



ADVA Optical Metro Ethernet 2.2.0.0 Technology Pack

Reference

Note: Before using this information and the product it supports, read the information in Notices on page 31.

© Copyright IBM Corp. 2010

US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Statistics	1
Inventory Formulas	2
Collection Formulas	5
Reports	15
SubElement Groups	28
Notices	31
Additional Copyright Information	33

Statistics

Objects

Type	Cnt
Inventory Formulas	6
Collection Formulas	40
CME Formulas	0
Reports	15
Stylesheets	6
Chart Styles	4
Properties	8
Thresholds	0

Inventory Formulas

Alias Instance and Label Inventory

AP

Metro Ethernet

Adva

- EVC
- EVC QoS
- Ethernet LAN Interface
- Ethernet WAN Interface
- LANPort (UNI)
- UNI QoS

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~EVC

Description: This Formula discovers the subelemnts for Ethernet Flow

Filter:

Label: EVC Stats (Port I1 EVC I1)

Formula:

```
Def UseQuotedStrings no;
Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;

V01 = OIDVAL(ethernetPBFlowStatsValid.%I1.%I2.3 == "true"
format clean);
%V01 index "Port<%I1>EVC<%I2>StatsIndex<3>||EVC Stats
(Port %I1 EVC
%I1) ||DeviceVendor<Adva>MEComponentType<EVC> ||";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	EVC

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~EVC QoS

Description: This formula discovers the subelements of ethernet class of service.

Filter:

Label: EVC CoS Stats (Port V01 EVC I2 Class of Service V02)

Formula:

```
DefuseQuotedString no;
Dim I1 AS Integer Default * NAME LanPortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCCosIndex;

V99=OIDVAL(ethernetPBFlowQOSStatsValid.%I1.%I2.%I3.3 ==
"true" format clean);;
V01=IndexAsvalue(I1,%V99);
V02=IndexAsValue(I3,%V99);
%V99 index
"Port<%V01>EVC<%I2>EVCCoS<%V02>StatsIndex<3>||EVC CoS
Stats (Port %V01 EVC %I2 Class of Service
%V02) ||DeviceVendor<Adva>MEComponentType<EVCQoS> ||";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	EVCQoS

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~Ethernet LAN Interface

Description: This Formula discovers the subelements of Ethernet Lan Port interfaces which are equal to ifindex

Filter:

Label: LanPort: ethernetPBPortSvcCircuitName1 (Index I1)

Formula:

```
Def UseQuotedStrings no;
Dim I1 AS Integer Default * NAME LanPortIfIndex;

V01 = OIDVAL(ethernetPBPortSvcCircuitName.%I1 format
clean);
V02 = OIDVAL(ethernetPBPortSvcIfIndex.%I1);

%V02 index "If<%V02>||LanPort: %V01 (Index
%I1) ||DeviceVendor<Adva>MEComponentType<ENETLAN>||";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	ENETLAN

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~Ethernet WAN Interface

Description: This formula discovers the subelements of Ethernet Wan interfaces which are same as ifindex

Filter:

Label: WanPort: (Index I1)

Formula:

```
Def UseQuotedStrings no;
Dim I1 AS Integer Default * NAME WanPortIfIndex;

V02 = OIDVAL(ethernetPBWanIfIndex.%I1);

%V02 index "If<%V02>||WanPort: (Index
%I1) ||DeviceVendor<Adva>MEComponentType<ENETWAN>||";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	ENETWAN

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~LANPort (UNI)

Description: This discovery formula discovers the subelements of Ethernet Lan ports

Filter:

Label: LanPort: V01

Formula:

```
Def UseQuotedStrings no;
Dim I1 AS Integer Default * NAME PortIndex;

V99 = OIDVAL(ethernetPBPortSvcStatsValid.%I1.3== "true"
format clean);
V01=IndexAsvalue (I1, %V99);

%V99 index "Lan Port<%I1>StatsIndex<3>||LanPort: %V01
||DeviceVendor<Adva>MEComponentType<UNI>||";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	UNI

~Alias Instance and Label Inventory~AP~Metro Ethernet~Adva~UNI QoS

Description: This formula discovers the subelements of UNI port quality of service.

Filter:

Label: UNI QoS Stats (Port ethernetPBPortQOSStatsValid2 Class of Service ethernetPBPortQOSStatsValid3)

Formula:

```
Def UseQuotedStrings no;
Dim I1 AS Integer Default * NAME UNIPortIndex;
Dim I2 AS Integer Default * NAME UNIPortQOSIndex;

