConnMeasuredJitter1	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $0.5 \text{ ms} < J \leq 1.0 \text{ ms}$ (low input jitter).	MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter1	Sum

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			Jitter is measured only for connections where jitter compensation has been performed. The Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmConnMeasuredJitter2	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $1.0 \text{ ms} < J \leq 2.0 \text{ ms}$ (moderate input jitter). Jitter is measured only for connections	MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter2	Sum

			where jitter compensation has been performed. The Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $2.0 \text{ ms} < J \leq 5.0 \text{ ms}$ (high input jitter). Jitter is measured only for connections where jitter	MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter3	Sum

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			compensation has been performed. The Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $5.0 \text{ ms} < J \leq 8.0 \text{ ms}$ (very high input jitter). Jitter is measured only for connections where jitter compensation has been performed. The Adaptive	MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter4	Sum

			e Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
pmConnMeasuredJitter5	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $8.0 \text{ ms} < J \leq 30.0 \text{ ms}$. Jitter is measured only for connections where jitter compensation has been performed. The Adaptive Multi-rate (AMR) Silence	MgwApplication_IpNetwork_RemoteSite.pmConnMeasuredJitter5	Sum

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			Descript or (SID) frames are not included .		
pmConnMeasuredJitter6	ACCUMUL ATION	INTE GER	The total number of connecti ons with measure d jitter (J) is 30.0 ms < J <= 60.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.	MgwApplication_IpNetwork_Re moteSite.pmConnMeasuredJitter 6	Sum
pmConnMeasuredJitter7	ACCUMUL ATION	INTE GER	The total number of connecti ons with measure d jitter	MgwApplication_IpNetwork_Re moteSite.pmConnMeasuredJitter 7	Sum

			(J) is 60.0 ms < J ≤ 100.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmConnMeasuredJitter8	ACCUMUL ATION	INTE GER	The total number of connecti ons with measure d jitter (J) is greater than 100.0 ms. Jitter is measure d only	MgwApplication_IpNetwork_Re moteSite.pmConnMeasuredJitter 8	Sum

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			for connections where jitter compensation has been performed. SID frames are not included in the measurement.		
pmConnsOnRemoteSite	INTENSITY	INTEGER	The number of current connections in this remote site.	MgwApplication_IpNetwork_RemoteSite.pmConnsOnRemoteSite	Average, tot, min, max
pmIpReceivedEcnPkts	ACCUMULATION	INTEGER	The total number of received ECN marked (Congestion Experienced) IP packets. The counter is stepped after connection release.	MgwApplication_IpNetwork_RemoteSite.pmIpReceivedEcnPkts	Sum

pmLatePktsDueToDeJitter	ACCUMULATION	INTEGER	The total number of packets where a packet has been so late that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. The packet is, however, processed in the next scheduled processing time if there are less than 7 packets in the	MgwApplication_IpNetwork_RemoteSite.pmLatePktsDueToDeJitter	Sum
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			buffer, otherwise the packet is dropped.		
pmNrOfAdmCtrlAcceptedConnections	ACCUMULATION	INTEGER	The total number of connections accepted by feature Measurement Based Admission Control (MBAC) for IP Traffic.	MgwApplication_IpNetwork_RemoteSite.pmNrOfAdmCtrlAcceptedConnections	Sum
pmNrOfAdmCtrlRejectedConnections	ACCUMULATION	INTEGER	The total number of rejected connections due to feature Measurement Based Connection Admission Control (MBAC) for IP Traffic.	MgwApplication_IpNetwork_RemoteSite.pmNrOfAdmCtrlRejectedConnections	Sum
pmRtpDiscardedPkts	ACCUMULATION	INTEGER	The	MgwApplication_IpNetwork_Re	Sum

	ATION	GER	number of discarded Real-time Transport Protocol (RTP) packets, that is, received RTP packets discarded due to header validity checks or due to misordered sequence numbers.	moteSite.pmRtpDiscardedPkts	
pmRtpLostPkts	ACCUMULATION	INTER	The total number of dropped Real-time Transport Protocol (RTP) packets. The	MgwApplication_IpNetwork_Re moteSite.pmRtpLostPkts	Sum

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			<p>detection of dropped packets is based on sequence numbers in the RTP header as defined in Request for Comments (RFC) 1889.</p>		
pmRtpReceivedDscpCongPackets	ACCUMULATION	INTEGER	<p>The total number of received IP packets with the special Differentiated Services Code Point (DSCP) value.</p>	MgwApplication_IpNetwork_RemoteSite.pmRtpReceivedDscpCongPackets	Sum
pmRtpReceivedOctetsHi	ACCUMULATION	INT8	<p>The total number of received RTP payload octets.</p>	MgwApplication_IpNetwork_RemoteSite.TotRtpReceivedOctets	Sum

pmRtpReceivedOctetsLo	ACCUMULATION	INT8	The total number of received RTP payload octets. This high-capacity Performance Management (PM) counter is split and presented by two 31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0). The two most significant bits of this 64 bit counter	MgwApplication_IpNetwork_RemoteSite.pmRtpReceivedOctetsLo	Sum
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			are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.		
pmRtpReceivedPktsHi	ACCUMULATION	INT8	The total number of received RTP packets.	MgwApplication_IpNetwork_RemoteSite.TotRtpReceivedPkts	Sum
pmRtpReceivedPktsLo	ACCUMULATION	INTEGER	The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpReceivedPktsHi	MgwApplication_IpNetwork_RemoteSite.pmRtpReceivedPktsLo	Sum

			(bit 61-31) - pmRtpReceivedPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.		
pmRtpReceivedPkts	ACCUMULATION	INTEGER	Obsolete in R5.1: The total number of received Real-time Transpo	MgwApplication_IpNetwork_RemoteSite.pmRtpReceivedPkts	Sum

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			rt Protocol (RTP) packets.		
pmRtpSentOctetsHi	ACCUMUL ATION	INT8	The total number of sent RTP payload octets.	MgwApplication_IpNetwork_Re moteSite.TotRtpSentOctets	Sum
pmRtpSentOctetsLo	ACCUMUL ATION	INT8	The total number of sent RTP payload octets. This high- capacity PM counter is split and presente d by two 31 bit attribute s: - pmRtpS entOctet sHi (bit 61-31) - pmRtpS entOctet sLo (bit 30-0). The two most significa nt bits of this 64 bit counter	MgwApplication_IpNetwork_Re moteSite.pmRtpSentOctetsLo	Sum

			are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.		
pmRtpSentPktsHi	ACCUMULATION	INT8	The total number of sent RTP packets.	MgwApplication_IpNetwork_RemoteSite.TotRtpSentPkts	Sum
pmRtpSentPktsLo	ACCUMULATION	INTEGER	The total number of sent RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: -	MgwApplication_IpNetwork_RemoteSite.pmRtpSentPktsLo	Sum

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			<p>pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.</p>		
pmSuccTransmittedPktsHi	ACCUMULATION	INT8	<p>The total number of successfully transmitted packets through the jitter compensation buffer.</p>	MgwApplication_IpNetwork_RemoteSite.TotSuccTransmittedPackets	Sum

			SID frames are not included in the measurement.		
pmSuccTransmittedPktsLo	ACCUMULATION	INTEGER	The total number of successfully transmitted packets through the jitter compensation buffer. SID frames are not included in the measurement. This high-capacity PM counter is split and presented by two 31 bit attributes: -	MgwApplication_IpNetwork_RemoteSite.pmSuccTransmittedPktsLo	Sum

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			<p>pmSuccTransmittedPktsHi (bit 61-31) - pmSuccTransmittedPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.</p>		
pmSuccTransmittedPkts	ACCUMULATION	INTEGER	<p>Obsolete in R5.1: The total number of successfully transmitted packets through</p>	MgwApplication_IpNetwork_RemoteSite.pmSuccTransmittedPkts	Sum

			the jitter compensation buffer. The Adaptive Multi-rate (AMR) Silence Descriptor (SID) frames are not included.		
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7.35.2 RemoteSite.Ericsson.UMTS.Connection

Remote site connection information

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfAmr2Conns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Adaptive Multi-Rate 2 (AMR2) connections in this remote site. Condition: The counter is incremented when an AMR2 connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfAmr2Conns	Average, tot, min, max

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pmNoOfAmrConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Adaptive Multi-Rate (AMR) connections in this remote site. Condition: The counter is incremented when an AMR connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfAmrConns	Average, tot, min, max
pmNoOfEfrConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Enhanced Full Rate (EFR) connections in this remote site. Condition: The counter is incremented when an EFR connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfEfrConns	Average, tot, min, max
pmNoOfFrAmrConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Full Rate (FR) AMR connections in this remote site. Condition: The counter is incremented when an FR AMR connection is established	MgwApplication_IpNetwork_RemoteSite.pmNoOfFrAmrConns	Average, tot, min, max

			and decremented when released.		
pmNoOfHrAmrConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Half Rate (HR) Adaptive Multi-Rate (AMR) connections in this remote site. Condition: The counter is incremented when an HR AMR connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfHrAmrConns	Average, tot, min, max
pmNoOfPcmDataConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Pulse Code Modulation (PCM) data connections in this remote site. Condition: The counter is incremented when a PCM data connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfPcmDataConns	Average, tot, min, max
pmNoOfPcmSpeechConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of	MgwApplication_IpNetwork_RemoteSite.pmNoOfPcmSpeechConns	Average, tot, min, max

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			current Pulse Code Modulation (PCM) speech connections in this remote site. Condition: The counter is incremented when a PCM speech connection is established and decremented when released.		
pmNoOfRdiConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Restricted Digital Information (RDI) connections in this remote site. Condition: The counter is incremented when an RDI connection is established and decremented when released.	MgwApplication_IpNetwork_RemoteSite.pmNoOfRdiConns	Average, tot, min, max
pmNoOfUdiConns	INTENSITY	INTEGER	Obsolete in R5.1: The number of current Unrestricted Digital Information (UDI) connections in this remote site. Condition: The counter is	MgwApplication_IpNetwork_RemoteSite.pmNoOfUdiConns	Average, tot, min, max

			incremented when a UDI connection is established and decremented when released.		
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7.36 Signalling_Point Performance Indicators

This section shows the key performance indicators and other counters for the Signalling_Point object, divided into the following sub-sections:

- [Signalling_Point.Ericsson.UMTS.MTP2_Terminating_Point](#)
- [Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point2](#)
- [Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point](#)
- [Signalling_Point.Ericsson.UMTS.SCCP_Accounting](#)
- [Signalling_Point.Ericsson.UMTS.SCCP_policing](#)
- [Signalling_Point.Ericsson.UMTS.SCCP_Relay_Signalling_Point](#)
- [Signalling_Point.Ericsson.UMTS.SCCP_Routing_CRC](#)
- [Signalling_Point.Ericsson.UMTS.Utilisation](#)

7.36.1 Signalling_Point.Ericsson.UMTS.MTP2_Terminating_Point

MTP2 terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
%_SS7_Signal_Quality_TDM	INTENSITY	FLOAT	The SS7 narrowband quality over TDM	$(1 - ((\{pmNoOfNacks\} + \{pmNoOfSuReceivedInError\}) / (\{pmNoOfMSUReceived\} + \{pmNoOfMSUTransmitted\}))) * 100$	Average, tot, min, max
Avg_MSU_Rcvd_Rate	INTENSITY	FLOAT	Received MSUs per second	$\{pmNoOfMSUReceived\} / \{measurement_seconds\}$	Average, tot, min, max
Avg_MSU_Sent_Rate	INTENSITY	FLOAT	Sent MSUs per second	$\{pmNoOfMSUTransmitted\} / \{measurement_seconds\}$	Average, tot, min, max

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MTP2_Link_Rcvd_Rate	INTENSITY	FLOAT	Received Kbit/s on an MTP2 link	$((\{pmNoOfSIOsIFReceived\} * 8) + (\{pmNoOfMSUReceived\} * 56)) / (1000 * \{measurement_seconds\})$	Average, tot, min, max
MTP2_Link_Sent_Rate	INTENSITY	FLOAT	Transmitted Kbit/s on an MTP link	$((\{pmNoOfSIOsIFTransmitted\} * 8) + (\{pmNoOfMSUTransmitted\} * 56)) / (1000 * \{measurement_seconds\})$	Average, tot, min, max
pmLocalSIBTime	ACCUMULATION	INT8	Total time of Status Indication Busy (SIB) in the local node.	TransportNetwork_Mtp2TpItu. pmLocalSIBTime or TransportNetwork_Mtp2TpAns i.pmLocalSIBTime or TransportNetwork_Mtp2TpChi na.pmLocalSIBTime or TransportNetwork_Mtp2TpTtc. pmLocalSIBTime	Sum
pmNoOfMSUReceived	ACCUMULATION	INT8	Total number of MSUs received.	TransportNetwork_Mtp2TpItu. pmNoOfMSUReceived or TransportNetwork_Mtp2TpAns i.pmNoOfMSUReceived or TransportNetwork_Mtp2TpChi na.pmNoOfMSUReceived or TransportNetwork_Mtp2TpTtc. pmNoOfMSUReceived	Sum
pmNoOfMSUTransmitted	ACCUMULATION	INT8	Total number of MSUs transmitted.	TransportNetwork_Mtp2TpItu. pmNoOfMSUTransmitted or TransportNetwork_Mtp2TpAns i.pmNoOfMSUTransmitted or TransportNetwork_Mtp2TpChi na.pmNoOfMSUTransmitted or TransportNetwork_Mtp2TpTtc. pmNoOfMSUTransmitted	Sum
pmNoOfNacks	ACCUMULATION	INT8	Total number of negative acknowledgements received.	TransportNetwork_Mtp2TpItu. pmNoOfNacks or TransportNetwork_Mtp2TpAns i.pmNoOfNacks or TransportNetwork_Mtp2TpChi na.pmNoOfNacks or TransportNetwork_Mtp2TpTtc. pmNoOfNacks	Sum

pmNoOfReTransmittedOctets	ACCUMULATION	INT8	Total number of re-transmitted octets.	TransportNetwork_Mtp2TpItu. pmNoOfReTransmittedOctets or TransportNetwork_Mtp2TpAnsi. pmNoOfReTransmittedOctets or TransportNetwork_Mtp2TpChina. pmNoOfReTransmittedOctets or TransportNetwork_Mtp2TpTtc. pmNoOfReTransmittedOctets	Sum
pmNoOfSendBufferOctets	INTENSITY	INT8	Total number of octets in send buffer.	TransportNetwork_Mtp2TpItu. pmNoOfSendBufferOctets or TransportNetwork_Mtp2TpAnsi. pmNoOfSendBufferOctets or TransportNetwork_Mtp2TpChina. pmNoOfSendBufferOctets or TransportNetwork_Mtp2TpTtc. pmNoOfSendBufferOctets	Average, tot, min, max
pmNoOfSIOSIFReceived	ACCUMULATION	INT8	Total number of Service Information Octet (SIO) and Signal Information Field (SIF) octets received.	TransportNetwork_Mtp2TpItu. pmNoOfSIOSIFReceived or TransportNetwork_Mtp2TpAnsi. pmNoOfSIOSIFReceived or TransportNetwork_Mtp2TpChina. pmNoOfSIOSIFReceived or TransportNetwork_Mtp2TpTtc. pmNoOfSIOSIFReceived	Sum
pmNoOfSIOSIFTransmitted	ACCUMULATION	INT8	Total number of SIO and SIF octets transmitted.	TransportNetwork_Mtp2TpItu. pmNoOfSIOSIFTransmitted or TransportNetwork_Mtp2TpAnsi. pmNoOfSIOSIFTransmitted or TransportNetwork_Mtp2TpChina. pmNoOfSIOSIFTransmitted or TransportNetwork_Mtp2TpTtc.	Sum

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				pmNoOfSIOSIFTransmitted	
pmNoOfStartedRBCongestion	ACCUMULATION	INT8	Total number of started local RB congestions.	TransportNetwork_Mtp2TpItu. pmNoOfStartedRBCongestion or TransportNetwork_Mtp2TpAns i.pmNoOfStartedRBCongestion or TransportNetwork_Mtp2TpChi na.pmNoOfStartedRBCongestion or TransportNetwork_Mtp2TpTtc. pmNoOfStartedRBCongestion	Sum
pmNoOfSuReceivedInError	ACCUMULATION	INT8	Total number of signal units received in error.	TransportNetwork_Mtp2TpItu. pmNoOfSuReceivedInError or TransportNetwork_Mtp2TpAns i.pmNoOfSuReceivedInError or TransportNetwork_Mtp2TpChi na.pmNoOfSuReceivedInError or TransportNetwork_Mtp2TpTtc. pmNoOfSuReceivedInError	Sum
pmRemoteSIBTime	ACCUMULATION	INT8	Total time of SIB in a remote node.	TransportNetwork_Mtp2TpItu. pmRemoteSIBTime or TransportNetwork_Mtp2TpAns i.pmRemoteSIBTime or TransportNetwork_Mtp2TpChi na.pmRemoteSIBTime or TransportNetwork_Mtp2TpTtc. pmRemoteSIBTime	Sum
ratio_TX_to_RX_MSU	INTENSITY	FLOAT	Ratio of MSU transmitted to that received	{pmNoOfMSUTransmitted}/ {pmNoOfMSUReceived}	Average, tot, min, max

7.36.2 Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point2

MTP3b signalling point data -2

KPI	Type	Data Type	Description	Derivation	Aggregation
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pmNoOfDiscardedMsgFromBroadToNarrow	ACCUMULATION	INT8	Total number of messages discarded from broadband and to narrow band.	Mtp3bSpItu_Srs_Aggregated.pmNoOfDiscardedMsgFromBroadToNarrow or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.pmNoOfDiscardedMsgFromBroadToNarrow or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.pmNoOfDiscardedMsgFromBroadToNarrow or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.pmNoOfDiscardedMsgFromBroadToNarrow	Sum
pmNoOfSecsAccRouteSetUnavailable	INTENSITY	INTEGER	Number of seconds of route set unavailability accumulated during 30 minutes	Mtp3bSpItu_Srs_Aggregated.pmNoOfSecsAccRouteSetUnavailable or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.pmNoOfSecsAccRouteSetUnavailable or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.pmNoOfSecsAccRouteSetUnavailable or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.pmNoOfSecsAccRouteSetUnavailable	Average, total, min, max
pmNoOfTransferAllowedRec	ACCUMULATION	INTEGER	Number of received Transfer Allowed (TFA) messages.	Mtp3bSpItu_Srs_Aggregated.pmNoOfTransferAllowedRec or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.pmNoOfTransferAllowedRec or TransportNetwork_Mtp3bSpChina_Mtp3bSrs.pmNoOfTransferAllowedRec or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.pmNoOfTransferAllowedRec	Sum
pmNoOfTransferControlledRec	ACCUMULATION	INTEGER	Number of	Mtp3bSpItu_Srs_Aggregated.pmNoOfTransferControlledRec or	Sum

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			received Transfer Control (TFC) messages.	TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.pmNoOfTransferControlledRec or TransportNetwork_Mtp3bSpChin_a_Mtp3bSrs.pmNoOfTransferControlledRec or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.pmNoOfTransferControlledRec	
pmNoOfTransferProhibitedRec	ACCUMULATION	INTEGER	Number of received Transfer Prohibited (TFP) messages.	Mtp3bSpItu_Srs_Aggregated.pmNoOfTransferProhibitedRec or TransportNetwork_Mtp3bSpAnsi_Mtp3bSrs.pmNoOfTransferProhibitedRec or TransportNetwork_Mtp3bSpChin_a_Mtp3bSrs.pmNoOfTransferProhibitedRec or TransportNetwork_Mtp3bSpTtc_Mtp3bSrs.pmNoOfTransferProhibitedRec	Sum

7.36.3 Signalling_Point.Ericsson.UMTS.MTP3b_Signalling_Point

MTP3b signalling point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
$\bar{\%}_{\text{pmNoOfForcedRerouteSuccessPerf}}$	PERCENTAGE	FLOAT	Obsolete in R4.1:Controlled rerouting success rate	$100 * \frac{\{\text{pmNoOfControlledRerouteSuccessPerf}\}}{(\{\text{pmNoOfControlledRerouteSuccessPerf}\} + \{\text{pmNoOfUnsuccessControlledRerouting}\})}$	Average
$\bar{\%}_{\text{pmNoOfUnsuccessForcedRerouting}}$	PERCENTAGE	FLOAT	Forced rerouting success rate	$100 * \frac{\{\text{pmNoOfForcedRerouteSuccessPerf}\}}{(\{\text{pmNoOfForcedRerouteSuccessPerf}\} + \{\text{pmNoOfUnsuccessForcedRerouting}\})}$	Average

pmNoOfCBARec	ACC UMU LATI ON	IN T8	Total number of received Changeback Acknowledge (CBA) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfCBARec or TransportNetwork_Mtp3bSpAnsi .pmNoOfCBARec or TransportNetwork_Mtp3bSpChin a.pmNoOfCBARec or TransportNetwork_Mtp3bSpTtc. pmNoOfCBARec	Su m
pmNoOfCBASent	ACC UMU LATI ON	IN T8	Total number of sent CBA messages.	TransportNetwork_Mtp3bSpItu.p mNoOfCBASent or TransportNetwork_Mtp3bSpAnsi .pmNoOfCBASent or TransportNetwork_Mtp3bSpChin a.pmNoOfCBASent or TransportNetwork_Mtp3bSpTtc. pmNoOfCBASent	Su m
pmNoOfChangeBackDeclRec	ACC UMU LATI ON	IN T8	Total number of received Change Back Declaration (CBD) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfChangeBackDeclRec or TransportNetwork_Mtp3bSpAnsi .pmNoOfChangeBackDeclRec or TransportNetwork_Mtp3bSpChin a.pmNoOfChangeBackDeclRec or TransportNetwork_Mtp3bSpTtc. pmNoOfChangeBackDeclRec	Su m
pmNoOfChangeOverRec	ACC UMU LATI ON	IN T8	Total number of received Changeover Order (COO) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfChangeOverRec or TransportNetwork_Mtp3bSpAnsi .pmNoOfChangeOverRec or TransportNetwork_Mtp3bSpChin a.pmNoOfChangeOverRec or TransportNetwork_Mtp3bSpTtc. pmNoOfChangeOverRec	Su m
pmNoOfCOAXCARec	ACC UMU LATI ON	IN T8	Total number of received COA/XCA messages.	TransportNetwork_Mtp3bSpItu.p mNoOfCOAXCARec or TransportNetwork_Mtp3bSpAnsi .pmNoOfCOAXCARec or TransportNetwork_Mtp3bSpChin	Su m

