IBM

# IBM Tivoli Monitoring for POWER/AIX

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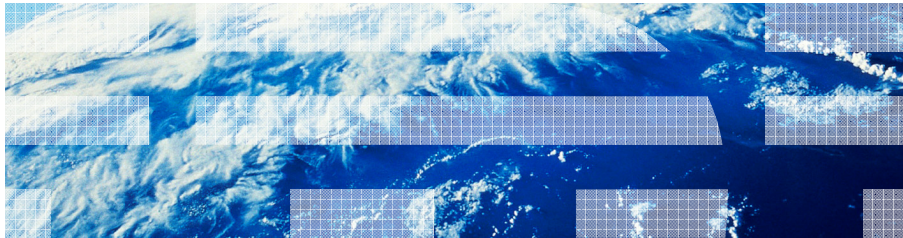
Agenda:

ITM Introduction

Exploration of ITM Agents Workspaces
    HMC Agent
    CEC Agent
    VIOS Agent
    AIX Agent
    UNIX Logs Agent
    UNIX Agent

Tivoli Common Reporting

ITM Server Dashboard

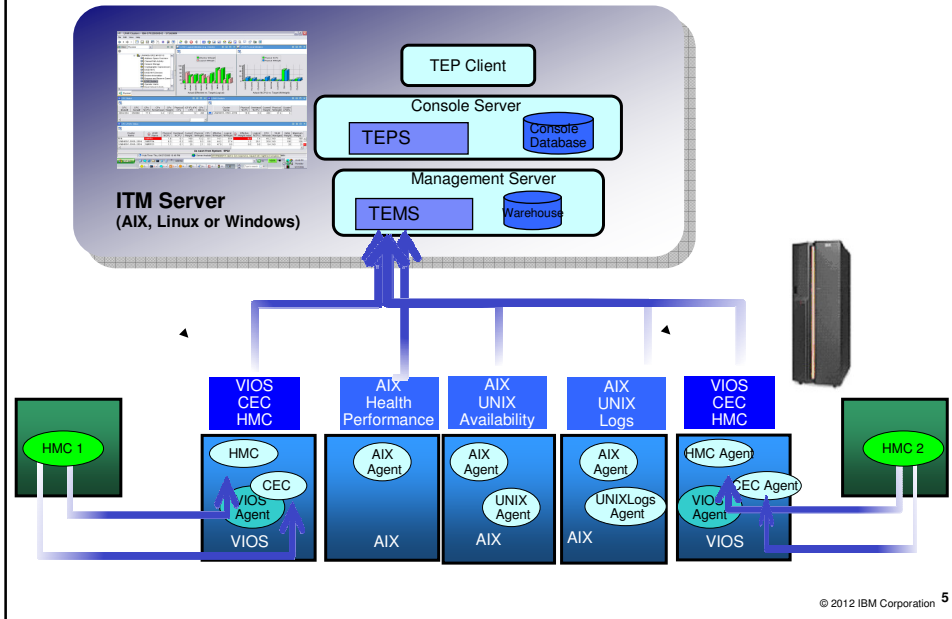**Feature Matrix – AIX EE & Systems Director**

| Products | Director Express | Director Standard | Director Enterprise | AIX EE |
|---|---|---|---|---|
| **IBM System Director** | YES | YES | YES | YES |
| **Active Energy Manager** | | YES | YES | YES |
| **VMControl Express** | YES | YES | YES | YES |
| **VMControl Standard/Image Mgr** | | YES | YES | YES |
| **VMControl Enterprise/System pools** | | | YES | YES |
| **IBM Tivoli Monitoring** | | | YES | YES |
| **Tivoli Application Dependency Manager** | | | YES | YES |
| **Network Control** | | YES | YES | YES |
| **Transition Manager for HP® SIM** | YES | YES | YES | YES |
| **Service & Support Manager** | YES | YES | YES | YES |
| **Workload Partitions Manager** | | | | YES |
| **AIX** | | | | YES |
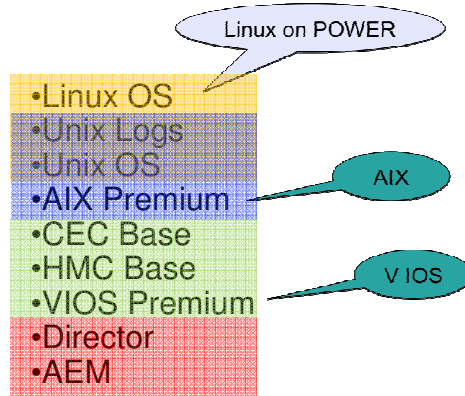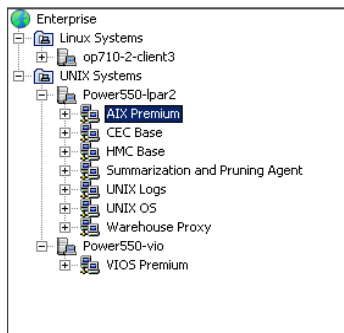
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**POWER Agents**



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## ITM & POWER Architecture

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# ITM - HMC Agent

## ITM – Overview – HMC agent – Managed Servers

**Managed Servers Summary**

| Server Name | State | CPU Total | CPU Units Used | CPU unallocated | CPU Used Pct | Total Mem MB | Allocated Mem MB | Sample Interval Seconds | Sample Timestamp |
|---|---|---|---|---|---|---|---|---|---|
| Server1-MMA-SN100ED60 | Operating | 4.0 | 0.07 | 3.2 | 1.8 | 16384 | 9344 | 30 | 2013-09-03 11:06:29 BST |
| Server-8205-E6B-SN105E53P | Operating | 8.0 | 0.28 | 2.4 | 3.5 | 131072 | 94208 | 30 | 2013-09-03 11:06:29 BST |
| Server3-E4A-SN10DDF11 | Operating | 4.0 | 0.02 | 2.3 | 0.6 | 16384 | 12032 | 30 | 2013-09-03 11:06:28 BST |
| Server4-E4A-SN10DDF21 | Operating | 4.0 | 0.03 | 1.7 | 0.7 | 16384 | 14080 | 30 | 2013-09-03 11:06:29 BST |
| Server2-MMA-SN100ED90 | Operating | 4.0 | 0.03 | 2.8 | 0.7 | 16384 | 9664 | 30 | 2013-09-03 11:06:28 BST |
| Server-8231-E2B-SN06767FP | Operating | 4.0 | 0.31 | 1.3 | 7.6 | 65536 | 47872 | 30 | 2013-09-03 11:06:29 BST |

**Server CPU Utilization**

Server Name=Server-8205-E6B-SN105E53P
● CPU Units Used
Server Name=Server-8231-E2B-SN06767FP
● CPU Units Used
Server Name=Server1-MMA-SN100ED60
● CPU Units Used
Server Name=Server4-E4A-SN10DDF21
● CPU Units Used
Server Name=Server3-E4A-SN10DDF11
● CPU Units Used
Server Name=Server2-MMA-SN100ED90
● CPU Units Used

**CPU Used Percent**

■ CPU Used Pct
■ 75%
■ 90%

7

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## ITM – Overview – HMC agent – Servers

**Server CPU Allocation**

■ CPU allocated
■ CPU unallocated

Server-8205-E6B-SN105E53P
Total CPUs

**Server Memory Allocation**

■ Allocated Mem MB
■ Unallocated Mem MB

Server-8205-E6B-SN105E53P
Total Memory (MB)

**CPU Pool Sizes**

| Pool Name | Server Name | Pool ID | Entitled Pool Capacity | Max Pool Capacity | Reserve Size | Virtual CPUs |
|---|---|---|---|---|---|---|
| DefaultPo... | Server-8205-E6B-SN105E53P | 0 | 5.60 | 8.00 | 0.00 | 54 |