V01 = OIDVAL(ethernetPBPortQOSStatsValid.%I1.%I2.3 ==
"true" format clean);
V02 = ( IndexAsValue(I1, %V01));
V03 = ( IndexAsValue(I2, %V01));
%V01 index "Port<%V02>QoS<%V03>StatsIndex<3>||UNI QoS
Stats (Port %V02 Class of Service
%V03) || DeviceVendor<Adva>MEComponentType<UNIQoS> | |";
```

Properties:

Name	Value
DeviceVendor	Adva
MEComponentType	UNIQoS

Collection Formulas

AP

Generic

Metro Ethernet

Adva

Quality of Service

- Bytes Sent
- Bytes Tail Dropped
- Frames Dequeued
- Frames Tail Dropped
- Sent Throughput (bps)
- Tail Dropped Throughput (bps)

Specific

SNMP

Metro Ethernet

Adva

EVC

- Egress Dropped Red Frames
- Egress Dropped Yellow Frames
- Egress Tail Dropped Frames
- Egress Yellow Frames
- Ingress Dropped Red Frames
- Ingress Dropped Yellow Frames
- Ingress Tail Dropped Frames
- Ingress Yellow Frames

EVC QoS

- Bytes Sent
- Bytes Sent Throughput (bps)
- Bytes Tail Dropped
- Bytes Tail Dropped Throughput (bps)
- Frames Dequeued
- Frames Tail Dropped

LANPort

- Egress Dequeued Frames
- Egress Green Frame Count
- Egress Red Frame Discards
- Egress Tail Dropped Frames
- Egress Tail Dropped Octets
- Egress Yellow Frame Count
- Egress Yellow Frame Discards
- Ingress Dequeued Frames
- Ingress Green Frame Count
- Ingress Red Frame Discards
- Ingress Tail Dropped Frames
- Ingress Tail Dropped Octets
- Ingress Yellow Frame Count
- Ingress Yellow Frame Discards

UNI QoS

- Bytes Sent
- Bytes Sent Throughput (bps)
- Bytes Tail Dropped
- Bytes Tail Dropped Throughput (bps)
- Frames Dequeued
- Frames Tail Dropped

ID	Name	Type	Generic	Description
68036	Bytes Sent	SNMP Collect Formula		The number of Bytes Transmitted
68058	Frames Dequeued	Generic Formula		The number of Frames Dequeued
68035	Frames Tail Dropped	SNMP Collect Formula		The number of Frames Tail Dropped
68079	Ingress Red Frame Discards	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Red and Discarded in the ingress direction.
68059	Frames Tail Dropped	Generic Formula		The number of Frames Tail Dropped
68076	Egress Yellow Frame Discards	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow and Discarded in the egress direction.
68032	Bytes Tail Dropped	SNMP Collect Formula		The Number of Bytes tail Dropped
68075	Egress Yellow Frame Count	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow in the egress direction.
68031	Bytes Sent Throughput (bps)	SNMP Collect Formula		Bytes transmitted throughput in bits per second
68078	Ingress Green Frame Count	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Green in the ingress direction.
68034	Frames Dequeued	SNMP Collect Formula		The number of Frames dequeued
68077	Ingress Dequeued Frames	SNMP Collect Formula		Only applicable when port is in connection-oriented, TLS mode. The number of Frames Dequeued (FD) in the ingress direction
68033	Bytes Tail Dropped Throughput (bps)	SNMP Collect Formula		Bytes Tail Dropped throughput in bits per second

ID	Name	Type	Generic	Description
68072	Egress Red Frame Discards	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Red and Discarded in the egress direction.
68071	Egress Green Frame Count	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Green in the Egress direction.
68074	Egress Tail Dropped Octets	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The Bytes Tail Dropped in the egress direction.
68073	Egress Tail Dropped Frames	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The Frames Tail Dropped in the egress direction.
68070	Egress Dequeued Frames	SNMP Collect Formula		Only applicable when port is in connection-oriented, TLS mode. The number of Frames Dequeued (FD) in the Egress direction
68047	Egress Dropped Yellow Frames	SNMP Collect Formula		Frames Marked Yellow and Dropped - Received on the Flow in the Egress direction
68025	Bytes Sent Throughput (bps)	SNMP Collect Formula		Bytes Sent throughput in bits per second
68046	Egress Yellow Frames	SNMP Collect Formula		Frames Marked Yellow - Received on the Flow in the Egress direction
68024	Bytes Sent	SNMP Collect Formula		The number of Bytes Sent
68049	Egress Tail Dropped Frames	SNMP Collect Formula		Frames Tail Dropped - Received on the Flow in the Egress direction
68048	Egress Dropped Red Frames	SNMP Collect Formula		Frames Marked Red and Dropped - Received on the Flow in the Egress direction
68026	Bytes Tail Dropped Throughput (bps)	SNMP Collect Formula		Bytes tail dropped throughput in bits per second
68021	Frames Tail Dropped	SNMP Collect Formula		The number of frames tail dropped
68043	Ingress Dropped Yellow Frames	SNMP Collect Formula		Frames Marked Yellow and Dropped - Received on the Flow in the Ingress direction

ID	Name	Type	Generic	Description
68042	Ingress Yellow Frames	SNMP Collect Formula		Frames Marked Yellow - Received on the Flow in the Ingress direction
68023	Frames Dequeued	SNMP Collect Formula		The number of Frames Dequeued
68045	Ingress Tail Dropped Frames	SNMP Collect Formula		Frames Tail Dropped - Received on the Flow in the Ingress direction
68022	Bytes Tail Dropped	SNMP Collect Formula		The number of Bytes tail dropped
68044	Ingress Dropped Red Frames	SNMP Collect Formula		Frames Marked Red and Dropped - Received on the Flow in the Ingress direction
68061	Bytes Tail Dropped	Generic Formula		The number of Bytes Tail Dropped
68083	Ingress Yellow Frame Discards	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow and Discarded in the ingress direction.
68060	Bytes Sent	Generic Formula		The number of Bytes Transmitted
68082	Ingress Yellow Frame Count	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow in the ingress direction.
68063	Tail Dropped Throughput (bps)	Generic Formula		Bytes Tail Dropped throughput in bits per second
68062	Sent Throughput (bps)	Generic Formula		Bytes transmitted throughput in bits per second
68081	Ingress Tail Dropped Octets	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Bytes Tail Dropped (BTD) in the ingress direction.
68080	Ingress Tail Dropped Frames	SNMP Collect Formula		Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Tail Dropped (FTD) in the ingress direction.

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Bytes Sent

Description: The number of Bytes Transmitted

Formula: #Generic Metric

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Bytes Tail Dropped

Description: The number of Bytes Tail Dropped

Formula: #Generic Metric

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Frames Dequeued

Description: The number of Frames Dequeued

Formula: #Generic Metric

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Frames Tail Dropped

Description: The number of Frames Tail Dropped

Formula: #Generic Metric

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Sent Throughput (bps)

Description: Bytes transmitted throughput in bits per second

Formula: #Generic Metric

~AP~Generic~Metro Ethernet~Adva~Quality of Service~Tail Dropped Throughput (bps)

Description: Bytes Tail Dropped throughput in bits per second

Formula: #Generic Metric

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Bytes Sent

Description: The number of Bytes Transmitted

Formula: DEF SaveAlias 68060;

```
DIM I1 AS Integer Default * NAME PortIndex;  
Dim I2 AS Integer Default * NAME EVCIndex;  
DIM I3 AS Integer Default * NAME EVCQoSIndex;  
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;
```

```
delta(ethernetPBFlowQoSStatsBT.%I1.%I2.%I3.%I4)*distrib(d  
elta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Bytes Sent Throughput (bps)

Description: Bytes transmitted throughput in bits per second

Formula: DEF SaveAlias 68062;

```
DIM I1 AS Integer Default * NAME PortIndex;  
Dim I2 AS Integer Default * NAME EVCIndex;  
DIM I3 AS Integer Default * NAME EVCQoSIndex;  
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;
```

```
800*delta(ethernetPBFlowQoSStatsBT.%I1.%I2.%I3.%I4)/delta  
(sysUpTime.0);
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Bytes Tail Dropped

Description: The Number of Bytes tail Dropped

Formula: DEF SaveAlias 68061;

```
DIM I1 AS Integer Default * NAME PortIndex;  
Dim I2 AS Integer Default * NAME EVCIndex;  
DIM I3 AS Integer Default * NAME EVCQoSIndex;  
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;
```

```
delta(ethernetPBFlowQoSStatsBTD.%I1.%I2.%I3.%I4)*distrib(  
delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Bytes Tail Dropped Throughput (bps)

Description: Bytes Tail Dropped throughput in bits per second

Formula: DEF SaveAlias 68063;

```

DIM I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
DIM I3 AS Integer Default * NAME EVCQoSIndex;
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;

800*delta(ethernetPBFlowQoSStatsBTD.%I1.%I2.%I3.%I4)/delta(sysUpTime.0);

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Frames Dequeued

Description: The number of Frames dequeued

Formula: DEF SaveAlias 68058;

