



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Performance Management for Power Systems PM Collection Agent for AIX and VIOS - Setup

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IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Introduction to Performance Management for Power Systems

Introduction to Performance Management for Power Systems

- **Overview**

- PM for Power Systems (PM) helps automate the collection, archival and analysis of system performance data and returns capacity and performance reports and graphs that can help customers plan for and manage their system performance and resources.
- PM collects system utilization, performance statistics and hardware configuration information. Customers are entitled to use this function to receive summary level reports for no additional charge providing the system is under warranty or covered by an IBM Hardware Maintenance Agreement.
- Additional ‘detail’ level reports are available as part of an IBM Global Technology Services fee offering.
- PM uses “topasrec” persistent binary recording to collect the performance data. So, “topasrec” persistent binary recording should always be enabled for PM Service to collect performance data.

- **For more information about PM for Power Systems**

- Web Site: <http://www.ibm.com/systems/power/support/pm/index.html>

What am I agreeing to upon PM for Power Systems activation?

- **Data collection**
 - PM for Power Systems uses performance and capacity information from the Power Systems platform. This service collects system utilization, performance information and hardware configuration information.
 - Once the data is collected, PM scripts process the data and prepares it for transmission to IBM for future analysis and report generation.
- **Data availability to IBM**
 - You agree that IBM may use and share the data collected by PM for Power Systems within the IBM enterprise without limitation, including for purposes of problem determination, of assisting you with performance and capacity planning, of maintaining your existing and new business relationships with IBM, of notifying you of existing or projected resource constraints, and to assist us to enhance IBM products. You also agree that your data may be transferred to such entities in any country whether or not a member of the European Union.
- **Data availability to solution providers and Business Partners**
 - You may authorize IBM to share your data with various third parties, including one or more solution providers and Business Partners to make them aware of your performance and capacity demands and to enable them to provide you with a higher level of service.
 - You may complete the authorization process online for your selected Solution Providers and/or Business Partners: PM Data Transmission



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Setup Order for PM for Power Systems PM AIX Collection Agent

Setup Order for PM for Power Systems (PM AIX Collection Agent)

- **Before sending performance information to IBM**
 - Plan upgrade path
 - Configure PM AIX Collection Agent on each server/partition
 - Confirm there is an active recording
 - Enable Data Transmission
 - Select transmission method to send performance information to IBM
 - Electronic Service Agent (ESA) (Stand-alone server)
 - Hardware Management Console (HMC)

Plan Upgrade Path

■ Upgrade Considerations

- The new PM AIX Collection Agent is now part of the AIX operating systems. It is not the same as the original PM Collector (pmaix.rte) that was available for download from the IBM website.
- Upon upgrading, the original Collection Agent (pmaix.rte) will be disabled and you are no longer allowed to install it on your server
- If you have the original PM Collector (pmaix.rte) it is recommended that you send the current performance information to IBM prior to upgrading your AIX operating system. This will ensure there is not an interruption of your performance data for your server
- You will need to upgrade to AIX 5.3 TL11 or AIX 6.1 TL 4 to take advantage of the new PM AIX Collection Agent
- Support is planned for AIX V6.1 TL 3 and AIX V5.3 TL 9 and 10 in second quarter 2010
- Your performance graphs will look the same if you have added your server to the PM for Power Systems web site

Configure PM AIX Collection Agent on each server/partition

- **Configuration steps needed on each server/partition**
 - Telnet to each server after you have scratch installed or migrated to the newer AIX operating system
 - Enter your Customer Information
 - Set the desired Data Retention Period
 - Set the desired Trending Days and Shift Timing
- **You will need to perform these steps on each server/partition you wish to send performance information to IBM**

NOTE: If you have upgraded your server with Service Update Management Assistant (SUMA), you will need still need to enter your Customer Information on each server/partition.

Confirm there is an active recording

- **Performance Recording**

- PM AIX Collection Agent collects performance data on each server/partition.
- Each server/partition must have an active recording running to collect the performance information
- By default, a recording is started automatically for you when migrating or scratch installing of AIX with the new PM AIX Collection Agent so there is no additional steps required
- Under normal situations you will never have to re-start this recording. It will automatically start when you restart your server
- You can stop/start the recording at any time to change the recording interval

Enable Data Transmission

- **Preparing performance data to be ready to send to IBM**
 - Once you have entered your Customer Information and confirmed there is an active recording, you are ready to Enable Data Transmission
 - By doing so, the pervious day's performance information file (stats.send) will be generated and is ready to be sent to IBM
 - Depending on the Data Retention Period, several days of performance data will be saved locally on your server ready to be retransmitted if necessary
 - You will have to use either Electronic Service Agent (ESA) or a Hardware Management Console (HMC) to send this performance file to IBM
 - It is recommended that you send performance data each day to IBM. Note that you can't send the performance information for the current day.

Select transmission method to send performance information to IBM

- **Select what method to send performance data to IBM**
 - There are two ways you can send the performance data to IBM: Electronic Service Agent (ESA) or Hardware Management Console (HMC)
 - ESA is used for sending from a stand-alone server
 - HMC is used for collecting performance data from multiple servers and sending to IBM at the same time

- **Configuring Both**
 - It is not recommended that you have both an HMC and ESA configured to send performance data from the same server/partition

Summary

- **You will need to migrate or scratch install to newer AIX OS to take advantage of the newer PM AIX Collection Agent**
- **The older PM Collector (pmaix.rte) is being replaced and will not be used once you upgrade your AIX OS**
- **After entering Customer Information, confirming there is an active recording, and Enabling Data Transmission – your performance information is ready to be sent to IBM**
- **The previous day's performance data is sent. You can't send performance data for the current day.**
- **You can use either ESA (stand-alone) or HMC (multiple servers) to send the performance information to IBM**



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

PM AIX Collection Agent Menus

PM AIX Collection Agent Menus

- **There are two ways you can access PM AIX Collection Agent setup screens**
 - Main menu of smit (or smitty)
 - FastPath access of smit (or smitty)
- **Either method works**

Accessing PM AIX Collection Agent Menus from 'smit' Main Menu

- **From AIX prompt**

- smit (or smitty)
- Select 'Performance & Resource Scheduling'
- Select 'Topas'

```
System Management
Move cursor to desired item and press Enter.

[TOP]
Software Installation and Maintenance
Software License Management
Devices
System Storage Management (Physical & Logical)
Security & Users
Communications Applications and Services
Workload Partition Administration
Print Spooling
Advanced Accounting
Problem Determination
Performance & Resource Scheduling
System Environments
Processes & Subsystems
Applications
Installation Assistant
[MORE...3]

F1=Help      F2=Refresh   F3=Cancel
F9=Shell     F10=Exit    F11=Image

Performance & Resource Scheduling
Move cursor to desired item and press Enter.

Resource Status & Monitors
Analysis Tools
Resource Controls
Schedule Jobs
Workload Manager
Enterprise Workload Management
Resource Set Management
Tuning Kernel & Network Parameters
Simultaneous Multi-Threading Processor
Topas
xmtopas

F1=Help      F2=Refresh   F3=Cancel
F9=Shell     F10=Exit    F11=Image

Topas
Move cursor to desired item and press Enter.

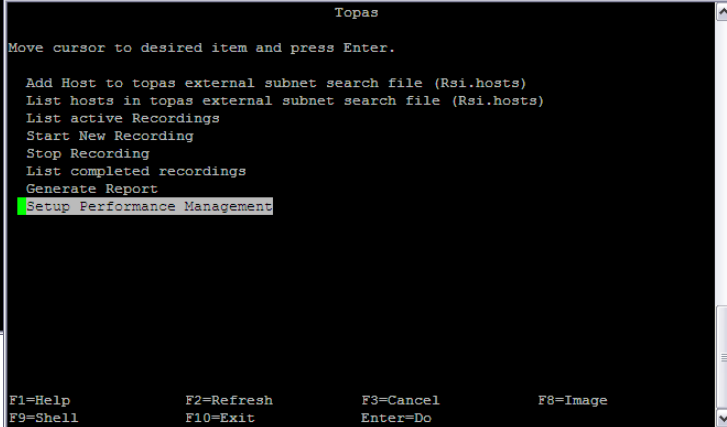
Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Management

F1=Help      F2=Refresh   F3=Cancel   F8=Image
F9=Shell     F10=Exit    Enter=Do
```

Accessing PM AIX Collection Agent Menus Using 'smit FastPath'

- **From AIX prompt**
 - smit topas
 - smit SetUpPm

```
(0) root @ pmandrew: : /
# smit topas
```

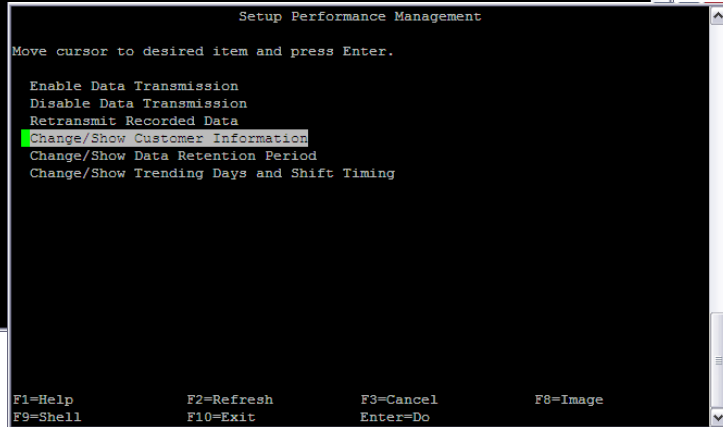


```
Topas
Move cursor to desired item and press Enter.

Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Management

F1=Help      F2=Refresh   F3=Cancel    F8=Image
F9=Shell     F10=Exit    Enter=Do
```

```
(0) root @ pmandrew: : /
# smit SetUpPm
```



```
Setup Performance Management
Move cursor to desired item and press Enter.

Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift Timing

F1=Help      F2=Refresh   F3=Cancel    F8=Image
F9=Shell     F10=Exit    Enter=Do
```

- You can also use
 - smit performance → Select 'Topas'



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Configure PM VIOS Collection Agent

Configure PM VIOS Collection Agent

- **Overview**

- PM VIOS Collection Agent will perform the same as PM AIX Collection Agent
- Use the '**cfgassist**' utility to access the PM AIX Collection Agent menus instead of 'smit'
- There is not a FastPath access to PM VIOS Collection Agent from **cfgassist**
- Not all of the options are available under **cfgassist** that are under **smit**
- Different default output path for recording files

- **More information**

- For more information about VIOS, please visit the following website:
<http://www14.software.ibm.com/webapp/set2/sas/f/vios/documentation/home.html>

Accessing PM VIOS Collection Agent Menus from 'cfgassist'