**LPAR Sizes**

| LPAR Name | Server Name | Partition ID | Entitled Capacity | Number of CPUs | CPU Pool Name |
|---|---|---|---|---|---|
| AIXdemo-210 | Server-8205-E6B-SN105E53P | 14 | 0.80 | 8 | DefaultPool |
| TCR31-cts201 | Server-8205-E6B-SN105E53P | 7 | 0.40 | 4 | DefaultPool |
| Dir63-152 | Server-8205-E6B-SN105E53P | 15 | 0.40 | 4 | DefaultPool |
| AIX71-cts181 | Server-8205-E6B-SN105E53P | 17 | 0.40 | 4 | DefaultPool |
| AIX61-cts180 | Server-8205-E6B-SN105E53P | 16 | 0.40 | 4 | DefaultPool |
| p7vios3-171 | Server-8205-E6B-SN105E53P | 2 | 0.40 | 4 | DefaultPool |
| p7vios4-ssp-172 | Server-8205-E6B-SN105E53P | 3 | 0.40 | 4 | DefaultPool |
| AIX-tcr-cts200 | Server-8205-E6B-SN105E53P | 9 | 0.20 | 2 | DefaultPool |
| AIX-ha61a-206 | Server-8205-E6B-SN105E53P | 10 | 0.20 | 2 | DefaultPool |
| AIX53-cts182 | Server-8205-E6B-SN105E53P | 19 | 0.40 | 2 | DefaultPool |
| AIXdemo-202 | Server-8205-E6B-SN105E53P | 8 | 0.20 | 2 | DefaultPool |
| AIX-ha61b-207 | Server-8205-E6B-SN105E53P | 11 | 0.20 | 2 | DefaultPool |
| p7vios5-173 | Server-8205-E6B-SN105E53P | 1 | 0.20 | 2 | DefaultPool |
| AIX-ha71a-208 | Server-8205-E6B-SN105E53P | 12 | 0.20 | 2 | DefaultPool |
| AIX-ha71b-209 | Server-8205-E6B-SN105E53P | 13 | 0.20 | 2 | DefaultPool |
| IBMi-vios | Server-8205-E6B-SN105E53P | 6 | 0.10 | 1 | DefaultPool |
| IBMi-6 | Server-8205-E6B-SN105E53P | 5 | 0.10 | 1 | DefaultPool |
| IBMi-7 | Server-8205-E6B-SN105E53P | 4 | 0.10 | 1 | DefaultPool |
| IBMi-vios-LPM | Server-8205-E6B-SN105E53P | 18 | 0.10 | 1 | DefaultPool |
| aliceAIX | Server-8205-E6B-SN105E53P | 20 | 0.10 | 1 | DefaultPool |
| AndrewAIX | Server-8205-E6B-SN105E53P | 30 | 0.10 | 1 | DefaultPool |

8

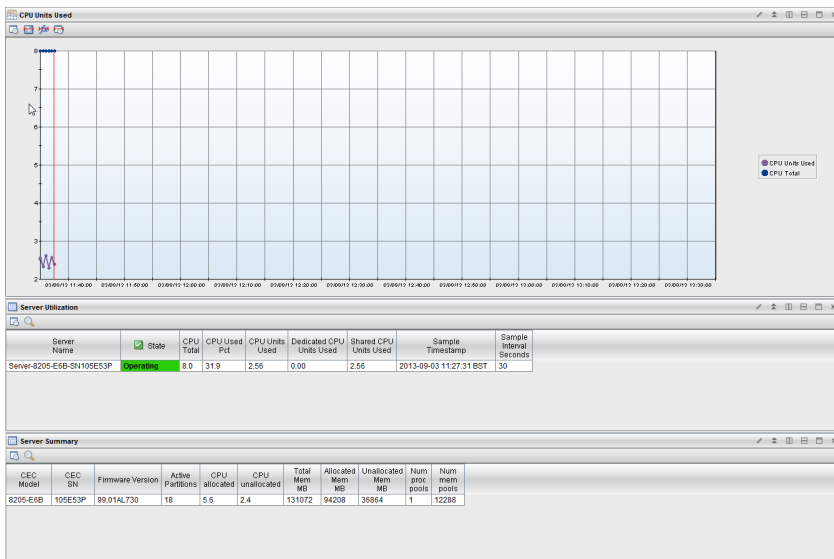## ITM – Overview – HMC agent – Servers - LPars

**Shared LPARs**

| | LPAR Name | Server Name | State | Number of CPUs | Capped Mode | Entitled Capacity | CPU Pool Name | CPU Units Used | Entitled Capacity Used Pct | CPU Capacity Used Pct |
|---|---|---|---|---|---|---|---|---|---|---|
| | TCR31-cts201 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 2.02 | 505.2 | 50.5 |
| | AIX-ha71a-208 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.06 | 31.6 | 3.2 |
| | AIX-ha71b-209 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.06 | 28.9 | 2.9 |
| | IBMi-vios-LPM | Server-8205-E6B-SN105E53P | Running | 1 | capped | 0.10 | DefaultPool | 0.00 | 2.8 | 2.8 |
| | Dir63-152 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 0.07 | 18.5 | 1.8 |
| | p7vios3-171 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 0.06 | 14.4 | 1.4 |
| | p7vios5-173 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.03 | 12.9 | 1.3 |
| | p7vios4-ssp-172 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 0.05 | 11.7 | 1.2 |
| | AIXdemo-202 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.02 | 9.6 | 1.0 |
| | AIX-tcr-cts200 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.02 | 8.2 | 0.8 |
| | AIX-ha61b-207 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.01 | 4.5 | 0.5 |
| | AIX-ha61a-206 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.20 | DefaultPool | 0.01 | 4.6 | 0.5 |
| | IBMi-vios | Server-8205-E6B-SN105E53P | Running | 1 | uncapped | 0.10 | DefaultPool | 0.00 | 4.2 | 0.4 |
| | IBMi-7 | Server-8205-E6B-SN105E53P | Running | 1 | uncapped | 0.10 | DefaultPool | 0.00 | 4.0 | 0.4 |
| | AIX71-cts181 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 0.01 | 2.4 | 0.2 |
| | AIX53-cts182 | Server-8205-E6B-SN105E53P | Running | 2 | uncapped | 0.40 | DefaultPool | 0.00 | 0.9 | 0.2 |
| | AIXdemo-210 | Server-8205-E6B-SN105E53P | Running | 8 | uncapped | 0.80 | DefaultPool | 0.02 | 2.1 | 0.2 |
| | AIX61-cts180 | Server-8205-E6B-SN105E53P | Running | 4 | uncapped | 0.40 | DefaultPool | 0.01 | 1.5 | 0.2 |
| | aliceAIX | Server-8205-E6B-SN105E53P | Not Activated | 1 | capped | 0.10 | DefaultPool | Not Collected | Not Collected | Not Collected |
| | AndrewAIX | Server-8205-E6B-SN105E53P | Not Activated | 1 | capped | 0.10 | DefaultPool | Not Collected | Not Collected | Not Collected |

**Dedicated LPARs**

| LPAR Name | Server Name | State | Number of CPUs | Donation Mode | CPU Units Used | CPU Capacity Used Pct |
|---|---|---|---|---|---|---|

**Unconfigured LPARs**

| LPAR Name | Server Name | State | Number of CPUs |
|---|---|---|---|

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## ITM – Overview – HMC agent – Servers - Server

**CPU Units Used**



Legend: CPU Units Used, CPU Total

**Server Utilization**

| Server Name | State | CPU Total | CPU Used Pct | CPU Units Used | Dedicated CPU Units Used | Shared CPU Units Used | Sample Timestamp | Sample Interval Seconds |
|---|---|---|---|---|---|---|---|---|
| Server-8205-E6B-SN105E53P | Operating | 8.0 | 31.9 | 2.56 | 0.00 | 2.56 | 2013-09-03 11:27:31 BST | 30 |