```

DIM I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
DIM I3 AS Integer Default * NAME EVCQoSIndex;
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;

delta(ethernetPBFlowQoSStatsFD.%I1.%I2.%I3.%I4)*distrib(delta(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC QoS~Frames Tail Dropped

Description: The number of Frames Tail Dropped

Formula: DEF SaveAlias 68059;

```

DIM I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
DIM I3 AS Integer Default * NAME EVCQoSIndex;
DIM I4 AS Integer Default * NAME EVCQoSStatsIndex;

delta(ethernetPBFlowQoSStatsFTD.%I1.%I2.%I3.%I4)*distrib(delta(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Egress Dropped Red Frames

Description: Frames Marked Red and Dropped - Received on the Flow in the Egress direction

Formula:

```

Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

delta(ethernetPBFlowStatsFMRDTx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Egress Dropped Yellow Frames

Description: Frames Marked Yellow and Dropped - Received on the Flow in the Egress direction

Formula:

```

Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

delta(ethernetPBFlowStatsFMYDTx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Egress Tail Dropped Frames

Description: Frames Tail Dropped - Received on the Flow in the Egress direction

Formula:

```

Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

delta(ethernetPBFlowStatsFTDTx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Egress Yellow Frames

Description: Frames Marked Yellow - Received on the Flow in the Egress direction

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

```
delta(ethernetPBFlowStatsFMYTx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Ingress Dropped Red Frames

Description: Frames Marked Red and Dropped - Received on the Flow in the Ingress direction

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

```
delta(ethernetPBFlowStatsFMRDRx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Ingress Dropped Yellow Frames

Description: Frames Marked Yellow and Dropped - Received on the Flow in the Ingress direction

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

```
delta(ethernetPBFlowStatsFMYDRx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Ingress Tail Dropped Frames

Description: Frames Tail Dropped - Received on the Flow in the Ingress direction

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

```
delta(ethernetPBFlowStatsFTDRx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~EVC~Ingress Yellow Frames

Description: Frames Marked Yellow - Received on the Flow in the Ingress direction

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME EVCIndex;
Dim I3 AS Integer Default * NAME EVCStatsIndex;

```
delta(ethernetPBFlowStatsFMYRx.%I1.%I2.%I3)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Dequeued Frames

Description: Only applicable when port is in connection-oriented, TLS mode. The number of Frames Dequeued (FD) in the Egress direction

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

```
delta(ethernetPBPortSvcStatsFDTx.%I1.%I2)*distrib(delta(sysUpTime.0), "default:1");
```

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Green Frame Count

Description: Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Green in the Egress direction.

Formula: Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME PortStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFMGTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Red Frame Discards
Description: Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Red and Discarded in the egress direction.

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFMRDTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Tail Dropped Frames
Description: Only applicable when Port is in Connection-oriented, TLS mode. The Frames Tail Dropped in the egress direction.

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFTDTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Tail Dropped Octets
Description: Only applicable when Port is in Connection-oriented, TLS mode. The Bytes Tail Dropped in the egress direction.

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsBTDTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Yellow Frame Count
Description: Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow in the egress direction.

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFMYTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Egress Yellow Frame Discards
Description: Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow and Discarded in the egress direction.

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFMYDTx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Dequeued Frames
Description: Only applicable when port is in connection-oriented, TLS mode. The number of Frames Dequeued (FD) in the ingress direction

Formula: Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;

$\text{delta}(\text{ethernetPBPortSvcStatsFDRx}.\%I1.\%I2) * \text{distrib}(\text{delta}(\text{sysUpTime}.0), \text{"default:1"});$

~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Green Frame Count

- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Green in the ingress direction.
- Formula:** Dim I1 AS Integer Default * NAME PortIndex;
Dim I2 AS Integer Default * NAME PortStatsIndex;
- ```
delta(ethernetPBPortSvcStatsFMGRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Red Frame Discards**
- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Red and Discarded in the ingress direction.
- Formula:** Dim I1 AS Integer Default \* NAME PortSvcIndex;  
Dim I2 AS Integer Default \* NAME PortSvcStatsIndex;
- ```
delta(ethernetPBPortSvcStatsFMRDRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Tail Dropped Frames**
- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Tail Dropped (FTD) in the ingress direction.
- Formula:** Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;
- ```
delta(ethernetPBPortSvcStatsFTDRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Tail Dropped Octets**
- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Bytes Tail Dropped (BTD) in the ingress direction.
- Formula:** Dim I1 AS Integer Default \* NAME PortSvcIndex;  
Dim I2 AS Integer Default \* NAME PortSvcStatsIndex;
- ```
delta(ethernetPBPortSvcStatsBTDRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Yellow Frame Count**
- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow in the ingress direction.
- Formula:** Dim I1 AS Integer Default * NAME PortSvcIndex;
Dim I2 AS Integer Default * NAME PortSvcStatsIndex;
- ```
delta(ethernetPBPortSvcStatsFMYRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~LANPort~Ingress Yellow Frame Discards**
- Description:** Only applicable when Port is in Connection-oriented, TLS mode. The number of Frames Marked Yellow and Discarded in the ingress direction.
- Formula:** Dim I1 AS Integer Default \* NAME PortSvcIndex;  
Dim I2 AS Integer Default \* NAME PortSvcStatsIndex;
- ```
delta(ethernetPBPortSvcStatsFMYDRx.%I1.%I2)*distrib(delta(sysUpTime.0),"default:1");
```
- ~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Bytes Sent**
- Description:** The number of Bytes Sent

Formula: DEF SaveAlias 68060;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

delta(ethernetPBPortQOSStatsBS.%I1.%I2.%I3)*distrib(delta
(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Bytes Sent Throughput (bps)

Description: Bytes Sent throughput in bits per second

Formula: DEF SaveAlias 68062;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

800 * delta(ethernetPBPortQOSStatsBS.%I1.%I2.%I3) /
delta(sysUpTime.0);

```

~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Bytes Tail Dropped

Description: The number of Bytes tail dropped

Formula: DEF SaveAlias 68061;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

delta(ethernetPBPortQOSStatsBTD.%I1.%I2.%I3)*distrib(delta
(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Bytes Tail Dropped Throughput (bps)

Description: Bytes tail dropped throughput in bits per second

Formula: DEF SaveAlias 68063;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

800 * delta(ethernetPBPortQOSStatsBTD.%I1.%I2.%I3) /
delta(sysUpTime.0);

```

~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Frames Dequeued

Description: The number of Frames Dequeued

Formula: DEF SaveAlias 68058;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

delta(ethernetPBPortQOSStatsFD.%I1.%I2.%I3)*distrib(delta
(sysUpTime.0), "default:1");

```

~AP~Specific~SNMP~Metro Ethernet~Adva~UNI QoS~Frames Tail Dropped

Description: The number of frames tail dropped

Formula: DEF SaveAlias 68059;