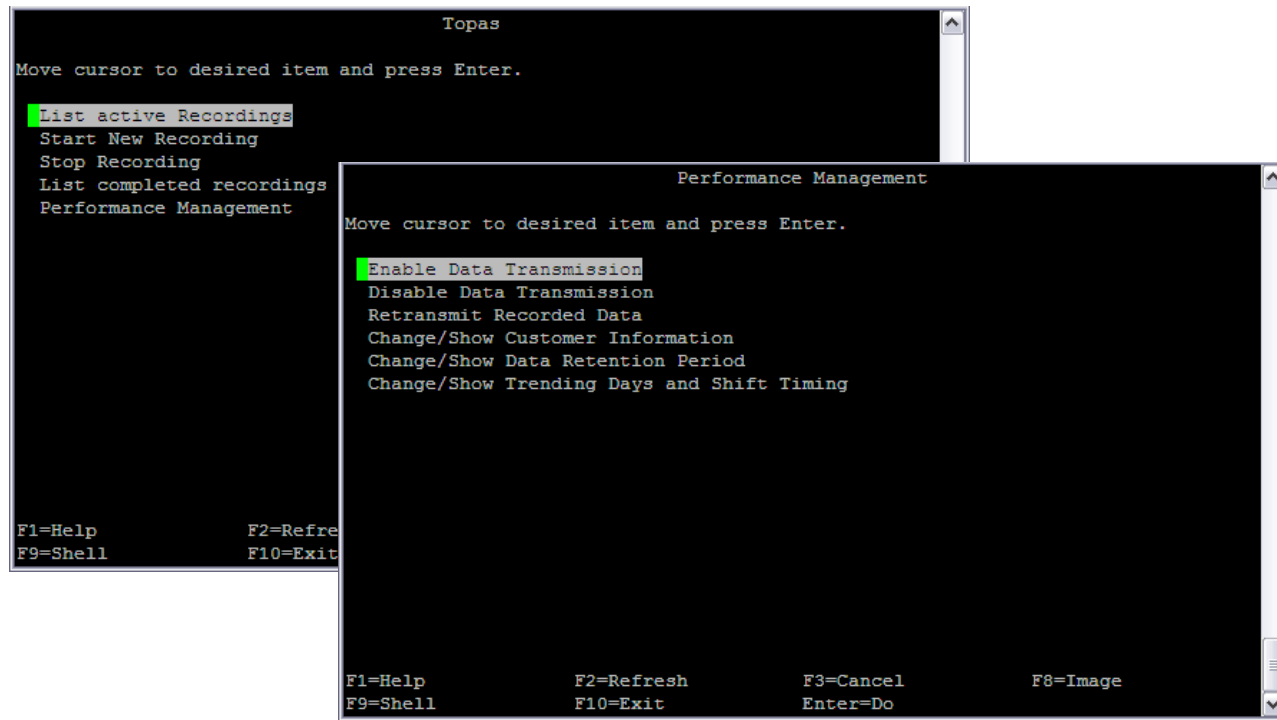
- From VIOS prompt
 - cfgassist
 - Select 'Topas'
 - Select 'performance'

The image shows three overlapping terminal windows illustrating the navigation process:

- Top window:** Shows the initial prompt `$ cfgassist` with a cursor at the end.
- Middle window:** Titled "Config Assist for VIOS", it lists menu options: "Set Date and TimeZone", "Change Passwords", "Set System Security", "VIOS TCP/IP Configurati...", "Install and Update Sof...", "Storage Management", "Devices", "Performance", and "Electronic Service Age...". The "Performance" option is highlighted with a green cursor. At the bottom, it lists function keys: "F1=Help", "F2=Re...", "F9=Shell", and "F10=...".
- Bottom window:** Titled "Performance", it lists options: "Topas" and "Xmtopas". "Topas" is highlighted with a green cursor. At the bottom, it lists function keys: "F1=Help", "F2=Re...", "F9=Shell", and "F10=E...".
- Bottom-most window:** Titled "Topas", it lists options: "List active Recordings", "Start New Recording", "Stop Recording", "List completed recordings", and "Performance Management". "List active Recordings" is highlighted with a green cursor. At the bottom, it lists function keys: "F1=Help", "F2=Refresh", "F3=Cancel", "F8=Image", "F9=Shell", "F10=Exit", "Enter=Do", and "F10=E...".

Accessing Setup Performance Management Menu

- **From Topas Main Menu**
 - Select 'Performance Management'



Start New Recording Differences under VIOS

- **Different Output Path**

- Under VIOS, the default recording path is '/home/ios/perf/topas'
- Under normal PM AIX Collection Agent, the default path is '/etc/perf/daily'

```

Start Persistent Binary recording
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]
Type of Recording          binary
Length of Recording       persistent
* Recording Interval in seconds [300] #
* Number of Days to store per file [1] #
* Number of Days to retain [7] #
* Output Path [home/ios/perf/topas/]
* Overwrite existing recording file no +
* Enable WLE no +

PM AIX Collection Agent Under VIOS

F1=Help      F2=Refresh   F3=Cancel    F4=List
F5=Reset     F6=Command   F7=Edit      F8=Image
F9=Shell     F10=Exit    Enter=Do

```

```

Start Persistent Binary recording
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]
Type of Recording          binary
Length of Recording       persistent
* Recording Interval in seconds [300] #
* Number of Days to store per file [1] #
* Number of Days to retain [7] #
* Output Path [etc/perf/daily/]
* Overwrite existing recording file no +
* Enable WLE no +

PM AIX Collection Agent

F1=Help      F2=Refresh   F3=Cancel    F4=List
F5=Reset     F6=Command   F7=Edit      F8=Image
F9=Shell     F10=Exit    Enter=Do

```

Summary

- **Most of the PM VIOS Collection Agent functions perform the same as PM AIX Collection Agent.**
- **Use the 'cfgassist' utility to access the PM VIOS Collection Agent menus instead of 'smit'**



IBM Performance Management for Power Systems



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Configure PM AIX Collection Agent Setup Performance Management

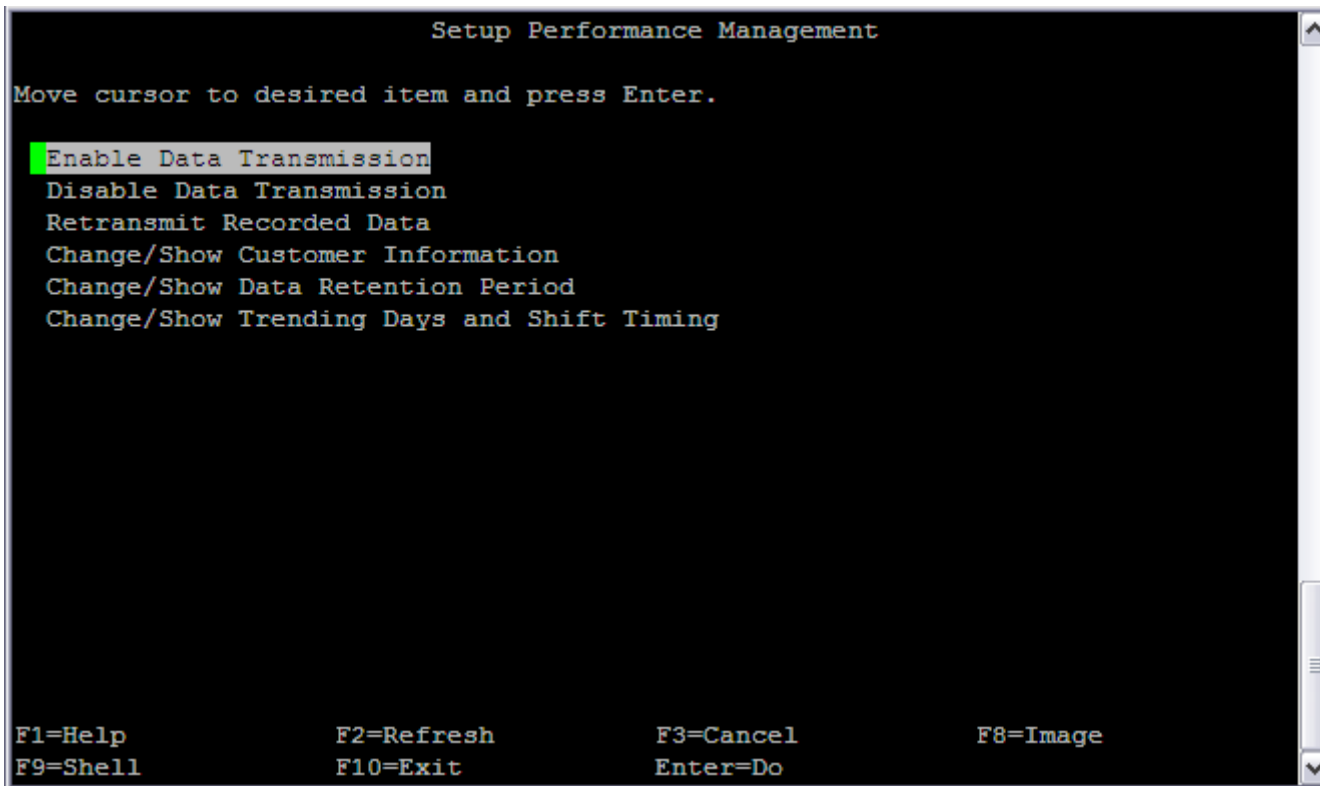
Setup Performance Management

- **Enable Data Transmission**
 - Instructs the server to generate a performance file that is ready to be sent to IBM
- **Disable Data Transmission**
 - Instructs the server to NOT generate a performance file
- **Retransmit Recorded Data**
 - Allows generation of performance file to re-transmission of a single day or all available Performance Data to IBM
- **Change/Show Customer Information**
 - Customer Information that is sent with the Performance Information to IBM
- **Change/Show Data Retention Period**
 - Number of days of Performance Data to keep on server
- **Change/Show Trending Days and Shift Timing**
 - Defines working days and the start/end of shift 1 and 2

Setup Performance Management

- **From AIX prompt**

- smit → 'Performance & Resource Scheduling' → 'Topas' → 'Setup Performance Management'
- smit SetUpPm



```
Setup Performance Management

Move cursor to desired item and press Enter.

Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift Timing

F1=Help      F2=Refresh   F3=Cancel    F8=Image
F9=Shell     F10=Exit    Enter=Do
```

Enable Data Transmission

- **Requirements for Enable Data Transmission**
 - Customer Information needs to be entered
 - There needs to be an active recording
- **What happens ‘behind the scene’**
 - Two entries will be added to the crontab
 - The PM AIX Collection Agent will prepare to generate the performance data at 23:55 and create the actual file at 23:59
 - This file is then ready to be sent to IBM
 - You will only need to do the ‘Enable’ step once. The setting is retained even if the server is restarted

Enable Data Transmission

- **Screen Examples**

- Assumes Customer Information has been entered
- There is an Active Recording

The image shows two overlapping terminal windows. The background window is titled "Setup Performance Management" and lists several menu options. The foreground window is titled "COMMAND STATUS" and shows the execution of the "Enable Data Transmission" command, including a confirmation message and a detailed legal notice.

```
Setup Performance Management
Move cursor to desired item and press Enter.
Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift Timing

F1=Help      F2=Refresh   F3=Ca
F9=Shell     F10=Exit    Enter
```

```
COMMAND STATUS
Command: OR          stdout: yes      stderr: no
Before command completion, additional instructions may appear below.
EM Data Transmission enabled

Note: By enabling PM Service, you agree that IBM may use and
share the data collected by PM for Power Systems within the IBM enterprise
without limitation, including for purposes of problem determination, of
assisting you with performance and capacity planning, of maintaining your
existing and new business relationships with IBM, of notifying you of
existing or projected resource constraints, and to assist us to enhance
IBM products. You also agree that your data may be transferred to such
entities in any country whether or not a member of the European Union.

F1=Help      F2=Refresh   F3=Cancel   F6=Command
F8=Image     F9=Shell     F10=Exit    /=Find
n=Find Next
```

Disable Data Transmission

- **Overview**

- If you no longer want to send the performance data to IBM, select this option

- **What happens ‘behind the scene’**

- Two entries will be removed from the crontab
- The stats.send file will no longer be generated
- You will only need to do the ‘Disable’ step once. The setting is retained even if the server is restarted

Disable Data Transmission

- **Screen Examples**

- Assumes Data Transmission has not already been disabled

```
Setup Performance Management
Move cursor to desired item and press Enter.
Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift

F1=Help      F2=Refresh
F9=Shell     F10=Exit
```

```
COMMAND STATUS
Command: OK      stdout: yes      stderr: no
Before command completion, additional instructions may appear below.
Successfully disabled PM data transmission

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit       /=Find
n=Find Next
```

Retransmit Recorded Data

- **Requirements for Retransmit Recorded Data**
 - Data Transmission must be Enabled
 - You must have at least one day of performance data available
 - You can't Retransmit the current date or a date outside the Data Retention Period
 - Enter the date in YYYYMMDD format, example 20090812 for August 12, 2009.