**Server Summary**

| CEC Model | CEC SN | Firmware Version | Active Partitions | CPU allocated | CPU unallocated | Total Mem MB | Allocated Mem MB | Unallocated Mem MB | Num proc pools | Num mem pools |
|---|---|---|---|---|---|---|---|---|---|---|
| 8205-E6B | 105E53P | 99.01AL730 | 18 | 5.6 | 2.4 | 131072 | 94208 | 36864 | 1 | 12288 |

# ITM - CEC Agent

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## ITM – Overview – CEC agent – CEC Base

## ITM – Overview – CEC agent – CEC Resources
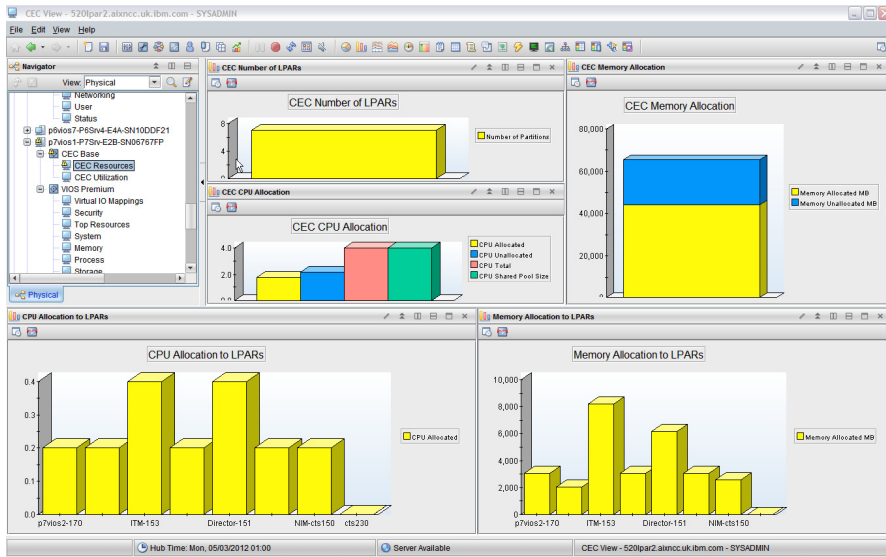
## ITM – Overview – CEC agent – CEC Utilization
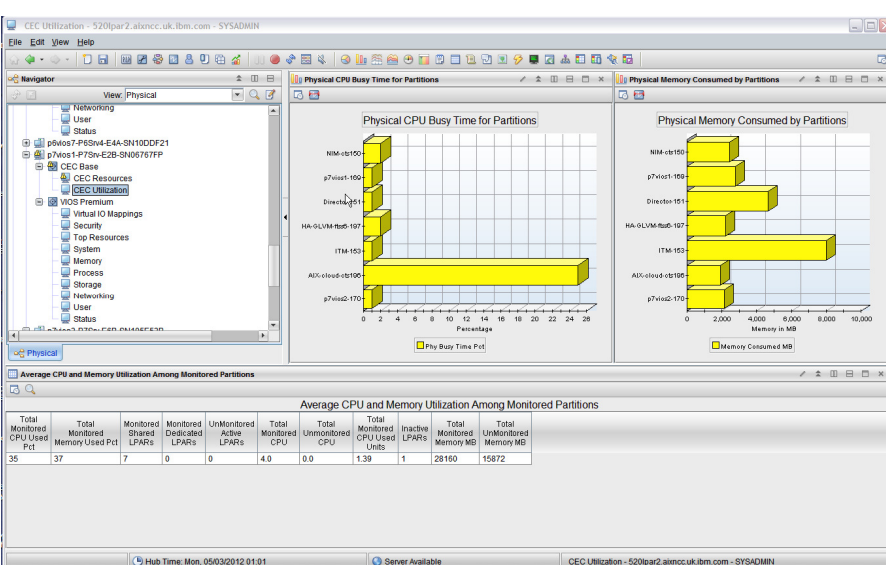
## ITM – Overview – CEC agent – LPar Summary – Top & Bottom LPars in a frame

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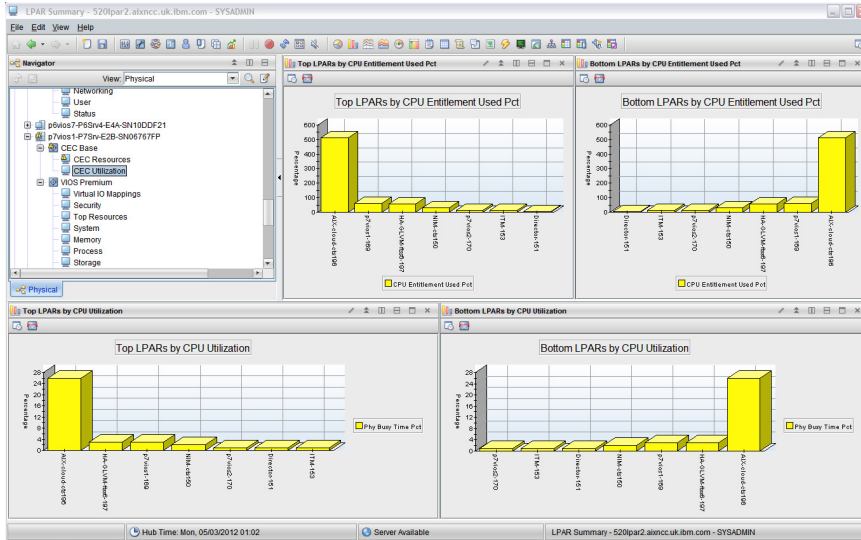
## ITM – Overview – CEC agent – AME
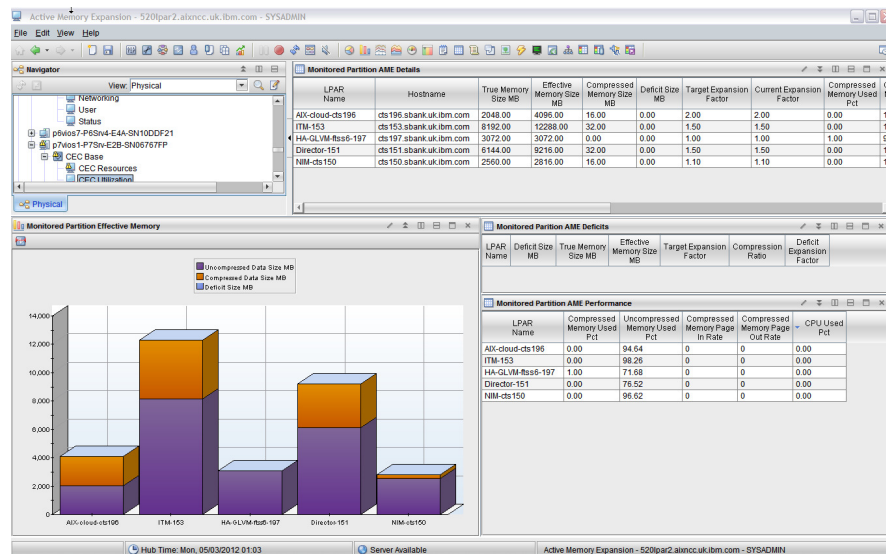
## ITM – Overview – CEC agent – LPar Utilization & Detailed LPar metrics
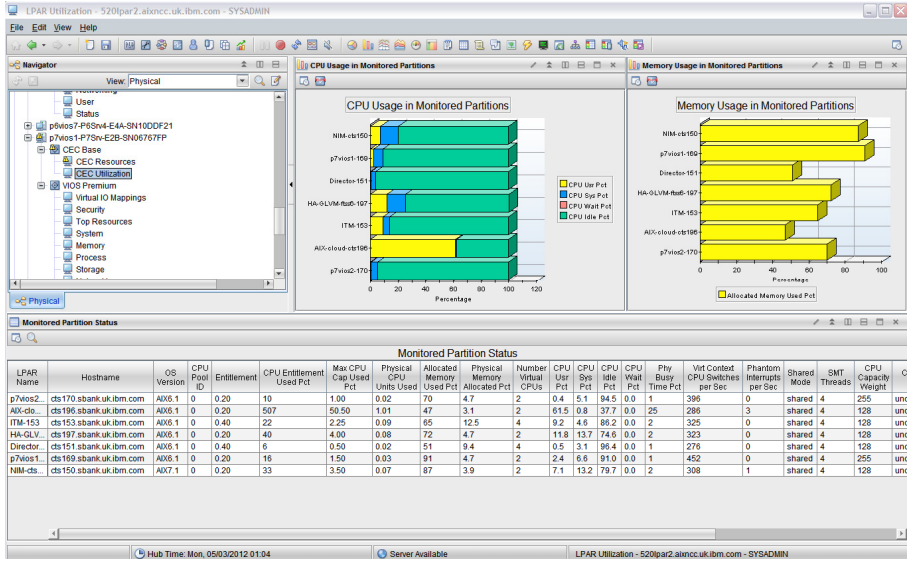
## ITM – Overview – CEC agent – Client CEC – Rolling CPU & Memory usage
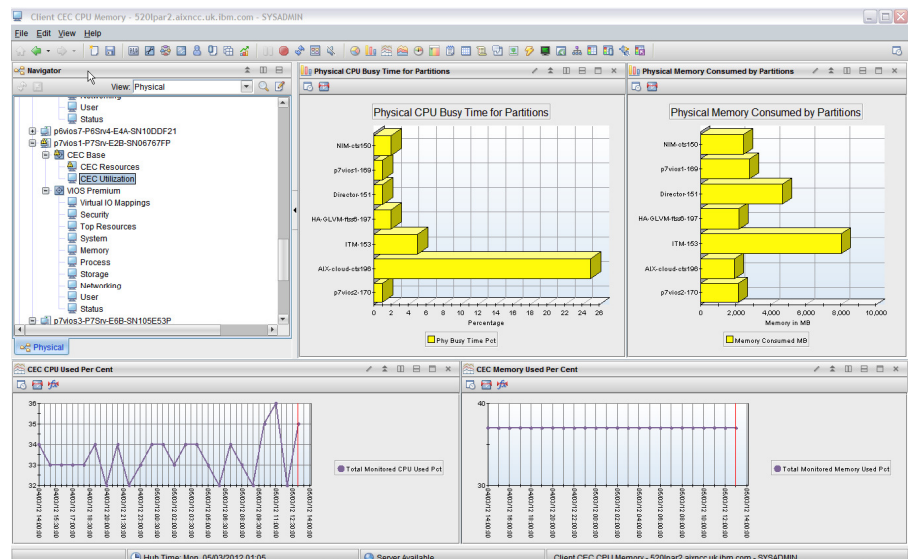
**ITM – Overview – CEC agent – CEC Situations**