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				a.pmNoOfCOAXCAREc or TransportNetwork_Mtp3bSpTtc. pmNoOfCOAXCAREc	
pmNoOfCOAXC ASent	ACC UMU LATI ON	IN T8	Total number of sent Changeover Acknowledge (COA)/Extended Changeover Acknowledge (XCA) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfCOAXCAsent or TransportNetwork_Mtp3bSpAnsi .pmNoOfCOAXCAsent or TransportNetwork_Mtp3bSpChin a.pmNoOfCOAXCAsent or TransportNetwork_Mtp3bSpTtc. pmNoOfCOAXCAsent	Su m
pmNoOfControlle dRerouteSuccessP erf	ACC UMU LATI ON	IN T8	Total number of successfully performed controlled reroutings.	TransportNetwork_Mtp3bSpItu.p mNoOfControlledRerouteSuccess Perf or TransportNetwork_Mtp3bSpAnsi .pmNoOfControlledRerouteSucc essPerf or TransportNetwork_Mtp3bSpChin a.pmNoOfControlledRerouteSucc essPerf or TransportNetwork_Mtp3bSpTtc. pmNoOfControlledRerouteSucc essPerf	Su m
pmNoOfECAREc	ACC UMU LATI ON	IN T8	Total number of received ECA messages.	TransportNetwork_Mtp3bSpItu.p mNoOfECAREc or TransportNetwork_Mtp3bSpAnsi .pmNoOfECAREc or TransportNetwork_Mtp3bSpChin a.pmNoOfECAREc or TransportNetwork_Mtp3bSpTtc. pmNoOfECAREc	Su m
pmNoOfECASent	ACC UMU LATI ON	IN T8	Total number of sent Emergency Changeover Acknowledge (ECA) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfECASent or TransportNetwork_Mtp3bSpAnsi .pmNoOfECASent or TransportNetwork_Mtp3bSpChin a.pmNoOfECASent or TransportNetwork_Mtp3bSpTtc. pmNoOfECASent	Su m
pmNoOfECOSent	ACC UMU LATI ON	IN T8	Total number of sent ECO messages.	TransportNetwork_Mtp3bSpItu.p mNoOfECOSent or TransportNetwork_Mtp3bSpAnsi .pmNoOfECOSent or	Su m

				TransportNetwork_Mtp3bSpChina.pmNoOfECOSent or TransportNetwork_Mtp3bSpTtc. pmNoOfECOSent	
pmNoOfEmergencyChangeOverRec	ACCUMULATION	INT8	Total number of received Emergency Changeover Order (ECO) messages.	TransportNetwork_Mtp3bSpItu.pmNoOfEmergencyChangeOverRec or TransportNetwork_Mtp3bSpAnsi. pmNoOfEmergencyChangeOverRec or TransportNetwork_Mtp3bSpChina.pmNoOfEmergencyChangeOverRec or TransportNetwork_Mtp3bSpTtc. pmNoOfEmergencyChangeOverRec	Sum
pmNoOfForcedRerouteSuccessPerf	ACCUMULATION	INT8	Total number of successfully performed forced reroutings.	TransportNetwork_Mtp3bSpItu.pmNoOfForcedRerouteSuccessPerf or TransportNetwork_Mtp3bSpAnsi. pmNoOfForcedRerouteSuccessPerf or TransportNetwork_Mtp3bSpChina.pmNoOfForcedRerouteSuccessPerf or TransportNetwork_Mtp3bSpTtc. pmNoOfForcedRerouteSuccessPerf	Sum
pmNoOfIncAssocEstReqInStateDownWhenStateEstBlocked	ACCUMULATION	INTEGER	pmNoOfIncomingAssocEstabRequestInStateDownWhenStateEstabIsBlocked: The number of incoming requests for association establishment when the state on the association is DOWN and establishment of associations is blocked.	TransportNetwork_Mtp3bSpItu.pmNoOfIncomingAssocEstabRequestInStateDownWhenStateEstabIsBlocked or TransportNetwork_Mtp3bSpAnsi. pmNoOfIncomingAssocEstabRequestInStateDownWhenStateEstabIsBlocked or TransportNetwork_Mtp3bSpChina.pmNoOfIncomingAssocEstabRequestInStateDownWhenStateEstabIsBlocked	Sum

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				abIsBlocked or TransportNetwork_Mtp3bSpTtc. pmNoOfIncomingAssocEstabReq uestInStateDownWhenStateEstab IsBlocked	
pmNoOfLowerPri oMsgDiscarded	ACC UMU LATI ON	IN TE GE R	The number of messages with low priority that been discarded.	TransportNetwork_Mtp3bSpItu.p mNoOfLowerPrioMsgDiscarded or TransportNetwork_Mtp3bSpAnsi .pmNoOfLowerPrioMsgDiscarde d or TransportNetwork_Mtp3bSpChin a.pmNoOfLowerPrioMsgDiscard ed or TransportNetwork_Mtp3bSpTtc. pmNoOfLowerPrioMsgDiscarded	Su m
pmNoOfMaxTrial sForAssocActivRe ached	ACC UMU LATI ON	IN TE GE R	The number of times that the max limit for trying to activate an association has been reached.	TransportNetwork_Mtp3bSpItu.p mNoOfMaxTrialsForAssocActiv Reached or TransportNetwork_Mtp3bSpAnsi .pmNoOfMaxTrialsForAssocActi vReached or TransportNetwork_Mtp3bSpChin a.pmNoOfMaxTrialsForAssocAc tivReached or TransportNetwork_Mtp3bSpTtc. pmNoOfMaxTrialsForAssocActi vReached	Su m
pmNoOfMaxTrial sForAssocEstabRe ached	ACC UMU LATI ON	IN TE GE R	The number of times that the max limit for trying to establish an association has been reached.	TransportNetwork_Mtp3bSpItu.p mNoOfMaxTrialsForAssocEstab Reached or TransportNetwork_Mtp3bSpAnsi .pmNoOfMaxTrialsForAssocEstab Reached or TransportNetwork_Mtp3bSpChin a.pmNoOfMaxTrialsForAssocEst abReached or TransportNetwork_Mtp3bSpTtc. pmNoOfMaxTrialsForAssocEstab Reached	Su m
pmNoOfSLTAFirs tTimeOutRec	ACC UMU LATI	IN T8	Total number of received Signalling Link Test Acknowledge (SLTA)	TransportNetwork_Mtp3bSpItu.p mNoOfSLTAFirstTimeOutRec or TransportNetwork_Mtp3bSpAnsi	Su m

	ON		messages for first time out check.	.pmNoOfSLTAFirstTimeOutRec or TransportNetwork_Mtp3bSpChin a.pmNoOfSLTAFirstTimeOutRe c or TransportNetwork_Mtp3bSpTtc. pmNoOfSLTAFirstTimeOutRec	
pmNoOfSLTASec ondTimeOutRec	ACC UMU LATI ON	IN T8	Total number of received Signalling Link Test Acknowledge (SLTA) messages for second time out check.	TransportNetwork_Mtp3bSpItu.p mNoOfSLTASecondTimeOutRec or TransportNetwork_Mtp3bSpAnsi .pmNoOfSLTASecondTimeOutR ec or TransportNetwork_Mtp3bSpChin a.pmNoOfSLTASecondTimeOut Rec or TransportNetwork_Mtp3bSpTtc. pmNoOfSLTASecondTimeOutR ec	Su m
pmNoOfSuccessA ssocAbort	ACC UMU LATI ON	IN TE G E R	The number of successful abortions of signalling associations.	TransportNetwork_Mtp3bSpItu.p mNoOfSuccessAssocAbort or TransportNetwork_Mtp3bSpAnsi .pmNoOfSuccessAssocAbort or TransportNetwork_Mtp3bSpChin a.pmNoOfSuccessAssocAbort or TransportNetwork_Mtp3bSpTtc. pmNoOfSuccessAssocAbort	Su m
pmNoOfSuccessA ssocShutDown	ACC UMU LATI ON	IN TE G E R	Obsolete in R5.1:The number of successful shutdowns of signalling associations.	TransportNetwork_Mtp3bSpItu.p mNoOfSuccessAssocShutDown or TransportNetwork_Mtp3bSpAnsi .pmNoOfSuccessAssocShutDow n	Su m
pmNoOfTimerT21 WasStarted	ACC UMU LATI ON	IN T8	Total number of times the timer T21 was started.	TransportNetwork_Mtp3bSpItu.p mNoOfTimerT21WasStarted or TransportNetwork_Mtp3bSpAnsi .pmNoOfTimerT21WasStarted or TransportNetwork_Mtp3bSpChin	Su m

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				a.pmNoOfTimerT21WasStarted or TransportNetwork_Mtp3bSpTtc. pmNoOfTimerT21WasStarted	
pmNoOfTRARec	ACC UMU LATI ON	IN T8	Total number of received Traffic Restart Allowed (TRA) messages.	TransportNetwork_Mtp3bSpItu.p mNoOfTRARec or TransportNetwork_Mtp3bSpAnsi .pmNoOfTRARec or TransportNetwork_Mtp3bSpChin a.pmNoOfTRARec or TransportNetwork_Mtp3bSpTtc. pmNoOfTRARec	Su m
pmNoOfTRASent	ACC UMU LATI ON	IN T8	Total number of sent TRA messages.	TransportNetwork_Mtp3bSpItu.p mNoOfTRASent or TransportNetwork_Mtp3bSpAnsi .pmNoOfTRASent or TransportNetwork_Mtp3bSpChin a.pmNoOfTRASent or TransportNetwork_Mtp3bSpTtc. pmNoOfTRASent	Su m
pmNoOfUnsuccessAssocShutDown	ACC UMU LATI ON	IN TE GE R	Obsolete in R5.1:The number of unsuccessful shutdowns of signalling associations.	TransportNetwork_Mtp3bSpItu.p mNoOfUnsuccessAssocShutDown or TransportNetwork_Mtp3bSpAnsi .pmNoOfUnsuccessAssocShutDo wn	Su m
pmNoOfUnsuccessControlledRerouting	ACC UMU LATI ON	IN T8	Obsolete in R4.1:Total number of unsuccessfully performed controlled reroutings.	TransportNetwork_Mtp3bSpItu.p mNoOfUnsuccessControlledRero uting or TransportNetwork_Mtp3bSpAnsi .pmNoOfUnsuccessControlledRe routing	Su m
pmNoOfUnsuccessForcedRerouting	ACC UMU LATI ON	IN T8	Total number of unsuccessfully performed forced reroutings.	TransportNetwork_Mtp3bSpItu.p mNoOfUnsuccessForcedReroutin g or TransportNetwork_Mtp3bSpAnsi .pmNoOfUnsuccessForcedRerout ing or TransportNetwork_Mtp3bSpChin a.pmNoOfUnsuccessForcedRero uting or TransportNetwork_Mtp3bSpTtc. pmNoOfUnsuccessForcedRerouti	Su m

				ng	
pmNoOfUPMsgDiscardedDueToRoutingErr	ACCUMULATION	INT8	Total number of user part messages (MTP_Transfer_Req) discarded due to routing error.	TransportNetwork_Mtp3bSpItu.pmNoOfUPMsgDiscardedDueToRoutingErr or TransportNetwork_Mtp3bSpAnsi.pmNoOfUPMsgDiscardedDueToRoutingErr or TransportNetwork_Mtp3bSpChina.pmNoOfUPMsgDiscardedDueToRoutingErr or TransportNetwork_Mtp3bSpTtc.pmNoOfUPMsgDiscardedDueToRoutingErr	Sum

7.36.4 Signalling_Point.Ericsson.UMTS.SCCP_Accounting

SCCP accounting data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfMsg	ACCUMULATION	INT8	Total number of messages, both incoming and outgoing.	SccpAccountingCriteria.pmNoOfMsg	Sum
pmNoOfOctets	ACCUMULATION	INT8	Total number of octets, both incoming and outgoing.	SccpAccountingCriteria.pmNoOfOctets	Sum

7.36.5 Signalling_Point.Ericsson.UMTS.SCCP_policing

SCCP policing data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfRejectMsg	ACCUMULATION	INT8	Total number of rejected messages.	SccpPolicing.pmNoOfRejectMsg	Sum

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7.36.6 Signalling_Point.Ericsson.UMTS.SCCP_Relay_Signalling_Point

SCCP relay signalling point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfConInUseExceededHighWaterMark	ACCUMULATION	INT 8	Total number of connections in use that has exceeded the high watermark threshold .	SccpSp.pmNoOfConInUseExceededHighWaterMark	Sum
pmNoOfConInUseRecededLowWaterMark	ACCUMULATION	INT 8	Total number of connections in use that has receded the low watermark threshold .	SccpSp.pmNoOfConInUseRecededLowWaterMark	Sum
pmNoOfCREFRecFromNL	ACCUMULATION	INT 8	Total number of received Connection Refused (CREF) messages	SccpSp.pmNoOfCREFRecFromNL	Sum

			from network layer.		
pmNoOfCREFSentToNL	ACCUMULATION	INT 8	Total number of CREF messages sent to the network layer.	SccpSp.pmNoOfCREFSentToNL	Sum
pmNoOfCrRec	ACCUMULATION	INT 8	Total number of received Connection Request (CR) messages .	SccpSp.pmNoOfCrRec	Sum
pmNoOfCrSent	ACCUMULATION	INT 8	Total number of sent CR messages .	SccpSp.pmNoOfCrSent	Sum
pmNoOfDT1Rec	ACCUMULATION	INT 8	Total number of received Data Form 1 (DT1) messages .	SccpSp.pmNoOfDT1Rec	Sum
pmNoOfDT1Sent	ACCUMULATION	INT 8	Total number	SccpSp.pmNoOfDT1Sent	Sum

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			of sent DT1 messages .		
pmNoOfERRRec	ACCUMULATION	INT 8	Total number of received Protocol Data Unit Error (ERR) messages .	SccpSp.pmNoOfERRRec	Sum
pmNoOfERRSent	ACCUMULATION	INT 8	Total number of sent ERR messages .	SccpSp.pmNoOfERRSent	Sum
pmNoOfLUDTRec	ACCUMULATION	INT 8	Total number of received Long Unitdata (LUDT) messages .	SccpSp.pmNoOfLUDTRec	Sum
pmNoOfLUDTSSent	ACCUMULATION	INT 8	Total number of sent Long Unitdata Service (LUDTS) messages .	SccpSp.pmNoOfLUDTSSent	Sum
pmNoOfRLSDRecFromNL	ACCUMULATION	INT 8	Total number of	SccpSp.pmNoOfRLSDRecFromNL	Sum

			received Released (RLSD) messages from the network layer.		
pmNoOfRLSDSentToNL	ACCUMU LATION	INT 8	Total number of sent RLSD messages sent to the network layer.	SccpSp.pmNoOfRLSDSentToNL	Sum
pmNoOfSubsysAllowedSent	ACCUMU LATION	INT 8	Total number of sent SubsysA llowed messages .	SccpSp.pmNoOfSubsysAllowedSent	Sum
pmNoOfUDTRec	ACCUMU LATION	INT 8	Total number of received Unit Data (UDT) messages ..	SccpSp.pmNoOfUDTRec	Sum
pmNoOfUDTSent	ACCUMU LATION	INT 8	Total number of sent UDT messages .	SccpSp.pmNoOfUDTSent	Sum

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pmNoOfUDTSRec	ACCUMULATION	INT 8	Total number of received Unit Data Service (UDTS) messages .	SccpSp.pmNoOfUDTSRec	Sum
pmNoOfUDTSSent	ACCUMULATION	INT 8	Total number of sent UDTS messages .	SccpSp.pmNoOfUDTSSent	Sum
pmNoOfXUDTRec	ACCUMULATION	INT 8	Total number of received Extended Unit Data (XUDT) messages .	SccpSp.pmNoOfXUDTRec	Sum
pmNoOfXUDTSent	ACCUMULATION	INT 8	Total number of sent XUDT messages .	SccpSp.pmNoOfXUDTSent	Sum
pmNoOfXUDTSRec	ACCUMULATION	INT 8	Total number of received Extended Unit Data Service (XUDTS) messages	SccpSp.pmNoOfXUDTSRec	Sum

			.		
pmNoOfXUDTSSent	ACCUMULATION	INT 8	Total number of sent XUDTS messages	SccpSp.pmNoOfXUDTSSent	Sum
Tot_pmNoOfERRRec	INTENSITY	FL OAT	The total number of SCCP Protocol Data Unit Error (ERR) messages received per second	{pmNoOfERRRec} / {measurement_seconds}	Average, tot, min, max
Tot_pmNoOfERRSent	INTENSITY	FL OAT	The total number of SCCP Protocol Data Unit Error (ERR) messages sent per second	{pmNoOfERRSent} / {measurement_seconds}	Average, tot, min, max
Tot_SCCP_Msg_Rcvd	INTENSITY	FL OAT	The total number of connecti onless SCCP messages received	({pmNoOfLUDTRec} + {pmNoOfUDTRec} + {pmNoOfUDTSRec} + {pmNoOfXUDTRec} + {pmNoOfXUDTSRec}) / {measurement_seconds}	Average, tot, min, max

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			per second		
Tot_SCCP_Msg_Sent	INTENSITY	FLOAT	The total number of connectionless SCCP messages sent per second	$(\{pmNoOfLUDTSSent\} + \{pmNoOfUDTSSent\} + \{pmNoOfUDTSSent\} + \{pmNoOfXUDTSSent\} + \{pmNoOfXUDTSSent\}) / \{measurement_seconds\}$	Average, total, minimum, maximum

7.36.7 Signalling_Point.Ericsson.UMTS.SCCP_Routing_CRC

SCCP routing CRC data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfConnectFailure	ACCUMULATION	INT8	Total number of connection failures.	SccpSrc.pmNoOfConnectFailure	Sum
pmNoOfHopCounterViolation	ACCUMULATION	INT8	Total number of Hop counter violations.	SccpSrc.pmNoOfHopCounterViolation	Sum
pmNoOfRoutingFailNetworkCongest	ACCUMULATION	INT8	Total number of routing failures due	SccpSrc.pmNoOfRoutingFailNetworkCongest	Sum

			to networ k conges tion.		
pmNoOfRoutingFailNoTrans AddrOfSuchNature	ACCUMU LATION	IN T8	Total numbe r of routin g failure s due to no transla tion for Nature of Addre ss field.	SccpSrc.pmNoOfRoutingFailNoT ransAddrOfSuchNature	Sum
pmNoOfRoutingFailNoTrans SpecificAddr	ACCUMU LATION	IN T8	Total numbe r of routin g failure s due to no transla tion of specifi c addres s.	SccpSrc.pmNoOfRoutingFailNoT ransSpecificAddr	Sum
pmNoOfRoutingFailReason Unknown	ACCUMU LATION	IN T8	Total numbe r of routin	SccpSrc.pmNoOfRoutingFailReas onUnknown	Sum

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			g failure s due to unkno wn reason .		
pmNoOfRoutingFailSubsysUnavail	ACCUMULATION	INT8	Total number of routing failure s due to destination subsystem unavailable.	SccpSrc.pmNoOfRoutingFailSubsysUnavail	Sum
pmNoOfRoutingFailUnequippedSubsys	ACCUMULATION	INT8	Total number of routing failure s due to unequipped subsystem.	SccpSrc.pmNoOfRoutingFailUnequippedSubsys	Sum
pmNoOfRoutingFailurePointCodeUnAvail	ACCUMULATION	INT8	Total number of routing failure s due to destination	SccpSrc.pmNoOfRoutingFailurePointCodeUnAvail	Sum

			point code not available.		
pmNoOfRoutingFailure	ACCUMULATION	INT8	Total number of routing failures.	SccpSrc.pmNoOfRoutingFailure	Sum

7.36.8 Signalling_Point.Ericsson.UMTS.Utilisation

Utilisation data.