- **What happens 'behind the scene'**
 - Entering a valid date will generate a new stats.send file that contains performance data for that date. This file is then ready to be sent to IBM.
 - Entering a zero (0) will put all available performance data into the stats.send file. This file is then ready to be sent to IBM.

- **Important Note**
 - It is recommended that you manually transmit the current performance data to IBM **before** using the Retransmit recorded Data choice (either via ESA or HMC)
 - Manually transmit again **after** the 'Retransmit Recorded Data' menu choice is run
 - This will ensure there is no interruption in performance data that is sent to IBM

Retransmit Recorded Data

- **Screen Examples**

- Assumes there is at least one day of performance data available
- Enter zero (0) to retransmit all available performance data

```

Setup Performance Management
Move cursor to desired item and press Enter.

Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shi

F1=Help      F2=Refresh
F9=Shell     F10=Exit

Retransmit Recorded Data
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]
* Enter the Date [YYYYMMDD]

F1=Help      F2=Refresh
F5=Reset     F6=Command
F9=Shell     F10=Exit

COMMAND STATUS
Command: 0x      stdout: yes      stderr: no
Before command completion, additional instructions may appear below.

[TOP]
User has to manually transmit the PM Data file

Steps to do a Manual transmission from Electronic Service Agent on the HMC

1. Login to HMC
2. Select 'Service Management'
3. Select 'Transmit Service Information'
4. Click the 'Send' button labeled 'To transmit the performance management info
rmation immediately, click Send. (the second Send button on the page)
5. Check the Console Events log for results

[MORE...9]

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit      /=Find
n=Find Next
  
```

Change/Show Customer Information

- **Overview**

- Allows you to enter your customer information such as contact name, e-mail address, and address
- You need to enter the Customer Information on each server/partition that you want to send performance data to IBM
- Can be updated at any time the Customer Information has changed. Changes will be automatically be sent along with the performance information to IBM

- **Required Fields**

- Company Name
- Address
- City
- State/Province
- Country Code
- Contact Person Name
- Contact Phone Number
- Email Address

- **Very important**

- Enter a valid Email Address and Country Code
- PM for Power Systems will send you a registration key so you can view your online performance graphs.

Change/Show Customer Information

- **Screen Examples**

- Many required fields
- Note 'Country Code' will show the Country Name, the 'code' will be saved correctly in the Performance Data

The image shows two overlapping terminal windows. The background window is titled "Setup Performance Management" and lists several menu options. The foreground window is titled "Change/Show Customer Information" and displays a form with various fields for customer data.

```

Setup Performance Management
Move cursor to desired item and press Enter.

Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift Tim

F1=Help      F2=Refresh   F3=
F9=Shell     F10=Exit    Er

Change/Show Customer Information
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]
* Company Name [ABC Company]
* Address      [123 Main St.]
  Address (contd.) []
* City         [Rochester]
* State/Province [MN]
  Country Name   UNITED STATES +
* Country Code  UNITED STATES +
* Contact Person Name [Bill Smith]
* Contact Phone Number [5075551212]
* Email address [bsmith@abccompany.com]

F1=Help      F2=Refresh   F3=Cancel    F4=List
F5=Reset     F6=Command   F7=Edit      F8=Image
F9=Shell     F10=Exit     Enter=Do
  
```

Change/Show Customer Information

- **Using Prompts**

- Press F4 (or ESC+4) for prompting on Country Name and Country Code

```

Change/Show Customer Information
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]
* Company Name      [ABC Company]
* Address           [123 Main St.]
Address (contd.)   []
* City              [Rochester]
* State/Province    [MN]
Country Name       UNITED STATES      +
* Country Code      UNITED STATES      +
* Contact Person Name [Bill Smith]
* Contact Phone Number [5025551212]
* Email address

F1=Help           F2=Refresh          F3=Cancel
F5=Reset          F6=Command          F7=Edit
F9=Shell          F10=Exit            Enter=Do
  
```

```

Change/Show Customer Information
-----+-----
Ty+-----+-----
Pr|                                     Country Name
| Move cursor to desired item and press Enter.
* |
* | [MORE...225]
* | TUVALU
* | UGANDA
* | UKRAINE
* | UNITED ARAB EMIRATES
* | UNITED KINGDOM
* | UNITED STATES
* | UNITED STATES MINOR OUTLYING ISLANDS
* | URUGUAY
* | UZBEKISTAN
* | VANUATU
* | [MORE...9]
|
| F1=Help           F2=Refresh          F3=Cancel
F1| F8=Image        F10=Exit            Enter=Do
F5| /=Find          n=Find Next
F9+-----+-----
  
```

Change/Show Data Retention Period

- **Overview**

- Specify how many days you want to save of the generated performance files
- Default is 14 days, recommend at least 7 days
- Generally the performance stats.send file is sent to IBM each day
- If there was a problem, the performance file can be easily re-sent to IBM

- **Other Notes**

- There is also an internal 'raw' performance data retention period for the files saved in the /etc/perf/daily directory
- This setting does not effect these files

Note: The 'raw' performance data is generally saved in the /etc/perf/daily directory, but could also be in other locations

Change/Show Data Retention Period

- **Screen Examples**
 - Default value = 14 days
 - Minimum recommend value = 7 days

The image displays three overlapping screenshots of a terminal window, illustrating the steps to change the data retention period.

Top Screenshot: Setup Performance Management
 Move cursor to desired item and press Enter.
 Enable Data Transmission
 Disable Data Transmission
 Retransmit Recorded Data
 Change/Show Customer Information
 Change/Show Data Retention Period
 Change/Show Trending Days and Shift
 F1=Help F2=Refresh
 F9=Shell F10=Exit

Middle Screenshot: Change/Show Data Retention Period
 Type or select values in entry fields.
 Press Enter AFTER making all desired changes.
 [Entry Fields]
 * Retention Period (days) [14] #
 F1=Help F2=Refresh
 F5=Reset F6=Command
 F9=Shell F10=Exit

Bottom Screenshot: COMMAND STATUS
 Command: OK stdout: no stderr: no
 Before command completion, additional instructions may appear below.
 F1=Help F2=Refresh F3=Cancel F6=Command
 F8=Image F9=Shell F10=Exit /=Find
 n=Find Next

Change/Show Trending Days and Shift Timing

■ Overview

- All fields are required
- Use this screen to define your primary business days
- Defaults are Monday through Friday
- You can also specify the start and end times for shift 1 & 2
- Defaults are 08:00 to 17:30 for shift 1 and 17:31 to 7:59 for shift 2
- Shift times are in [HH:MM] format (24 hour clock)

■ Other Notes

- Use F4 or ESC + 4 to prompt on Trending Days to select either Yes or No
- PM for Power Systems trending graphs do not include non-business days

Change/Show Trending Days and Shift Timing

- Screen Examples

```

Setup Performance Management

Move cursor to desired item and press Enter.

Enable Data Transmission
Disable Data Transmission
Retransmit Recorded Data
Change/Show Customer Information
Change/Show Data Retention Period
Change/Show Trending Days and Shift Timing

F1=Help      F2=Refresh  F3=Cancel
F9=Shell     F10=Exit   Enter=Do
    
```

```

Change/Show Trending Days and Shift Timing

Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]

Trending Days
* Sunday      No      +
* Monday     Yes      +
* Tuesday    Yes      +
* Wednesday  Yes      +
* Thursday   Yes      +
* Friday     Yes      +
* Saturday   No       +

First Shift
* Start Time [8:00]
* End Time   [17:30]

Second Shift
* Start Time [17:31]
* End Time   [7:59]

F1=Help      F2=Refresh  F3=Cancel  F4=List
F5=Reset     F6=Command  F7=Edit    F8=Image
F9=Shell     F10=Exit   Enter=Do
    
```

Change/Show Trending Days and Shift Timing

- Using Prompts

- Press F4 (or ESC+4) for prompting on Trending Days

```

Change/Show Trending Days and Shift Timing
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]

Trending Days
* Sunday
* Monday
* Tuesday
* Wednesday
* Thursday
* Friday
* Saturday
First Shift
* Start Time
* End Time
Second Shift
* Start Time
* End Time

F1=Help      F2=Refresh   F3=Ca
F5=Reset     F6=Command   F7=Ed
F9=Shell     F10=Exit     Enter
    
```

```

Change/Show Trending Days and Shift Timing
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

[Entry Fields]

Trending Days
* Sunday      No      +
* Monday      Yes     +
* Tuesday     Yes     +
* Wednesday   Yes     +
* Thursday    Yes     +
+-----+
|                          Sunday                          |
| Move cursor to desired item and press Enter.             |
| No                                                    |
| Yes                                                    |
| F1=Help      F2=Refresh   F3=Cancel   |
| F1 F8=Image  F10=Exit    Enter=Do     |
| F5 /|=Find   n=Find Next |
+-----+
    
```

Change/Show Trending Days and Shift Timing

- **First & Second Shift Start/End Times**
 - In HH:MM format (24 hour clock)

```
Change/Show Trending Days and Shift Timing

Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                [Entry Fields]

Trending Days
*   Sunday                      No           +
*   Monday                      Yes          +
*   Tuesday                     Yes          +
*   Wednesday                   Yes          +
*   Thursday                    Yes          +
*   Friday                      Yes          +
*   Saturday                   No           +

First Shift
*   Start Time                  [8:00]
*   End Time                    [17:30]

Second Shift
*   Start Time                  [17:31]
*   End Time                    [7:59]

F1=Help      F2=Refresh  F3=Cancel   F4=List
F5=Reset     F6=Command  F7=Edit     F8=Image
F9=Shell     F10=Exit   Enter=Do
```

Summary

- **To access the 'Setup Performance Management' smit menu**
 - From AIX prompt
 - smit → 'Performance & Resource Scheduling' → 'Topas' → 'Setup Performance Management'
 - smit SetUpPm
- **From the 'Setup Performance Management' smit menu, you can**
 - Enable Data Transmission
 - Disable Data Transmission
 - Retransmit Recorded Data
 - Change/Show Customer Information
 - Change/Show Data Retention Period
 - Change/Show Trending Days and Shift Timing
- **Important Information**
 - You can't Enable Data Transmission until you have entered the Customer Information and have an Active Recording
 - You can't Retransmit Recorded Data if there is not an Active Recording