```

DIM I1 AS Integer Default * NAME PortIndex;
DIM I2 AS Integer Default * NAME QoSIndex;
DIM I3 AS Integer Default * NAME StatsIndex;

delta(ethernetPBPortQOSStatsFTD.%I1.%I2.%I3)*distrib(delta
(sysUpTime.0), "default:1");

```

Reports

AP Adva Optical Metro Ethernet

EVC

- EVC Traffic Summary Details
- EVC Traffic Summary Group
- EVC Traffic Summary Resource

Port

LAN Port

- LAN Port Drops and Discards Summary Details
- LAN Port Drops and Discards Summary Group
- LAN Port Drops and Discards Summary Resource
- LAN Port Traffic Management Summary Details
- LAN Port Traffic Management Summary Group
- LAN Port Traffic Management Summary Resource

LAN/WAN

- Port Throughput Summary Details
- Port Throughput Summary Group
- Port Throughput Summary Resource

QoS

- QOS Summary Details
- QOS Summary Group
- QOS Summary Resource

AP Styles

- AP TS Chart Style - Area - White - avg
- AP TS Chart Style - Area - White - max avg
- AP TS Chart Style - Area - White - sum
- AP TS Chart Style - Pie - White - Ratio

~AP Adva Optical Metro Ethernet~EVC~EVC Traffic Summary Details

- Title:** EVC Traffic Summary Details
Description: AP Adva Optical Metro Ethernet - EVC Traffic Summary - DC
Stylesheet: PVLs_AP_8ResTimeSeries.html
Drill From: EVC Traffic Summary Resource

Resource Time Series Chart 1:

Formula	Ingress Yellow Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 2:

Formula	Ingress Tail Dropped Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 3:

Formula	Ingress Dropped Yellow Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 4:

Formula	Ingress Dropped Red Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 5:

Formula	Egress Yellow Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 6:

Formula	Egress Tail Dropped Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 7:

Formula	Egress Dropped Yellow Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 8:

Formula	Egress Dropped Red Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

~AP Adva Optical Metro Ethernet~EVC~EVC Traffic Summary Group

Title: EVC Traffic Summary Group
Description: AP Adva Optical Metro Ethernet -EVC Traffic Summary Group - GST
Stylesheet: PVLs_AP_GroupSummary_w_2ResDistrib.html
Drill From:

Group Summary Table 1:

Drilldown	EVC Traffic Summary Resource
Column 1 Name	Ingress Yellow Frames
Column 1 Formula	Ingress Yellow Frames
Column 1 Statistics	sum max
Column 2 Name	Ingress Tail Dropped Frames
Column 2 Formula	Ingress Tail Dropped Frames
Column 2 Statistics	sum max
Column 3 Name	Ingress Dropped Yellow Frames
Column 3 Formula	Ingress Dropped Yellow Frames
Column 3 Statistics	sum max
Column 4 Name	Ingress Dropped Red Frames
Column 4 Formula	Ingress Dropped Red Frames
Column 4 Statistics	sum max

Group Summary Table 2:

Drilldown	EVC Traffic Summary Resource
Column 1 Name	Egress Yellow Frames
Column 1 Formula	Egress Yellow Frames
Column 1 Statistics	sum max
Column 2 Name	Egress Tail Dropped Frames
Column 2 Formula	Egress Tail Dropped Frames
Column 2 Statistics	sum max
Column 3 Name	Egress Dropped Yellow Frames
Column 3 Formula	Egress Dropped Yellow Frames
Column 3 Statistics	sum max
Column 4 Name	Egress Dropped Red Frames
Column 4 Formula	Egress Dropped Red Frames
Column 4 Statistics	sum max

~AP Adva Optical Metro Ethernet~EVC~EVC Traffic Summary Resource**Title:** EVC Traffic Summary Resource**Description:** AP Adva Optical Metro Ethernet -EVC Traffic Summary Resource - RST**Stylesheet:** PVLs_AP_2ResSummary_w_4Ratio.html**Drill From:** EVC Traffic Summary Group**Resource Summary Table 1:**

Drilldown	EVC Traffic Summary Details
Column 1 Name	Ingress Yellow Frames
Column 1 Formula	Ingress Yellow Frames
Column 1 Statistics	sum max
Column 2 Name	Ingress Tail Dropped Frames
Column 2 Formula	Ingress Tail Dropped Frames
Column 2 Statistics	sum max
Column 3 Name	Ingress Dropped Yellow Frames
Column 3 Formula	Ingress Dropped Yellow Frames
Column 3 Statistics	sum max
Column 4 Name	Ingress Dropped Red Frames
Column 4 Formula	Ingress Dropped Red Frames
Column 4 Statistics	sum max

Resource Summary Table 2:

Drilldown	EVC Traffic Summary Details
Column 1 Name	Egress Yellow Frames
Column 1 Formula	Egress Yellow Frames
Column 1 Statistics	sum max
Column 2 Name	Egress Tail Dropped Frames
Column 2 Formula	Egress Tail Dropped Frames
Column 2 Statistics	sum max
Column 3 Name	Egress Dropped Yellow Frames
Column 3 Formula	Egress Dropped Yellow Frames
Column 3 Statistics	sum max
Column 4 Name	Egress Dropped Red Frames
Column 4 Formula	Egress Dropped Red Frames
Column 4 Statistics	sum max

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Drops and Discards Summary Details

Title: LAN Port Drops and Discards Summary Details
Description: AP Adva Optical Metro Ethernet - Ethernet Port Drops and Discards Details - DC
Stylesheet: PVLs_AP_8ResTimeSeries.html
Drill From: LAN Port Drops and Discards Summary Resource

Resource Time Series Chart 1:

Formula	Ingress Tail Dropped Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 2:

Formula	Ingress Tail Dropped Octets
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 3:

Formula	Ingress Yellow Frame Discards
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 4:

Formula	Ingress Red Frame Discards
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 5:

Formula	Egress Tail Dropped Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 6:

Formula	Egress Tail Dropped Octets
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 7:

Formula	Egress Yellow Frame Discards
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 8:

Formula	Egress Red Frame Discards
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Drops and Discards Summary Group

Title: LAN Port Drops and Discards Summary Group
Description: AP Adva Optical Metro Ethernet - Ethernet Port Drops and Discards Summary Group - GST
Stylesheet: PVLs_AP_2GroupSummary_w_4ResDistrib.html
Drill From:

Group Summary Table 1:

Drilldown	LAN Port Drops and Discards Summary Resource
Column 1 Name	Ingress Tail Dropped Frames
Column 1 Formula	Ingress Tail Dropped Frames
Column 1 Statistics	sum
Column 2 Name	Ingress Tail Dropped Octets
Column 2 Formula	Ingress Tail Dropped Octets
Column 2 Statistics	sum
Column 3 Name	Ingress Yellow Frame Discards
Column 3 Formula	Ingress Yellow Frame Discards
Column 3 Statistics	sum
Column 4 Name	Ingress Red Frame Discards
Column 4 Formula	Ingress Red Frame Discards
Column 4 Statistics	sum

Group Summary Table 2:

Drilldown	LAN Port Drops and Discards Summary Resource
Column 1 Name	Egress Tail Dropped Frames
Column 1 Formula	Egress Tail Dropped Frames
Column 1 Statistics	sum
Column 2 Name	Egress Tail Dropped Octets
Column 2 Formula	Egress Tail Dropped Octets
Column 2 Statistics	sum