KPI	Type	Data Type	Description	Derivation	Aggregation
Avg_MSU_Rcvd_Rate	INTENSITY	FLOAT	Received MSUs per second	{pmNoOfMSURec}/ {measurement_seconds}	Average, tot, min, max
Avg_MSU_Sent_Rate	INTENSITY	FLOAT	Transmitted MSUs per second	{pmNoOfMSUSent}/ {measurement_seconds}	Average, tot, min, max
pmNoOfAALINServiceInd	ACCUMULATION	INT8	Number of received link in-service indications.	Mtp3bSpItu_SI_Aggregated.pmNoOfAALINServiceInd or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfAALINServiceInd or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfAALINServiceInd or	Sum

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				TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfAALINServiceInd	
pmNoOfAALOUTInd	ACCUMULATION	INT 8	Number of received link out-of-service indications.	Mtp3bSpItu_Sl_Aggregated.pmNoOfAALOUTInd or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfAALOUTInd or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfAALOUTInd or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfAALOUTInd	Sum
pmNoOfCBDSent	ACCUMULATION	INT 8	Number of sent Change Back Declaration (CBD) messages.	Mtp3bSpItu_Sl_Aggregated.pmNoOfCBDSent or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfCBDSent or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfCBDSent or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfCBDSent	Sum
pmNoOfCOOXCOSent	ACCUMULATION	INT 8	Number of sent Change Over Order (COO) or extended Change Over Order (XCO) messages.	Mtp3bSpItu_Sl_Aggregated.pmNoOfCOOXCOSent or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfCOOXCOSent or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfCOOXCOSent or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfCOOXCOSent	Sum
pmNoOfLocalLinkCongestCeaseRec	ACCUMULATION	INT 8	Number of local link	Mtp3bSpItu_Sl_Aggregated.pmNoOfLocalLinkCongestCeaseRec or TransportNetwork_Mtp3bSpAnsi	Sum

			congestion ceased primitives received.	_Mtp3bSls.pmNoOfLocalLinkCongestCeaseRec or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfLocalLinkCongestCeaseRec or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfLocalLinkCongestCeaseRec	
pmNoOfLocalLinkCongestRec	ACCUMULATION	INT 8	Number of local link congestion primitives received.	Mtp3bSpItu_Sl_Aggregated.pmNoOfLocalLinkCongestRec or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfLocalLinkCongestRec or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfLocalLinkCongestRec or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfLocalLinkCongestRec	Sum
pmNoOfMSURec	ACCUMULATION	INT 8	Number of received Message Signal Units (MSUs) on this signaling link.	Mtp3bSpItu_Sl_Aggregated.pmNoOfMSURec or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfMSURec or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfMSURec or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfMSURec	Sum
pmNoOfMSUSent	ACCUMULATION	INT 8	Number of sent MSUs from this signaling link.	Mtp3bSpItu_Sl_Aggregated.pmNoOfMSUSent or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfMSUSent or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfMSUSent or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfMSUSent	Sum

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pmNoOfRecUserData	ACCUMULATION	INT 8	Amount of data received.	Mtp3bSpItu_SI_Aggregated.pmNoOfRecUserData or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfRecUserData or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfRecUserData or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfRecUserData	Sum
pmNoOfSentUserData	ACCUMULATION	INT 8	Amount of data sent.	Mtp3bSpItu_SI_Aggregated.pmNoOfSentUserData or TransportNetwork_Mtp3bSpAnsi_Mtp3bSls.pmNoOfSentUserData or TransportNetwork_Mtp3bSpChina_Mtp3bSls.pmNoOfSentUserData or TransportNetwork_Mtp3bSpTtc_Mtp3bSls.pmNoOfSentUserData	Sum

7.37 Sigtran Performance Indicators

This section shows the key performance indicators and other counters for the Sigtran object, divided into the following sub-sections:

- [Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_IP](#)
- [Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_M3UA](#)
- [Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_MTP3](#)
- [Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol](#)

7.37.1 Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_IP

Stream control transmission protocol IP data.

KPI	Type	Data Type	Description	Derivation	Aggregation
%_Rcvd_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, received IP datagrams	$100 * \{\text{pmIpInDiscards}\} / \{\text{pmIpInReceives}\}$	Average, ermgwmsbh

%_Rvcd_IP_Packet_Err	PERCENTAGE	FLOAT	The ratio of errored, received IP packets	$100 * \{pmIpInAddrErrors\} + \{pmIpInHdrErrors\} + \{pmIpInUnknownProtos\} / \{pmIpInReceives\}$	Average, ermgwm sbh
%_Sent_Datagram_Discard	PERCENTAGE	FLOAT	The ratio of discarded, sent IP datagrams	$100 * \{pmIpOutDiscards\} / \{pmIpOutRequests\}$	Average, ermgwm sbh
pmIcmpInDestUnreachs	ACCUMULATION	INT8	Total number of ICMP Destination Unreachable messages received.	IpSystem_IpAccessHostGpb.pmIcmpInDestUnreachs	Sum, ermgwm sbh
pmIcmpInEchoReps	ACCUMULATION	INT8	Total number of ICMP Echo Reply messages received.	IpSystem_IpAccessHostGpb.pmIcmpInEchoReps	Sum, ermgwm sbh
pmIcmpInEchos	ACCUMULATION	INT8	Total number of ICMP Echo (request) messages received.	IpSystem_IpAccessHostGpb.pmIcmpInEchos	Sum, ermgwm sbh
pmIcmpInErrors	ACCUMULATION	INT8	Total number of ICMP	IpSystem_IpAccessHostGpb.pmIcmpInErrors	Sum, ermgwm sbh

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			messages which the entity received but determined as having ICMP-specific errors.		
pmIcmpInMsgs	ACCUMULATION	INT8	Total number of ICMP messages which the entity received.	IpSystem_IpAccessHostGpb.pmlIcmpInMsgs	Sum, ermgwm sbh
pmIcmpInParamProbs	ACCUMULATION	INT8	Total number of ICMP Parameter Problem messages received.	IpSystem_IpAccessHostGpb.pmlIcmpInParamProbs	Sum, ermgwm sbh
pmIcmpInRedirects	ACCUMULATION	INT8	Total number of ICMP Redirect messages received.	IpSystem_IpAccessHostGpb.pmlIcmpInRedirects	Sum, ermgwm sbh
pmIcmpInSrcQuenches	ACCUMULATION	INT8	Total number of ICMP Source Quench messages received.	IpSystem_IpAccessHostGpb.pmlIcmpInSrcQuenches	Sum, ermgwm sbh
pmIcmpInTimeExcds	ACCUMULATION	INT8	Total number of ICMP Time	IpSystem_IpAccessHostGpb.pmlIcmpInTimeExcds	Sum, ermgwm sbh

			Exceeded messages received.		
pmIcmpOutDestUnreaches	ACCUMULATION	INT8	Total number of ICMP Destination Unreachable messages sent.	IpSystem_IpAccessHostGpb.pmlcmpOutDestUnreaches	Sum, ermngwmsbh
pmIcmpOutEchoReps	ACCUMULATION	INT8	Total number of ICMP Echo Reply messages sent.	IpSystem_IpAccessHostGpb.pmlcmpOutEchoReps	Sum, ermngwmsbh
pmIcmpOutEchos	ACCUMULATION	INT8	Total number of ICMP Echo (request) messages sent.	IpSystem_IpAccessHostGpb.pmlcmpOutEchos	Sum, ermngwmsbh
pmIcmpOutErrors	ACCUMULATION	INT8	Total number of ICMP messages which this entity did not send due to problems discovered within	IpSystem_IpAccessHostGpb.pmlcmpOutErrors	Sum, ermngwmsbh

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			ICMP such as a lack of buffers.		
pmIcmpOutMsgs	ACCUMULATION	INT8	Total number of ICMP messages which this entity attempted to send.	IpSystem_IpAccessHostGpb.pmIcmpOutMsgs	Sum, ermngwm sbh
pmIcmpOutParamProbs	ACCUMULATION	INT8	Total number of ICMP Parameter Problem messages sent.	IpSystem_IpAccessHostGpb.pmIcmpOutParmProbs	Sum, ermngwm sbh
pmIpFragCreates	ACCUMULATION	INT8	Total number of IP datagram fragments that have been generated as a result of fragmentation at this entity.	IpSystem_IpAccessHostGpb.pmIpFragCreates	Sum, ermngwm sbh
pmIpFragFails	ACCUMULATION	INT8	Total number of IP datagrams that have been	IpSystem_IpAccessHostGpb.pmIpFragFails	Sum, ermngwm sbh

			discarded because they needed to be fragmented at this entity but could not be.		
pmIpFragOKs	ACCUMULATION	INT8	Total number of IP datagrams that have been successfully fragmented at this entity.	IpSystem_IpAccessHostGpb.pmlIpFragOKs	Sum, ermngwm sbh
pmIpInAddrErrors	ACCUMULATION	INT8	Total number of input datagrams discarded because the IP address in their IP headers destination field was not a valid address to be	IpSystem_IpAccessHostGpb.pmlIpInAddrErrors	Sum, ermngwm sbh

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			received at this entity.		
pmIpInDelivers	ACCUMULATION	INT8	Total number of input datagrams successfully delivered to IP user-protocols (including ICMP).	IpSystem_IpAccessHostGpb.pmIpInDelivers	Sum, ermngwm sbh
pmIpInDiscards	ACCUMULATION	INT8	Total number of input IP datagrams for which no problems were encountered to prevent their continued processing, but which were discarded.	IpSystem_IpAccessHostGpb.pmIpInDiscards	Sum, ermngwm sbh
pmIpInHdrErrors	ACCUMULATION	INT8	Total number of input datagrams discarded due to	IpSystem_IpAccessHostGpb.pmIpInHdrErrors	Sum, ermngwm sbh

			errors in their IP headers.		
pmIpInReceives	ACCUMULATION	INT8	Total number of input datagrams received from interfaces.	IpSystem_IpAccessHostGpb.pmIpInReceives	Sum, ermngwm sbh
pmIpInUnknownProtos	ACCUMULATION	INT8	Total number of locally-addressed datagrams received successfully but discarded because of an unknown or unsupported protocol.	IpSystem_IpAccessHostGpb.pmIpInUnknownProtos	Sum, ermngwm sbh
pmIpOutDiscards	ACCUMULATION	INT8	Total number of output IP datagrams for which no problem	IpSystem_IpAccessHostGpb.pmIpOutDiscards	Sum, ermngwm sbh

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			was encountered to prevent their transmission to their destination, but which were discarded (for example, for lack of buffer space).		
pmIpOutRequests	ACCUMULATION	INT8	Total number of IP datagrams which local IP user protocols (including ICMP) supplied to IP in requests for transmission.	IpSystem_IpAccessHostGpb.pmlpOutRequests	Sum, ermngwmsbh
pmIpReasmFails	ACCUMULATION	INT8	Total number of failures detected by the IP re-assembly algorithm (for whatever	IpSystem_IpAccessHostGpb.pmlpReasmFails	Sum, ermngwmsbh

			reason: timed out, errors, etc).		
pmIpReasmOKs	ACCUMULA TION	INT8	Total number of IP datagram s successfu lly re- assemble d.	IpSystem_IpAccessHostGpb.pmI pReasmOKs	Sum, ermgwm sbh
pmIpReasmReqds	ACCUMULA TION	INT8	Total number of IP fragment s received which needed to be reassemb led at this entity.	IpSystem_IpAccessHostGpb.pmI pReasmReqds	Sum, ermgwm sbh
pmNoOfIfInBroadc astPkts	ACCUMULA TION	INT8	Obsolete in R4.1:Tot al number of input broadcast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pm NoOfIfInBroadcastPkts	Sum, ermgwm sbh
pmNoOfIfInDiscard	ACCUMULA	INT8	Obsolete	IpSystem_IpAccessHostGpb.pm	Sum,

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s	TION		in R4.1:Total number of input packets discarded due to resource limitations.	NoOfIfInDiscards	ermgwm sbh
pmNoOfIfInErrors	ACCUMULATION	INT8	Obsolete in R4.1:Total number of input packets discarded due to any error.	IpSystem_IpAccessHostGpb.pm NoOfIfInErrors	Sum, ermngwm sbh
pmNoOfIfInMulticastPkts	ACCUMULATION	INT8	Obsolete in R4.1:Total number of input broadcast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pm NoOfIfInMulticastPkts	Sum, ermngwm sbh
pmNoOfIfInUcastPkts	ACCUMULATION	INT8	Obsolete in R4.1:Total number of input unicast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pm NoOfIfInUcastPkts	Sum, ermngwm sbh

pmNoOfIfOutBroadcastPkts	ACCUMULATION	INT8	Obsolete in R4.1: Total number of output broadcast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pmNoOfIfOutBroadcastPkts	Sum, ermngwm sbh
pmNoOfIfOutMulticastPkts	ACCUMULATION	INT8	Obsolete in R4.1: Total number of output broadcast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pmNoOfIfOutMulticastPkts	Sum, ermngwm sbh
pmNoOfIfOutUcastPkts	ACCUMULATION	INT8	Obsolete in R4.1: Total number of output unicast packets delivered to higher layer.	IpSystem_IpAccessHostGpb.pmNoOfIfOutUcastPkts	Sum, ermngwm sbh
pmUdpInDatagrams	ACCUMULATION	INTEGER	The total number of User Datagram Protocol	IpSystem_IpAccessHostGpb.pmUdpInDatagrams	Sum, ermngwm sbh

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			(UDP) datagram s delivered to UDP users.		
pmUdpInErrors	ACCUMULA TION	INTE GER	The number of received User Datagra m Protocol (UDP) datagram s that could not be delivered for reasons other than the lack of an applicati on at the destinatio n port.	IpSystem_IpAccessHostGpb.pm UdpInErrors	Sum, ermgwm sbh
pmUdpNoPorts	ACCUMULA TION	INTE GER	The total number of received User Datagra m Protocol (UDP) datagram s, for which there was no applicati	IpSystem_IpAccessHostGpb.pm UdpNoPorts	Sum, ermgwm sbh

			on at the destination port.		
pmUdpOutDatagrams	ACCUMULATION	INTEGER	The total number of User Datagram Protocol (UDP) datagrams sent from this entity.	IpSystem_IpAccessHostGpb.pmUdpOutDatagrams	Sum, ermgwmsbh
Tot_Sent_IP_Datagram	ACCUMULATION	INTEGER	The total number of sent IP datagrams	{pmIpOutRequests} - {pmIpOutDiscards}	Sum, ermgwmsbh

7.37.2 Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_M3UA

Stream control transmission protocol M3UA data.

KPI	Type	Data Type	Description	Derivation	Aggregation
Avg_Payload_Msg_Received	INTENSITY	FLOAT	The number of payload data messages received per second	{pmNoOfDataMsgRec} / {measurement_seconds}	Average, ermgwmsbh, tot, min, max
Avg_Payload_Msg_Sent	INTENSITY	FLOAT	The number	{pmNoOfDataMsgSent} / {measurement_seconds}	Average,

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			of payload data messages sent per second		ermgw msbh, tot, min, max
pmNoOfAspacAckReceived	ACCUMULATION	INT 8	Total number of Applicati on Server Process Active (ASPAC) ACK messages received through the associatio n.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspacAckReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspacAckReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspacAckReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspacAckReceived	Sum, ermgw msbh
pmNoOfAspacAckSent	ACCUMULATION	INT 8	Total number of ASPAC ACK messages sent through the associatio n.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspacAckSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspacAckSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspacAckSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspacAckSent	Sum, ermgw msbh
pmNoOfAspacReceived	ACCUMULATION	INT 8	Total number of ASPAC messages received through the associatio n.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspacReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspacReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspacReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspacReceived	Sum, ermgw msbh

				received	
pmNoOfAspacSent	ACCUMULATION	INT 8	Total number of ASPAC messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspacSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspacSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspacSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspacSent	Sum, ermgw msbh
pmNoOfAspdnAckReceived	ACCUMULATION	INT 8	Total number of Application Server Process Down (ASPDN) ACK messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspdnAckReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspdnAckReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspdnAckReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspdnAckReceived	Sum, ermgw msbh
pmNoOfAspdnAckSent	ACCUMULATION	INT 8	Total number of ASPDN ACK messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspdnAckSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspdnAckSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspdnAckSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspdnAckSent	Sum, ermgw msbh

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				ckSent	
pmNoOfAspdnReceived	ACCUMULATION	INT 8	Total number of ASPDN messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspdnReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspdnReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspdnReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspdnReceived	Sum, ermgw msbh
pmNoOfAspdnSent	ACCUMULATION	INT 8	Total number of ASPDN messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspdnSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspdnSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspdnSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspdnSent	Sum, ermgw msbh
pmNoOfAspiaAckReceived	ACCUMULATION	INT 8	Total number of Application Server Process Inactive (ASPIA) ACK messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspiaAckReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspiaAckReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspiaAckReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspiaAckReceived	Sum, ermgw msbh
pmNoOfAspiaAckSent	ACCUMULATION	INT 8	Total number of ASPIA	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspiaAckSent or	Sum, ermgw msbh

			ACK messages sent through the association.	TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspiaAckSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspiaAckSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspiaAckSent	
pmNoOfAspiaReceived	ACCUMULATION	INT 8	Total number of ASPIA messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspiaReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspiaReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspiaReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspiaReceived	Sum, erm, gw, msbh
pmNoOfAspiaSent	ACCUMULATION	INT 8	Total number of ASPIA messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspiaSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspiaSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspiaSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspiaSent	Sum, erm, gw, msbh
pmNoOfAspupAckReceived	ACCUMULATION	INT 8	Total number of Application Server Process	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspupAckReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspupAckReceived or	Sum, erm, gw, msbh

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			Up (ASPUP) ACK messages received through the association.	TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspupAckReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspupAckReceived	
pmNoOfAspupAckSent	ACCUMULATION	INT 8	Total number of ASPUP ACK messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspupAckSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspupAckSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspupAckSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspupAckSent	Sum, ermgwmsbh
pmNoOfAspupReceived	ACCUMULATION	INT 8	Total number of ASPUP messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspupReceived or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspupReceived or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspupReceived or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspupReceived	Sum, ermgwmsbh
pmNoOfAspupSent	ACCUMULATION	INT 8	Total number of ASPUP messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfAspupSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfAspupSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfAspupSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfAspupSent	Sum, ermgwmsbh

				ent	
pmNoOfCommunicationLost	ACCUMULATION	INT 8	Total number of communication losses.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfCommunicationLost or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfCommunicationLost or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfCommunicationLost or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfCommunicationLost	Sum, erm, gw, msbh
pmNoOfCongestions	ACCUMULATION	INT 8	Total number of congestions.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfCongestions or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfCongestions or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfCongestions or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfCongestions	Sum, erm, gw, msbh
pmNoOfDataMsgRec	ACCUMULATION	INT 8	Total number of DATA (payload data) messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfDataMsgRec or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfDataMsgRec or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfDataMsgRec or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfDataMsgRec	Sum, erm, gw, msbh
pmNoOfDataMsgSent	ACCUMULATION	INT	Number	TransportNetwork_Mtp3bSpItu_	Sum,

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	ATION	8	of DATA messages sent on the associations related to this signalling point.	M3uAssociation.pmNoOfDataMsgSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfDataMsgSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfDataMsgSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfDataMsgSent	ermgw msbh
pmNoOfDaudMsgSent	ACCUMULATION	INT 8	Total number of Destination State Audit (DAUD) messages sent on the associations related to this signalling point.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfDaudMsgSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfDaudMsgSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfDaudMsgSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfDaudMsgSent	Sum, ermgw msbh
pmNoOfDaudReceived	ACCUMULATION	INT 8	Total number of DAUD messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfDaudMsgRec or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfDaudMsgRec or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfDaudMsgRec or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfDaudMsgRec	Sum, ermgw msbh
pmNoOfDavaRec	ACCUMULATION	INT 8	Total number of Destination Available	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfDavaRec or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfDavaRec or	Sum, ermgw msbh

			(DAVA) messages received through the association.	TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDava Rec or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDavaRe c	
pmNoOfDavaSent	ACCUMUL ATION	INT 8	Total number of DAVA messages sent through the associatio n.	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfDavaSe nt or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfDavaS ent or TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDava Sent or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDavaSe nt	Sum, ermgw msbh
pmNoOfDunaRec	ACCUMUL ATION	INT 8	Total number of Destinati on Unavaila ble (DUNA) messages received through the associatio n.	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfDunaRe c or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfDunaR ec or TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDuna Rec or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDunaRe c	Sum, ermgw msbh
pmNoOfDunaSent	ACCUMUL ATION	INT 8	Total number of DUNA messages sent through	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfDunaSe nt or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfDunaS ent or	Sum, ermgw msbh

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			the association.	TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDuna Sent or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDunaSe nt	
pmNoOfDupuRec	ACCUMUL ATION	INT 8	Total number of Destinati on User Part Unavaila ble (DUPU) messages received through the associatio n.	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfDupuRe c or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfDupuR ec or TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDupu Rec or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDupuRe c	Sum, ermgw msbh
pmNoOfDupuSent	ACCUMUL ATION	INT 8	Total number of DUPU messages sent through the associatio n.	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfDupuSe nt or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfDupuS ent or TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfDupu Sent or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfDupuSe nt	Sum, ermgw msbh
pmNoOfErrorMsgRec	ACCUMUL ATION	INT 8	Number of ERROR messages received through the associatio n.	TransportNetwork_Mtp3bSpItu_ M3uAssociation.pmNoOfErrorMsg Rec or TransportNetwork_Mtp3bSpAnsi_ M3uAssociation.pmNoOfError MsgRec or TransportNetwork_Mtp3bSpChin a_M3uAssociation.pmNoOfError MsgRec or TransportNetwork_Mtp3bSpTtc_ M3uAssociation.pmNoOfErrorMs	Sum, ermgw msbh

				gRec	
pmNoOfErrorMsgSent	ACCUMULATION	INT 8	Total number of ERROR messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfErrorMsgSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfErrorMsgSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfErrorMsgSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfErrorMsgSent	Sum, ermgw msbh
pmNoOfM3uaDataMsgDiscarded	ACCUMULATION	INT 8	Total number of discarded M3UA data messages.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfM3uaDataMsgDiscarded or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfM3uaDataMsgDiscarded or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfM3uaDataMsgDiscarded or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfM3uaDataMsgDiscarded	Sum, ermgw msbh
pmNoOfNotifyMsgRec	ACCUMULATION	INT 8	Number of NOTIFY messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfNotifyMsgRec or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfNotifyMsgRec or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfNotifyMsgRec or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfNotifyMsgRec	Sum, ermgw msbh
pmNoOfRecUserData	ACCUMULATION	INT	Amount	TransportNetwork_Mtp3bSpItu_	Sum,

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	ATION	8	of data received.	M3uAssociation.pmNoOfRecUserData or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfRecUserData or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfRecUserData or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfRecUserData	ermgw msbh
pmNoOfSconRec	ACCUMULATION	INT 8	Total number of Signalling Congestion (SCON) messages received through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfSconRec or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfSconRec or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfSconRec or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfSconRec	Sum, ermgw msbh
pmNoOfSconSent	ACCUMULATION	INT 8	Total number of SCON messages sent through the association.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfSconSent or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfSconSent or TransportNetwork_Mtp3bSpChina_M3uAssociation.pmNoOfSconSent or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfSconSent	Sum, ermgw msbh
pmNoOfSentUserData	ACCUMULATION	INT 8	Amount of data sent.	TransportNetwork_Mtp3bSpItu_M3uAssociation.pmNoOfSentUserData or TransportNetwork_Mtp3bSpAnsi_M3uAssociation.pmNoOfSentUserData or TransportNetwork_Mtp3bSpChina	Sum, ermgw msbh

				a_M3uAssociation.pmNoOfSentUserData or TransportNetwork_Mtp3bSpTtc_M3uAssociation.pmNoOfSentUserData	
--	--	--	--	---	--