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

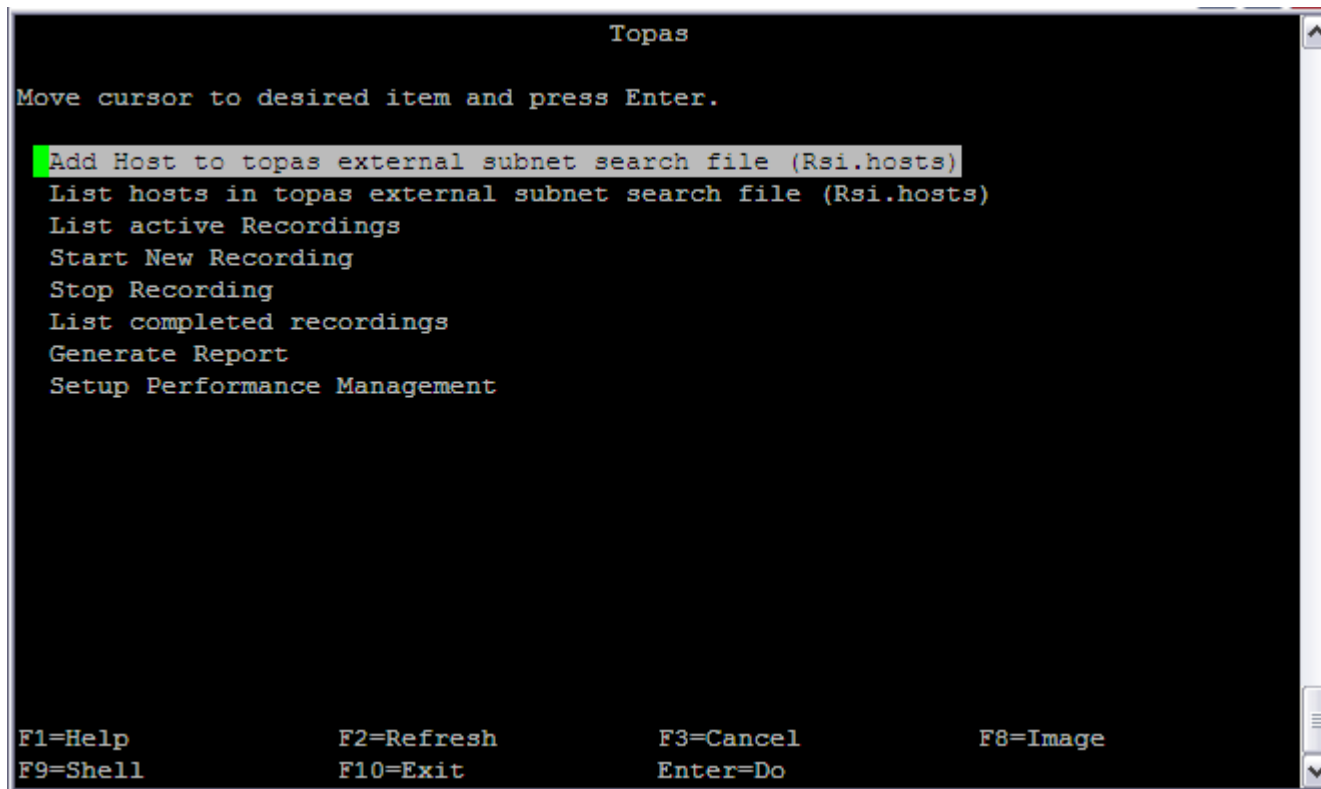
PM AIX Collection Agent Recording Options

PM AIX Collection Agent Recording Options

- **List active Recordings**
 - List the current running recordings on the system in the user specified directory
- **Start New Recording**
 - This menu helps start recordings (local, cec and persistent) based on subsequent selections
- **Stop Recording**
 - Allows stopping an active recording
- **List Completed Recordings**
 - Lists all the recordings available in the system in a tabular format

PM AIX Collection Agent Recording Options

- **From AIX prompt**
 - smit → 'Performance & Resource Scheduling' → 'Topas'
 - smit topas



The screenshot shows a terminal window titled "Topas". The text inside the window is as follows:

```
Topas
Move cursor to desired item and press Enter.
Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Management
```

At the bottom of the window, the following function key shortcuts are listed:

```
F1=Help          F2=Refresh      F3=Cancel      F8=Image
F9=Shell         F10=Exit        Enter=Do
```

List active Recordings

- **Overview**

- This option will list the Format, Start time, and Output path of the active recordings and their specified path.
- The output path of all persistent recordings will be prefixed by the asterisk (*). For persistent local binary recording with WLE enabled, the output path will be prefixed by the number sign (#).

- **Other Notes**

- There are several recording types
- PM AIX Collection Agent only supports 'Persistent local Binary Recording' format
- WLE enabled is not the same as 'Size Next Upgrade' on the PM for Power Systems website.

List active Recordings

- Screen Examples

```

Topas
Move cursor to desired item and press Enter.

Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Managemen

F1=Help      F2=Refre
F9=Shell     F10=Exit
    
```

```

Topas
Move cursor to desired item and press Enter.

Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
-----+-----
Type of Re
|
| Move cursor to desired item and pres:
|
| persistent
| binary
| cec
| cluster
| nmon
| ALL
|
| F1=Help      F2=Refresh
| F8=Image     F10=Exit
F1| /=Find     n=Find Next
F9+-----+-----
    
```

```

COMMAND STATUS
Command: 0%      stdout: yes      stderr: no

Before command completion, additional instructions may appear below.

id      User      Fmt Start_time      Path
-----
352486  root      bin 14:19:04,Aug10,2009  */etc/perf/daily
Running

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit       /=Find
n=Find Next
    
```

Start New Recording

■ Overview

- Use 'Start new Recording' to start CEC/local persistent/non-persistent recording based on the user selected inputs. The user will be presented with separate menus for starting CEC/local persistent/non-persistent recording.

■ Other Notes

- You are not allowed to start the same recording type if it is already active
- There are several recording types, PM AIX Collection Agent only supports 'Persistent local Binary Recording' format
- If the output path is not specified, the root '/' is used. It is recommend that the default path of '/etc/perf/daily' be used when starting a new recording
- Stopping & Starting a recording on same day may require setting 'Overwrite existing recording file' to be 'yes'

Start New Recording

- Screen Examples

The screenshots illustrate the following steps in the Topas interface:

- Topas Main Menu:** Shows a list of options including "Start New Recording", which is highlighted. Other options include "Add Host to topas external subnet search file (Rsi.hosts)", "List hosts in topas external subnet search file (Rsi.hosts)", "List active Recordings", "Stop Recording", "List completed records", "Generate Report", and "Setup Performance Manager".
- Start New Recording Sub-Menu:** Shows options for starting different types of recordings: "Start Persistent local recording", "Start Persistent CEC recording", "Start Persistent Cluster recording", "Start local recording", "Start CEC recording", and "Start Cluster recording".
- Type of Persistent Recording Selection:** A dashed box prompts the user to select a recording type. The options are "binary" (highlighted) and "nmon". A legend at the bottom lists function key shortcuts: F1=Help, F2=Refresh, F3=Cancel, F8=Image, F10=Exit, Enter=Do, F11=/=Find, and F9+=Find Next.

Start New Recording

- Screen Examples (cont.)

```

Start Persistent Binary recording
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                [Entry Fields]
Type of Recording                binary
Length of Recording              persistent
* Recording Interval in seconds  [300] #
* Number of Days to store per file [1] #
* Number of Days to retain       [7] #
Output Path                      [/etc/perf/daily]
* Overwrite existing recording file no +
* Enable WLE                       +

F1=Help      F2=Refresh
F5=Reset     F6=Command
F9=Shell     F10=Exit
    
```

```

Start Persistent Binary recording
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                [Entry Fields]
Type of Recording                binary
Length of Recording              persistent
* Recording Interval in seconds  [300] #
* Number of Days to store per file [1] #
* Number of Days to retain       [7] #
Output Path                      [/etc/perf/daily]
* Overwrite existing recording file no +
* Enable WLE                       +

* +-----+
* |                                     ARE YOU SURE?
* |
* | Continuing may delete information you may
* | to keep. This is your last chance to stop
* | before continuing.
* | Press Enter to continue.
* | Press Cancel to return to the applicat
* |
* | 
* +-----+

F1| F1=Help      F2=Refresh
F5| F8=Image     F10=Exit
F9+-----+
    
```

```

COMMAND STATUS
Command: OK          stdout: yes          stderr: no
Before command completion, additional instructions may appear below.
Persistent Recording Started.

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell          F10=Exit      /=Find
n=Find Next
    
```

Stop Recording

■ Overview

- Use the Stop recording to stop the current running recording. The user can select one particular running recording from the list and stop it.
- From the menu, the user has to select the type of recording to stop. After selecting the type of recording, the currently running recording will be listed on the menu. The user can then select a recording to be stopped.

■ Other Notes

- Data Transmission must be Disabled before you can stop the recording
- You can stop either PM AIX Collection Agent recording or WLE Recording using the appropriate 'PM Service' or 'WLE Collection' choices

Stop Recording

- **Screen Examples**

- Assumes Data Transmission has been Disabled
- There is an active recording

The image shows three overlapping terminal windows from the Topas application, illustrating the process of stopping recordings. The top window shows the main menu with 'Stop Recording' highlighted. The middle window shows the 'Stop Recording' submenu with 'Stop Persistent Recording' highlighted. The bottom window shows the 'Stop Persistent Recording' submenu with 'Stop Persistent local Binary Recording' highlighted.

```
Topas
Move cursor to desired item and press Enter.
Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Management

F1=Help      F2=Refresh
F9=Shell     F10=Exit
```

```
Stop Recording
Move cursor to desired item and press Enter.
Stop Persistent Recording
Stop Binary Recording
Stop CEC Recording
Stop Cluster Recording
Stop nmon Recording

F1=Help      F2=Refresh
F9=Shell     F10=Exit
```

```
Stop Persistent Recording
Move cursor to desired item and press Enter.
Stop Persistent local Binary Recording
Stop Persistent local nmon Recording
Stop Persistent CEC Recording
Stop Persistent Cluster Recording

F1=Help      F2=Refresh      F3=Cancel      F8=Image
F9=Shell     F10=Exit         Enter=Do
```


List completed recordings

- **Overview**

- Use List completed recordings to display a list of the completed recording in the user specified directory path.
- This will list the Recording Type, Start time and Stop time of the completed recordings in the specified path.

List completed recordings

- Screen Examples

- Assumes there are some recordings in /etc/perf/daily

The image shows three overlapping terminal windows from the Topas application. The top-left window shows the main menu with 'List completed recordings' selected. The middle window shows the configuration for the path to the recordings, with '/etc/perf/daily' entered. The bottom-right window shows the output of the command, listing various recordings with their start and stop times and paths.

```

Topas
Move cursor to desired item and press Enter.

Add Host to topas external subnet search file (Rsi.hosts)
List hosts in topas external subnet search file (Rsi.hosts)
List active Recordings
Start New Recording
Stop Recording
List completed recordings
Generate Report
Setup Performance Management

F1=Help      F2=Refresh
F9=Shell     F10=Exit

Path to locate the completed recording
Type or select values in entry fields.
Press Enter AFTER making all desired changes.

* Path to locate the completed recording [Entry Fields]
                                           /etc/perf/daily

COMMAND STATUS
Command: OK      stdout: yes      stderr: no
Before command completion, additional instructions may appear below.

Type      Start          Stop          Path
6.topas   local 17:55:47, Aug06, 2009 23:58:35, Aug06, 2009 /etc/perf/daily/pmandrew_09080
7.topas   local 00:03:35, Aug07, 2009 23:59:06, Aug07, 2009 /etc/perf/daily/pmandrew_09080
8.topas   local 00:04:06, Aug08, 2009 23:59:37, Aug08, 2009 /etc/perf/daily/pmandrew_09080
9.topas   local 00:04:37, Aug09, 2009 23:55:08, Aug09, 2009 /etc/perf/daily/pmandrew_09080
0.topas   local 00:00:08, Aug10, 2009 14:10:27, Aug10, 2009 /etc/perf/daily/pmandrew_09081
05.topas  local 19:39:22, Aug05, 2009 19:39:22, Aug05, 2009 /etc/perf/daily/tom165039_090805

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit       /=Find
n=Find Next
    
```

Summary

- **To access the 'Topas' smit menu**
 - From AIX prompt
 - smit → 'Performance & Resource Scheduling' → 'Topas'
 - smit toas

- **From the 'Topas' smit menu, you can**
 - List active Recordings
 - Start New Recording
 - Stop Recording
 - List completed recordings

- **Important Information**
 - There are several recording types, PM AIX Collection Agent only supports 'Persistent local Binary Recording' format
 - When starting a recording, it is recommended to use the default path of /etc/perf/daily. Leaving the path empty will save recordings onto the root '/' directory
 - You must Disable Data Transmission before trying to stopping an active recording



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Sending Performance Data to IBM

Sending Performance Data to IBM

- **Select what method to use**
 - Hardware Management Console (HMC)
 - Electronic Service Agent (ESA)

- **Important Information**
 - It is not recommend that you use both HMC and ESA to send performance data to IBM
 - It is recommended that you change the default time to 01:00am to send the performance information to IBM

Configuring Electronic Service Agent (ESA)