Manage Situation at Managed System: p7vios1:PK

| Name | Status | Description | Auto Start | Overrides Exist | Advice | Action | Until | Interva |
|---|---|---|---|---|---|---|---|---|
| KPK_Avail_MemPool_Pct_Low_Warn | Started | This AMS Shared Memory Pool is almost fully used. | ✓ | | ⓘ | | | 0d / 0h : 1 |
| KPK_Avail_Pool_Pct_Low_Warn | Stopped | The percentage of available pool CPUs is low. | | | ⓘ | | | 0d / 0h : 1 |
| KPK_CEC_avg_cpu_usage_Warn | Started | Average CPU usage on the CEC is high. | ✓ | | ⓘ | | | 0d / 0h : 1 |
| KPK_CEC_avg_mem_usage_Warn | Started | Average Memory usage on the CEC is high. | ✓ | | ⓘ | | | 0d / 0h : 1 |
| KPK_HMC_Failover_Slow_Info | Stopped | An HMC Failover event happened because of slow HMC r... | | | ⓘ | | ⊘ | 0d / 0h : 0 |
| KPK_HMC_Failover_Warn | Stopped | An HMC Failover event has occurred. | | | ⓘ | | ⊘ | 0d / 0h : 0 |

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ITM - VIOs Premium Agent

## ITM – Overview – VIOs agent – Storage mappings

## ITM – Overview – VIOs agent – Network mappings

Power System Technical Webinar Series

ITM – Overview – VIOs agent – System – CPU Utilization

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Power System Technical Webinar Series

ITM – Overview – VIOs agent – System – LPar Information (includes AMS)

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Power System Technical Webinar Series
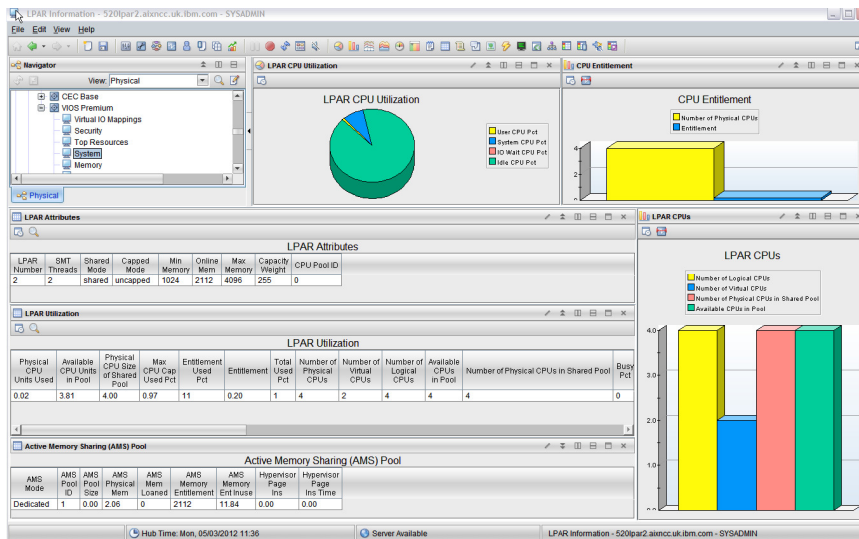
**ITM – Overview – VIOs agent – Storage – Physical Storage Performance**

Power System Technical Webinar Series

**ITM – Overview – VIOs agent – Storage – Virtual Storage Performance**

## ITM – Overview – VIOs agent – Storage – System Storage Information

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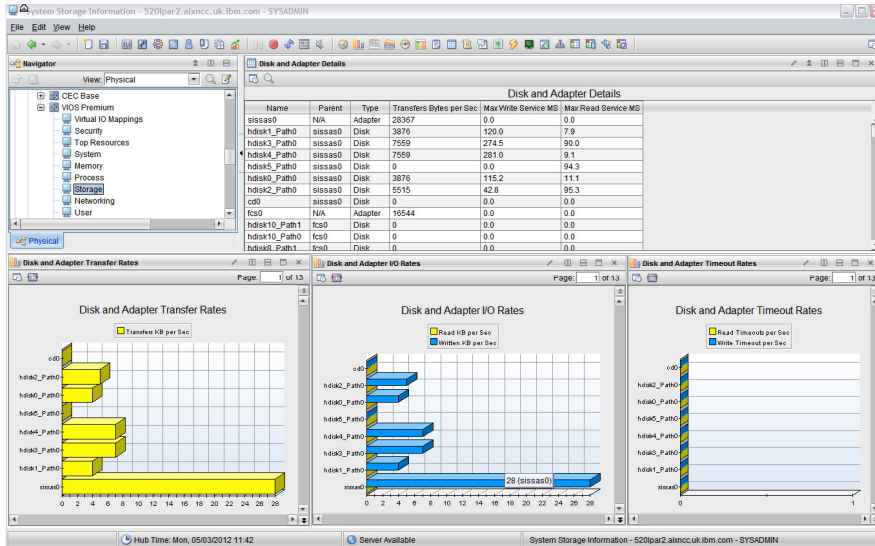
## ITM – Overview – VIOs agent – Networking – Network Adapter Utilization
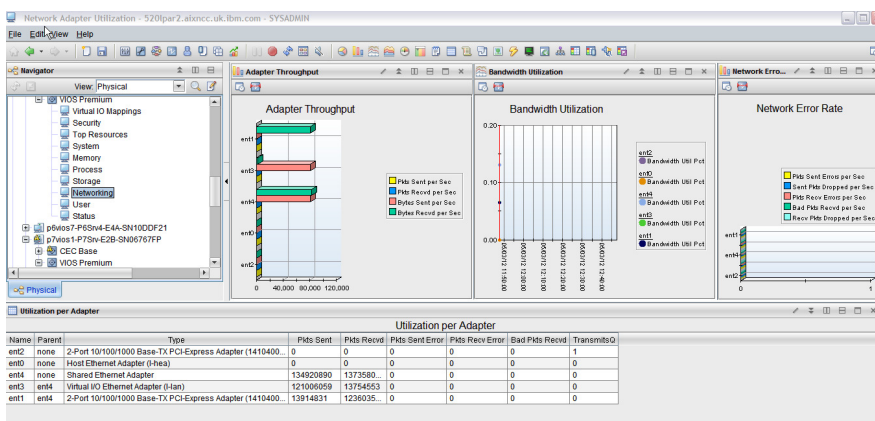
## ITM – Overview – VIOs agent – Networking – Shared Ethernet