7.37.3 Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol_MTP3

Stream control transmission protocol MTP3 data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNoOfSctpAssociationRestart	ACCUMULATION	INT8	Total number of SCTP association restarts.	TransportNetwork_Mtp3bSpItu.pmNoOfSctpAssociationRestart or TransportNetwork_Mtp3bSpAnsi.pmNoOfSctpAssociationRestart or TransportNetwork_Mtp3bSpChina.pmNoOfSctpAssociationRestart or TransportNetwork_Mtp3bSpTtc.pmNoOfSctpAssociationRestart	Sum, ermgwmsbh
pmNoOfSctpBufOverflow	ACCUMULATION	INT8	Total number of SCTP stop sending data.	TransportNetwork_Mtp3bSpItu.pmNoOfSctpBufOverflow or TransportNetwork_Mtp3bSpAnsi.pmNoOfSctpBufOverflow or TransportNetwork_Mtp3bSpChina.pmNoOfSctpBufOverflow or TransportNetwork_Mtp3bSpTtc.pmNoOfSctpBufOverflow	Sum, ermgwmsbh
pmNoOfSctpCommunicationErr	ACCUMULATION	INT8	Total number of SCTP communication error.	TransportNetwork_Mtp3bSpItu.pmNoOfSctpCommunicationErr or TransportNetwork_Mtp3bSpAnsi.pmNoOfSctpCommunicationErr or TransportNetwork_Mtp3bSpChina.pmNoOfSctpCommunicationErr or	Sum, ermgwmsbh

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				TransportNetwork_Mtp3bSpTtc.p mNoOfSctpCommunicationErr	
pmNoOfSctpNetworkSt atusChange	ACCUMUL ATION	IN T8	Total number of SCTP network status changes.	TransportNetwork_Mtp3bSpItu.p mNoOfSctpNetworkStatusChange or TransportNetwork_Mtp3bSpAnsi. pmNoOfSctpNetworkStatusChang e or TransportNetwork_Mtp3bSpChina .pmNoOfSctpNetworkStatusChan ge or TransportNetwork_Mtp3bSpTtc.p mNoOfSctpNetworkStatusChange	Sum, ermgw msbh
pmNoOfSctpResumeSe nding	ACCUMUL ATION	IN T8	Total number of SCTP resume sending data.	TransportNetwork_Mtp3bSpItu.p mNoOfSctpResumeSending or TransportNetwork_Mtp3bSpAnsi. pmNoOfSctpResumeSending or TransportNetwork_Mtp3bSpChina .pmNoOfSctpResumeSending or TransportNetwork_Mtp3bSpTtc.p mNoOfSctpResumeSending	Sum, ermgw msbh
pmNoOfSctpSendFailu re	ACCUMUL ATION	IN T8	Total number of SCTP send failure.	TransportNetwork_Mtp3bSpItu.p mNoOfSctpSendFailure or TransportNetwork_Mtp3bSpAnsi. pmNoOfSctpSendFailure or TransportNetwork_Mtp3bSpChina .pmNoOfSctpSendFailure or TransportNetwork_Mtp3bSpTtc.p mNoOfSctpSendFailure	Sum, ermgw msbh
pmNoOfSuccessAssoc Establish	ACCUMUL ATION	IN T8	Total number of successfu l associatio n establish ments.	TransportNetwork_Mtp3bSpItu.p mNoOfSuccessAssocEstablish or TransportNetwork_Mtp3bSpAnsi. pmNoOfSuccessAssocEstablish or TransportNetwork_Mtp3bSpChina .pmNoOfSuccessAssocEstablish or TransportNetwork_Mtp3bSpTtc.p mNoOfSuccessAssocEstablish	Sum, ermgw msbh
pmNoOfUnsuccessAss ocEstablish	ACCUMUL ATION	IN T8	Total number of unsuccess ful	TransportNetwork_Mtp3bSpItu.p mNoOfUnsuccessAssocEstablish or TransportNetwork_Mtp3bSpAnsi. pmNoOfUnsuccessAssocEstablish	Sum, ermgw msbh

			association establishments.	or TransportNetwork_Mtp3bSpChina .pmNoOfUnsuccessAssocEstablish or TransportNetwork_Mtp3bSpTtc.p mNoOfUnsuccessAssocEstablish	
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7.37.4 Sigtran.Ericsson.UMTS.Stream_Control_Transmission_Protocol

Stream control transmission protocol data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmSctpAborted	ACCUMULATION	INT8	Total number of times that SCTP associations have made a direct transition to the CLOSED state from any state using the primitive ABORT.	TransportNetwork_Sctp.pmSctpAborted	Sum, ermgwmsbh
pmSctpActiveEstab	ACCUMULATION	INT8	Total number of times that SCTP associations have made a direct transition to the	TransportNetwork_Sctp.pmSctpActiveEstab	Sum, ermgwmsbh

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			ESTABLISHED state from the COOKIE-ECHOED state.		
pmSctpCurrEstab	INTENSITY	INT8	Current number of SCTP associations for which the current state is either ESTABLISHED, SHUTDOWN-PENDING, or SHUTDOWN-RECEIVED.	TransportNetwork_Sctp.pmSctpCurrEstab	Average, ermgwmsbh, tot, min, max
pmSctpPassiveEstab	ACCUMULATION	INT8	Total number of times that SCTP associations have made a direct transition to the ESTABLISHED state from the CLOSED state.	TransportNetwork_Sctp.pmSctpPassiveEstab	Sum, ermgwmsbh
pmSctpShutdowns	ACCUMULATION	INT8	The total number of times that SCTP association	TransportNetwork_Sctp.pmSctpShutdowns	Sum, ermgwmsbh

			s have made a direct transition to the CLOSED state from either the SHUTDOWN-SENT state or the SHUTDOWN-ACK-SENT state.		
pmSctpStatAssocOutOfBlue	ACCUMULATION	INT8	Total number of out of the blue packets (SCTP packet correctly formed-right checksum-but the receiver is not able to identify the association to which this packet belongs) received by the host.	TransportNetwork_Sctp.pmSctpStatAssocOutOfBlue	Sum, ermngwm sbh
pmSctpStatChecksumErrorCounter	ACCUMULATION	INT8	Total number of SCTP packets	TransportNetwork_Sctp.pmSctpStatChecksumErrorCounter	Sum, ermngwm sbh

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			received from the peers with an invalid checksum.		
pmSctpStatCommResume	ACCUMULATION	INT8	Total number of times SCTP has sent a communication resume indication to the user.	TransportNetwork_Sctp.pmSctpStatCommResume	Sum, ermgwmsbh
pmSctpStatCommStop	ACCUMULATION	INT8	Total number of times SCTP has sent a communication stop indication to the user.	TransportNetwork_Sctp.pmSctpStatCommStop	Sum, ermgwmsbh
pmSctpStatFragmentedUserMsg	ACCUMULATION	INT8	Total number of fragmented user messages.	TransportNetwork_Sctp.pmSctpStatFragmentedUserMsg	Sum, ermgwmsbh
pmSctpStatOutOfOrderRecChunks	ACCUMULATION	INT8	Total number of unordered chunks received from the peers.	TransportNetwork_Sctp.pmSctpStatOutOfOrderRecChunks	Sum, ermgwmsbh
pmSctpStatOutOfOrderSendChunks	ACCUMULATION	INT8	Total number of unordered chunks sent to the peers.	TransportNetwork_Sctp.pmSctpStatOutOfOrderSendChunks	Sum, ermgwmsbh
pmSctpStatReassembled	ACCUMULATION	INT8	Total	TransportNetwork_Sctp.pm	Sum,

UserMsg	ATION		number of reassemble d user messages.	SctpStatReassembledUserM sg	ermgwm sbh
pmSctpStatRecChunksD ropped	ACCUMUL ATION	INT8	Total number of sent chunks that SCTP has been forced to drop due to buffer overflow in the receiving buffer.	TransportNetwork_Sctp.pm SctpStatRecChunksDropped	Sum, ermgwm sbh
pmSctpStatRecChunks	ACCUMUL ATION	INT8	Total number of complete data chunks received from the peers (no retransmiss ions included).	TransportNetwork_Sctp.pm SctpStatRecChunks	Sum, ermgwm sbh
pmSctpStatReceivedCon trolChunks	ACCUMUL ATION	INT8	Total number of datagrams received with chunk type id greater than 0.	TransportNetwork_Sctp.pm SctpStatReceivedControlCh unks	Sum, ermgwm sbh
pmSctpStatReceivedPac kages	ACCUMUL ATION	INT8	Total number of SCTP	TransportNetwork_Sctp.pm SctpStatReceivedPackages	Sum, ermgwm sbh

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			packages received.		
pmSctpStatRetransChunks	ACCUMULATION	INT8	Total number of data chunks retransmitted to the peers.	TransportNetwork_Sctp.pmSctpStatRetransChunks	Sum, ermngwm sbh
pmSctpStatSentChunksDropped	ACCUMULATION	INT8	Total number of sent chunks that SCTP has been forced to drop due to buffer overflow in the sending buffer.	TransportNetwork_Sctp.pmSctpStatSentChunksDropped	Sum, ermngwm sbh
pmSctpStatSentChunks	ACCUMULATION	INT8	Total number of complete data chunks sent to the peers (no retransmissions included).	TransportNetwork_Sctp.pmSctpStatSentChunks	Sum, ermngwm sbh
pmSctpStatSentControlChunks	ACCUMULATION	INT8	Total number of datagrams sent with chunk type id greater than 0.	TransportNetwork_Sctp.pmSctpStatSentControlChunks	Sum, ermngwm sbh
pmSctpStatSentPackages	ACCUMULATION	INT8	Total number of SCTP packages sent.	TransportNetwork_Sctp.pmSctpStatSentPackages	Sum, ermngwm sbh

Tot_SCTP_Data_Chunks_Sent	ACCUMULATION	INTEGER	The total number of sent SCTP data chunks	{pmSctpStatSentChunks} + {pmSctpStatRetransChunks}	Sum, ermngwmsbh
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7.38 STS1 Performance Indicators

This section shows the key performance indicators and other counters for the STS1 object, divided into the following sub-sections:

- [STS1.Ericsson.UMTS.STS1_Terminating_Point](#)

7.38.1 STS1.Ericsson.UMTS.STS1_Terminating_Point

STS1 Terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmEsp	ACCUMULATION	INT8	Total number of Errored Seconds.	Sts1SpeTtp.pmEsp	Sum, ermngwmsbh
pmSesp	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Sts1SpeTtp.pmSesp	Sum, ermngwmsbh
pmUasp	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive SES are detected (them being part of the unavailable time) and ends when 10	Sts1SpeTtp.pmUasp	Sum, ermngwmsbh

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			consecutive non-SES are detected.		
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7.39 STS3 Performance Indicators

This section shows the key performance indicators and other counters for the STS3 object, divided into the following sub-sections:

- [STS3.Ericsson.UMTS.STS3_Terminating_Point](#)

7.39.1 STS3.Ericsson.UMTS.STS3_Terminating_Point

STS 3 Terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmEsp	ACCUMULATION	INT8	Total number of Errored Seconds.	Sts3CspeTtp.pmEsp	Sum, ermgwms bh
pmSesp	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Sts3CspeTtp.pmSesp	Sum, ermgwms bh
pmUasp	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive SES are detected (them being part of the unavailable time) and ends when 10 consecutive non-SES are detected.	Sts3CspeTtp.pmUasp	Sum, ermgwms bh

7.40 Synchronization Performance Indicators

This section shows the key performance indicators and other counters for the Synchronization object, divided into the following sub-sections:

- [Synchronization.Ericsson.UMTS.Synchronization_Delay](#)

7.40.1 Synchronization.Ericsson.UMTS.Synchronization_Delay

Network synchronization delay

KPI	Type	Data Type	Description	Derivation	Aggregation
pmHDelayVarBest10Pct	INTENSITY	INTEGER	This counter shows the Highest Delay Variation (see ITU-T Y.1540 for definition of the delay variation) of the best 10% synchronization frames (with the lowest delay) experienced by the active IP synchronization reference during the PM interval.	TransportNetwork_Synchronization.pmHDelayVarBest10Pct	Average, tot, min, max
pmHDelayVarBest1Pct	INTENSITY	INTEGER	This counter shows the Highest Delay Variation (see ITU-T Y.1540 for definition of the delay variation) of the best 1% synchronization frames (with the lowest delay) experienced by the active IP synchronization reference during the PM interval.	TransportNetwork_Synchronization.pmHDelayVarBest1Pct	Average, tot, min, max

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pmHDelayVarBest50Pct	INTENSITY	INTEGER	This counter shows the Highest Delay Variation (see ITU-T Y.1540 for definition of the delay variation) of the best 50% synchronization frames (with the lowest delay) experienced by the active IP synchronization reference during the PM interval.	TransportNetwork_Synchronization.pmHDelayVarBest50Pct	Average, tot, min, max
pmMaxDelayVariation	INTENSITY	INTEGER	DEPRECATED: This attribute will be removed in later releases. Use pmHDelayVarBest1Pct, pmHDelayVarBest10Pct and pmHDelayVarBest50Pct. This counter shows the Maximum Delay Variation (see ITU-T Y.1540 for definition of the delay variation) experienced by the active IP synchronization reference during the PM interval.	TransportNetwork_Synchronization.pmMaxDelayVariation	Average, tot, min, max

7.41 T1 Performance Indicators

This section shows the key performance indicators and other counters for the T1 object, divided into the following sub-sections:

- [T1.Ericsson.UMTS.T1_Terminating_Point](#)

7.41.1 T1.Ericsson.UMTS.T1_Terminating_Point

T1 terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmEs	ACCUMULATION	INT8	Total number of Errored Seconds.	T1Ttp.pmEs or T1PhysPathTerm.pmEs	Sum, ermgwms bh
pmSes	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	T1Ttp.pmSes or T1PhysPathTerm.pmSes	Sum, ermgwms bh
pmUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive SES are detected (them being part of the unavailable time) and ends when 10 consecutive non-SES are detected.	T1Ttp.pmUas or T1PhysPathTerm.pmUas	Sum, ermgwms bh

7.42 TdmTermGrp Performance Indicators

This section shows the key performance indicators and other counters for the TdmTermGrp object, divided into the following sub-sections:

- [TdmTermGrp.Ericsson.UMTS.Utilisation](#)

7.42.1 TdmTermGrp.Ericsson.UMTS.Utilisation

Utilisation data.

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KPI	Type	Data Type	Description	Derivation	Aggregation
$\bar{\%}_{\text{pmNrOfTdmTermsReq}}$	PERCENTAGE	FLOAT	Seizure success rate of TDM Terminations in the termination group.	$100 * (\{\text{pmNrOfTdmTermsReq}\} - \{\text{pmNrOfTdmTermsRej}\}) / \{\text{pmNrOfTdmTermsReq}\}$	Average, ermgwm sbh
$\bar{\%}_{\text{TDM_Term_Reserve_Succ}}$	INTENSITY	FLOAT	The TDM termination reservation success rate.	$(1 - (\{\text{pmNrOfTdmTermsRej}\} / \{\text{pmNrOfTdmTermsReq}\})) * 100$	Average, ermgwm sbh, tot, min, max
$\bar{\%}_{\text{TDM_Utilization}}$	PERCENTAGE	FLOAT	Obsolete in R5.1: TDM Group utilization rate	$100 * \{\text{pmNrOfTdmTermsBusy}\} / 31$	Average, ermgwm sbh
$\bar{\%}_{\text{TdmGrp_Util_Timeslot_24}}$	PERCENTAGE	FLOAT	TDM Group utilization rate for max number of TDM slots = 24, e.g. ANSI standard	$100 * \{\text{pmNrOfTdmTermsBusy}\} / 24$	Average
$\bar{\%}_{\text{TdmGrp_Util_Timeslot_31}}$	PERCENTAGE	FLOAT	TDM Group utilization rate for max	$100 * \{\text{pmNrOfTdmTermsBusy}\} / 31$	Average

			number of TDM slots = 31, e.g. ETSI standard		
pmNoOfTdmTermsRejOverlProt	ACCUMULATION	INT8	The total number of Time Division Multiplexing (TDM) calls rejected due to overload protection in the TDM termination group.	MgwApplication_TdmTermGrp. pmNoOfTdmTermsRejOverlProt	Sum
pmNrOfTdmTermsBusy	INTENSITY	INT8	Current number of TDM Terminations seized in the termination group.	MgwApplication_TdmTermGrp. pmNrOfTdmTermsBusy	Average, ermngwm sbh, tot, min, max
pmNrOfTdmTermsRej	ACCUMULATION	INT8	Total number of TDM Requests Rejected in TDM	MgwApplication_TdmTermGrp. pmNrOfTdmTermsRej	Sum, ermngwm sbh

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			Termination Group.		
pmNrOfTdmTermsReq	ACCUMULATION	INT8	Total Number of TDM Seizure Requests in TDM Termination Group.	MgwApplication_TdmTermGrp. pmNrOfTdmTermsReq	Sum, erm, gwm, sbh

7.43 Unknown_RemoteSite Performance Indicators

This section shows the key performance indicators and other counters for the Unknown_RemoteSite object, divided into the following sub-sections:

- [Unknown_RemoteSite.Ericsson.UMTS.Connection_Quality](#)

7.43.1 Unknown_RemoteSite.Ericsson.UMTS.Connection_Quality

Unknown remote site connection quality

KPI	Type	Data Type	Description	Derivation	Aggregation
%_DSCP_Received_Packet	PERCENTAGE	FLOAT	The received DSCP remarked packet rate (introduced in R5.1)	$100 * \frac{\{pmRtpReceivedDscpCongPackets\}}{\{pmRtpReceivedPktsHi\}}$	Average
%_ECN_Received_Packet2	PERCENTAGE	FLOAT	The received ECN packet rate	$100 * \frac{\{pmIpReceivedEcnPkts\}}{\{pmRtpReceivedPktsHi\}}$	Average
%_RTP_Discard2	PERCENTAGE	FLOAT	The RTP packet	$100 * \frac{\{pmRtpDiscardedPkts\}}{\{pmRtpReceivedPktsHi\}}$	Average

			discard rate		
_RTP_Loss2	PERCENTAGE	FLOAT	The RTP packet loss rate	$100 * \{pmRtpLostPkts\} / (\{pmRtpLostPkts\} + \{pmRtpReceivedPktsHi\})$	Average
pmCallsWithRtpPacketLoss0	ACCUMULATION	INTEGER	The total number of connections where no packet loss on Real-time Transport Protocol (RTP) layer has been detected, that is, packet loss ratio is zero.	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss0	Sum
pmCallsWithRtpPacketLoss1	ACCUMULATION	INTEGER	The total number of connections where the packet	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss1	Sum

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			loss ratio (R) on the RTP layer has been $0 < R < 0.0001$.		
pmCallsWithRtpPacketLoss2	ACCUMULATION	INTEGER	The total number of connections where the packet loss ratio (R) on the RTP layer has been $0.0001 \leq R < 0.001$.	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss2	Sum
pmCallsWithRtpPacketLoss3	ACCUMULATION	INTEGER	The total number of connections where the packet loss ratio (R) on the RTP layer has been $0.001 \leq R < 0.005$.	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss3	Sum

pmCallsWithRtpPacketLoss4	ACCUMULATION	INTEGER	The total number of connections where the packet loss ratio (R) on the RTP layer has been $0.005 \leq R < 0.01$.	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss4	Sum
pmCallsWithRtpPacketLoss5	ACCUMULATION	INTEGER	The total number of connections where the packet loss ratio (R) on the RTP layer has been $0.01 \leq R < 0.03$.	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss5	Sum
pmCallsWithRtpPacketLoss6	ACCUMULATION	INTEGER	The total number of	MgwApplication_UnknownRemoteSite.pmCallsWithRtpPacketLoss6	Sum

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			connections where the packet loss ratio (R) on the RTP layer has been $R \Rightarrow 0.03$		
pmConnLatePktsRatio0	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and no packet has missed its processing time, that is, no packet has delayed more than the configured jitter protection time.	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio0	Sum
pmConnLatePktsRatio1	ACCUMULATION	INTEGER	The total number	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio1	Sum

			of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0 < R \leq 0.0001$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time.	
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			In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase with one cell interarrival time.		
pmConnLatePktsRatio2	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio2	Sum

			to total number of packets through the jitter compensation buffer is $0.0001 < R \leq 0.001$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. In order to improve the speech quality a late packet is not dropped but will	
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			be processe d in the next schedule d processi ng time slot. In such a case the total delay will increase with one cell interarri val time.		
pmConnLatePktsRatio3	ACCUMULATION	INTEGER	The total number of connecti ons when jitter compen sation is used and the ratio (R) of late packets to total number of packets through the jitter compen sation buffer is $0.001 < R \leq$	MgwApplication_UnknownRemote Site.pmConnLatePktsRatio3	Sum

			0.005. Late packet means that it has missed its processi ng time, that is, it is delayed more than the configur ed jitter protecti on time. In order to improve the speech quality a late packet is not dropped but will be processe d in the next schedule d processi ng time slot. In such a case the	
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			total delay will increase with one cell interarrival time.		
pmConnLatePktsRatio4	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through jitter compensation buffer is $0.005 < R \leq 0.01$. Late packet means that it has missed its processing time, that is, it	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio4	Sum

			is delayed more than the configured jitter protection time. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase with one cell interarrival time.		
pmConnLatePktsRatio5	ACCUMULATION	INTEGER	The total	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio5	Sum