■ Overview

- Several ways to get to the ESA menu
 - smit → 'Electronic Service Agent'
 - smit → 'Problem Determination' → 'Electronic Service Agent'
- Configure ESA
 - Enter Contact & Address information
 - Confirm test was successful
 - Note the port # to access the web interface
- Connect to ESA web page, <https://servername:5024/esa/login.faces>
- More information about ESA
 - <http://www.ibm.com/support/electronic>

■ Important Information

- Once you have configured ESA, the performance data will be sent to IBM automatically each day
- You can change the default time the information is sent via the Electronic Service Agent web page → Settings → Performance management collection

Configuring Electronic Service Agent (ESA)

- Screen Examples

The screenshots illustrate the following steps:

- System Management:** A menu where 'Electronic Service Agent' is selected.
- Electronic Service Agent:** A sub-menu where 'Configure Electronic Service Agent' is selected.
- Configuring Electronic Service Agent:** A form where the 'Company name' is set to 'ABC Company'.
- COMMAND STATUS:** A confirmation screen showing the successful execution of the configuration command, including the URL for the ESA Web User Interface.

```

System Management
Move cursor to desired item and press Enter.
[MORE...4]
Security & Users
Communications Applications and Services
Print Spooling
Advanced Accounting
Problem Determination
Manage the 4764 PKCS11 subsys
Manage the PKCS11 subsystem
Performance & Resource Sched
System Environments
Processes & Subsystems
Applications
Installation Assistant
Electronic Service Agent
Cluster Systems Management
Using SMIT (information only)
[BOTTOM]
F1=Help      F2=Refresh
F9=Shell     F10=Exit

Electronic Service Agent
Move cursor to desired item and press Enter.
Configure Electronic Service Agent
Configure Service Connectivity
Start Electronic Service Agent
Stop Electronic Service Agent

Configuring Electronic Service Agent
Type or select values in entry fields.
Press Enter AFTER making all desired changes.
[Entry Fields]
* Company name [ABC Company]

Service contact
* Name of the contact person
* Telephone number of the contact person
* Email address (myuserid@mycompany.com)
* Country or region of contact
IBM ID
System location
* Telephone number where the system is located
* Country or region where the system is located
* Street address where the system is located
[MORE...7]
F1=Help      F2=Refresh
F5=Reset     F6=Command
F9=Shell     F10=Exit

COMMAND STATUS
Command: OR          stdout: yes          stderr: no
Before command completion, additional instructions may appear below.
Performing Connectivity Test ... SUCCESS
0513-071 The IBM.ESAGENT Subsystem has been added.
0513-059 The IBM.ESAGENT Subsystem has been started. Subsystem PID is 446504.
The Electronic Service Agent Web User Interface is now available at https://pma1
:5024/esa

F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit       /=Find
n=Find Next
  
```

Configuring Electronic Service Agent (ESA)

■ Screen Examples (cont.)

Electronic Service Agent

Welcome, please enter your information.

Electronic Service Agent requires you to log in using a valid username and password from the System, root or Administrator group of the local operating system.

* User ID:

* Password:

[Log in](#)

Please note: After some time of inactivity, the system will log you out and ask you to log in again.

* Required field

IBM Electronic Service Agent

Welcome root [Logout](#) [Help](#)

Electronic Service Agent

[Status](#)
Current status of Electronic Service Agent on this system or logical partition.

Status: Active

[Problem information](#)
Work with problems.

[Service information](#)
View information about the service information collections and collect service information related to hardware, software, system configuration, and performance.

[Activity log](#)
View Electronic Service Agent activity.

[Settings](#)
Work with detailed settings for Electronic Service Agent.

[SRC filters](#)
View the list of filters which will be applied to Electronic Service Agent problem reporting activities.

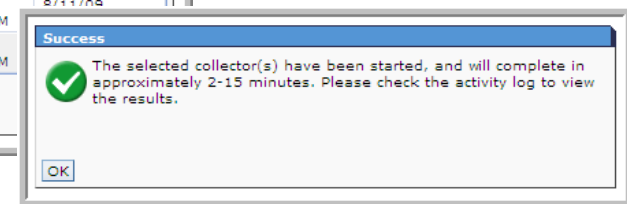
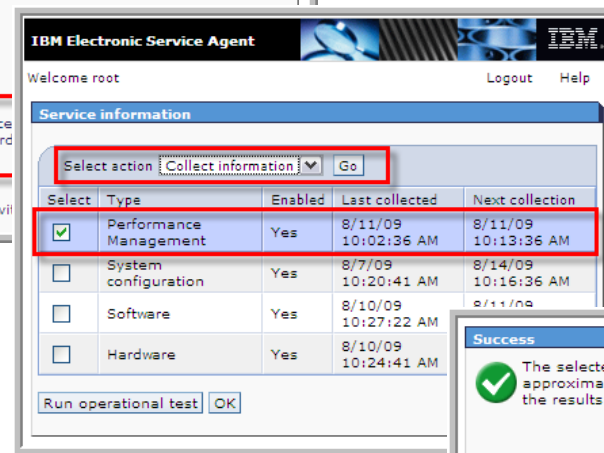
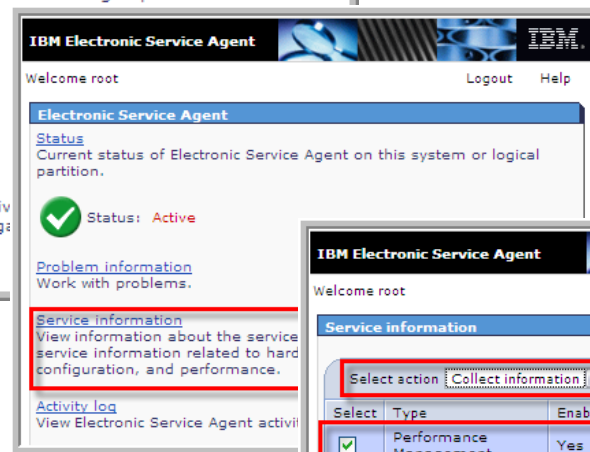
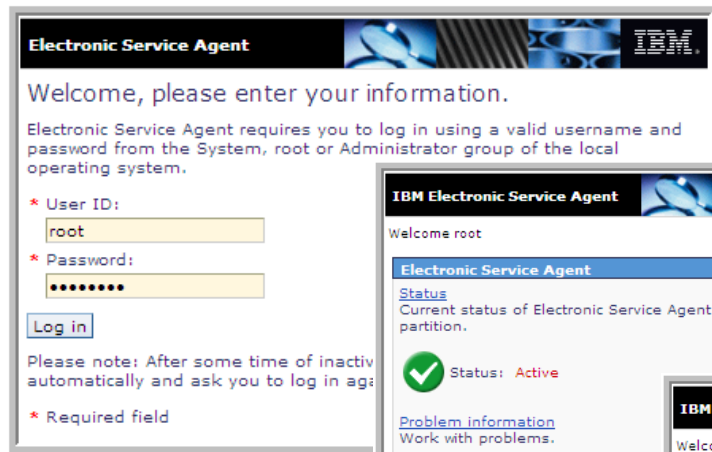
Sending Performance Data to IBM Using Electronic Service Agent (ESA)

■ Overview

- PM AIX Collection Agent has been properly configured
 - Customer Information have been entered
 - Active Recording Started
 - Data Transmission has been enabled
 - Performance data has been collecting for at least one day
- Manually Sending Performance Data to IBM using ESA
 - Connect to ESA web interface, example:
<https://servername:5024/esa/login.faces>
 - Login as root
 - Click the 'Service information' link
 - Check 'Performance Management'
 - Select 'Collect information' in Select Action combo box
 - Click 'Go'
 - Click 'OK' twice to get back to main screen
- To confirm the Performance Data was sent
 - Click 'Activity log'
 - Note 'Performance Management data sent.' message

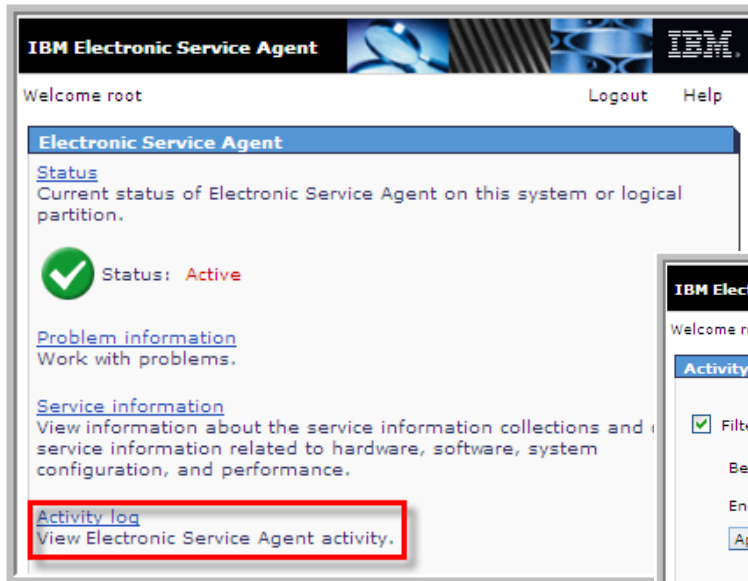
Manually Sending Performance Data to IBM Using ESA

- Screen Examples



Manually Sending Performance Data to IBM Using ESA

- Screen Examples (cont.)




IBM Electronic Service Agent

Welcome root Logout Help

Electronic Service Agent

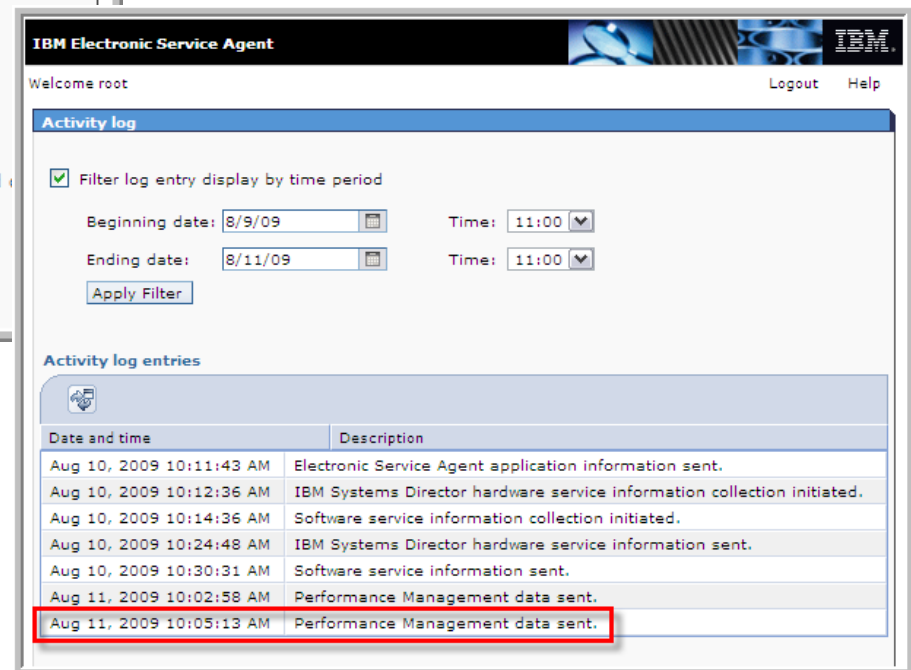
[Status](#)
Current status of Electronic Service Agent on this system or logical partition.

 Status: Active

[Problem information](#)
Work with problems.

[Service information](#)
View information about the service information collections and service information related to hardware, software, system configuration, and performance.

[Activity log](#)
View Electronic Service Agent activity.



IBM Electronic Service Agent

Welcome root Logout Help

Activity log

Filter log entry display by time period

Beginning date: 8/9/09 Time: 11:00
Ending date: 8/11/09 Time: 11:00

Activity log entries

Date and time	Description
Aug 10, 2009 10:11:43 AM	Electronic Service Agent application information sent.
Aug 10, 2009 10:12:36 AM	IBM Systems Director hardware service information collection initiated.
Aug 10, 2009 10:14:36 AM	Software service information collection initiated.
Aug 10, 2009 10:24:48 AM	IBM Systems Director hardware service information sent.
Aug 10, 2009 10:30:31 AM	Software service information sent.
Aug 11, 2009 10:02:58 AM	Performance Management data sent.
Aug 11, 2009 10:05:13 AM	Performance Management data sent.