Column 3 Name	Egress Yellow Frame Discards
Column 3 Formula	Egress Yellow Frame Discards
Column 3 Statistics	sum
Column 4 Name	Egress Red Frame Discards
Column 4 Formula	Egress Red Frame Discards
Column 4 Statistics	sum

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Drops and Discards Summary Resource

Title: LAN Port Drops and Discards Summary Resource
Description: AP Adva Optical Metro Ethernet - Ethernet Port Drops and Discards Summary Resource - RST
Stylesheet: PVLs_AP_2ResSummary_w_4Ratio.html
Drill From: LAN Port Drops and Discards Summary Group

Resource Summary Table 1:

Drilldown	LAN Port Drops and Discards Summary Details
Column 1 Name	Ingress Tail Dropped Frames
Column 1 Formula	Ingress Tail Dropped Frames
Column 1 Statistics	sum
Column 2 Name	Ingress Tail Dropped Octets
Column 2 Formula	Ingress Tail Dropped Octets
Column 2 Statistics	sum
Column 3 Name	Ingress Yellow Frame Discards
Column 3 Formula	Ingress Yellow Frame Discards
Column 3 Statistics	sum
Column 4 Name	Ingress Red Frame Discards
Column 4 Formula	Ingress Red Frame Discards
Column 4 Statistics	sum

Resource Summary Table 2:

Drilldown	LAN Port Drops and Discards Summary Details
Column 1 Name	Egress Tail Dropped Frames
Column 1 Formula	Egress Tail Dropped Frames
Column 1 Statistics	sum
Column 2 Name	Egress Tail Dropped Octets
Column 2 Formula	Egress Tail Dropped Octets
Column 2 Statistics	sum
Column 3 Name	Egress Yellow Frame Discards
Column 3 Formula	Egress Yellow Frame Discards
Column 3 Statistics	sum
Column 4 Name	Egress Red Frame Discards
Column 4 Formula	Egress Red Frame Discards
Column 4 Statistics	sum

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Traffic Management Summary Details

Title: LAN Port Traffic Management Summary Details
Description: AP Adva Optical Metro Ethernet - Ethernet Port Traffic Management Summary Details - DC
Stylesheet: PVLs_AP_8ResTimeSeries.html
Drill From: LAN Port Traffic Management Summary Resource

Resource Time Series Chart 1:

Formula	Ingress Dequeued Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 2:

Formula	Egress Dequeued Frames
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 3:

Formula	Ingress Yellow Frame Count
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 4:

Formula	Egress Yellow Frame Count
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 5:

Formula	Ingress Green Frame Count
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 6:

Formula	Egress Green Frame Count
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Traffic Management Summary Group

Title: LAN Port Traffic Management Summary Group
Description: AP Adva Optical Metro Ethernet - Ethernet Port Traffic Management Summary Group - GST
Stylesheet: PVLs_AP_2GroupSummary_w_4ResDistrib.html
Drill From:

Group Summary Table 1:

Drilldown	LAN Port Traffic Management Summary Resource
Column 1 Name	Ingress Dequeued Frames
Column 1 Formula	Ingress Dequeued Frames
Column 1 Statistics	sum max
Column 2 Name	Egress Dequeued Frames
Column 2 Formula	Egress Dequeued Frames
Column 2 Statistics	sum max
Column 3 Name	Ingress Yellow Frame Count
Column 3 Formula	Ingress Yellow Frame Count
Column 3 Statistics	sum max
Column 4 Name	Egress Yellow Frame Count
Column 4 Formula	Egress Yellow Frame Count
Column 4 Statistics	sum max
Column 5 Name	Ingress Green Frame Count
Column 5 Formula	Ingress Green Frame Count
Column 5 Statistics	sum max
Column 6 Name	Egress Green Frame Count
Column 6 Formula	Egress Green Frame Count
Column 6 Statistics	sum max

~AP Adva Optical Metro Ethernet~Port~LAN Port~LAN Port Traffic Management Summary Resource

Title: LAN Port Traffic Management Summary Resource
Description: AP Adva Optical Metro Ethernet - Ethernet Port Traffic management Summary Resource - RST
Stylesheet: PVLs_AP_ResSummary_w_2ResDistrib.html
Drill From: LAN Port Traffic Management Summary Group

Resource Summary Table 1:

Drilldown	LAN Port Traffic Management Summary Details
Column 1 Name	Ingress Dequeued Frames
Column 1 Formula	Ingress Dequeued Frames
Column 1 Statistics	sum max
Column 2 Name	Egress Dequeued Frames
Column 2 Formula	Egress Dequeued Frames
Column 2 Statistics	sum max
Column 3 Name	Ingress Yellow Frame Count
Column 3 Formula	Ingress Yellow Frame Count
Column 3 Statistics	sum max
Column 4 Name	Egress Yellow Frame Count
Column 4 Formula	Egress Yellow Frame Count
Column 4 Statistics	sum max
Column 5 Name	Ingress Green Frame Count
Column 5 Formula	Ingress Green Frame Count
Column 5 Statistics	sum max
Column 6 Name	Egress Green Frame Count
Column 6 Formula	Egress Green Frame Count
Column 6 Statistics	sum max

~AP Adva Optical Metro Ethernet~Port~LAN/WAN~Port Throughput Summary Details

Title: Port Throughput Summary Details
Description: AP Interfaces Pack - LAN/WAN Port Throughput Summary- DC
Stylesheet: PVLs_AP_8ResTimeSeries_w_Ratio.html
Drill From: Port Throughput Summary Resource

Metric Ratio Chart 1: Inbound Packet Types

Style	AP TS Chart Style - Pie - White - Ratio
Formulas	Inbound Unicast (pps) Inbound Multicast (pps) Inbound Broadcast (pps)
Statistics	avg
Drill To	none
Realtime	false

Metric Ratio Chart 2: Outbound Packet Types

Style	AP TS Chart Style - Pie - White - Ratio
Formulas	Outbound Unicast (pps) Outbound Multicast (pps) Outbound Broadcast (pps)
Statistics	avg
Drill To	none
Realtime	false

Resource Time Series Chart 1:

Style	AP TS Chart Style - Area - White - max avg
Formula	Inbound Unicast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 2:

Style	AP TS Chart Style - Area - White - max avg
Formula	Outbound Unicast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 3:

Style	AP TS Chart Style - Area - White - max avg
Formula	Inbound Multicast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 4:

Style	AP TS Chart Style - Area - White - max avg
Formula	Outbound Multicast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 5:

Style	AP TS Chart Style - Area - White - max avg
Formula	Inbound Broadcast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 6:

Style	AP TS Chart Style - Area - White - max avg
Formula	Outbound Broadcast (pps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 7:

Style	AP TS Chart Style - Area - White - max avg
Formula	Inbound Throughput (bps)
Statistics	max, avg
Drill To	none
Realtime	true

Resource Time Series Chart 8:

Style	AP TS Chart Style - Area - White - max avg
Formula	Outbound Throughput (bps)
Statistics	max, avg
Drill To	none
Realtime	true

~AP Adva Optical Metro Ethernet~Port~LAN/WAN~Port Throughput Summary Group

Title: Port Throughput Summary Group
Description: AP Adva Metro Ethernet Pack - LAN/WAN Port Throughput Summary - GST
Stylesheet: PVLs_AP_2GroupSummary_w_4ResDistrib.html
Drill From: none

Group Summary Table 1:

Drilldown	Port Throughput Summary Resource