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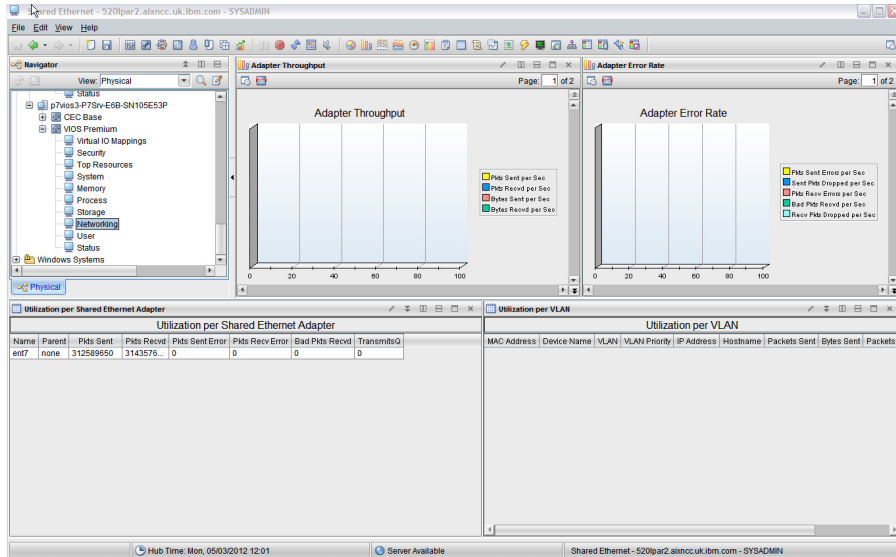
ITM - AIX Premium Agent

## ITM – Overview – AIX agent - Memory
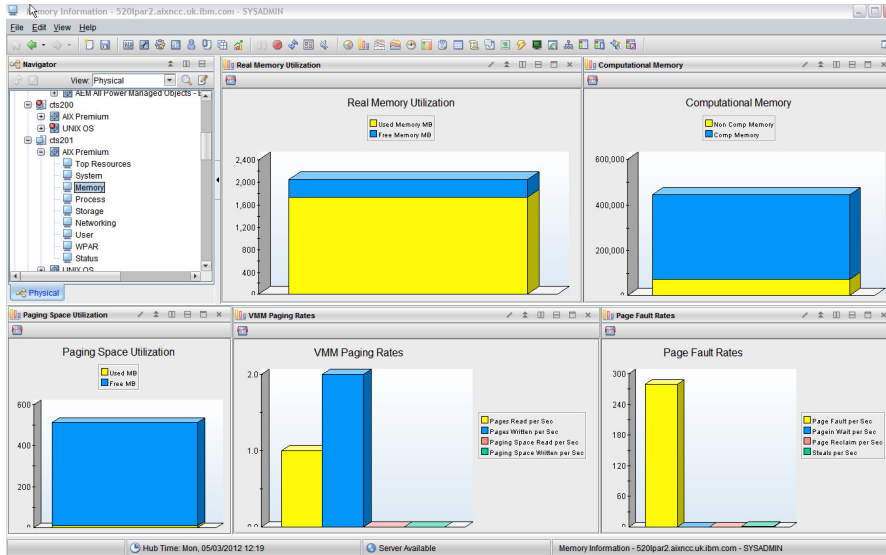
## ITM – Overview – AIX agent – Memory - AME
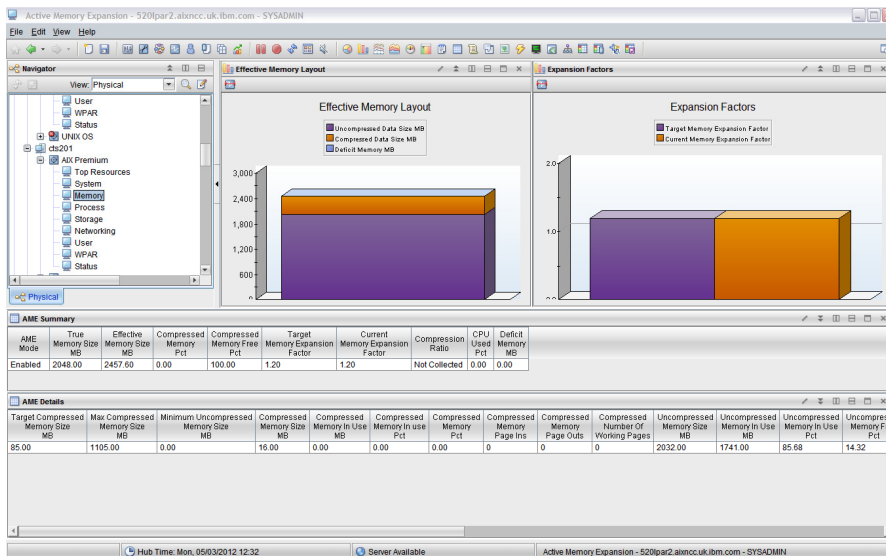
## ITM – Overview – AIX agent – WPar
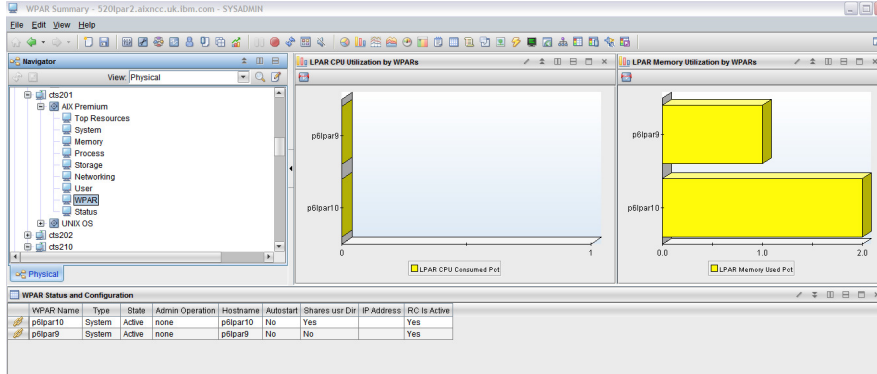
## ITM – Overview – AIX agent – Storage - MPIO
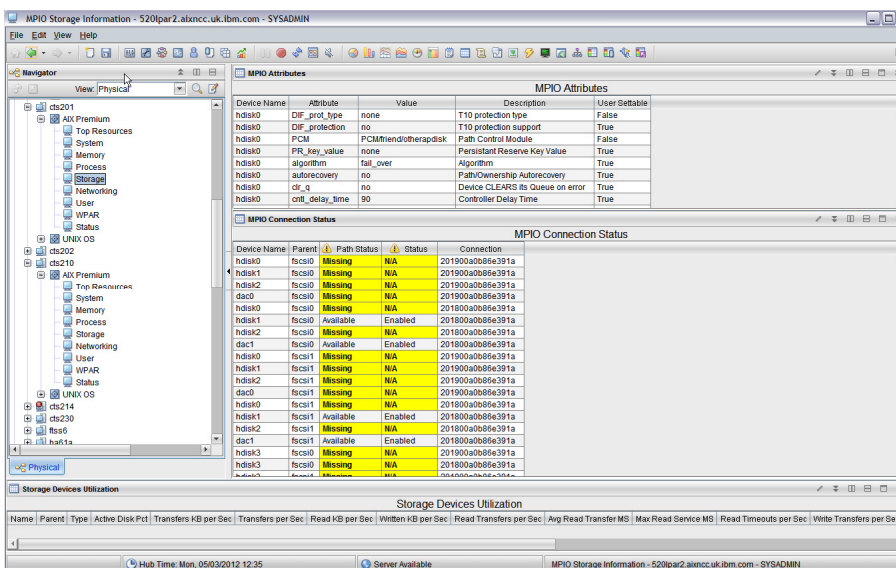
## ITM – Overview – AIX agent – System (includes AMS)