Configure Time to Send Performance Data to IBM Using ESA

- **To configure what time the Performance Data to IBM using ESA**
 - Connect to ESA web interface, example:
<https://servername:5024/esa/login.faces>
 - Login as root
 - Click the 'Settings' link
 - Check 'Performance management collection'
 - Set the time that you desire
 - Click 'OK' or 'Apply'

Configure Time to Send Performance Data to IBM Using ESA

■ Screen Examples

The screenshots illustrate the steps to configure performance data collection in the IBM Electronic Service Agent (ESA) web interface:

- First Screenshot:** The initial login screen. It prompts the user to enter their User ID (pre-filled with 'root') and Password. A 'Log in' button is visible.
- Second Screenshot:** The main dashboard after login. The status is 'Active'. A sidebar menu on the left has 'Settings' highlighted with a red box.
- Third Screenshot:** The 'Settings' page. The 'Performance management collection' option in the sidebar is highlighted with a red box.
- Fourth Screenshot:** The 'Performance management collection' configuration page. The 'Performance management' checkbox is checked, and the 'Collection time' is set to '10:00' (highlighted with a red box).

It is recommended that you change the default time to 01:00am to send the performance information to IBM.

Configuring Hardware Management Console (HMC)

■ Overview

- Add Server to HMC
- No other settings needed

The screenshot displays the Hardware Management Console (HMC) interface. The main window is titled "Hardware Management Console" and shows a navigation pane on the left with options like "Welcome", "Systems Management", "Servers", "Custom Groups", "System Plans", "HMC Management", "Service Management", and "Updates". The main content area is titled "Systems Management > Servers" and displays a table of servers. The table has columns for "Select", "Name", "Status", "Available Processing Units", "Available Memory (GB)", and "Reference Code". The table shows five servers, all with a status of "Operating" and a warning icon. The bottom of the interface shows a "Tasks: Servers" section with a "Connections" link and a "Status: Attentions and Events" section with icons for status, error, warning, and maintenance.

Select	Name	Status	Available Processing Units	Available Memory (GB)	Reference Code
<input type="checkbox"/>	[Redacted]	Operating	0	1.859375	
<input type="checkbox"/>	[Redacted]	Operating	0	0	
<input type="checkbox"/>	[Redacted]	Operating	1	0.828125	
<input type="checkbox"/>	[Redacted]	Operating	0	0	
<input type="checkbox"/>	[Redacted]	Operating	0	0	

Total: 5 Filtered: 5 Selected: 0

Manually Sending Performance Data to IBM Using Hardware Management Console (HMC)

■ Overview

- PM AIX Collection Agent has been properly configured
 - Customer Information have been entered
 - Active Recording Started
 - Data Transmission has been enabled
 - Performance data has been collecting for at least one day
- Manually Sending Performance Data to IBM from HMC
 - Connect to HMC web login page, example <https://hmcserver>
 - Click the 'Log on and launch the Hardware Management Console web application.' link
 - Login
 - Select 'Service Management' link on left side
 - Select 'Transmit Service Information' link in the middle
 - In the 'Performance management transmission:' section, click the 'Send' button
 - Click 'OK' several times to get back to the main HMC window
- To confirm the Performance Data was sent
 - Click the 'HMC Management' link on left side
 - Select 'View HMC Events' link in the middle
 - Note 'Successfully transmitted performance information' message

Manually Sending Performance Data to IBM Using HMC

■ Screen Examples

Manually Sending Performance Data to IBM Using HMC

- **Screen Examples (cont.)**

Transmit Service Information

Transmit: **FTP** Transmit Service Data to IBM

You can transmit information to your service provider immediately or you can schedule the transmission.

Service information transmission:

Schedule when to transmit the service information.

Frequency: 7

Time: * 12:15:45 AM

To transmit the service information immediately, click Send. **Send**

Performance management transmission:

Schedule when to transmit the performance management information.

Frequency: 1

Time: * 12:32:45 AM

To transmit the performance management information immediately, click Send. **Send**

OK **Can**

Electronic Service Agent

A request to transmit performance management information has been successfully created.
Once the data has been gathered it will be transmitted.

ESA00013

Ok

Manually Sending Performance Data to IBM Using HMC

- Screen Examples (cont.)

The screenshot displays the Hardware Management Console (HMC) interface. On the left, the 'HMC Management' menu item is highlighted. The main console area shows 'Operations' with 'View HMC Events' selected. An inset window titled 'View Console Events' shows a table of events. A red box highlights the event: 'Successfully transmitted performance information: Environment: /opt/ccfw/data/p... DATA SUBMITTED SUCCESSFULLY ReturnCode: 100'.

Date	Time	Console Event
08/11/2009	10:50:43.470	Successfully transmitted performance information: Environment: /opt/ccfw/data/p... DATA SUBMITTED SUCCESSFULLY ReturnCode: 100
08/11/2009	10:50:43.310	Remote support call generated on hmc020 completed successfully by server PMHMC(9.5.2.139).
08/11/2009	10:50:33.850	The following operation was scheduled by HMC(hscroot) from hmc020: Service Agent Transmit Info.

Total: 5042 Filtered: 5042

Configure Time to Send Performance Data to IBM Using HMC

- **To configure what time the Performance Data to IBM using HMC**
 - Connect to HMC web login page, example <https://hmcserver>
 - Click the 'Log on and launch the Hardware Management Console web application.' link
 - Login
 - Select 'Service Management' link on left side
 - Select 'Transmit Service Information' link in the middle
 - In the 'Performance management transmission:' section, set the time that the performance data will be sent
 - Click 'OK' several times to get back to the main HMC window

Configure Time to Send Performance Data to IBM Using HMC

■ Screen Examples

Hardware Management Console (V7R3.4.0.2)

This web server is hosting the Hardware Management Console application. Click on the link below to begin.

[Log on and launch the Hardware Management Console web application.](#)

You can also [view the online help](#) for the Hardware Management Console.

- System Status**
Status is good.
- Attention LEDs**
One or more Attention LED indications.
- Serviceable Events**
One or more Serviceable Events.

Hardware Management Console (V7R3.4.0.2) Logon

Please enter a userid and password below and click "Logon".

userid:

Password:

Hardware Management Console

hscroot | Help | Logoff

Service Management (HMC Version) [Alphabetical List]

- Create Serviceable Event
- Manage Serviceable Events
- Load Serviceable Events
- Manage Remote Connections
- Manage Remote Support Requests
- Format Media
- Manage Dumps
- Transmit Service Information**
- Connectivity
- Manage Systems Call-Home
- Manage Outbound Connectivity
- Manage Inbound Connectivity
- Manage Customer Information
- Authorize User
- Manage Serviceable Event Notification
- Manage Connection Monitoring

Service Management details:

- Create a serviceable event to report a problem
- View, report, repair, or close serviceable events
- Load or reload serviceable events from an XML file
- View, prioritize, hold, or cancel call-home connections
- View or cancel call-home requests submitted by this HMC
- Format a DVD, diskette, or USB flash memory device.
- Copy, call-home, and delete dumps
- Schedule transmissions or offload service information for you
- Control whether call-home requests may be created for the HMC
- Configure call-home connections between the HMC and your system
- Initiate temporary access to the HMC or managed systems for support
- View and change administrator, system, and account information
- Authorize an IBM ID to access service information using the External Access Manager
- Configure information to enable customer notification when serviceable events occur
- Configure timers to detect outages and monitor connections for

Status: Attentions and Events

Configure Time to Send Performance Data to IBM Using HMC

- Screen Examples (cont.)

Transmit Service Information

Transmit **FTP** Transmit Service Data to IBM

You can transmit information to your service provider immediately or you can schedule the transmission.

Service information transmission:

Schedule when to transmit the service information.

Frequency: 7

Time: * 12:15:45 AM

To transmit the service information immediately, click Send. **Send**

Performance management transmission:

Schedule when to transmit the performance management information.

Frequency: 1

Time: * 12:32:45 AM

To transmit the performance management information immediately, click Send. **Send**

OK **Cancel** **Help**

It is recommended that you change the default time to 01:00am to send the performance information to IBM.

Summary

- **Performance data can be sent to IBM using**
 - Hardware Management Console (HMC)
 - Electronic Service Agent (ESA)
 - You can schedule a time to send performance data or manually send the current performance data to IBM

- **Important Information**
 - It is not recommend that you use both HMC and ESA to send performance data to IBM
 - It is recommended that you change the default time to 01:00am to send the performance information to IBM.



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

Viewing Performance Graphs on PM for Power Systems Web Site

Viewing Performance Graphs on PM for Power Systems Web Site

- **PM for Power Systems Login URL**
 - Login URL: <https://pmeserver.rochester.ibm.com>

- **Different Entitlement Options**
 - Free – Management Summary Graph
 - Fee – Interactive Graphing
 - For more information, please visit the PM for Power Systems web site: <http://www.ibm.com/systems/power/support/pm/index.html>

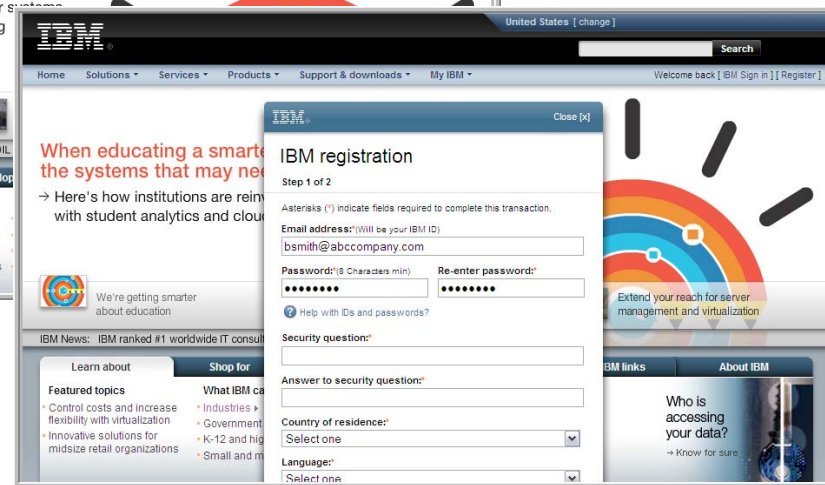
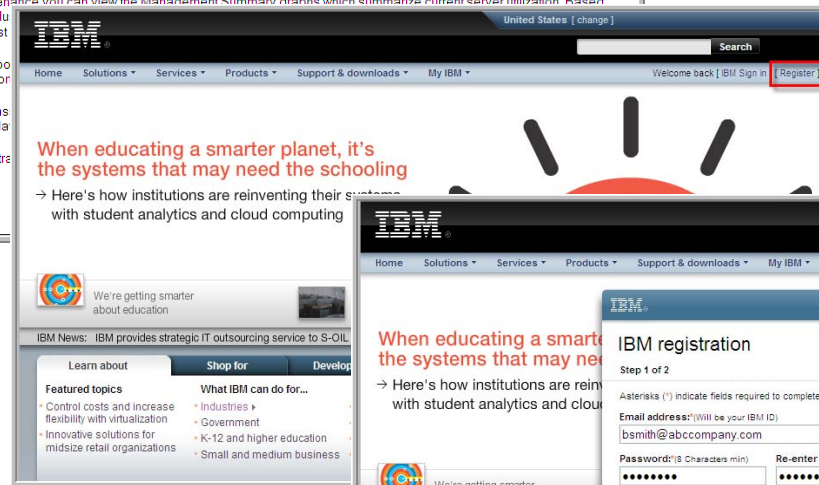
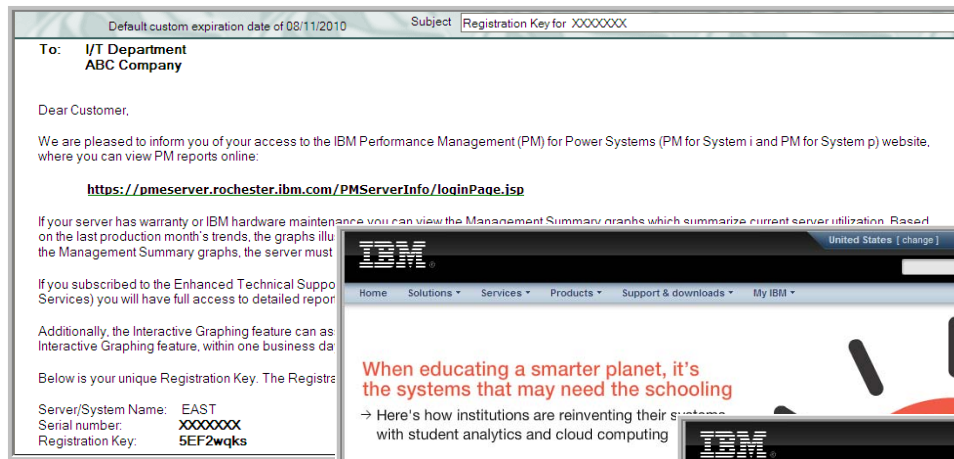
Customer Adding Server to Group