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		<p>number of connections when jitter compensation is used and the ratio (R) of late packets to total number of packets through the jitter compensation buffer is $0.01 < R \leq 0.03$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. In order to improve the</p>		
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			speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay will increase with one cell interarrival time.		
pmConnLatePktsRatio6	ACCUMULATION	INTEGER	The total number of connections when jitter compensation is used and the ratio (R) of late	MgwApplication_UnknownRemoteSite.pmConnLatePktsRatio6	Sum

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		<p>packets to total number of packets through the jitter compensation buffer is $R > 0.03$. Late packet means that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. In order to improve the speech quality a late packet is not dropped but will be processed in the next schedule</p>	
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			d processi ng time slot. In such a case the total delay will increase with one cell interarri val time.		
pmConnMeasuredJitter0	ACCUMULATION	INTEGER	The total number of connecti ons with measure d jitter (J) is 0 ms <= J <= 0.5 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. Silence	MgwApplication_UnknownRemote Site.pmConnMeasuredJitter0	Sum

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			Descript or (SID) frames are not included in the measure ment.		
pmConnMeasuredJitter1	ACCUMULATION	INTEGER	The total number of connecti ons with measure d jitter (J) is 0.5 ms < J <= 1.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.	MgwApplication_UnknownRemote Site.pmConnMeasuredJitter1	Sum
pmConnMeasuredJitter2	ACCUMULATION	INTEGER	The total number of connecti ons with	MgwApplication_UnknownRemote Site.pmConnMeasuredJitter2	Sum

			measure d jitter (J) is 1.0 ms < J <= 2.0 ms. Jitter is measure d only for connecti ons where jitter compen sation has been perform ed. SID frames are not included in the measure ment.		
pmConnMeasuredJitter3	ACCUMULATION	INTEGER	The total number of connecti ons with measure d jitter (J) is 2.0 ms < J <= 5.0 ms . Jitter is measure d only	MgwApplication_UnknownRemote Site.pmConnMeasuredJitter3	Sum

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			for connections where jitter compensation has been performed. SID frames are not included in the measurement.		
pmConnMeasuredJitter4	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $5.0 \text{ ms} < J \leq 8.0 \text{ ms}$. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the	MgwApplication_UnknownRemoteSite.pmConnMeasuredJitter4	Sum

			measure ment.		
pmConnMeasuredJitter5	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is $8.0 \text{ ms} < J \leq 30.0 \text{ ms}$. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.	MgwApplication_UnknownRemoteSite.pmConnMeasuredJitter5	Sum
pmConnMeasuredJitter6	ACCUMULATION	INTEGER	The total number of connections with measure	MgwApplication_UnknownRemoteSite.pmConnMeasuredJitter6	Sum

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			<p>d jitter (J) is 30.0 ms < J <= 60.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included in the measurement.</p>		
pmConnMeasuredJitter7	ACCUMULATION	INTEGER	<p>The total number of connections with measured jitter (J) is 60.0 ms < J <= 100.0 ms. Jitter is measured only for connections where jitter</p>	MgwApplication_UnknownRemoteSite.pmConnMeasuredJitter7	Sum

			compensation has been performed. SID frames are not included in the measurement.		
pmConnMeasuredJitter8	ACCUMULATION	INTEGER	The total number of connections with measured jitter (J) is greater than 100.0 ms. Jitter is measured only for connections where jitter compensation has been performed. SID frames are not included	MgwApplication_UnknownRemote Site.pmConnMeasuredJitter8	Sum

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			in the measure ment.		
pmConnsOnUnknownRemoteSite	INTENSITY	INTEGER	The number of current connections where the destination IP address cannot be identified to belong to any of the remote sites.	MgwApplication_UnknownRemoteSite.pmConnsOnUnknownRemoteSite	Average, tot, min, max
pmIpReceivedEcnPkts	ACCUMULATION	INTEGER	The total number of received Explicit Congestion Notification (ECN) marked IP packets.	MgwApplication_UnknownRemoteSite.pmIpReceivedEcnPkts	Sum
pmLatePktsDueToDeJitter	ACCUMULATION	INTEGER	The total number of packets where a packet	MgwApplication_UnknownRemoteSite.pmLatePktsDueToDeJitter	Sum

			has been so late that it has missed its processing time, that is, it is delayed more than the configured jitter protection time. In order to improve the speech quality a late packet is not dropped but will be processed in the next scheduled processing time slot. In such a case the total delay	
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			will increase with one cell interarrival time.		
pmRtpDiscardedPkts	ACCUMULATION	INTEGER	The number of discarded RTP packets, that is, received RTP packets discarded due to header validity checks or due to misordered sequence numbers.	MgwApplication_UnknownRemoteSite.pmRtpDiscardedPkts	Sum
pmRtpLostPkts	ACCUMULATION	INTEGER	The total number of dropped RTP packets. The detection of dropped packets is based on sequence	MgwApplication_UnknownRemoteSite.pmRtpLostPkts	Sum

			numbers in the RTP header as defined in Request for Comments (RFC) 1889.		
pmRtpReceivedDscpCongPackets	ACCUMULATION	INTEGER	The total number of received IP packets with the special Differentiated Services Code Point (DSCP) value.	MgwApplication_UnknownRemoteSite.pmRtpReceivedDscpCongPackets	Sum
pmRtpReceivedOctetsHi	ACCUMULATION	INT8	The total number of received RTP payload octets.	MgwApplication_UnknownRemoteSite.TotRtpReceivedOctets	Sum
pmRtpReceivedOctetsLo	ACCUMULATION	INT8	The total	MgwApplication_UnknownRemoteSite.pmRtpReceivedOctetsLo	Sum

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			<p>number of received RTP payload octets. This high-capacity Performance Management (PM) counter is split and presented by two 31 bit attributes: - pmRtpReceivedOctetsHi (bit 61-31) - pmRtpReceivedOctetsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower</p>	
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			part of the 62 least significant bits of the high-capacity counter.		
pmRtpReceivedPktsHi	ACCUMULATION	INT8	The total number of received RTP packets.	MgwApplication_UnknownRemoteSite.TotRtpReceivedPkts	Sum
pmRtpReceivedPktsLo	ACCUMULATION	INTEGER	The total number of received RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpReceivedPktsHi (bit 61-31) -	MgwApplication_UnknownRemoteSite.pmRtpReceivedPktsLo	Sum

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			pmRtpReceivedPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.		
pmRtpSentOctetsHi	ACCUMULATION	INT8	The total number of sent RTP payload octets.	MgwApplication_UnknownRemoteSite.TotRtpSentOctets	Sum
pmRtpSentOctetsLo	ACCUMULATION	INT8	The total number of sent RTP payload octets. This high-capacity	MgwApplication_UnknownRemoteSite.pmRtpSentOctetsLo	Sum

			<p>PM counter is split and presented by two 31 bit attributes: - pmRtpSentOctetsHi (bit 61-31) - pmRtpSentOctetsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the lower part of the 62 least significant bits of the high-capacity counter.</p>	
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pmRtpSentPktsHi	ACCUMULATION	INT8	The total number of sent RTP packets.	MgwApplication_UnknownRemoteSite.TotRtpSentPkts	Sum
pmRtpSentPktsLo	ACCUMULATION	INTEGER	The total number of sent RTP packets. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmRtpSentPktsHi (bit 62-31) - pmRtpSentPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents the	MgwApplication_UnknownRemoteSite.pmRtpSentPktsLo	Sum

			lower part of the 62 least significant bits of the high-capacity counter.		
pmSuccTransmittedPktsHi	ACCUMULATION	INT8	The total number of successfully transmitted packets through the jitter compensation buffer. SID frames are not included in the measurement.	MgwApplication_UnknownRemoteSite.TotSuccTransmittedPkts	Sum
pmSuccTransmittedPktsLo	ACCUMULATION	INTEGER	The total number of successfully transmitted packets	MgwApplication_UnknownRemoteSite.pmSuccTransmittedPktsLo	Sum

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		<p>through the jitter compensation buffer. SID frames are not included in the measurement. This high-capacity PM counter is split and presented by two 31 bit attributes: - pmSuccTransmittedPktsHi (bit 61-31) - pmSuccTransmittedPktsLo (bit 30-0). The two most significant bits of this 64 bit counter are discarded. This attribute represents</p>	
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			ts the lower part of the 62 least significant bits of the high-capacity counter.		
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7.44 VC11 Performance Indicators

This section shows the key performance indicators and other counters for the VC11 object, divided into the following sub-sections:

- [VC11.Ericsson.UMTS.VC11_Terminating_Point](#)

7.44.1 VC11.Ericsson.UMTS.VC11_Terminating_Point

VC11 terminating point data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmVcBbe	ACCUMULATION	INTEGER	Transmission Background Block Errors (BBE). Number of errored blocks not being part of a SES. The granularity period of 60 minutes is not supported.	Ess_Vc11Ttp.pmVcBbe	Sum, ermgwms bh
pmVcEs	ACCUMULATION	INT8	Number of Errored Seconds (ES) for the Virtual Container 3 (VC3) or Virtual	Ess_Vc11Ttp.pmVcEs	Sum, ermgwms bh

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			Container 11 (VC11). The granularity period of 60 minutes is not supported.		
pmVcSes	ACCUMULATION	INT8	Number of Severely Errored Seconds (SES) for the Virtual Container 3 (VC3) or Virtual Container 11 (VC11). The granularity period of 60 minutes is not supported.	Ess_Vc11Ttp.pmVcSes	Sum, ermngwms bh
pmVcUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (UAS). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive Severely Errored Seconds (SES) are detected (them being part of the unavailable time) and ends when 10 consecutive non SES are detected. The granularity period of 60 minutes is not supported.	Ess_Vc11Ttp.pmVcUas	Sum, ermngwms bh

7.45 VC12 Performance Indicators

This section shows the key performance indicators and other counters for the VC12 object, divided into the following sub-sections:

- [VC12.Ericsson.UMTS.VC12_Terminating_Point](#)

7.45.1 VC12.Ericsson.UMTS.VC12_Terminating_Point

VC12 terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmVcBbe	ACCUMULATION	INTEGER	Transmission Background Block Errors (BBE). Number of errored blocks not being part of a SES.	Ess_Vc12Ttp.pmVcBbe	Sum, ermgwms bh
pmVcEs	ACCUMULATION	INT8	Total number of Errored Seconds.	Ess_Vc12Ttp.pmVcEs	Sum, ermgwms bh
pmVcSes	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Ess_Vc12Ttp.pmVcSes	Sum, ermgwms bh
pmVcUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (UAS). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive Severely Errored Seconds (SES) are detected (them being part of the unavailable time) and ends when 10 consecutive non SES are detected.	Ess_Vc12Ttp.pmVcUas	Sum, ermgwms bh

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7.46 VC3 Performance Indicators

This section shows the key performance indicators and other counters for the VC3 object, divided into the following sub-sections:

- [VC3.Ericsson.UMTS.VC3_Terminating_Point](#)

7.46.1 VC3.Ericsson.UMTS.VC3_Terminating_Point

VC3 terminating point data

KPI	Type	Data Type	Description	Derivation	Aggregation
pmVcBbe	ACCUMULATION	INTEGER	Transmission Background Block Errors (BBE). Number of errored blocks not being part of a SES. The granularity period of 60 minutes is not supported.	Ess_Vc3Ttp.pmVcBbe	Sum, ermgwms bh
pmVcEs	ACCUMULATION	INT8	Number of Errored Seconds (ES) for the Virtual Container 3 (VC3) or Virtual Container 11 (VC11). The granularity period of 60 minutes is not supported.	Ess_Vc3Ttp.pmVcEs	Sum, ermgwms bh
pmVcSes	ACCUMULATION	INT8	Number of Severely Errored Seconds (SES) for the Virtual Container 3 (VC3) or Virtual Container 11 (VC11). The granularity period of 60 minutes is not supported.	Ess_Vc3Ttp.pmVcSes	Sum, ermgwms bh
pmVcUas	ACCUMULATION	INTEGER	Transmission Unavailable	Ess_Vc3Ttp.pmVcUas	Sum, ermgwms

			Seconds (UAS). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive Severely Errored Seconds (SES) are detected (them being part of the unavailable time) and ends when 10 consecutive non SES are detected. The granularity period of 60 minutes is not supported.		bh
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7.47 VC4 Performance Indicators

This section shows the key performance indicators and other counters for the VC4 object, divided into the following sub-sections:

- [VC4.Ericsson.UMTS.VC4_Terminating_Point](#)

7.47.1 VC4.Ericsson.UMTS.VC4_Terminating_Point

VC4 terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmVcBbe	ACCUMULATION	INTEGER	Transmission Background Block Errors (BBE). Number of errored blocks not being part of a SES.	Ess_Vc4Ttp.pmVcBbe	Sum, ermngwms bh

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pmVcEs	ACCUMULATION	INT8	Total number of Errored Seconds.	Ess_Vc4Ttp.pmVcEs	Sum, ermngwmsbh
pmVcSes	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Ess_Vc4Ttp.pmVcSes	Sum, ermngwmsbh
pmVcUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (UAS). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive Severely Errored Seconds (SES) are detected (them being part of the unavailable time) and ends when 10 consecutive non SES are detected.	Ess_Vc4Ttp.pmVcUas	Sum, ermngwmsbh

7.48 VcITp Performance Indicators

This section shows the key performance indicators and other counters for the VcITp object, divided into the following sub-sections:

- [VcITp.Ericsson.UMTS.Virtual_channel](#)

7.48.1 VcITp.Ericsson.UMTS.Virtual_channel

Virtual channel data.

KPI	Type	Data Type	Description	Derivation	Aggregation
egressatmpcr	INTENSITY	INTEGER	Egress ATM Peak cell rate (cells/s).	TransportNetwork_AtmPort_VplTp_VpcTp_VcITp.egressAtmPcr	Constant, eraputctbh, tot, min, max
ingressatmpcr	INTENSITY	INTEGER	Ingress ATM	TransportNetwork_AtmP	Constant,

		ER	Peak cell rate (cells/s).	ort_VplTp_VpcTp_VclT p.ingressAtmPcr	eraputctb h, tot, min, max
pmBwUtilRx_0_5	ACCUMULA TION	INTEG ER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 1 which represents (0-5) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	TransportNetwork_AtmoP ort_VplTp_VpcTp_VclT p.pmBwUtilRx_0_5	Sum, eraputctb h
pmBwUtilRx_11_15	ACCUMULA TION	INTEG ER	The counter shows the utilization of the	TransportNetwork_AtmoP ort_VplTp_VpcTp_VclT p.pmBwUtilRx_11_15	Sum, eraputctb h

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			virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 3 which represents (11-15) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_16_20	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.pmBwUtilRx_16_20	Sum, eraputctb h

			Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 4 which represents (16-20) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_21_25	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_21_25	Sum, eraputctb h

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			(range counters) for the VclTp MO. This counter takes position 5 which represents (21-25) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_26_30	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 6 which represents (26-30) percent usage of PCR. The load is sampled every	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_26_30	Sum, eraputctbh

			10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_31_35	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 7 which represents (31-35) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_31_35	Sum, eraputctb h

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			range counter is increased.		
pmBwUtilRx_36_40	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 8 which represents (36-40) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>	TransportNetwork_Atmoort_VplTp_VpcTp_VclTp.ppmBwUtilRx_36_40	Sum, eraputctbh
pmBwUtilRx_41_45	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a</p>	TransportNetwork_Atmoort_VplTp_VpcTp_VclTp.ppmBwUtilRx_41_45	Sum, eraputctbh

			<p>histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 9 which represents (41-45) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>		
pmBwUtilRx_46_50	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is</p>	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_46_50	Sum, eraputctb h

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			<p>Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 10 which represents (46-50) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>		
pmBwUtilRx_51_55	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 11</p>	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.ppmBwUtilRx_51_55	Sum, eraputctb h

			which represents (51-55) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_56_60	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 12 which represents (56-60) percent usage of PCR. The load is sampled every	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_56_60	Sum, eraputctb h

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			10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_6_10	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 2 which represents (6-10) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_6_10	Sum, eraputctbh
pmBwUtilRx_61_65	ACCUMULATION	INTEGER	The counter shows the utilization of the	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_61_65	Sum, eraputctbh

			virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 13 which represents (61-65) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_66_70	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.ppmBwUtilRx_66_70	Sum, eraputctb h

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			<p>histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 14 which represents (66-70) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>		
pmBwUtilRx_71_75	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges</p>	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_71_75	Sum, eraputctb h

			(range counters) for the VclTp MO. This counter takes position 15 which represents (71-75) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_76_80	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 16	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_76_80	Sum, eraputctb h

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			<p>which represents (76-80) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>		
pmBwUtilRx_81_85	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 17 which represents (81-85) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding</p>	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_81_85	Sum, eraputctb h

			range counter is increased.		
pmBwUtilRx_86_90	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 18 which represents (86-90) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_86_90	Sum, eraputctb h
pmBwUtilRx_91_95	ACCUMULATION	INTEGER	The counter shows the utilization of the	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_91_95	Sum, eraputctb h

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			virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 19 which represents (91-95) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_96_100	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.pmBwUtilRx_96_100	Sum, eraputctb h

			Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 20 which represents (96-100) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilRx_PCR	INTENSITY	FLOAT	The counter shows the utilization of the virtual connection in the receiving direction represented by a histogram, consisting of a list of 21 numbers. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilRx_PCR	Average, eraputctb, tot, min, max

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			(range counters) for the VclTp MO. This counter takes position 0 which represents the PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_0_5	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 1 which represents (0-5) percent usage of PCR. The load is sampled every 10s and depending on	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.ppmBwUtilTx_0_5	Sum, eraputctb h

			the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_11_15	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 3 which represents (11-15) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_11_15	Sum, eraputctbh

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			increased.		
pmBwUtilTx_16_20	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 4 which represents (16-20) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_16_20	Sum, eraputctb h
pmBwUtilTx_21_25	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the transmitting direction represented by a</p>	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_21_25	Sum, eraputctb h

			<p>histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 5 which represents (21-25) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.</p>		
pmBwUtilTx_26_30	ACCUMULATION	INTEGER	<p>The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers,</p>	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_26_30	Sum, eraputctb h

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			indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 6 which represents (26-30) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_31_35	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_31_35	Sum, eraputctb h

			VclTp MO. This counter takes position 7 which represents (31-35) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_36_40	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 8 which represents	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_36_40	Sum, eraputctb h

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			(36-40) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_41_45	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 9 which represents (41-45) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_41_45	Sum, eraputctb h

			range counter is increased.		
pmBwUtilTx_46_50	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 10 which represents (46-50) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_46_50	Sum, eraputctb h
pmBwUtilTx_51_55	ACCUMULATION	INTEGER	The counter shows the	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp	Sum, eraputctb

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			utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 11 which represents (51-55) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	p.pmBwUtilTx_51_55	h
pmBwUtilTx_56_60	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.pmBwUtilTx_56_60	Sum, eraputctbh

			numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 12 which represents (56-60) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_6_10	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak	TransportNetwork_Atmo rt_VplTp_VpcTp_VclT p.pmBwUtilTx_6_10	Sum, eraputctb h

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			Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 2 which represents (6-10) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_61_65	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 13	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.ppmBwUtilTx_61_65	Sum, eraputctb h

			which represents (61-65) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_66_70	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 14 which represents (66-70) percent usage of PCR. The load is	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_66_70	Sum, eraputctbh

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			sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_71_75	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 15 which represents (71-75) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_71_75	Sum, eraputctb h
pmBwUtilTx_76_8	ACCUMULATION	INTEGER	The counter	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_76_8	Sum,

0	TION	ER	shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 16 which represents (76-80) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.	ort_VplTp_VpcTp_VclTp.pmbwUtilTx_76_80	eraputctb h
pmBwUtilTx_81_85	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.pmbwUtilTx_81_85	Sum, eraputctb h

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			the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 17 which represents (81-85) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_86_90	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first	TransportNetwork_AtmPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_86_90	Sum, eraputctbh

			number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 18 which represents (86-90) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_91_95	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_91_95	Sum, eraputctb h

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			different load ranges (range counters) for the VclTp MO. This counter takes position 19 which represents (91-95) percent usage of PCR. The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_96_100	ACCUMULATION	INTEGER	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 20 which represents (96-100) percent usage of PCR.	TransportNetwork_Atmoport_VplTp_VpcTp_VclTp.ppmBwUtilTx_96_100	Sum, eraputctbh

			The load is sampled every 10s and depending on the sampled value, the corresponding range counter is increased.		
pmBwUtilTx_PCR	INTENSITY	FLOAT	The counter shows the utilization of the virtual connection in the transmitting direction represented by a histogram, consisting of a list of 21 numbers, indexed from zero. The first number is Peak Cell Rate (PCR) and the next 20 numbers are different load ranges (range counters) for the VclTp MO. This counter takes position 0 which represents the PCR. The load is sampled every 10s and depending on the sampled value, the	TransportNetwork_AtmoPort_VplTp_VpcTp_VclTp.ppmBwUtilTx_PCR	Average, eraputctb, tot, min, max

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			corresponding range counter is increased.		
pmReceivedAtmCells	ACCUMULATION	INT8	Total number of ATM cells received through this Virtual Channel (VC) link.	TransportNetwork_AtmiPort_VplTp_VpcTp_VclTp.pmReceivedAtmCells	Sum, eraputctbh
pmTransmittedAtmCells	ACCUMULATION	INT8	Total number of ATM cells transmitted through this VC link.	TransportNetwork_AtmiPort_VplTp_VpcTp_VclTp.pmTransmittedAtmCells	Sum, eraputctbh
Rx_bandwidth_per_second	INTENSITY	FLOAT	The amount of received bandwidth per second	$((\{pmReceivedAtmCells\} / \{measurement_seconds\}) * (53 * 8) / 1000) / 1000$	Average, eraputctbh, tot, min, max
Rx_cells_per_second	INTENSITY	FLOAT	Received cells per second	$\{pmReceivedAtmCells\} / \{measurement_seconds\}$	Average, eraputctbh, tot, min, max
Tx_bandwidth_per_second	INTENSITY	FLOAT	The amount of transmitted bandwidth per second	$((\{pmTransmittedAtmCells\} / \{measurement_seconds\}) * (53 * 8) / 1000) / 1000$	Average, eraputctbh, tot, min, max
Tx_cells_per_second	INTENSITY	FLOAT	Transmitted cells per second	$\{pmTransmittedAtmCells\} / \{measurement_seconds\}$	Average, eraputctbh, tot, min, max
Usage_rate_Rx	INTENSITY	FLOAT	Usage rate received cells	$(\{pmReceivedAtmCells\} / 900) / \{ingressatmpcr\}$	Average, eraputctbh, tot, min, max
Usage_rate_Tx	INTENSITY	FLOAT	Usage rate transmitted cells	$(\{pmTransmittedAtmCells\} / 900) / \{egressatmpcr\}$	Average, eraputctbh, tot, min, max