## ITM – Overview – AIX agent – System – CPU Utilization & Energy Scale

## ITM – Overview – AIX agent – Manage Situations (Events/Monitors)

**Manage Situation at Managed System: cts200:PX**

| Name | Status | Description | Auto Start | Overrides Exist | Advice | Action | Until | In |
|------|--------|-------------|-----------|-----------------|--------|--------|-------|-----|
| KPX_Active_Disk_Pct_Info | Stopped | The percentage of time the disks are busy is higher than ... | | | ⓘ | | | 0d / |
| KPX_AME_CPU_Used_High_Warn | Started | The CPU used for memory compression is higher than ex... | ✔ | | ⓘ | | | 0d / 0 |
| KPX_AME_Deficit_Mem_Warn | Started | AME Deficit memory is greater than zero. | | | ⓘ | | | 0d / 0 |
| KPX_Avg_Read_Transfer_MS_Info | Stopped | The average time it takes to complete a disk read is high. | | | ⓘ | | | 0d / |
| KPX_Avg_Req_In_WaitQ_MS_Info | Stopped | The time a disk transfer request is in the wait queue is hig... | | | ⓘ | | | 0d / |
| KPX_Avg_Write_Transfer_MS_Info | Stopped | The average time it takes to complete a disk write is high. | | | ⓘ | | | 0d / |
| KPX_Bad_Pkts_Recvd_Info | Stopped | The rate that bad packets are received is higher than nor... | | | ⓘ | | | 0d / |
| KPX_Device_Stopped_Warn | Stopped | Triggers when the status of a device is not normal. | | | ⓘ | | | 0d / |
| KPX_Failed_Read_Per_Sec_Info | Stopped | The number of failed disk read requests per second is hi... | | | ⓘ | | | 0d / |
| KPX_Failed_Writes_Per_Sec_Info | Stopped | The number of failed disk write requests per second is hi... | | | ⓘ | | | 0d / |
| KPX_LPAR_MaxCPUCapUsed_Info | Stopped | Triggers when Max_CPU_Cap_Used Pct GT 80%. | | | ⓘ | | | 0d / |
| KPX_LPAR_Moved_Info | Stopped | Triggers when last and current LPAR Machine ID are not e... | | | ⓘ | | | 0d / |
| KPX_LPARBusy_pct_Warn | Stopped | The LPAR logical busy percentage is high. | | | ⓘ | | | 0d / |
| KPX_LPARentused_Info | Stopped | The LPAR CPU utilization is more than its entitlement. | | | ⓘ | | | 0d / |
| KPX_LPARfreepool_Warn | Stopped | The LPAR CPU free pool space is getting low. | | | ⓘ | | | 0d / |
| KPX_LPARPhanIntrs_Info | Stopped | The number of LPAR phantom interrupts is high. | | | ⓘ | | | 0d / |
| KPX_LPARPhyBusy_pct_Warn | Started | The LPAR physical busy percentage is high. | ✔ | | ⓘ | | | 0d / |
| KPX_LPARphyp_used_Info | Stopped | The PHYP (hypervisor) is using more CPU than expected. | | | ⓘ | | | 0d / |
| KPX_LPARvcs_Info | Stopped | The LPAR virtual context switching rate is high. | | | ⓘ | | | 0d / |
| KPX_Media_Spd_Half_Duplex_Warn | Started | Media speed selected is set to half duplex. | ✔ | | ⓘ | | | 0d / 0 |
| KPX_memrepage_Info | Stopped | The Physical Memory Repaging rate is high. | | | ⓘ | | | 0d / |
| KPX_Netwk_Bandwidth_High_Info | Started | Bandwidth utilization for the interface is higher than expect... | ✔ | | ⓘ | | | 0d / 0 |
| KPX_perCPU_cs_Info | Stopped | The number of context switches per CPU is high. | | | ⓘ | | | 0d / |
| KPX_perCPU_execs_Info | Stopped | The number of execs per CPU is high. | | | ⓘ | | | 0d / |
| KPX_perCPU_forks_Info | Stopped | The number of forks per CPU is high. | | | ⓘ | | | 0d / |
| KPX_perCPU_syscalls_Info | Stopped | The number of syscalls per CPU is high. | | | ⓘ | | | 0d / |
| KPX_perip_InputErrs_Info | Stopped | The Internet Protocol input error rate is high. | | | ⓘ | | | 0d / |
| KPX_perip_InputPkts_Drop_Info | Stopped | The IP input packets dropped rate is higher than expected. | | | ⓘ | | | 0d / |
| KPX_perip_OutputErrs_Info | Stopped | The Internet Protocol output error rate is higher than expec... | | | ⓘ | | | 0d / |
| KPX_perproc_IO_pgf_Info | Stopped | The process I/O page fault rate is higher than expected. | | | ⓘ | | | 0d / |
| KPX_perproc_mem_textsz_Info | Stopped | The process text size is larger than expected. | | | ⓘ | | | 0d / |
| KPX_perproc_memres_datasz_Info | Stopped | The process resident data size is larger than expected. | | | ⓘ | | | 0d / |
| KPX_perproc_memres_textsz_Info | Stopped | The process resident text size is larger than expected. | | | ⓘ | | | 0d / |
| KPX_perproc_nonIO_pgf_Info | Stopped | The process non-I/O page fault rate is higher than expecte... | | | ⓘ | | | 0d / |
| KPX_perproc_vol_cs_Info | Stopped | The voluntary context switches rate is higher than expected. | | | ⓘ | | | 0d / |
| KPX_PHYP_Pct_High_Info | Stopped | The percent of time spent in the hypervisor is high. | | | ⓘ | | | 0d / 0 |
| KPX_Pkts_Recv_Errors_Info | Stopped | The packets received amounts is higher than normal. | | | ⓘ | | | 0d / |

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# ITM – Unix Logs Agent

## ITM – Overview – Unix Logs

## ITM – Overview – Unix Logs - errlog

## ITM – Overview – Unix Logs - utmp

## ITM – Overview – Unix Logs - wtmp
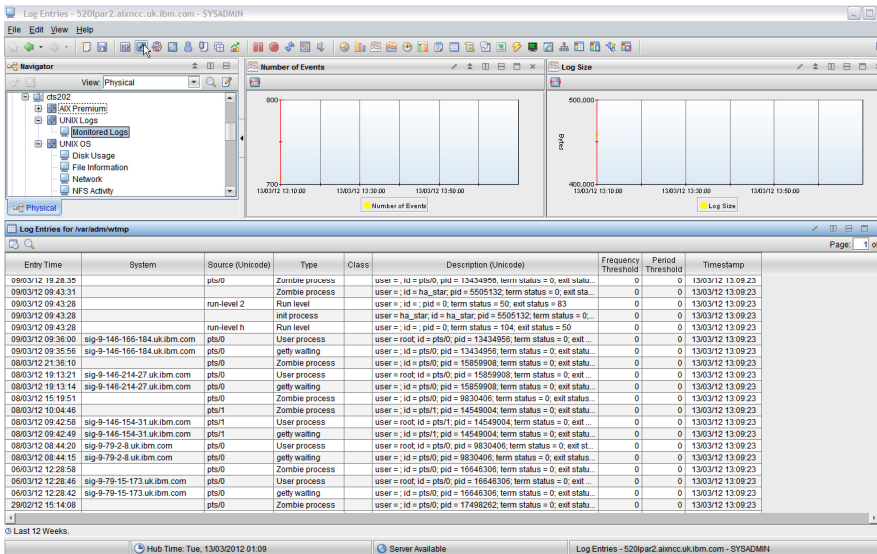
## ITM – Overview – Unix Logs - FailedLogin