■ Overview (Customer)

- Once Server Performance Data is sent to IBM, PM for Power Systems will process the data
- An e-mail will be sent to your contact e-mail address with instructions on how to access the PM for Power Systems WebSite
- To View the Server Performance Graphs
 - Create an IBM ID (also known as WebID), <http://www.ibm.com>, click the 'Register' link at the top of the page
 - Access the PM for Power Systems Login page:
<https://pmeserver.rochester.ibm.com>
 - Select 'Customers login with: IBM Web ID' radio button
 - Enter your IBM ID 'Login ID' and 'Password'
 - Click Continue
 - On Create Group dialog, enter any Group Name and Description
 - Click 'Create Group'
 - Click 'Finish' on 'Authorize Users to Group' dialog
 - Note 'Add Server' dialog appears
 - Enter the 'Serial number' and 'Registration key/password' contained in the e-mail
 - Click View Customized Graphs for each server to view the MSG or Interactive Graph (Depending on Entitlement)

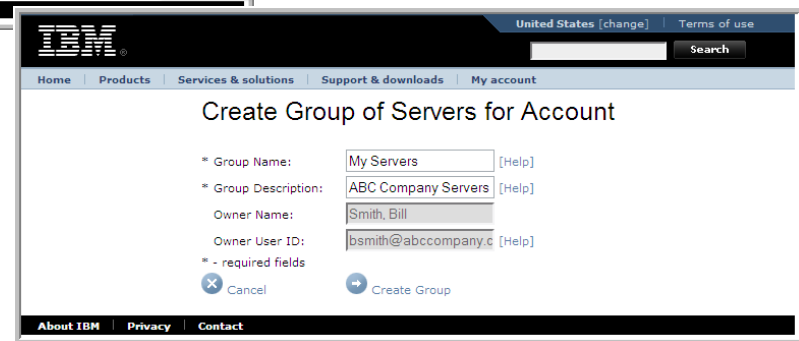
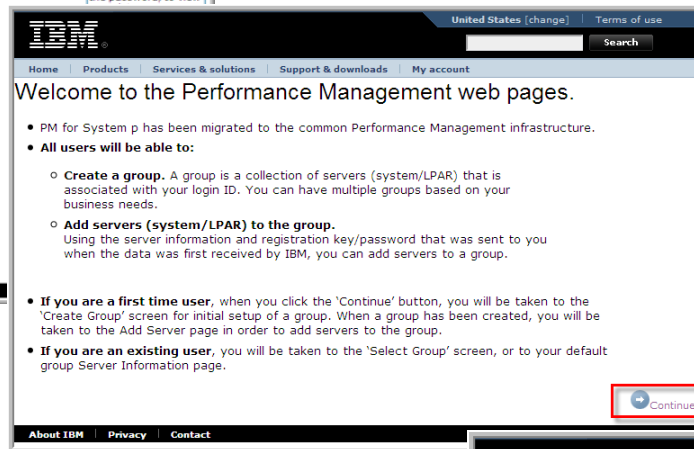
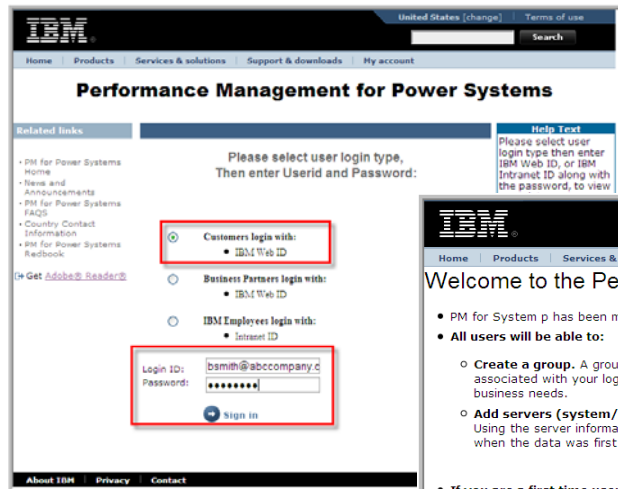
Customer Adding Server to Group

■ Screen Examples



Customer Adding Server to Group

■ Screen Examples (cont.)



Customer Adding Server to Group

- **Screen Examples (cont.)**

The screenshot shows the 'Authorize Users to Group: My Servers' page. At the top, there is an IBM logo, a search bar, and navigation links for 'United States [change]' and 'Terms of use'. Below the navigation bar are links for 'Home', 'Products', 'Services & solutions', 'Support & downloads', and 'My account'. The main heading is 'Authorize Users to Group: My Servers'. Below this, there is explanatory text: 'Additional users with valid Web IDs can be authorized to view this group (but can not make changes to the group)' and 'Current authorized users are listed on the left and additional users can be added by entering their Web ID on the right'. On the left, there is a section titled 'Authorized User IDs: (Authorized 0)' with an empty list box and a 'Remove Selected User IDs' button below it. On the right, there is a section titled 'Authorize User ID to group: (Maximum 6)' with an input field and an 'Add Specified User ID' button. At the bottom right, there is a 'Finish' button with a downward arrow icon. The footer contains links for 'About IBM', 'Privacy', and 'Contact'.

The screenshot shows the 'Enter Information for Server to Add to Group: My Servers' page. It features the same top navigation as the previous screen. The main heading is 'Enter Information for Server to Add to Group: My Servers'. Below the heading, there are two required fields: '* Serial number:' with a text box containing 'XXXXXXXX' and '* Registration key/password:' with a text box containing '5EF2wqks'. To the right of these fields, there is explanatory text: 'The serial number and registration key/password for this server were sent when server data was first received by IBM. Type the serial number as specified on the password letter.' and 'If you do not have the registration key/password press [here](#).' Below the fields, there is a note '* - required fields'. At the bottom, there are 'Cancel' and 'Submit' buttons. The footer contains links for 'About IBM', 'Privacy', and 'Contact'.

Customer Adding Server to Group

- Screen Examples (cont.)

The screenshot displays the IBM Performance Management for Power Systems interface. On the left, a table lists server details for 'ABC Company'. On the right, an interactive graph shows 'Processor - Total' usage from 07/09 to 07/10, with a legend for 'Acceptable', 'Marginal', and 'Critical' performance levels.

Actions	Company Name	Serial Number	LPAR	Model Number	Shift Number	Operating System	Contract	Server Name	Last	Number of	Peak	CPU	Average	Peak Interactiv
[Icons]	ABC Company	XXXXXXX	0	6M2	1	AIX		EAST	200					
[Icons]	ABC Company	XXXXXXX	0	6M2	2	AIX		EAST	200					
[Icons]	ABC Company	YYYYYYY	1	520	1	AIX	✓	WEST	200					
[Icons]	ABC Company	YYYYYYY	1	520	2	AIX	✓	WEST	200					
[Icons]	ABC Company	TZZZZZZ08	5	MMA	1	15/OS	✓	SOUTH	200					
[Icons]	ABC Company	TZZZZZZ08	5	MMA	2	15/OS	✓	SOUTH	200					

Performance Management Interactive Graphing

ABC Company

Model 7038 6M2
 CPU(s) 4/4.00 (Active/Configured)
 EAST 5.3.0.0 (XXXXXX0)
 Disk Capacity in GB 489
 Internal memory in MB 16384

CPU
 Memory
 DiskArm
 Disk
 Facts
 I/O Statistics
 MSG

Processor - Total

Graph dates: 6/11/2008 - 7/11/2009

Processor - Total

Actual | Projected Growth

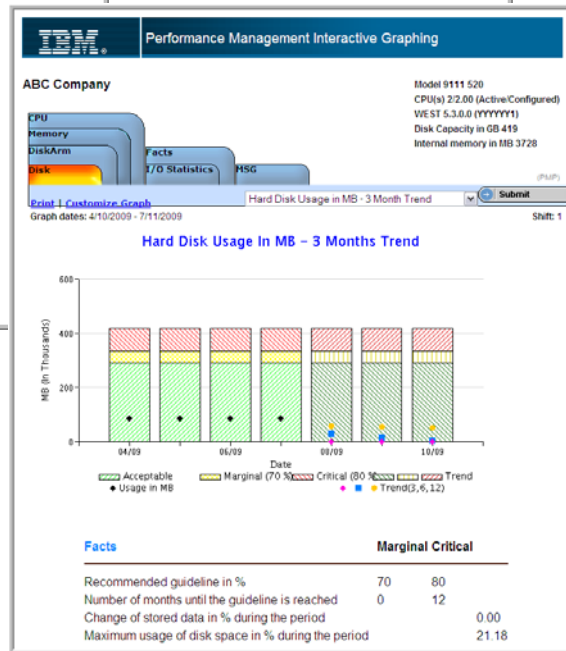
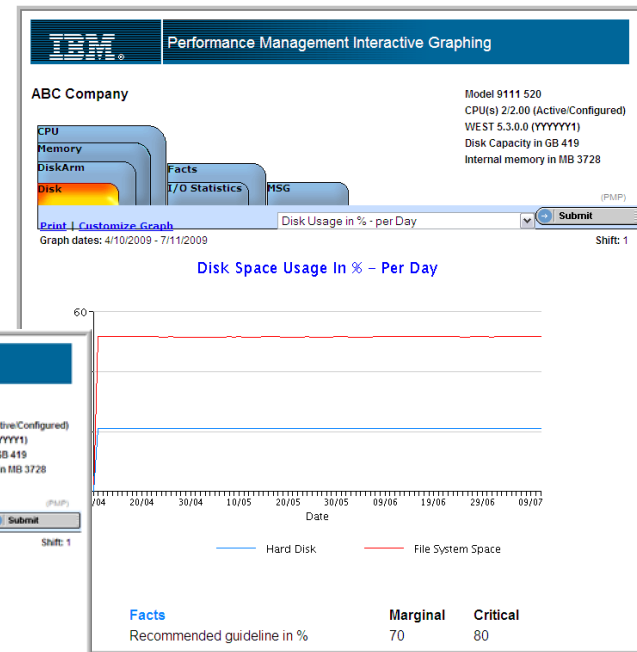
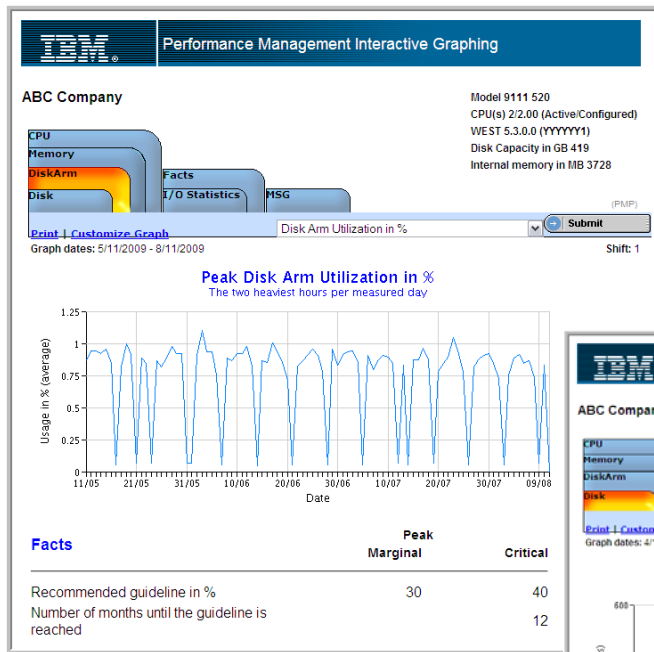
Avg % 62.74
 Peak % 68.59

07/09 09/09 11/09 01/10 03/10 05/10 07/10

Acceptable Marginal Critical

Customer Adding Server to Group

Screen Examples (cont.)