7.49 VMGW Performance Indicators

This section shows the key performance indicators and other counters for the VMGW object, divided into the following sub-sections:

- [VMGW.Ericsson.UMTS.BCTP](#)
- [VMGW.Ericsson.UMTS.IP_Bearer_Control_Protocol](#)
- [VMGW.Ericsson.UMTS.Iu_Interface](#)
- [VMGW.Ericsson.UMTS.Nb_Interface](#)
- [VMGW.Ericsson.UMTS.Utilisation](#)

7.49.1 VMGW.Ericsson.UMTS.BCTP

Bearer Control Tunneling Protocol statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNrOfRecBctpProtocolFailures	ACCUMULATION	INTEGER	The total number of received BCTP (Q.1990) protocol negotiation failure indications.	MgwApplication_Vmgw.pmNrOfRecBctpProtocolFailures	Sum, ermgwmsbh
pmNrOfSentBctpProtocolFailures	ACCUMULATION	INTEGER	The total number of sent BCTP (Q.1990) protocol negotiation failure indications.	MgwApplication_Vmgw.pmNrOfSentBctpProtocolFailures	Sum, ermgwmsbh

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7.49.2 VMGW.Ericsson.UMTS.IP_Bearer_Control_Protocol

Bearer Control Protocol statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
pmNrOfOrigIpbcpBearPrepRejected	ACCUMULATION	INTEGER	The total number of bearer preparation rejections for originating IP Bearer Control Protocol (IPBCP) connections for example due to lack of resources.	MgwApplication_Vmgw.pmNrOfOrigIpbcpBearPrepRejected	Sum, erm, gw, msbh
pmNrOfOrigIpbcpBearSupervTmrExp	ACCUMULATION	INTEGER	The total number of bearer supervision timer expirations for originating IP Bearer Control Protocol	MgwApplication_Vmgw.pmNrOfOrigIpbcpBearSupervTmrExp	Sum, erm, gw, msbh

			(IPBCP) connect ions. The bearer supervi sion timer (T1) expires if no respons e for a bearer setup request is receive d from the remote node within a specifie d time.		
pmNrOfRecFaultyIpbcpAcceptMsg	ACCUMULATION	INTEGER	The total number of incorrec t or erroneo us IP Bearer Control Protoco l (IPBCP Q.1970	MgwApplication_Vmgw.pmNrOfRecFaultyIpbcpAcceptMsg	Sum, erm gw msbh

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) Accept messag es receiv ed for originat ing connect ions.		
pmNrOfRecIpbcpAccept Msg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco l IPBCP Q.1970) Accepte d messag es receiv ed for originat ing connect ions, indicati ng success ful IP setup attempt s.	MgwApplication_Vmgw.pmNr OfRecIpbcpAcceptMsg	Sum, ermgw msbh
pmNrOfRecIpbcpConfuse dMsg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco	MgwApplication_Vmgw.pmNr OfRecIpbcpConfusedMsg	Sum, ermgw msbh

			1 (IPBCP Q.1970) Confus ed messag es receiv ed for originat ing connect ions.		
pmNrOfRecIpbcpReject Msg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco l (IPBCP Q.1970) Reject messag es receiv ed for originat ing connect ions.	MgwApplication_Vmgw.pmNr OfRecIpbcpRejectMsg	Sum, ermgw msbh
pmNrOfRecIpbcpRequest Msg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco	MgwApplication_Vmgw.pmNr OfRecIpbcpRequestMsg	Sum, ermgw msbh

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			1 (IPBCP Q.1970) Request messag es receiv ed for termina ting connect ions.		
pmNrOfSentIpbcpAccept Msg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco l (IPBCP Q.1970) Accepte d messag es sent for termina ting connect ions, indicati ng success ful IP setup attempt s.	MgwApplication_Vmgw.pmNr OfSentIpbcpAcceptMsg	Sum, ermgw msbh
pmNrOfSentIpbcpConfus edMsg	ACCUMUL ATION	INTE GER	The total number of IP Bearer	MgwApplication_Vmgw.pmNr OfSentIpbcpConfusedMsg	Sum, ermgw msbh

			Control Protoco l (IPBCP Q.1970) Confus ed messag es sent for termina ting connect ions.		
pmNrOfSentIpbcpReject Msg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco l (IPBCP Q.1970) Reject messag es sent for termina ting connect ions.	MgwApplication_Vmgw.pmNr OfSentIpbcpRejectMsg	Sum, ermgw msbh
pmNrOfSentIpbcpReques tMsg	ACCUMUL ATION	INTE GER	The total number of IP Bearer Control Protoco	MgwApplication_Vmgw.pmNr OfSentIpbcpRequestMsg	Sum, ermgw msbh

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			1 (IPBCP Q.1970) Request messag es sent for originat ing connect ions.		
pmNrOfTermIpbcpBearPrepRejected	ACCUMULATION	INTEGER	The total number of bearer preparat ion rejectio ns for termina ting IP Bearer Control Protoco l (IPBCP) connect ions for exampl e due to lack of resourc es.	MgwApplication_Vmgw.pmNrOfTermIpbcpBearPrepRejected	Sum, ermgw msbh
pmNrOfTermIpbcpBearSupervTmrExp	ACCUMULATION	INTEGER	The total number of bearer supervi sion timer expirati	MgwApplication_Vmgw.pmNrOfTermIpbcpBearSupervTmrExp	Sum, ermgw msbh

			ons for termina ting IP Bearer Control Protoco l (IPBCP) connect ions. The bearer supervi sion timer expires if no bearer setup request is receive d from the remote node within a specifie d time.		
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7.49.3 VMGW.Ericsson.UMTS.lu_Interface

Iu interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregat ion
pmNrOfTermIuInit Succ	ACCUMULA TION	INTEG ER	The total number of successful Iu	MgwApplication_Vmgw. pmNrOfTermIuInitSucc	Sum, ermgwms bh

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			Initialization procedures initiated by another node, indicated by the sending of a User Plane (UP) Initialization Ack message.		
pmNrOfTermIuInit	ACCUMULATION	INTEGER	The total number of Iu initialization procedures initiated by another node, indicated by the reception of a User Plane (UP) Initialization message.	MgwApplication_Vmgw. pmNrOfTermIuInit	Sum, ermgwmsbh

7.49.4 VMGW.Ericsson.UMTS.Nb_Interface

Nb interface statistics

KPI	Type	Data Type	Description	Derivation	Aggregation
$\bar{\%_Orig_Nb_Init_Conn_Success}$	INTENSITY	FLOAT	The originating Nb connection initialization success rate per VMGW	$(1 - (\{pmNrOfOrigNbInitFaults\} / \{pmNrOfOrigNbInit\})) * 100$	Average, ermgwmsbh, tot, min, max
pmNoOfAlawOnNbConns	ACCUMULATION	INTEGER	The total number of A-law Pulse	MgwApplication_Vmgw.pmNoOfAlawOnNbConns	Sum, ermgwmsbh

			Code Modulation (PCM) connections over the Nb interface. Condition: The counter is incremented when the User Service Information (USI) or Audio codec (Acodec) property is accepted with codec type value G.711 A-law on the Nb interface. The	
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			counter is also incremented when no coding law information is received in the Gateway Control Protocol (GCP) and the default coding law (A-law) in the node is used as the coding law for the connection. The counter is incremented once for each termination using the G.711 PCM	
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			standard regardless if the PCM Service is invoked or not.		
pmNoOfAlawOnTdmConnections	ACCUMULATION	INTEGER	The total number of Alaw Pulse Code Modulation (PCM) connections over the Time Division Multiplexing (TDM) interface. Condition: The counter is incremented when	MgwApplication_Vmgw.pmNoOfAlawOnTdmConns	Sum, erm gw msbh

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			<p>the User Service Information (USI) or Audio codec (Acodec) property is accepted with codec type value G.711 A-law on the TDM interface. The counter is also incremented when no coding law information is received in the Gateway Control Protocol (GCP) and the default coding law (A-</p>	
--	--	--	--	--

			law) in the node is used as the coding law for the connection. The counter is incremented once for each termination using the G.711 PCM standard regardless if the PCM Service is invoked or not.		
pmNoOfAlawToUlawPcmLawConns	ACCUMULATION	INTEGER	The total number of connec	MgwApplication_Vmgw.pmNoOfAlawToUlawPcmLawConns	Sum, ermghwmsbh

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			tions from one G.711 Pulse Code Modul ation (PCM) coding law to another G.711 PCM coding law. Condi tion: The counter is increm ented when a connec tion is establis hed where conver sion is perfor med from one G.711 PCM coding law to another . The counter is increm ented once per		
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			context .		
pmNoOfAMROnNbConns	ACCUMULATION	INTEGER	The total number of AMR (Adaptive Multi Rate) coded speech calls over the Nb interface.	MgwApplication_Vmgw.pmNoOfAMROnNbConns	Sum, erm, gwmsbh
pmNoOfCompToNonDefaultPcmLawConns	ACCUMULATION	INTEGER	The total number of connections established where compressed speech is transcoded into non-default Pulse Code Modulation	MgwApplication_Vmgw.pmNoOfCompToNonDefaultPcmLawConns	Sum, erm, gwmsbh

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			(PCM). Condi- tion: The counter is increm- ented when a connec- tion is establis- hed where compre- ssed speech is transco- ded into PCM where the PCM coding law differs from the default PCM coding law in the node.		
pmNoOfEFROnNbConns	ACCUMUL ATION	INTE GER	The total number of Enhanc- ed Full Rate (EFR) coded speech	MgwApplication_Vmgw.pmNo OfEFROnNbConns	Sum, ermgw msbh

			calls over the Nb interface.		
pmNoOfNonNodeDefaultPcmLawConns	ACCUMULATION	INTEGER	The total number of connections where both call legs have another coding law than the node default coding law. Condition: The counter is incremented when a connection is established where both call legs	MgwApplication_Vmgw.pmNoOfNonNodeDefaultPcmLawConns	Sum, ermngwmsbh

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			have another coding law than the default coding law in the node, that is, there is no conversion but both call legs use the non-node default coding law. The counter is incremented once per context .		
pmNoOfPCMONbConns	ACCUMULATION	INTEGER	The total number of Pulse Code Modulation (PCM calls	MgwApplication_Vmgw.pmNoOfPCMONbConns	Sum, ermngwmsbh

			over the Nb interface.)		
pmNoOfUlawOnNbConns	ACCUMULATION	INTEGER	The total number of u-law Pulse Code Modulation (PCM) connections over the Nb interface. Condition: The counter is incremented when the User Service Information (USI) or Audio codec (Acodec) property is	MgwApplication_Vmgw.pmNoOfUlawOnNbConns	Sum, ermgwmsbh

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			accepted with codec type value G.711 u-law on the Nb interface. The counter is also incremented when no coding law information is received in the Gateway Control Protocol (GCP) and the default coding law (u-law) in the node is used as the coding law for the connection. The counter is	
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			incremented once for each termination using the G.711 PCM standard regardless if the PCM Service is invoked or not.		
pmNoOfUlawOnTdmConn s	ACCUMULATION	INTER	The total number of u-law Pulse Code Modulation (PCM) connections over the Time Division Multiplexing	MgwApplication_Vmgw.pmNoOfUlawOnTdmConns	Sum, erm mgw msbh

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			<p>exing (TDM) interfac e. Condi on: The counter is incred ented when the User Service Inform ation (USI) or Audio codec (Acode c) propert y is accepte d with codec type value G.711 u-law on the TDM interfac e. The counter is also incred ented when no coding law inform ation is receive</p>	
--	--	--	--	--

			d in the Gatewa y Control Protoc ol (GCP) and the default coding law (u- law) in the node is used as the coding law for the connec tion. The counter is incred mented once for each termina tion using the G.711 PCM standar d regardl ess if the PCM		
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			Service is invoked or not.		
pmNrOfOrigNbInitFaults	ACCUMULATION	INTEGER	The total number of dropped out (terminated) unsuccessful Nb initialization procedures for Nb connections with initialization sending.	MgwApplication_Vmgw.pmNrOfOrigNbInitFaults	Sum, erm-gw msbh
pmNrOfOrigNbInit	ACCUMULATION	INTEGER	The total number of Nb initialization procedures initiated by this node.	MgwApplication_Vmgw.pmNrOfOrigNbInit	Sum, erm-gw msbh
pmNrOfTermNbInitSucc	ACCUMULATION	INTEGER	The total number of	MgwApplication_Vmgw.pmNrOfTermNbInitSucc	Sum, erm-gw msbh

			successful Nb initialization procedures initiated by another node, indicated by the sending of a User Plane (UP) Initialization Ack message.		
pmNrOfTermNbInit	ACCUMULATION	INTEGER	The total number of Nb initialization procedures initiated by another node, indicated by the reception of a	MgwApplication_Vmgw.pmNrOfTermNbInit	Sum, ermghwmsbh

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			User Plane (UP) Initialization message.		
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7.49.5 VMGW.Ericsson.UMTS.Utilisation

Utilisation data.

KPI	Type	Data Type	Description	Derivation	Aggregation
%_AAL2_Bearer_Est_Succ	INTENSITY	FLOAT	AAL2 bearer establishment success rate	$(1 - ((\{pmNrOfIuTermAal2BearerEstablishFailRem\} + \{pmNrOfNbOrigAal2BearerEstablishFailRem\} + \{pmNrOfNbTermAal2BearerEstablishFailRem\}) / (\{pmNrOfAal2TermsReq\} - \{pmNrOfAal2TermsRej\}))) * 100$	Average, ermgwmsbh, tot, min, max
%_AAL2_Term_Seize_Succ	INTENSITY	FLOAT	The AAL2 termination seizure success rate per VMGW	$(1 - (\{pmNrOfAal2TermsRej\} / \{pmNrOfAal2TermsReq\})) * 100$	Average, ermgwmsbh, tot, min, max
%_GCP_Message_Sent_Rcvd	INTENSITY	FLOAT	The ratio of GCP message statistics (Sent/Received)	$\{pmGcpNrOfSentMessages\} / \{pmGcpNrOfReceivedMessages\}$	Average, ermgwmsbh, tot, min, max
%_IBPCP_Bearer_Est_Succ	INTENSITY	FLOAT	IBPCP bearer establishment success rate	$(1 - ((\{Ericsson.IP_Bearer_Control_Protocol.pmNrOfRecIpbcpRejectMsg\} + \{Ericsson.IP_Bearer_Control_P$	Average, ermgwmsbh, tot,

				$\frac{\text{rotocol.pmNrOfSentIpbcpRejectMsg} + \{\text{Ericsson.IP_Bearer_Control_Protocol.pmNrOfRecIpbcpConfusedMsg}\} + \{\text{Ericsson.IP_Bearer_Control_Protocol.pmNrOfRecFaultyIpbcpAcceptMsg}\} + \{\text{Ericsson.IP_Bearer_Control_Protocol.pmNrOfOrigIpbcpBearerSupervTmrExp}\} + \{\text{Ericsson.IP_Bearer_Control_Protocol.pmNrOfTermIpbcpBearerSupervTmrExp}\} + \{\text{Ericsson.BCTP.pmNrOfRecBctpProtocolFailures}\}}{(\{\text{pmNrOfIpTermsReq}\} - \{\text{pmNrOfIpTermsRej}\})} * 100$	min, max
%_IP_Term_Seize_Success	INTENSITY	FLOAT	The IP termination seizure success rate per VMGW	$(1 - (\{\text{pmNrOfIpTermsRej}\} / \{\text{pmNrOfIpTermsReq}\})) * 100$	Average, ermgbh, tot, min, max
%_pmGcpNrOfReceivedMessages	PERCENTAGE	FLOAT	Percentage of sent to received Gateway Control Protocol messages	$100 * \{\text{pmGcpNrOfSentMessages}\} / (\{\text{pmGcpNrOfReceivedMessages}\} + \{\text{pmGcpNrOfSentMessages}\})$	Average, ermgbh
%_pmGcpSystemUpTime	INTENSITY	FLOAT	Percentage of available system time.	$(100 * \{\text{pmGcpSystemUpTime}\}) / \{\text{measurement_seconds}\}$	Average, ermgbh, tot, min, max

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$\overline{\%_pmNrOfAal2TermsReq}$	PERCENT AGE	FLO AT	Termination success rate for AAL2 requests in this VMGW.	$100 * \{pmNrOfAal2TermsRej\} / \{pmNrOfAal2TermsReq\}$	Average, ermghw msbh
$\overline{\%_pmNrOfContextsReq}$	PERCENT AGE	FLO AT	Seizure success rate of contexts by the VMGW.	$100 * \{pmNrOfContextsRej\} / \{pmNrOfContextsReq\}$	Average, ermghw msbh
$\overline{\%_pmNrOfIpTermsReq}$	PERCENT AGE	FLO AT	Termination success rate of IP requests in this VMGW.	$100 * \{pmNrOfIpTermsRej\} / \{pmNrOfIpTermsReq\}$	Average, ermghw msbh
pmGcpNrOfReceivedMessages	ACCUMULATION	INT8	Total number of GCP messages which have been received	MgwApplication_Vmgw.pmGcpNrOfReceivedMessages	Sum, ermghw msbh
pmGcpNrOfSentMessages	ACCUMULATION	INT8	Total number of GCP messages which have been sent by the VMGW	MgwApplication_Vmgw.pmGcpNrOfSentMessages	Sum, ermghw msbh
pmGcpNrOfTimerRecovery	ACCUMULATION	INT8	Obsolete in R4.1: Total number of timer recovery actions or events which have been	MgwApplication_Vmgw.pmGcpNrOfTimerRecovery	Sum, ermghw msbh

			implemented by the VMGw.		
pmGcpSystemUpTime	ACCUMULATION	INT8	Amount of time in seconds that the GCP link has been in operation.	MgwApplication_Vmgw.pmGcpSystemUpTime	Sum, erm, gwmsbh
pmNoOfAmrOnIuConns	ACCUMULATION	INTEGER	The total number of Adaptive Multi Rate (AMR) coded speech calls over the Iu interface.	MgwApplication_Vmgw.pmNoOfAmrOnIuConns	Sum, erm, gwmsbh
pmNoOfAmrOnVoIpConns	ACCUMULATION	INTEGER	The total number of AMR coded speech calls over the Voice over Internet Protocol (VoIP) interface.	MgwApplication_Vmgw.pmNoOfAmrOnVoIpConns	Sum, erm, gwmsbh
pmNoOfAmrWbOnIuConns	ACCUMULATION	INTEGER	The total number of Adaptive Multi Rate Wideband (AMR-	MgwApplication_Vmgw.pmNoOfAmrWbOnIuConns	Sum, erm, gwmsbh

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			WB) coded speech calls over the Iu interface.		
pmNoOfAmrWbOnNbConns	ACCUMULATION	INTEGER	The total number of AMR-WB coded speech calls over the Nb interface.	MgwApplication_Vmgw.pmNoOfAmrWbOnNbConns	Sum, erm, gwmsbh
pmNoOfAmrWbOnVoIPConns	ACCUMULATION	INTEGER	The total number of AMR-WB coded speech calls over the VoIP interface.	MgwApplication_Vmgw.pmNoOfAmrWbOnVoIPConns	Sum, erm, gwmsbh
pmNoOfCodecModRej	ACCUMULATION	INTEGER	The total number of unsuccessful codec modification requests.	MgwApplication_Vmgw.pmNoOfCodecModRej	Sum, erm, gwmsbh
pmNoOfCodecModReq	ACCUMULATION	INTEGER	The total number of requested codec modifications.	MgwApplication_Vmgw.pmNoOfCodecModReq	Sum, erm, gwmsbh
pmNoOfEfrOnVoIPConns	ACCUMULATION	INTEGER	The total number of EFR coded speech calls over the VoIP interface.	MgwApplication_Vmgw.pmNoOfEfrOnVoIPConns	Sum, erm, gwmsbh
pmNoOfG711OnVoIPConns	ACCUMULATION	INTEGER	The total number of	MgwApplication_Vmgw.pmNoOfG711OnVoIPConns	Sum, erm, gw

			G.711 ITU-T standard coded speech calls over the VoIP interface.		msbh
pmNrOfAal2TermsBusy	INTENSITY	INT8	Current number of AAL2 termination s in use in this VMGw.	MgwApplication_Vmgw.pmNr OfAal2TermsBusy	Average, ermgw msbh, tot, min, max
pmNrOfAal2TermsRej	ACCUMULATION	INT8	Total number of unsuccessful AAL2 termination requests in this VMGw.	MgwApplication_Vmgw.pmNr OfAal2TermsRej	Sum, ermgw msbh
pmNrOfAal2TermsReq	ACCUMULATION	INT8	Total number of AAL2 termination requests in this VMGw.	MgwApplication_Vmgw.pmNr OfAal2TermsReq	Sum, ermgw msbh
pmNrOfConnIcmpDest Unreachs	ACCUMULATION	INTEGER	The total number of connection s with faults resulting from the reception	MgwApplication_Vmgw.pmNr OfConnIcmpDestUnreachs	Sum, ermgw msbh