Column 1 Name	Inbound Unicast (pps)
Column 1 Formula	Inbound Unicast (pps)
Column 1 Statistics	max, avg
Column 2 Name	Outbound Unicast (pps)
Column 2 Formula	Outbound Unicast (pps)
Column 2 Statistics	max, avg
Column 3 Name	Inbound Multicast (pps)
Column 3 Formula	Inbound Multicast (pps)
Column 3 Statistics	max, avg
Column 4 Name	Outbound Multicast (pps)
Column 4 Formula	Outbound Multicast (pps)
Column 4 Statistics	max, avg
Column 5 Name	Inbound Broadcast (pps)
Column 5 Formula	Inbound Broadcast (pps)
Column 5 Statistics	max, avg
Column 6 Name	Outbound Broadcast (pps)
Column 6 Formula	Outbound Broadcast (pps)
Column 6 Statistics	max, avg

Group Summary Table 2:

Drilldown	Port Throughput Summary Resource
Column 1 Name	Inbound Throughput (bps)
Column 1 Formula	Inbound Throughput (bps)
Column 1 Statistics	max, avg
Column 2 Name	Outbound Throughput (bps)
Column 2 Formula	Outbound Throughput (bps)
Column 2 Statistics	max, avg

~AP Adva Optical Metro Ethernet~Port~LAN/WAN~Port Throughput Summary Resource

Title: Port Throughput Summary Resource
Description: AP Interfaces Pack - LAN/WAN Port Throughput summary- RST
Stylesheet: PVLs_AP_2ResSummary_w_4Ratio.html
Drill From: Port Throughput Summary Group

Ratio Chart 1: Inbound Packet Types

Style	AP TS Chart Style - Pie - White - Ratio
Formulas	Inbound Unicast (pps) Inbound Multicast (pps) Inbound Broadcast (pps)
Statistics	avg
Drill To	none
Realtime	false

Ratio Chart 2: Outbound Packet Types

Style	AP TS Chart Style - Pie - White - Ratio
Formulas	Outbound Unicast (pps) Outbound Multicast (pps) Outbound Broadcast (pps)
Statistics	avg
Drill To	none
Realtime	false

Resource Summary Table 1:

Drilldown	Port Throughput Summary Details
Column 1 Name	Inbound Unicast (pps)
Column 1 Formula	Inbound Unicast (pps)
Column 1 Statistics	max, avg
Column 2 Name	Outbound Unicast (pps)
Column 2 Formula	Outbound Unicast (pps)
Column 2 Statistics	max, avg
Column 3 Name	Inbound Multicast (pps)
Column 3 Formula	Inbound Multicast (pps)
Column 3 Statistics	max, avg
Column 4 Name	Outbound Multicast (pps)
Column 4 Formula	Outbound Multicast (pps)
Column 4 Statistics	max, avg
Column 5 Name	Inbound Broadcast (pps)
Column 5 Formula	Inbound Broadcast (pps)
Column 5 Statistics	max, avg
Column 6 Name	Outbound Broadcast (pps)
Column 6 Formula	Outbound Broadcast (pps)
Column 6 Statistics	max, avg

Resource Summary Table 2:

Drilldown	Port Throughput Summary Details
Column 1 Name	Inbound Throughput (bps)
Column 1 Formula	Inbound Throughput (bps)
Column 1 Statistics	max, avg
Column 2 Name	Outbound Throughput (bps)
Column 2 Formula	Outbound Throughput (bps)
Column 2 Statistics	max, avg

~AP Adva Optical Metro Ethernet~QoS~QOS Summary Details

Title: QOS Summary Details
Description: AP Adva Optical Metro Ethernet - UNI/EVC QOS Summary Details - DC
Stylesheet: PVLs_AP_8ResTimeSeries.html
Drill From: QOS Summary Resource

Resource Time Series Chart 1:

Formula	Frames Dequeued
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 2:

Formula	Frames Tail Dropped
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 3:

Formula	Bytes Sent
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 4:

Formula	Bytes Tail Dropped
Statistic	sum
Style	AP TS Chart Style - Area - White - sum
Drill To	none
Realtime	true

Resource Time Series Chart 5:

Formula	Sent Throughput (bps)
Statistic	avg
Style	AP TS Chart Style - Area - White - avg
Drill To	none
Realtime	true

Resource Time Series Chart 6:

Formula	Tail Dropped Throughput (bps)
Statistic	avg
Style	AP TS Chart Style - Area - White - avg
Drill To	none
Realtime	true

~AP Adva Optical Metro Ethernet~QoS~QOS Summary Group

Title: QOS Summary Group
Description: AP Adva Optical Metro Ethernet -UNI/EVC QOS Summary Group - GST
Stylesheet: PVLs_AP_2GroupSummary_w_4ResDistrib.html
Drill From:

Group Summary Table 1:

Drilldown	QOS Summary Resource
Column 1 Name	Frames Dequeued
Column 1 Formula	Frames Dequeued
Column 1 Statistics	sum max
Column 2 Name	Frames Tail Dropped
Column 2 Formula	Frames Tail Dropped
Column 2 Statistics	sum max
Column 3 Name	Bytes Sent
Column 3 Formula	Bytes Sent
Column 3 Statistics	sum max
Column 4 Name	Bytes Tail Dropped
Column 4 Formula	Bytes Tail Dropped
Column 4 Statistics	sum max
Column 5 Name	Sent Throughput (bps)
Column 5 Formula	Sent Throughput (bps)
Column 5 Statistics	max avg
Column 6 Name	Tail Dropped Throughput (bps)
Column 6 Formula	Tail Dropped Throughput (bps)
Column 6 Statistics	max avg

~AP Adva Optical Metro Ethernet~QoS~QOS Summary Resource

Title: QOS Summary Resource

Description: AP Adva Optical Metro Ethernet -UNI/EVC QOS Summary Resource - RST

Stylesheet: PVLs_AP_ResSummary_w_2ResDistrib.html

Drill From: QOS Summary Group

Resource Summary Table 1:

Drilldown	QOS Summary Details
Column 1 Name	Frames Dequeued
Column 1 Formula	Frames Dequeued
Column 1 Statistics	sum max
Column 2 Name	Frames Tail Dropped
Column 2 Formula	Frames Tail Dropped
Column 2 Statistics	sum max
Column 3 Name	Bytes Sent
Column 3 Formula	Bytes Sent
Column 3 Statistics	sum max
Column 4 Name	Bytes Tail Dropped
Column 4 Formula	Bytes Tail Dropped
Column 4 Statistics	sum max
Column 5 Name	Sent Throughput (bps)
Column 5 Formula	Sent Throughput (bps)
Column 5 Statistics	max avg
Column 6 Name	Tail Dropped Throughput (bps)
Column 6 Formula	Tail Dropped Throughput (bps)
Column 6 Statistics	max avg

SubElement Groups

no condition

NOC Reporting

%(Element.STATE)='on' AND %(STATE)='on'

Metro Ethernet

no condition

Adva

%(DeviceVendor) = 'Adva'

EVC

%(MEComponentType) = 'EVC'

EVC Traffic Summary Group

%(Element.NAME)

no condition

EVC Traffic Summary Resource

Ports

no condition

Interfaces

%(MEComponentType) = 'ENETLAN' OR %(MEComponentType) = 'ENETWAN'

Port Throughput Summary Group

%(Element.NAME)

no condition

Port Throughput Summary Resource

LANPort (UNI)

%(MEComponentType) = 'UNI'

LAN Port Drops and Discards Summary Group

LAN Port Traffic Management Summary Group

%(Element.NAME)

no condition

LAN Port Drops and Discards Summary Resource

LAN Port Traffic Management Summary Resource

Quality of Service

%(MEComponentType) = 'UNIQoS' OR %(MEComponentType) = 'EVCQoS'

QoS Summary Group

%(Element.NAME)

no condition

QoS Summary Resource

Sub-Element Collect

%(Element.STATE)='on' AND %(STATE)='on'

Metro Ethernet

no condition

Adva

%(DeviceVendor) = 'Adva'

EVC

%(MEComponentType)='EVC'

Egress Dropped Red Frames

Egress Dropped Yellow Frames

Egress Tail Dropped Frames

Egress Yellow Frames

Ingress Dropped Red Frames

Ingress Dropped Yellow Frames

Ingress Tail Dropped Frames

Ingress Yellow Frames

EVC QoS

%(MEComponentType)='EVCQoS'

Bytes Sent
Bytes Sent Throughput (bps)
Bytes Tail Dropped
Bytes Tail Dropped Throughput (bps)