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## ITM – Overview – Unix Logs – Manage Situations - Extensive HACMP (PowerHA)

ITM – Unix Agent

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## ITM – Overview – Unix OS
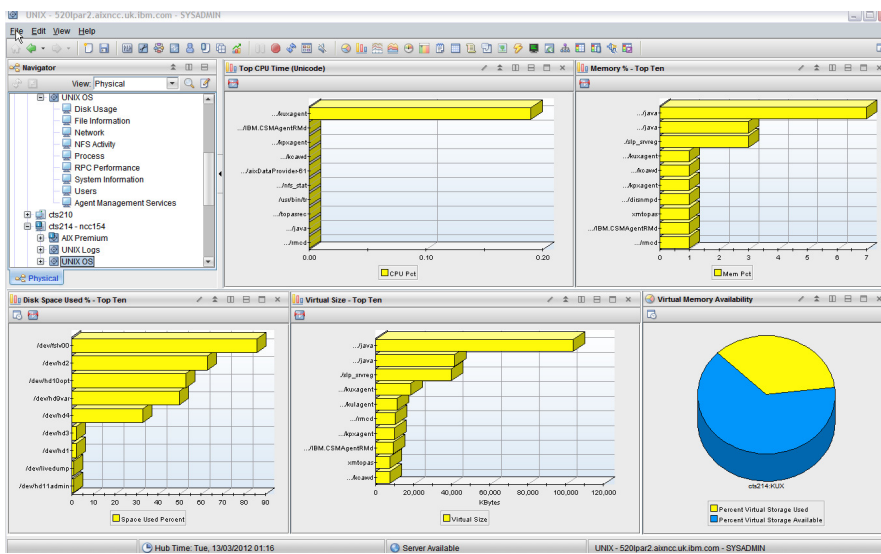
## ITM – Overview – Unix OS – Disk Usage

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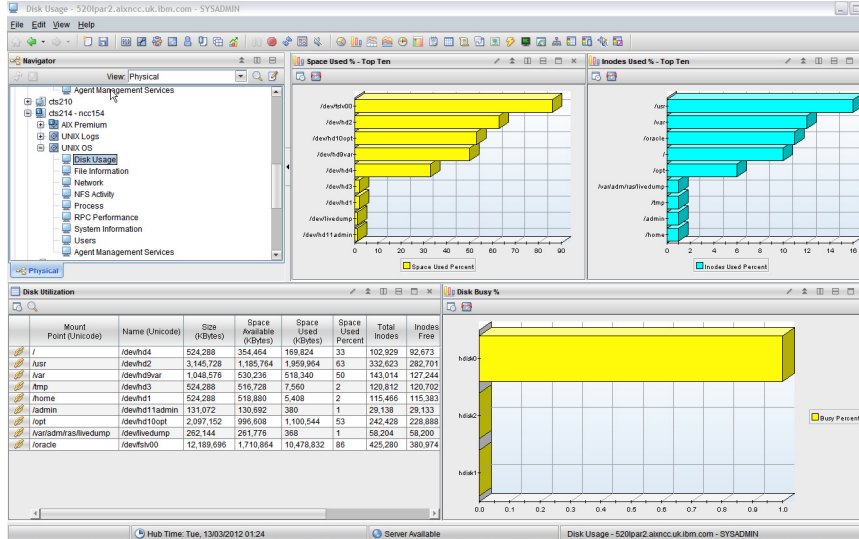
## ITM – Overview – Unix OS – Processes – top processes info.

## ITM – Overview – Unix OS – System – AIX LPar .

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## ITM – Overview – Unix OS – Manage Situations

Manage Situation at Managed System: cts214:KUX

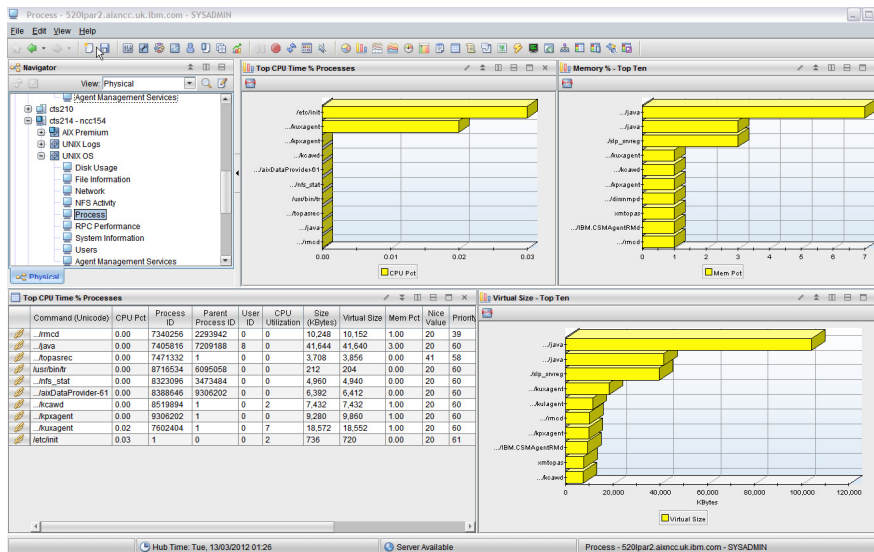| Name | Status | Description | Auto Start | ides | Advice | Action | Until | Interval |
|---|---|---|---|---|---|---|---|---|
| UNIX_Active_Virtual_Memory | Stopped | Checks if Active Virtual approaches Total Virtual Memory | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_AMS_Alert_Critical | Started | Agent Management Services Critical Alert | ✓ | | ⓘ | | ⊘ | 0d / 0h : 0m : 0s |
| UNIX_CMD_Disk_Inodes_Critical | Stopped | /tmp and /var free Inodes critical. This situation is superce... | | | ⓘ | ⚡ | | 0d / 0h : 5m : 0s |
| UNIX_CMD_Disk_Space_Warning | ✓ Closed | Any Filemount with space usage GT 95% | ✓ | | ⓘ | ⚡ | | 0d / 0h : 5m : 0s |
| UNIX_CMD_Process_Critical | Stopped | Checks for a particular process running | | | | | | 0d / 0h : 10m : 0s |
| UNIX_CMD_Runaway_Process | Started | Report High CPU processes | ✓ | | ⓘ | ⚡ | | 0d / 0h : 10m : 0s |
| UNIX_CPU_Busy_Critical | Stopped | Monitors if the CPU workload is high (> 90%). | | | ⓘ | | | 0d / 0h : 5m : 0s |
| UNIX_CPU_Busy_Warning | Stopped | Monitors if the CPU workload is > 70% and <= 90%. | | | ⓘ | | | 0d / 0h : 5m : 0s |
| UNIX_CPU_Critical | Stopped | Process CPU utilization GE 85 | | | ⓘ | | | 0d / 0h : 10m : 0s |
| UNIX_CPU_Warning | ✓ Closed | Process CPU GE 70 and LT 85 | ✓ | | ⓘ | | | 0d / 0h : 10m : 0s |
| UNIX_Disk_Availability | Stopped | Determines under utilized HD space | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_Filemount_Critical | Stopped | Checks for existence of specific mount point on a system | | | | | | 0d / 0h : 2m : 0s |
| UNIX_HD_Config_Critical | Stopped | Hard drive space OR Inodes free going critical. This situ... | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_HD_Excessive_IO_Wait | Started | Note typical I/O bound processor (NFS) | ✓ | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_Network_Collsns_Critical | Stopped | Large number of network interface collisions | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_Network_Collsns_Warning | Stopped | Small number of network interface collisions | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_Network_Errors | Stopped | Received or transmitted error limit exceeded. | | | ⓘ | | | 0d / 0h : 2m : 30s |
| UNIX_Network_Interface_Busy | Stopped | Packets transmitted or received has exceeded the limit | | | | | | 0d / 0h : 2m : 30s |
| UNIX_Network_Interface_Idle | Stopped | Packets transmitted or received less than limit | | | | | | 0d / 0h : 2m : 30s |
| UNIX_NFS_RPC_Rejects | Stopped | Checks for rejected NFS/RPC calls | | | ⓘ | | | 0d / 0h : 5m : 0s |
| UNIX_Process_Memory_Critical | Stopped | Report high memory usage processes | | | | | | 0d / 0h : 10m : 0s |
| UNIX_Process_Memory_Leak | Stopped | Report high virtual memory usage processes | | | | | | 0d / 0h : 5m : 0s |
| UNIX_Process_Memory_Warning | Stopped | Report high memory usage processes | | | | | | 0d / 0h : 10m : 0s |
| UNIX_Process_MISSING_inetd | Stopped | Test if the Internet Services Daemon, inetd, is up running. | | | ⓘ | | | 0d / 0h : 5m : 0s |
| UNIX_scratch_tmp_Disk_Full | Started | Filemount scratch or tmp with space usage GT 95% | ✓ | | | | | 0d / 0h : 5m : 0s |
| UNIX_System_Busy_Critical | Stopped | Check for critical state of I/O Wait, Low Free Mem, CPU Idle | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_System_Busy_Warning | ✓ Closed | Checks System CPU, Idle, I/O Wait, and Load Avg. for Bus... | ✓ | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_System_Capacity_Critical | Stopped | Monitors system capacity w/ process number and CPU Util | | | ⓘ | | | 0d / 0h : 2m : 0s |
| UNIX_System_Paging_Critical | Stopped | Monitors if the VMM is working too hard to find free pages. | | | | | | 0d / 0h : 3m : 0s |
| UNIX_User_CPU_Critical | Stopped | Monitors if user CPU usage is system dominant and imp... | | | | | | 0d / 0h : 2m : 0s |
| UNIX_User_File_Exists | Stopped | Notes that a specific user file was found | | | | | | 0d / 0h : 5m : 0s |
| UNIX_Virtual_Memory_Warning | Started | Monitors if the available virtual memory is running low. | ✓ | | ⓘ | | | 0d / 0h : 5m : 0s |