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			of Internet Control Message Protocol(ICMP) Destination unreachable messages.		
pmNrOfContextsBusy	INTENSITY	INT8	Number of busy contexts currently existing in the VMGw.	MgwApplication_Vmgw.pmNrOfContextsBusy	Average, erm, gwmsbh, tot, min, max
pmNrOfContextsRej	ACCUMULATION	INT8	Number of context seizure request received from the MGC but rejected by the VMGw.	MgwApplication_Vmgw.pmNrOfContextsRej	Sum, erm, gwmsbh
pmNrOfContextsReq	ACCUMULATION	INT8	Number of context seizure requests received from the MGC by the VMGw.	MgwApplication_Vmgw.pmNrOfContextsReq	Sum, erm, gwmsbh
pmNrOfG729OnVoIpConns	ACCUMULATION	INTEGER	The total number of G.729 coded speech calls over the VoIP interface.	MgwApplication_Vmgw.pmNrOfG729OnVoIpConns	Sum, erm, gwmsbh

pmNrOfGcpNotifyCsdFaultAEst	ACCUMULATION	INTEGER	The total number of encountered Circuit Switched Data (CSD) termination faults after bearer establishment (between establishment of bearer and reception of Gateway Control Protocol (GCP) Sub, resulting in the sending of a GCP Notify message towards the MGC.	MgwApplication_Vmgw.pmNrOfGcpNotifyCsdFaultAEst	Sum, erm, gwmsbh
pmNrOfGcpNotifyCsdFaultBEst	ACCUMULATION	INTEGER	The total number of encountered Circuit Switched Data (CSD) termination faults before bearer establishment	MgwApplication_Vmgw.pmNrOfGcpNotifyCsdFaultBEst	Sum, erm, gwmsbh

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			ent (between sending of Gateway Control Protocol (GCP) AddReply and establishm ent of Iu/Nb bearer) for example due to protocol negotiation problems, resulting in the sending of a GCP Notify message towards the Media Gateway controller (MGC).		
pmNrOfGcpNotifySpeechFaultAEst	ACCUMULATION	INTEGER	The total number of encountered speech termination faults after bearer establishment (between establishment of bearer and reception of Gateway Control Protocol	MgwApplication_Vmgw.pmNrOfGcpNotifySpeechFaultAEst	Sum, erm-gw-msbh

			(GCP) Sub that result in the sending of a GCP Notify message towards the Media Gateway controller (MGC).		
pmNrOfGcpNotifySpeechFaultBest	ACCUMULATION	INTEGER	The total number of encountered speech termination faults before bearer establishment (between sending of Gateway Control Protocol (GCP) AddReply and establishment of Iu/Nb bearer) for example due to protocol negotiation problems, resulting in	MgwApplication_Vmgw.pmNrOfGcpNotifySpeechFaultBest	Sum, erm gw msbh

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			the sending of a GCP Notify message towards the Media Gateway controller (MGC).		
pmNrOfGcpOctetsRec	ACCUMULATION	INT8	The total number of octets in received Gateway Control Protocol (GCP H.248) messages.	MgwApplication_Vmgw.pmNrOfGcpOctetsRec	Sum, erm, gw, msbh
pmNrOfGcpOctetsSent	ACCUMULATION	INT8	The total number of octets in sent Gateway Control Protocol (GCP H.248) messages.	MgwApplication_Vmgw.pmNrOfGcpOctetsSent	Sum, erm, gw, msbh
pmNrOfGcpRetrans	ACCUMULATION	INTEGER	The total number of Gateway Control Protocol (GCP) retransmissions sent to the Media Gateway Controller (MGC).	MgwApplication_Vmgw.pmNrOfGcpRetrans	Sum, erm, gw, msbh
pmNrOfGcpSentPendingMess	ACCUMULATION	INTEGER	The total number of	MgwApplication_Vmgw.pmNrOfGcpSentPendingMess	Sum, erm, gw

			sent TransactionPending messages.		msbh
pmNrOfGcpTransactionWithMaxRetr	ACCUMULATION	INTEGER	The total number of transaction releases where the maximum number of retransmissions was reached.	MgwApplication_Vmgw.pmNrOfGcpTransactionWithMaxRetr	Sum, ermghwmsbh
pmNrOfGcpTransWithMaxPendingMess	ACCUMULATION	INTEGER	The total number of transactions where the maximum number of TransactionPending messages was sent, leading to sending of a transaction fault towards the MediaGateway controller (MGC).	MgwApplication_Vmgw.pmNrOfGcpTransWithMaxPendingMess	Sum, ermghwmsbh
pmNrOfInternalAal2ConnEstabFail	ACCUMULATION	INTEGER	The total number of ATM Adaptation Layer type	MgwApplication_Vmgw.pmNrOfInternalAal2ConnEstabFail	Sum, ermghwmsbh

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			2 (AAL2) connection establishment failures for node internal connections.		
pmNrOfInvokedGcpLoadControl	ACCUMULATION	INTEGER	The total number of occurrences that Gateway Control Protocol (GCP) load control service has been invoked towards the Media Gateway controller (MGC).	MgwApplication_Vmgw.pmNrOfInvokedGcpLoadControl	Sum, erm, gwmsbh
pmNrOfIpTermsBusy	INTENSITY	INT8	The current number of Internet Protocol (IP) terminations in use in this VMGw.	MgwApplication_Vmgw.pmNrOfIpTermsBusy	Average, erm, gwmsbh, tot, min, max
pmNrOfIpTermsRej	ACCUMULATION	INT8	Total number of unsuccessful IP termination requests in this VMGw.	MgwApplication_Vmgw.pmNrOfIpTermsRej	Sum, erm, gwmsbh
pmNrOfIpTermsReq	ACCUMULATION	INT8	Total	MgwApplication_Vmgw.pmNr	Sum,

	LATION		number of IP termination requests in this VMGw.	OfIpTermsReq	ermgw msbh
pmNrOfIuIpBearerSupervTmrExp	ACCUMULATION	INTEGER	The total number of bearer supervision timer expirations for Iu over IP connections. The bearer supervision timer expires if no remote IP address and User Datagram Protocol (UDP) port is received from the remote node or Mobile Services Switching Centre (MSC) Server within a specified time.	MgwApplication_Vmgw.pmNrOfIuIpBearerSupervTmrExp	Sum, ermghwmsbh
pmNrOfIuTermAal2Bea	ACCUMU	INTE	The total	MgwApplication_Vmgw.pmNr	Sum,

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rEstabFailLoc	LATION	GER	number of terminating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures on an Iu-interface due to a local reason.	OfIuTermAal2BearEstabFailLoc	ermgwmsbh
pmNrOfIuTermAal2BearEstabFailRem	ACCUMULATION	INTEGER	The total number of terminating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures on an Iu-interface due to a remote reason.	MgwApplication_Vmgw.pmNrOfIuTermAal2BearEstabFailRem	Sum,ermgwmsbh
pmNrOfNbOrigAal2BearEstabFailLoc	ACCUMULATION	INTEGER	The total number of originating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures on an Nb-interface due to a local reason.	MgwApplication_Vmgw.pmNrOfNbOrigAal2BearEstabFailLoc	Sum,ermgwmsbh

pmNrOfNbOrigAal2BearEstabFailRem	ACCUMULATION	INTEGER	The total number of originating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures on an Nb-interface due to a remote reason.	MgwApplication_Vmgw.pmNrOfNbOrigAal2BearEstabFailRem	Sum, erm, gw, msbh
pmNrOfNbTermAal2BearEstabFailLoc	ACCUMULATION	INTEGER	The total number of terminating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures on an Nb-interface due to a local reason.	MgwApplication_Vmgw.pmNrOfNbTermAal2BearEstabFailLoc	Sum, erm, gw, msbh
pmNrOfNbTermAal2BearEstabFailRem	ACCUMULATION	INTEGER	The total number of terminating ATM Adaptation Layer type 2 (AAL2) bearer establishment failures	MgwApplication_Vmgw.pmNrOfNbTermAal2BearEstabFailRem	Sum, erm, gw, msbh

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			on an Nb-interface due to a remote reason.		
pmNrOfTdmTermsFaulty	INTENSITY	INT8	Current number of TDM termination groups in the Vmgw that are in operational state DISABLED.	MgwApplication_Vmgw.pmNrOfTdmTermsFaulty	Average, ermgsbh, tot, min, max
pmNrOfTdmTermsLocked	INTENSITY	INT8	Current number of TDM Termination groups in the Vmgw that are in administrative state LOCKED.	MgwApplication_Vmgw.pmNrOfTdmTermsLocked	Average, ermgsbh, tot, min, max
pmNrOfVoIpBearerSupervTmrExp	ACCUMULATION	INTEGER	The total number of bearer supervision timer expirations for VoIP connections. The bearer supervision timer expires if no remote IP address and UDP port is received	MgwApplication_Vmgw.pmNrOfVoIpBearerSupervTmrExp	Sum, ermgsbh

			from the MSC Server within a specified time.		
pmTotalNrOfTdmTerms	INTENSITY	INT8	Current number of TDM Terminations configured for the Vmgw.	MgwApplication_Vmgw.pmTotalNrOfTdmTerms	Average, ermgwmsbh, tot, min, max

7.50 VpcTp Performance Indicators

This section shows the key performance indicators and other counters for the VpcTp object, divided into the following sub-sections:

- [VpcTp.Ericsson.UMTS.Virtual_path](#)

7.50.1 VpcTp.Ericsson.UMTS.Virtual_path

Virtual path data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INT8	Total number of backward errored blocks.	TransportNetwork_AtmPort_VplTp_VpcTp.pmBwErrBlocks	Sum, eraputctbh, ervpltcbh
pmBwLostCells	ACCUMULATION	INT8	Total number of lost backward cells.	TransportNetwork_AtmPort_VplTp_VpcTp.pmBwLostCells	Sum, eraputctbh, ervpltcbh
pmBwMissinsCells	ACCUMULATION	INT8	Total number of misinserted	TransportNetwork_AtmPort_VplTp_VpcTp.pm	Sum, eraputctbh

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			backward cells.	BwMissinsCells	,ervpltcbh
pmFwErrBlocks	ACCUMULATION	INT8	Total number of forward errored blocks.	TransportNetwork_AtmPort_VplTp_VpcTp.pmFwErrBlocks	Sum, eraputctbh,ervpltcbh
pmFwLostCells	ACCUMULATION	INT8	Total number of lost forward cells.	TransportNetwork_AtmPort_VplTp_VpcTp.pmFwLostCells	Sum, eraputctbh,ervpltcbh
pmFwMissinsCells	ACCUMULATION	INT8	Total number of forward misinserted cells.	TransportNetwork_AtmPort_VplTp_VpcTp.pmFwMissinsCells	Sum, eraputctbh,ervpltcbh
pmLostBrCells	ACCUMULATION	INT8	Total number of lost backward reporting cells.	TransportNetwork_AtmPort_VplTp_VpcTp.pmLostBrCells	Sum, eraputctbh,ervpltcbh
pmLostFpmCells	ACCUMULATION	INT8	Total number of lost Forward Performance Monitoring (FPM) cells.	TransportNetwork_AtmPort_VplTp_VpcTp.pmLostFpmCells	Sum, eraputctbh,ervpltcbh

7.51 VplTp Performance Indicators

This section shows the key performance indicators and other counters for the VplTp object, divided into the following sub-sections:

- [VplTp.Ericsson.UMTS.Traffic_agregated_from_VPCTP](#)
- [VplTp.Ericsson.UMTS.Traffic](#)

7.51.1 VplTp.Ericsson.UMTS.Traffic_agregated_from_VPCTP

Data from VPCTP level aggregated up to VPLTP.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmBwErrBlocks	ACCUMULATION	INT8	Total number of backward errored blocks.	TransportNetwork_AtmPort_VplTp.pmBwErrBlocks	Sum, eraputctbh,ervpltcbh

pmBwLostCells	ACCUMULATION	INT8	Total number of lost backward cells.	TransportNetwork_AtmPort_VplTp.pmBwLostCells	Sum, eraputctbh, ervpltcbh
pmBwMissinsCells	ACCUMULATION	INT8	Total number of misinserted backward cells.	TransportNetwork_AtmPort_VplTp.pmBwMissinsCells	Sum, eraputctbh, ervpltcbh
pmFwErrBlocks	ACCUMULATION	INT8	Total number of forward errored blocks.	TransportNetwork_AtmPort_VplTp.pmFwErrBlocks	Sum, eraputctbh, ervpltcbh
pmFwLostCells	ACCUMULATION	INT8	Total number of lost forward cells.	TransportNetwork_AtmPort_VplTp.pmFwLostCells	Sum, eraputctbh, ervpltcbh
pmFwMissinsCells	ACCUMULATION	INT8	Total number of forward misinserted cells.	TransportNetwork_AtmPort_VplTp.pmFwMissinsCells	Sum, eraputctbh, ervpltcbh
pmLostBrCells	ACCUMULATION	INT8	Total number of lost backward reporting cells.	TransportNetwork_AtmPort_VplTp.pmLostBrCells	Sum, eraputctbh, ervpltcbh
pmLostFpmCells	ACCUMULATION	INT8	Total number of lost Forward Performance Monitoring (FPM) cells.	TransportNetwork_AtmPort_VplTp.pmLostFpmCells	Sum, eraputctbh, ervpltcbh

7.51.2 VplTp.Ericsson.UMTS.Traffic

Virtual path link traffic data

KPI	Type	Data Type	Description	Derivation	Aggregation
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Cer_Rx	INTENSITY	FLOAT	Cell error rate (received)	{Ericsson.Traffic_aggregated_from_VPCTP.pmBwErrBlocks}/{pmReceivedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Cer_Tx	INTENSITY	FLOAT	Cell error rate (transmitted)	{Ericsson.Traffic_aggregated_from_VPCTP.pmFwErrBlocks}/{pmTransmittedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Clr_Rx	INTENSITY	FLOAT	Cell loss rate (received)	{Ericsson.Traffic_aggregated_from_VPCTP.pmBwLostCells}/{pmReceivedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Clr_Tx	INTENSITY	FLOAT	Cell loss rate (transmitted)	{Ericsson.Traffic_aggregated_from_VPCTP.pmFwLostCells}/{pmTransmittedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Cmr_Rx	INTENSITY	FLOAT	Cell misinsertion rate (received)	{Ericsson.Traffic_aggregated_from_VPCTP.pmBwMissinsCells}/{pmReceivedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Cmr_Tx	INTENSITY	FLOAT	Cell misinsertion rate (transmitted)	{Ericsson.Traffic_aggregated_from_VPCTP.pmFwMissinsCells}/{pmTransmittedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
egressatmpcr	INTENSITY	INTEGER	Engress ATM Peak cell rate (cells/s).	TransportNetwork_AtMPort_VplTp.egressAtmPcr	Constant, eraputctbh, ervpltcbh, tot, min, max

EgressPcr	INTENSITY	INTEGER	Obsolete in R5.1:Egress Peak Cell Rate	TransportNetwork_AtmPort_VplTp.egressPcr	Average, eraputctbh, ervpltcbh, tot, min, max
ingressatmpcr	INTENSITY	INTEGER	Ingress ATM Peak cell rate (cells/s).	TransportNetwork_AtmPort_VplTp.ingressAtmPcr	Constant, eraputctbh, ervpltcbh, tot, min, max
IngressPcr	INTENSITY	INTEGER	Obsolete in R5.1:Ingress Peak Cell Rate	TransportNetwork_AtmPort_VplTp.ingressPcr	Average, eraputctbh, ervpltcbh, tot, min, max
pmReceivedAtmCells	ACCUMULATION	INT8	Total number of ATM cells received through this Virtual Path (VP) link.	TransportNetwork_AtmPort_VplTp.pmReceivedAtmCells	Sum, eraputctbh, ervpltcbh
pmTransmittedAtmCells	ACCUMULATION	INT8	Total number of ATM cells transmitted through this VP link.	TransportNetwork_AtmPort_VplTp.pmTransmittedAtmCells	Sum, eraputctbh, ervpltcbh
Rx_bandwidth_per_second	INTENSITY	FLOAT	The amount of received bandwidth per second	$\frac{\{pmReceivedAtmCells\}}{\{measurement_seconds\}} * (53*8)/1000/1000$	Average, eraputctbh, ervpltcbh, tot, min, max
Rx_cells_per_second	INTENSITY	FLOAT	Received cells per second	$\{pmReceivedAtmCells\} / \{measurement_seconds\}$	Average, eraputctbh

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					h, ervpltcbh, tot, min, max
Total_cells	INTENSITY	INT8	Total number of ATM cells transmitted and received through this VP link	{pmReceivedAtmCells} + {pmTransmittedAtmCells}	Average, eraputctbh, ervpltcbh, tot, min, max
Tx_bandwidth_per_second	INTENSITY	FLOAT	The amount of transmitted bandwidth per second	((({pmTransmittedAtmCells} / {measurement_seconds}) * (53*8)/1000)/1000)	Average, eraputctbh, ervpltcbh, tot, min, max
Tx_cells_per_second	INTENSITY	FLOAT	Transmitted cells per second	{pmTransmittedAtmCells} / {measurement_seconds}	Average, eraputctbh, ervpltcbh, tot, min, max
Usage_rate_Rx	INTENSITY	FLOAT	Usage rate received cells	(({pmReceivedAtmCells} / 900) / {ingressatmpcr}	Average, eraputctbh, ervpltcbh, tot, min, max
Usage_rate_Tx	INTENSITY	FLOAT	Usage rate transmitted cells	(({pmTransmittedAtmCells} / 900) / {egressatmpcr}	Average, eraputctbh, ervpltcbh, tot, min, max

7.52 VT15 Performance Indicators

This section shows the key performance indicators and other counters for the VT15 object, divided into the following sub-sections:

- [VT15.Ericsson.UMTS.VT15_Terminating_Point](#)

7.52.1 VT15.Ericsson.UMTS.VT15_Terminating_Point

VT15 terminating point data.

KPI	Type	Data Type	Description	Derivation	Aggregation
pmEs	ACCUMULATION	INT8	Total number of Errored Seconds.	Vt15Ttp.pmEs	Sum, ermgwms bh
pmSes	ACCUMULATION	INT8	Total number of Severely Errored Seconds.	Vt15Ttp.pmSes	Sum, ermgwms bh
pmUas	ACCUMULATION	INTEGER	Transmission Unavailable Seconds (SES). The accumulated unavailable time in seconds during the interval. Unavailable time starts when 10 consecutive SES are detected (them being part of the unavailable time) and ends when 10 consecutive non-SES are detected.	Vt15Ttp.pmUas	Sum, ermgwms bh

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8 Performance Alarms

This section shows details of the alarms that are defined in this technology pack module:

None.

9 Reports

This section shows details of the reports that are defined in this technology pack module.

All reports can be run as raw, daily, weekly or monthly reports.

Where a KPI is marked (DA), it means Data Availability is to be reported upon it.

- [Signalling_Point Reports.](#)
- [ATM_Port Reports.](#)
- [MGW Reports.](#)
- [AAL2_Access_Point Reports.](#)
- [IMA Reports.](#)
- [Interactive_Messaging Reports.](#)
- [MGW_Resource_Pool Reports.](#)
- [TdmTermGrp Reports.](#)
- [VMGW Reports.](#)
- [VplTp Reports.](#)
- [Plug_In_Unit Reports.](#)
- [MS_Device_Pool Reports.](#)
- [RemoteSite Reports.](#)
- [Unknown_RemoteSite Reports.](#)

9.1 Signalling_Point Reports.

This section shows reports for the Signalling_Point object.

- [Signalling Point Traffic Report](#)

9.1.1 Signalling Point Traffic Report

This report shows the traffic statistics for the MTP3b link.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.Signalling_Point

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Primary Object	Signalling_Point
Signalling link transmitted and received MSUs	Signalling_Point.Ericsson.Utilisation.pmNoOfMSUSent, Signalling_Point.Ericsson.Utilisation.pmNoOfMSURec
Data report for signalling link MSUs	Signalling_Point.SS7_Point_Id, Signalling_Point.Node_Id, Signalling_Point.Ericsson.Utilisation.pmNoOfMSUSent, Signalling_Point.Ericsson.Utilisation.pmNoOfMSURec

9.2 ATM_Port Reports.

This section shows reports for the ATM_Port object.

- [ATM Port Traffic Report](#)
- [ATM Port Usage Rate Transmit And Receive Report](#)

9.2.1 ATM Port Traffic Report

This report shows the traffic statistics for the ATM port; specifically sent and received ATM cells and throughput.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.ATM_Port
Primary Object	ATM_Port
ATM cells throughput	ATM_Port.Ericsson.ATM_port_utilisation.pmTransmittedAtmCells, ATM_Port.Ericsson.ATM_port_utilisation.pmReceivedAtmCells
ATM port bandwidth	ATM_Port.Ericsson.ATM_port_utilisation.Tx_bandwidth_per_second , ATM_Port.Ericsson.ATM_port_utilisation.Rx_bandwidth_per_second
Data table for ATM throughput and bandwidth.	ATM_Port.Ericsson.ATM_port_utilisation.pmTransmittedAtmCells, ATM_Port.Ericsson.ATM_port_utilisation.Rx_bandwidth_per_second , ATM_Port.Ericsson.ATM_port_utilisation.Tx_bandwidth_per_second , ATM_Port.Ericsson.ATM_port_utilisation.pmReceivedAtmCells

9.2.2 ATM Port Usage Rate Transmit And Receive Report

This report shows the ATM Port traffic for both transmit and receive path. Figures shown the usage rate of the port in %.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.ATM_Port

Primary Object	ATM_Port
Graph for Port Usage Rate	ATM_Port.Ericsson.ATM_port_utilisation._ %_ATM_Port_Sent_Usage, ATM_Port.Ericsson.ATM_port_utilisation._ %_ATM_Port_Rcvd_Usage
Table for Port Usage Rate	ATM_Port.Node_Id, ATM_Port.ATM_Port_Id, ATM_Port.Ericsson.ATM_port_utilisation.pmReceivedAtmCells, ATM_Port.Ericsson.ATM_port_utilisation.pmTransmittedAtmCells, ATM_Port.Ericsson.ATM_port_utilisation._ %_ATM_Port_Sent_Usage, ATM_Port.Ericsson.ATM_port_utilisation._ %_ATM_Port_Rcvd_Usage

9.3 MGW Reports.

This section shows reports for the MGW object.