Frames Dequeued
Frames Tail Dropped

LANPort (UNI)

%(MEComponentType)='UNI'
Egress Dequeued Frames
Egress Green Frame Count
Egress Red Frame Discards
Egress Tail Dropped Frames
Egress Tail Dropped Octets
Egress Yellow Frame Count
Egress Yellow Frame Discards
Ingress Dequeued Frames
Ingress Green Frame Count
Ingress Red Frame Discards
Ingress Tail Dropped Frames
Ingress Tail Dropped Octets
Ingress Yellow Frame Count
Ingress Yellow Frame Discards

UNI QoS

%(MEComponentType) = 'UNIQoS'
Bytes Sent
Bytes Sent Throughput (bps)
Bytes Tail Dropped
Bytes Tail Dropped Throughput (bps)
Frames Dequeued
Frames Tail Dropped

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information about the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement might not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licenses of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
2Z4A/101
11400 Burnet Road
Austin, TX 78758
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

If you are viewing this information in softcopy form, the photographs and color illustrations might not appear.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.



Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other product and service names might be trademarks of IBM or other companies.

Additional Copyright Information

The following copyright information is for software used by Netcool/Proviso.

Tcl 8.3.3, Combat/TCL 0.7.3, Combat/TCL 0.7.5, TclX 8.3, TK 8.3.3

This software is copyrighted by the Regents of the University of California, Sun Microsystems, Inc., Scriptics Corporation, and other parties. The following terms apply to all files associated with the software unless explicitly disclaimed in individual files.

The authors hereby grant permission to use, copy, modify, distribute, and license this software and its documentation for any purpose, provided that existing copyright notices are retained in all copies and that this notice is included verbatim in any distributions. No written agreement, license, or royalty fee is required for any of the authorized uses. Modifications to this software may be copyrighted by their authors and need not follow the licensing terms described here, provided that the new terms are clearly indicated on the first page of each file where they apply.

IN NO EVENT SHALL THE AUTHORS OR DISTRIBUTORS BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS SOFTWARE, ITS DOCUMENTATION, OR ANY DERIVATIVES THEREOF, EVEN IF THE AUTHORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE AUTHORS AND DISTRIBUTORS SPECIFICALLY DISCLAIM ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. THIS SOFTWARE IS PROVIDED ON AN "AS IS" BASIS, AND THE AUTHORS AND DISTRIBUTORS HAVE NO OBLIGATION TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

GOVERNMENT USE: If you are acquiring this software on behalf of the U.S. government, the Government shall have only "Restricted Rights" in the software and related documentation as defined in the Federal Acquisition Regulations (FARs) in Clause 52.227.19 (c) (2). If you are acquiring the software on behalf of the Department of Defense, the software shall be classified as "Commercial Computer Software" and the Government shall have only "Restricted Rights" as defined in Clause 252.227-7013 (c) (1) of DFARs. Notwithstanding the foregoing, the authors grant the U.S. Government and others acting in its behalf permission to use and distribute the software in accordance with the terms specified in this license.

SCOTTY Stack

This software is copyrighted by Juergen Schoenwaelder, the Technical University of Braunschweig, the University of Twente, and other parties. The following terms apply to all files associated with the software unless explicitly disclaimed in individual files.

The authors hereby grant permission to use, copy, modify, distribute, and license this software and its documentation for any purpose, provided that existing copyright notices are retained in all copies and that this notice is included verbatim in any distributions. No written agreement, license, or royalty fee is required for any of the authorized uses. Modifications to this software may be copyrighted by their authors and need not follow the licensing terms described here, provided that the new terms are clearly indicated on the first page of each file where they apply.

IN NO EVENT SHALL THE AUTHORS OR DISTRIBUTORS BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS SOFTWARE, ITS DOCUMENTATION, OR ANY DERIVATIVES THEREOF, EVEN IF THE AUTHORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE AUTHORS AND DISTRIBUTORS SPECIFICALLY DISCLAIM ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. THIS SOFTWARE IS PROVIDED ON AN "AS

IS” BASIS, AND THE AUTHORS AND DISTRIBUTORS HAVE NO OBLIGATION TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

Various copyrights apply to this package, listed in 3 separate parts below. Please make sure that you include all the parts. Up until 2001, the project was based at UC Davis, and the first part covers all code written during this time. From 2001 onwards, the project has been based at SourceForge, and Networks Associates Technology, Inc hold the copyright on behalf of the wider Net-SNMP community, covering all derivative work done since then. An additional copyright section has been added as Part 3 below also under a BSD license for the work contributed by Cambridge Broadband Ltd. to the project since 2001.

Part 1: CMU/UCD copyright notice: (BSD like)

Copyright © 1989, 1991, 1992 by Carnegie Mellon University

Derivative Work - 1996, 1998-2000

Copyright © 1996, 1998-2000 The Regents of the University of California

All Rights Reserved

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Part 2: Networks Associates Technology, Inc copyright notice (BSD)

Copyright © 2001, Networks Associates Technology, Inc

All rights reserved.

- Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of the NAI Labs nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS “AS IS” AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Part 3: Cambridge Broadband Ltd. copyright notice (BSD)

Portions of this code are copyright © 2001, Cambridge Broadband Ltd.

All rights reserved.

- Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

The name of Cambridge Broadband Ltd. may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

BLT 2.4u

Portions (c) 1993 AT&T, (c) 1993 - 1998 Lucent Technologies, (c) 1994-1998 Sun Microsystems, Inc., and (c) 1987-1993 The Regents of the University of California.

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the names of AT&T, Lucent Technologies Inc., Sun Microsystems, Inc. and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