ITM – Tivoli Common Reporting

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## ITM – Overview – Tivoli Common Reporting for ITM

### System-p Unix OS & AEM Reports



### System-p Report Groups:

Power System Technical Webinar Series

**ITM – Overview – Tivoli Common Reporting – System P Reports**

Public Folders | My Folders

Public Folders > IBM Tivoli Monitoring for System P Reports v6.2.2 IF2 > Performance Trends and Resource Forecasts

Entries: 1 - 7

| Name ⊕ | Modified ⊕ | Actions |
|---|---|---|
| CPU Pools Utilization Details | 3 August 2011 13:58:10 | More... |
| Frame Workload Trend and Forecast | 3 August 2011 13:58:11 | More... |
| LPAR Physical CPU Utilization Details | 3 August 2011 13:58:12 | More... |
| LPAR Physical Memory Utilization Details | 3 August 2011 13:58:12 | More... |
| LPAR Workload Trend and Forecast | 3 August 2011 13:58:13 | More... |
| VIOS Disk Capacity Details | 3 August 2011 13:58:13 | More... |
| VIOS Shared Ethernet Adapter Utilization | 3 August 2011 13:58:14 | More... |

Public Folders > IBM Tivoli Monitoring for System P Reports v6.2.2 IF2 > What-If Analysis for Workload Placement

Entries: 1 - 2

| Name ⊕ | Modified ⊕ | Actions |
|---|---|---|
| Number of LPARs for CEC | 3 August 2011 13:58:16 | More.. |
| Resources Needed For Additional LPARs on CEC | 3 August 2011 13:58:17 | More.. |

Public Folders > IBM Tivoli Monitoring for System P Reports v6.2.2 IF2 > Workload Right-Sizing and Balancing

Entries: 1 - 5

| Name ⊕ | Modified ⊕ | Actions |
|---|---|---|
| Top or Bottom CECs by Physical CPU Utilization | 3 August 2011 13:58:18 | More... |
| Top or Bottom CECs by Physical Memory Utilization | 3 August 2011 13:58:18 | More... |
| Top or Bottom LPARs by Physical CPU Utilization | 3 August 2011 13:58:19 | More... |
| Top or Bottom LPARs by Physical Memory Utilization | 3 August 2011 13:58:20 | More... |
| Top or Bottom VIOSs by Disk Capacity | 3 August 2011 13:58:20 | More... |

53

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**ITM – Overview – Tivoli Common Reporting for ITM – Top/Bottom CEC's**

Work with reports

Viewer - Top or Bottom CECs by Physical CPU Utilization                    tipadmin

Keep this version ▼ | ▶ | | | ▼ | ⊙ ▼ | Add this report ▼ |

IBM® Tivoli®                                                                    IBM.

System P: Top/Bottom N CECs by Physical CPU Utilization

| Date filter | All | Top/Bottom N | 10 |
|---|---|---|---|
| Start Date | 1 Jan 1970 00:00:00 | End Date | 13 Mar 2012 23:59:59 |
| Shift Period | All | Vacation Period | All |

**Top CECs by Physical CPU Utilization**

CPU Units Used   CPU Units Allocated

⊼ Top ⊼ Page up ⊻ Page down ⊻ Bottom

54

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## ITM – Overview – Tivoli Common Reporting for ITM – Top/Bottom LPar's by memory

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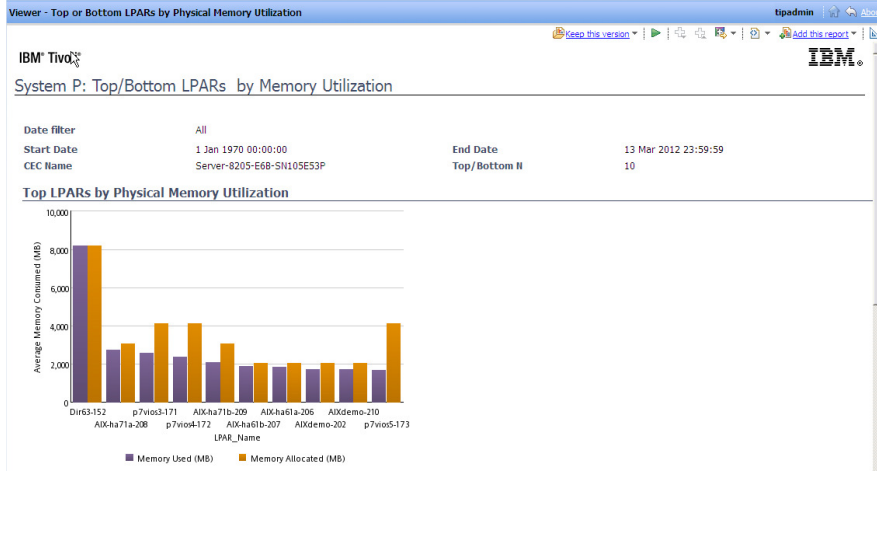
ITM Server Dashboards

## ITM – Server Dashboard

## ITM – Server Dashboard – Unix system