- [Aggregated MGW Resource Pool MGW level Report](#)
- [IP Connection Quality Report](#)
- [IP Traffic Bandwidth Report](#)
- [IUA Signalling Bandwidth Report](#)
- [Jitter Measurement Report](#)
- [MGW Accessibility and Retainability Report](#)
- [MGW Report](#)
- [MGW Signalling Traffic Report](#)
- [MGW Traffic Load](#)

9.3.1 Aggregated MGW Resource Pool MGW level Report

This report shows the aggregated utilisation rates for MGW Resource Pool at the MGW level.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Aggregated utilisation of MGW Resource Pool	MGW_Resource_Pool.Ericsson.Device_Pool.pmTotalSeizures, MGW_Resource_Pool.Ericsson.Device_Pool.pmUnsuccSeizures
Summary table for	MGW_Resource_Pool.Ericsson.Device_Pool.pmTotalSeizures,

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Aggregated Utilisation	MGW_Resource_Pool.Ericsson.Device_Pool.pmUnsuccSeizures
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9.3.2 IP Connection Quality Report

This report shows two components of IP connection quality. IP user plane quality: The IP transport QOS based on packet loss measurement. IP signalling quality: The signalling over IP QOS based on the incoming and outgoing IP signalling success rate measurement.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
IP User Plane Quality	MGW.MGW_Id, MGW.Ericsson.Connection_Quality.R_pmRtpDiscardedPkts, MGW.Ericsson.Connection_Quality.R_pmRtpLostPkts, MGW.Ericsson.Connection_Quality.UR_pmRtpDiscardedPkts, MGW.Ericsson.Connection_Quality.UR_pmRtpLostPkts, MGW.Ericsson.Connection_Quality._%_IP_User_Plane_Quality
IP Signalling Quality	MGW.MGW_Id, MGW.Ericsson.Connection_Quality.pmIpInReceives, MGW.Ericsson.Connection_Quality.pmIpOutRequests, MGW.Ericsson.Connection_Quality._%_IP_Signalling_Quality

9.3.3 IP Traffic Bandwidth Report

This report shows the total bandwidth of the IP traffic. The bandwidth for IP signalling and IP payload are calculated separately. Two separate measurements are included for PPP protocol and MPLS/PPP protocol, respectively.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Total Bandwidth for Received IP Payload and Signalling	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.Tot_BW_Rcvd_IPload_PPP, MGW.Ericsson.Signalling_Traffic.Tot_BW_Rcvd_IPload_MPLS, MGW.Ericsson.Signalling_Traffic.Tot_BW_Rcvd_Signalling, MGW.Ericsson.Signalling_Traffic.Tot_BW_Rcvd_IPload_Sig_PPP, MGW.Ericsson.Signalling_Traffic.Tot_BW_Rcvd_IPload_Sig_MPLS
Total Bandwidth for Sent IP Payload and Signalling	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.Tot_BW_Sent_IPload_PPP, MGW.Ericsson.Signalling_Traffic.Tot_BW_Sent_IPload_MPLS,

	MGW.Ericsson.Signalling_Traffic.Tot_BW_Sent_Signalling, MGW.Ericsson.Signalling_Traffic.Tot_BW_Sent_IPload_Sig_PPP, MGW.Ericsson.Signalling_Traffic.Tot_BW_Sent_IPload_Sig_MPLS
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9.3.4 IUA Signalling Bandwidth Report

This report shows the total bandwidth of IUA signalling.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
IUA Signalling Total Bandwidth	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.pmSentQptmMessages, MGW.Ericsson.Signalling_Traffic.Tot_BW_IUA_Signalling

9.3.5 Jitter Measurement Report

This report shows the ratio for each ATM, IP, IU, VOIP connections that have had no disturbances due to jitter.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Jitter Measurement	MGW.MGW_Id, MGW_Resource_Pool.Ericsson.Jitter_Measurement._ %_ATM_Conn_No_Disturbance, MGW_Resource_Pool.Ericsson.Jitter_Measurement._ %_IP_Conn_No_Disturbance, MGW_Resource_Pool.Ericsson.Jitter_Measurement._ %_Iu_Conn_No_Disturbance, MGW_Resource_Pool.Ericsson.Jitter_Measurement._ %_VoIP_Conn_No_Disturbance

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9.3.6 MGW Accessibility and Retainability Report

Accessibility: The MGW Accessibility report is used to calculate the average accessibility including all termination requests processed by the Virtual Media Gateways (VMGWs). Retainability: The Connection Retainability measurement shows the MGW ability to retain the connection.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Graph for Accessibility & Retainability	MGW.Ericsson.Accessibility_Retainability._%_MGW_Accessibility, MGW.Ericsson.Accessibility_Retainability._%_MGW_Retainability
Table for Accessibility & Retainability	MGW.Ericsson.Accessibility_Retainability.pmNrOfAal2TermsReq, MGW.Ericsson.Accessibility_Retainability.pmNrOfAal2TermsRej, MGW.Ericsson.Accessibility_Retainability.pmNrOfIpTermsReq, MGW.Ericsson.Accessibility_Retainability.pmNrOfIpTermsRej, MGW.Ericsson.Accessibility_Retainability.pmNrOfTDMTermsReq, MGW.Ericsson.Accessibility_Retainability.pmNrOfTDMTermsRej, MGW.Ericsson.Accessibility_Retainability._%_MGW_Accessibility, MGW.Ericsson.Accessibility_Retainability._%_MGW_Retainability

9.3.7 MGW Report

This report shows the channel statistics for the Media Gateway; specifically busy and rejected channels.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Busy media stream channels	MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannels Busy
Rejected channels	MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannels RejectedDueToCapacity
Data table for the MGW statistics report	MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannels RejectedDueToCapacity, MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannels Busy

9.3.8 MGW Signalling Traffic Report

This report shows the total signalling traffic (MSU/s) in an M-MGW node by calculating the STP&SGW, SEP and SRP Signalling Traffic (MSU/s) measurements.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Total M-MGw MSU/s	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.STP_SGW_MSUs, MGW.Ericsson.Signalling_Traffic.SEP_MSUs, MGW.Ericsson.Signalling_Traffic.Tot_MGW_MSUs
MTP3b and M3UA level MSU/s	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.pmNoOfDataMsgRec, MGW.Ericsson.Signalling_Traffic.pmNoOfDataMsgSent, MGW.Ericsson.Signalling_Traffic.pmNoOfMSURec, MGW.Ericsson.Signalling_Traffic.pmNoOfMSUSent, MGW.Ericsson.Signalling_Traffic.MTP3B_M3UA_MSUs
STP&SGw MSU/s	MGW.MGW_Id, MGW.Ericsson.Signalling_Traffic.MTP3B_M3UA_MSUs, MGW.Ericsson.Signalling_Traffic.SEP_MSUs, MGW.Ericsson.Signalling_Traffic.SRP_MSUs, MGW.Ericsson.Signalling_Traffic.STP_SGW_MSUs

9.3.9 MGW Traffic Load

This report provides the estimate of the traffic level in the MGW in Erlang. This estimation was done due to service MGW is packet connection based instead of call based. The same time in this report, the Media Stream Channel Utilisation rate of the MGW is shown as well.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW
Primary Object	MGW
Graph for MGW Traffic Load	MGW.Ericsson.Service_and_software_licensing.Current_MGW_Traffic_Load, MGW.Ericsson.Service_and_software_licensing._%_Media_Stream_Channel_Utilization
Table for MGW Traffic Load	MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannelsBusy, MGW.Ericsson.Service_and_software_licensing.pmNrOfMediaStreamChannelsReq, MGW.Ericsson.Service_and_software_licensing._

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	%_Media_Stream_Channel_Utilization, MGW.Ericsson.Service_and_software_licensing.Current_MGW_Traffic_Load, MGW.Ericsson.Service_and_software_licensing.maxNrOfLicMediaStreamChannels
--	---

9.4 AAL2_Access_Point Reports.

This section shows reports for the AAL2_Access_Point object.

- [AAL2 Access Point Connection Report](#)

9.4.1 AAL2 Access Point Connection Report

This report shows the statistics for the ATM Adaptive Layer 2, specifically the connections and types.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.AAL2_Access_Point
Primary Object	AAL2_Access_Point
Data report for AAL2 AP connections	AAL2_Access_Point.AAL2_AP_Id, AAL2_Access_Point.AAL2_SP_Id, AAL2_Access_Point.Ericsson.Connections.pmExisTransConns, AAL2_Access_Point.Ericsson.Connections.pmExisTermConns, AAL2_Access_Point.Ericsson.Connections.pmExisOrigConns
AAL2 AP connection types	AAL2_Access_Point.Ericsson.Connections.pmExisOrigConns, AAL2_Access_Point.Ericsson.Connections.pmExisTermConns, AAL2_Access_Point.Ericsson.Connections.pmExisTransConns

9.5 IMA Reports.

This section shows reports for the IMA object.

- [Inverse Multiplexing Over ATM link Report](#)

9.5.1 Inverse Multiplexing Over ATM link Report

This report shows the link failure statistics for the Inverse Multiplexing over ATM link; specifically local and far end failures.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.IMA

Primary Object	IMA
Local end IMA link failures	IMA.Ericsson.IMA_Link.pmTxFc, IMA.Ericsson.IMA_Link.pmRxFc
Far end IMA link failures	IMA.Ericsson.IMA_Link.pmTxFcFe, IMA.Ericsson.IMA_Link.pmRxFcFe
Data report for IMA link failures	IMA.IMA_Id, IMA.Ericsson.IMA_Link.pmRxFcFe, IMA.Ericsson.IMA_Link.pmTxFcFe, IMA.Ericsson.IMA_Link.pmRxFc, IMA.Ericsson.IMA_Link.pmTxFc

9.6 Interactive_Messaging Reports.

This section shows reports for the Interactive_Messaging object.

- [Interactive Messaging Report](#)

9.6.1 Interactive Messaging Report

This report shows the call attempts statistics for the Interactive Messaging.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.Interactive_Messaging
Primary Object	Interactive_Messaging
Interactive message invocations	Interactive_Messaging.Ericsson.Interactive_Message.pmCallAttempts, Interactive_Messaging.Ericsson.Interactive_Message.pmFailedCallAttempts, Interactive_Messaging.Ericsson.Interactive_Message._ %_pmCallAttempts
Data report for Interactive Messaging	Interactive_Messaging.Interactive_Messaging_Id, Interactive_Messaging.Ericsson.Interactive_Message._ %_pmCallAttempts, Interactive_Messaging.Ericsson.Interactive_Message.pmFailedCallAttempts, Interactive_Messaging.Ericsson.Interactive_Message.pmCallAttempts

9.7 MGW_Resource_Pool Reports.

This section shows reports for the MGW_Resource_Pool object.

- [GSM Circuit Switched Data Report](#)

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- [Service Resource Reservation Report](#)
- [Tandem Free Operation Success Report](#)
- [WCDMA Circuit Switched Data Report](#)

9.7.1 GSM Circuit Switched Data Report

This report shows the GSM Circuit Switched Data digital pool statistics for npn transparent connection types.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW_Resource_Pool
Primary Object	MGW_Resource_Pool
Non-Trans. FTM GSM connections	MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._%_pmFtmSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmFtmFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmFtmSuccGsm
Originating MANT GSM connections	MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._%_pmModemOSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemOFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemOSuccGsm
Data report for GSM CSD graphs	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmUdiSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmUdiFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._%_pmUdiSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemTSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemTFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._%_pmModemTSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemOSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModemOFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._%_pmModemOSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmFtmSucc

	Gsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmFtmFail Gsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._ %_pmFtmSuccGsm
Asynch. NT UDI GSM connections	MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._ %_pmUdiSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmUdiFail Gsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmUdiSucc Gsm
Terminating MANT GSM connections	MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool._ %_pmModemTSuccGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModem TFailGsm, MGW_Resource_Pool.Ericsson.GSM_CSD_Digital_Pool.pmModem TSuccGsm

9.7.2 Service Resource Reservation Report

This report shows the service resource reservation success rate.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW_Resource_Pool
Primary Object	MGW_Resource_Pool
Service Resource Reservation Success Rate	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.Device_Pool._ %_Service_Reserve_Succ

9.7.3 Tandem Free Operation Success Report

This report shows the Tandem Free Operation success rate measurements for AMR-NB (Adaptive Multi Rate, NarrowBand), AMR-WB (Adaptive Multi Rate, WideBand) and EFR Codec types.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW_Resource_Pool
Primary Object	MGW_Resource_Pool

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TFO Success Rate for AMR-NB	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.Tandem_Free_Op._ %_TFO_AMRNB_Success
TFO Success Rate for AMR-WB	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.Tandem_Free_Op._ %_TFO_AMRWB_Success
TFO Success Rate for EFR	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.Tandem_Free_Op._ %_TFO_EFR_Success

9.7.4 WCDMA Circuit Switched Data Report

This report shows the WCDMA Circuit Switched Data digital pool statistics for non transparent connection types.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MGW_Resource_Pool
Primary Object	MGW_Resource_Pool
Non-Trans. FTM connections	MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._ %_pmFtmSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmFtm Fail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmFtm Succ
Originating MANT WCDMA connections	MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._ %_pmModemOSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmMo demOFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmMo demOSucc
Data report for GSM CSD graphs	MGW_Resource_Pool.MGW_Resource_Pool_Id, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmUdi Succ, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmUdi Fail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._ %_pmUdiSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmMo demTSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmMo demTFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._

	%_pmModemTSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmModemOSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmModemOFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._%_pmModemOSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmFtmSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmFtmFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._%_pmFtmSucc
Asynchronous NT UDI WCDMA connections	MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._%_pmUdiSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmUdiFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmUdiSucc
Terminating MANT WCDMA connections	MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool._%_pmModemTSucc, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmModemTFail, MGW_Resource_Pool.Ericsson.WCDMA_CSD_Digital_Pool.pmModemTSucc

9.8 TdmTermGrp Reports.

This section shows reports for the TdmTermGrp object.

- [TDM Term Grp Report](#)
- [TDM Term Grp Utilization Report](#)

9.8.1 TDM Term Grp Report

This report shows the seizure success rate statistics for the Time Division Multiplex Termination groups.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.TdmTermGrp

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Primary Object	TdmTermGrp
TDM group seizure success rate	TdmTermGrp.Ericsson.Utilisation._%_pmNrOfTdmTermsReq, TdmTermGrp.Ericsson.Utilisation.pmNrOfTdmTermsReq, TdmTermGrp.Ericsson.Utilisation.pmNrOfTdmTermsRej
Data table for seizure success rate	TdmTermGrp.Tdmtg_Id, TdmTermGrp.Ericsson.Utilisation._%_pmNrOfTdmTermsReq, TdmTermGrp.Ericsson.Utilisation.pmNrOfTdmTermsReq, TdmTermGrp.Ericsson.Utilisation.pmNrOfTdmTermsRej

9.8.2 TDM Term Grp Utilization Report

This report shows the TDM Termination Group utilization rate measurement. Two measurements are included specifically for number of TDM slots = 24 and TDM slots = 31, respectively.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.TdmTermGrp
Primary Object	TdmTermGrp
TDM Term Grp Utilization Rate	TdmTermGrp.Tdmtg_Id, TdmTermGrp.Ericsson.Utilisation.pmNrOfTdmTermsBusy, TdmTermGrp.Ericsson.Utilisation._%_TdmGrp_Util_Timeslot_24, TdmTermGrp.Ericsson.Utilisation._%_TdmGrp_Util_Timeslot_31

9.9 VMGW Reports.

This section shows reports for the VMGW object.

- [Virtual Media Gateway Report](#)

9.9.1 Virtual Media Gateway Report

This report shows the Virtual MGW statistics specifically for, system availability time, Gateway Control Protocol messages, AAL2 terminations and IP requests.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.VMGW
Primary Object	VMGW
GCP messages	VMGW.Ericsson.Utilisation._%_pmGcpNrOfReceivedMessages, VMGW.Ericsson.Utilisation.pmGcpNrOfReceivedMessages, VMGW.Ericsson.Utilisation.pmGcpNrOfSentMessages
Available system time	VMGW.Ericsson.Utilisation._%_pmGcpSystemUpTime,

	VMGW.Ericsson.Utilisation.pmGcpSystemUpTime
Data table for VMG report	VMGW.VMGW_Id, VMGW.Ericsson.Utilisation.pmNrOfIpTermsReq, VMGW.Ericsson.Utilisation.pmNrOfIpTermsRej, VMGW.Ericsson.Utilisation._%_pmNrOfIpTermsReq, VMGW.Ericsson.Utilisation.pmNrOfAal2TermsReq, VMGW.Ericsson.Utilisation.pmNrOfAal2TermsRej, VMGW.Ericsson.Utilisation._%_pmNrOfAal2TermsReq, VMGW.Ericsson.Utilisation.pmNrOfContextsReq, VMGW.Ericsson.Utilisation.pmNrOfContextsRej, VMGW.Ericsson.Utilisation._%_pmNrOfContextsReq, VMGW.Ericsson.Utilisation.pmGcpSystemUpTime, VMGW.Ericsson.Utilisation._%_pmGcpSystemUpTime, VMGW.Ericsson.Utilisation.pmGcpNrOfSentMessages, VMGW.Ericsson.Utilisation.pmGcpNrOfReceivedMessages, VMGW.Ericsson.Utilisation._%_pmGcpNrOfReceivedMessages
IP terminations	VMGW.Ericsson.Utilisation._%_pmNrOfIpTermsReq, VMGW.Ericsson.Utilisation.pmNrOfIpTermsRej, VMGW.Ericsson.Utilisation.pmNrOfIpTermsReq
AAL2 terminations	VMGW.Ericsson.Utilisation._%_pmNrOfAal2TermsReq, VMGW.Ericsson.Utilisation.pmNrOfAal2TermsRej, VMGW.Ericsson.Utilisation.pmNrOfAal2TermsReq
Context seizures	VMGW.Ericsson.Utilisation._%_pmNrOfContextsReq, VMGW.Ericsson.Utilisation.pmNrOfContextsRej, VMGW.Ericsson.Utilisation.pmNrOfContextsReq

9.10 VplTp Reports.

This section shows reports for the VplTp object.

- [ATM VP Link Traffic Report](#)

9.10.1 ATM VP Link Traffic Report

This report shows the traffic statistics for the ATM port VP link, specifically; sent and received ATM cells and throughput.

Report Feature	Details
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Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.VplTp
Primary Object	VplTp
ATM VP cells	VplTp.Ericsson.Traffic.pmTransmittedAtmCells, VplTp.Ericsson.Traffic.pmReceivedAtmCells
ATM VP bandwidth	VplTp.Ericsson.Traffic.Tx_bandwidth_per_second, VplTp.Ericsson.Traffic.Rx_bandwidth_per_second
Data table VP link cells and throughput	VplTp.VplTp_Description, VplTp.Ericsson.Traffic.Rx_bandwidth_per_second, VplTp.Ericsson.Traffic.Tx_bandwidth_per_second, VplTp.Ericsson.Traffic.pmReceivedAtmCells, VplTp.Ericsson.Traffic.pmTransmittedAtmCells

9.11 Plug_In_Unit Reports.

This section shows reports for the Plug_In_Unit object.

- [Plug In Unit Processor Load](#)

9.11.1 Plug In Unit Processor Load

This report provides the processor load trends throughout the reporting period. This is crucial for monitoring at the load of the processor board especially that handles call signalling to allow continuation of service by the MGW

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.Plug_In_Unit
Primary Object	Plug_In_Unit
Graph for Plug In Unit Process Load	Plug_In_Unit.Ericsson.CPU_Load.pmProcessorLoad

9.12 MS_Device_Pool Reports.

This section shows reports for the MS_Device_Pool object.

- [MS Device Pool Utilisation](#)

9.12.1 MS Device Pool Utilisation

The Media Stream Resource Reservation Rate measurement is used to calculate the current connection reservation rate of devices in this device pool and to show the traffic profile at the end of the measurement period. This is reported per device and per MGW.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.MS_Device_Pool
Primary Object	MS_Device_Pool
Graph for Device Pool Utilisation	MS_Device_Pool.Ericsson.Pool_Status._%_Device_Utilization
Table for Device Pool Utilisation	MS_Device_Pool.MGW_Id, MS_Device_Pool.MS_Device_Pool_Id, MS_Device_Pool.Ericsson.Pool_Status._%_Device_Utilization

9.13 RemoteSite Reports.

This section shows reports for the RemoteSite object.

- [RemoteSite RTP Packet Quality Report](#)

9.13.1 RemoteSite RTP Packet Quality Report

This report shows the quality of RTP packet in terms of RTP packet discard rate and packet loss rate measurements for RemoteSite.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.RemoteSite
Primary Object	RemoteSite
RTP Packet Discard Rate	RemoteSite.RemoteSite_Id, RemoteSite.Ericsson.Connection_Quality._%_RTP_Discard2
RTP Packet Loss Rate	RemoteSite.RemoteSite_Id, RemoteSite.Ericsson.Connection_Quality._%_RTP_Loss2

9.14 Unknown_RemoteSite Reports.

This section shows reports for the Unknown_RemoteSite object.

- [Unknown RemoteSite RTP Packet Quality Report](#)

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9.14.1 Unknown RemoteSite RTP Packet Quality Report

This report shows the quality of RTP packet in terms of RTP packet discard rate and packet loss rate measurements for Unknown RemoteSite.

Report Feature	Details
Report Tree Branch	System.UMTS.Engineering.MGW.Ericsson.Unknown_RemoteSite
Primary Object	Unknown_RemoteSite
RTP Packet Discard Rate	Unknown_RemoteSite.Unknown_RemoteSite_Id, Unknown_RemoteSite.Ericsson.Connection_Quality._ %_RTP_Discard2
RTP Packet Loss Rate	Unknown_RemoteSite.Unknown_RemoteSite_Id, Unknown_RemoteSite.Ericsson.Connection_Quality._%_RTP_Loss2

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