THE COPYRIGHT HOLDERS AND OTHER CONTRIBUTORS DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR OTHER CONTRIBUTORS BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

CMU-SNMP 1.14

CMU/UCD copyright notice: (BSD like) Copyright 1989, 1991, 1992 by Carnegie Mellon University

Derivative Work - 1996, 1998-2000 Copyright 1996, 1998-2000 The Regents of the University of California

All Rights Reserved

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF

MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Scotty 2.8, incrTCL 3.0, [incr TCL] 3.2

Portions Copyright (c) 1987-1994 The Regents of the University of California. Copyright (c) 1994-1995 Sun Microsystems, Inc.

This software is copyrighted by the Regents of the University of California, Sun Microsystems, Inc., and other parties. The following terms apply to all files associated with the software unless explicitly disclaimed in individual files.

The authors hereby grant permission to use, copy, modify, distribute, and license this software and its documentation for any purpose, provided that existing copyright notices are retained in all copies and that this notice is included verbatim in any distributions. No written agreement, license, or royalty fee is required for any of the authorized uses. Modifications to this software may be copyrighted by their authors and need not follow the licensing terms described here, provided that the new terms are clearly indicated on the first page of each file where they apply.

IN NO EVENT SHALL THE AUTHORS OR DISTRIBUTORS BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS SOFTWARE, ITS DOCUMENTATION, OR ANY DERIVATIVES THEREOF, EVEN IF THE AUTHORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE AUTHORS AND DISTRIBUTORS SPECIFICALLY DISCLAIM ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. THIS SOFTWARE IS PROVIDED ON AN "AS IS" BASIS, AND THE AUTHORS AND DISTRIBUTORS HAVE NO OBLIGATION TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

RESTRICTED RIGHTS: Use, duplication or disclosure by the government is subject to the restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software Clause as DFARS 252.227-7013 and FAR 52.227-19.

Portions Copyright (c) 1993-1998 Lucent Technologies, Inc.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that the copyright notice and warranty disclaimer appear in supporting documentation, and that the names of Lucent Technologies any of their entities not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

Lucent disclaims all warranties with regard to this software, including all implied warranties of merchantability and fitness. In no event shall Lucent be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of this software.

UCD SNMP 4.2.5

Portions Copyright 1989, 1991, 1992 by Carnegie Mellon University. Derivative Work - 1996, 1998-2000, Copyright 1996, 1998-2000 The Regents of the University of California All Rights Reserved

Permission to use, copy, modify and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without

specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Portions Copyright: (c) 2001-2003, Networks Associates Technology, Inc, (c) 2001-2003, Cambridge Broadband Ltd, (c) 2003-2005, Sparta, Inc., (c) 2004, Cisco, Inc and Information Network Center of Beijing University of Posts and Telecommunications, (c) Fabasoft R&D Software GmbH & Co KG, 2003 oss@fabasoft.com. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the names of Networks Associates Technology, Inc, Cambridge Broadband Ltd., Sparta, Inc., Cisco, Inc, Beijing University of Posts and Telecommunications, Fabasoft R&D Software GmbH & Co KG or any of its subsidiaries, brand or product names, nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

JDOM 1.0

Copyright (C) 2000-2004 Jason Hunter & Brett McLaughlin. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows these conditions in the documentation and/or other materials provided with the distribution.
3. The name "JDOM" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <request_AT_jdom_DOT_org>.
4. Products derived from this software may not be called "JDOM", nor may "JDOM" appear in their name, without prior written permission from the JDOM Project Management <request_AT_jdom_DOT_org>.

In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following:

"This product includes software developed by the JDOM Project (<http://www.jdom.org/>)."

acknowledgment may be graphical using the logos available at <http://www.jdom.org/images/logos>.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the JDOM Project and was originally created by Jason Hunter <jhunter_AT_jdom_DOT_org> and Brett McLaughlin <brett_AT_jdom_DOT_org>. For more information on the JDOM Project, please see <<http://www.jdom.org/>>.

Regex 1.1a

Copyright (C) 1996, 1999 Vassili Bykov. It is provided to the Smalltalk community in hope it will be useful.

1. This license applies to the package as a whole, as well as to any component of it. By performing any of the activities described below, you accept the terms of this agreement.
2. The software is provided free of charge, and ``as is", in hope that it will be useful, with ABSOLUTELY NO WARRANTY. The entire risk and all responsibility for the use of the software is with you. Under no circumstances the author may be held responsible for loss of data, loss of profit, or any other damage resulting directly or indirectly from the use of the software, even if the damage is caused by defects in the software.
3. You may use this software in any applications you build.
4. You may distribute this software provided that the software documentation and copyright notices are included and intact.
5. You may create and distribute modified versions of the software, such as ports to other Smalltalk dialects or derived work, provided that:
 - a. any modified version is expressly marked as such and is not misrepresented as the original software;
 - b. credit is given to the original software in the source code and documentation of the derived work;
 - c. the copyright notice at the top of this document accompanies copyright notices of any modified version.

Xwpick

Copyright © 1993, 1994 by Evgeni Chernyaev

Permission to use, copy, modify, and distribute this software and its documentation for non-commercial purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both the copyright notice and this permission notice appear in supporting documentation. Xwpick is used for printing utilities.

Sieve of Eratosthenes

Copyright Frank Pilhofer, fp@fpx.de

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Frank Pilhofer nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

IBM®