Summary

- **PM for Power Systems Login URL**
 - <https://pmeserver.rochester.ibm.com>
- **Requirements for Customer Login**
 - Customers require an IBM ID (Web ID)
- **Adding Servers**
 - Customers can use the Registration Key that was e-mailed to them to add the server to a group to view the performance information
- **For more information, please visit the PM for Power Systems web site: <http://www.ibm.com/systems/power/support/pm/index.html>**



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

PM AIX Collection Agent Advanced Trouble Shooting

PM AIX Collection Agent – Advanced Troubleshooting

■ Overview

- Frequently Asked Questions
- sys.discover tool
- Confirm stats.send file has been generated
- Viewing pmcfg.log file for errors
- Single User Mode (run-level = 5) and no active recording
- ESA and no 'Performance Management' Option
- Confirm IBM.ServiceRM active on Server and HMC
- Getting 'root' Authority on VIOS
- Confirm Recording Added to /etc/inittab

PM AIX Collection Agent – FAQ

- **What releases of AIX are supported by PM?**
 - AIX 5.3 TL 11 and AIX TL 4. Subsequent support for 5.3 TL 9, and 10 and AIX 6.1 TL 2, and 3 is planned for 2nd quarter 2010.
- **What else must I do to get PM working beyond having installed the TL that contains the bos.perf.tools fileset ?**
 - From a command line you must type 'SMIT',
 - Select 'Performance and Resource Scheduling'
 - Select 'Configure Topas Options,
 - Select Performance Management.
 - You must answer the Enable Data Transmission option
 - You must update the Customer Information option to ensure it includes email address.
 - (The email address is needed as a 'registration key' is emailed to you once your system or partition transmits PM data the first time. Instructions will be included on how the key is used to allow you to view your entitled performance and capacity graphs on the Internet).
 - Separately, Electronic Service Agent (ESA) installation or HMC configuration for transmission of ESA information is also required as a method to transmit the PM data to IBM.
 - Make sure in either the standalone installation of ESA at the system or partition or at the HMC configuration of ESA that the 'transmit performance data' option is checked to 'yes'.
 - Note: PM uses "topasrec" persistent binary recording to collect the performance data. So, "topasrec" persistent binary recording should always be enabled for PM Service to collect performance data.

PM AIX Collection Agent – FAQ (cont.)

- **What happened to the old pmaix.rte fileset, which was present prior to TL upgrading?**
 - pmaix.rte fileset will be automatically de-installed during the upgrading of TL and its functionality will be taken over by bos.perf.tools fileset. Before the upgrade it is advised to send all collected PM data to the IBM
- **What will happen if a customer tries to install pmaix.rte?**
 - An error message will be printed saying that pmaix.rte is superseded by the bos.perf.tools fileset. It will not allow pmaix.rte fileset to be installed.
- **Why am I not able to collect SAN data?**
 - PM service uses "/usr/sbin/datapath" command to collect SAN data. "/usr/sbin/datapath" command is shipped with devices.sdd.61.rte fileset. Please install SDD driver to get the required data.
- **Do I need Electronic Service Agent to transfer PM Data?**
 - Yes. PM Data can be transferred to IBM either by using ESA on your HMC or on your non-HMC controlled AIX hardware. Please configure ESA to send the PM data. Please refer to the IBM Infocenter for the manual steps to transmit the PM Data. Additionally, the ESA website provides information on the features of ESA: <http://www.ibm.com/support/electronic>
- **Why is Electronic Service Agent not able to transmit the data?**
 - Customer needs to enable the data transmission for ESA to start collecting the PM data. Please follow the instructions on IBM Infocenter to enable the PM data transmission. or visit <http://www.ibm.com/support/electronic> for more ESA information
- **I am using a HMC and attempting to transmit the PM data using ESA but it is not working.**
 - Check to make sure ServiceRM is running on the HMC
 - For additional setup instructions: <http://www.ibm.com/systems/power/support/pm/>

PM AIX Collection Agent – FAQ (cont.)

- **Can I be collecting topas data for nmon at the same time as collecting topas data for PM?**
 - Yes
 - The following questions refer to SMIT panel options directly or indirectly. In addition to these questions, you can learn more about the SMIT panel at:
 - http://publib.boulder.ibm.com/infocenter/pseries/v5r3/index.jsp?topic=/com.ibm.aix.prftungd/doc/prftungd/smit_topas_topasout.htm
- **Why can't I 'Enable Data Transmission'? I get an error indicating 'Persistent local binary recording is not running.'**
 - Confirm that you are not in 'single user mode'. If you are, restart your server into normal mode and try the 'Enable Data Transmission' option again. If you are not in single user mode, then see 'Q11 – How do I restart my performance recording?'. After the recording has started, you can then type 'smit topas', select 'Setup Performance Management', select 'Enable Data Transmission'.
- **How do I restart my performance recording?**
 - Confirm that there is not an active recording by typing 'smit topas', selecting 'List active Recordings', and then select 'persistent'. If you see the message 'There is no active recording', then you need to start a recording by canceling (F3) back to the main topas menu. Select 'Start New Recording', select 'Start Persistent local recording', select 'binary', be sure the 'Output Path' has been specified; the default path is typically '/etc/perf/daily'. If the path is not defined, the current directory may be used. You may also have to change 'Overwrite existing recording file' to yes if you get an error.
- **I have stopped my performance recording, why is my server still sending the same performance information to IBM?**
 - You will also have to Disable Data Transmission. To do this, type 'smit topas', select 'Setup Performance Management', select 'Disable Data Transmission'. The performance information will not be sent to IBM from ESA or HMC.

PM AIX Collection Agent – FAQ (cont.)

- **How many days of performance data are stored on my server?**
 - The default of '14' days are stored on your server. It is recommended that you keep a minimum of 7 days. To change this setting, type 'smit topas', select 'Setup Performance Management', select 'Change/Show Data Retention Period' and change the 'Retention Period (days)' to the desired number of days.
- **How do I retransmit all of my available performance data to IBM?**
 - To retransmit all of your available performance data to IBM, type 'smit topas', select 'Setup Performance Management', select 'Retransmit Recorded Data', enter zero '0' for the 'Enter the Date [YYYYMMDD]' and press ENTER. Follow the instructions on how to use ESA or HMC to send the performance file to IBM.
- **Why can't I send performance data for the current date?**
 - You can only generate a performance file for the previous day's performance recording.
- **How do I update my customer information including e-mail address?**
 - Type 'smit topas', select 'Setup Performance Management', select 'Change/Show Customer Information', make the appropriate changes. Your changes will be automatically sent the next time the performance information is transmitted to IBM.

sys.discover tool

- Login as root
- /usr/esa/bin/sys.discover
- Note the following settings
 - MachineType & MachineSerial
 - HMC_CONTROLLED = Indicates if the server is controlled by an HMC or is standalone ESA
 - PM_INSTALLED = Indicates if 'Enable Data Transmission' has been selected
 - BUILDLEVEL = indicates the build level and useful to determine if server has been installed with proper version

```
Hostname = pmandrew
MachineType = 7029
MachineModel = 6E3
MachineSerial = XXXXXX
Manufacturer = IBM
OSName = AIX
OSType = AIX
OSVersion = 6100-03-01-0921
LPAR = 1
PROCESSOR_ID = 0006801C4C00
HMC_CONTROLLED = false
IVM_CONTROLLED = false
PROCESSOR TYPE = PowerPC_POWER4
PM_INSTALLED = true
FIRMWARE = sys0!system:3F061030 |System Firmware:RG061030_d79e19_regatta;e
nt4!1410ff01.SCU015;sisccs1a0!44415255.050A008a;ent5!14106902.GOL002;sisccs1a1!4
4415254.05080092;cd0!IBM-DROM00205.NR36;hdisk0!HUS1030.50505230.52505152;hdisk1!
HUS1030.50505230.52505152;hdisk2!IC35L03.44543031.53323846;cd1!IBM-DVRM00203.A15
0;
BUILDLEVEL = 0932A_61H
ESA_LPP_VERSION = 6.6.4.0
```

sys.discover tool (cont.)

- **If PM_INSTALLED = false, sending of performance data to IBM has been disabled**
- **To re-enable:**
 - smit topas
 - Select 'List active Recordings' and confirm there is an active recording, start one if needed
 - Select 'Setup Performance Management'
 - Select 'Change/Show Customer Information' and confirm all required fields are filled out
 - F3 (or ESC + 3) to cancel back to Menu
 - Select 'Enable Data Transmission'
 - Note success message. Performance file is generated and will be sent to IBM

Confirm stats.send file has been generated

- **Looking for stats.send file**

- Login as root
- cd /var/perf/pm/daily/\$HOSTNAME
- ls -l
- Note that stats.send file must exist and have the following file permissions: '-rw-r--r--'
- If the file doesn't exist, see 'Viewing pmcfg.log file for errors'

```
(0) root @ pmandrew: : /
# cd /var/perf/pm/daily/$HOSTNAME

(0) root @ pmandrew: : /var/perf/pm/daily/pmandrew
# ls -l
total 2216
-rw----- 1 root    system    5864 Aug 06 23:52 process.2009.08.06.Thu
-rw----- 1 root    system   19806 Aug 07 23:53 process.2009.08.07.Fri
-rw----- 1 root    system   22560 Aug 08 23:53 process.2009.08.08.Sat
-rw----- 1 root    system   22560 Aug 09 23:54 process.2009.08.09.Sun
-rw----- 1 root    system   17155 Aug 10 19:37 process.2009.08.10.Mon
-rw----- 1 root    system   12979 Aug 11 23:46 process.2009.08.11.Tue
-rw----- 1 root    system    8260 Aug 12 08:31 process.2009.08.12.Wed
-rw----- 1 root    system   38818 Aug 06 23:55 stats.2009.08.06.Thu
-rw----- 1 root    system  136478 Aug 07 23:55 stats.2009.08.07.Fri
-rw----- 1 root    system  139399 Aug 08 23:55 stats.2009.08.08.Sat
-rw----- 1 root    system  139010 Aug 09 23:55 stats.2009.08.09.Sun
-rw----- 1 root    system   88981 Aug 10 23:55 stats.2009.08.10.Mon
-rw-r--r-- 1 root    system  453302 Aug 10 17:23 stats.send

(0) root @ pmandrew: : /var/perf/pm/daily/pmandrew
#
```

Confirm stats.send file has been generated (cont.)

- **Looking for stats.send file (cont.)**
 - cd /var/perf/pm/daily/\$HOSTNAME
 - vi stats.send
 - Scroll though file and note the following sections
 - <vmstat>
 - <iostat>
 - <netstat>
 - <process>
 - <envstat>
 - <cuinfo>

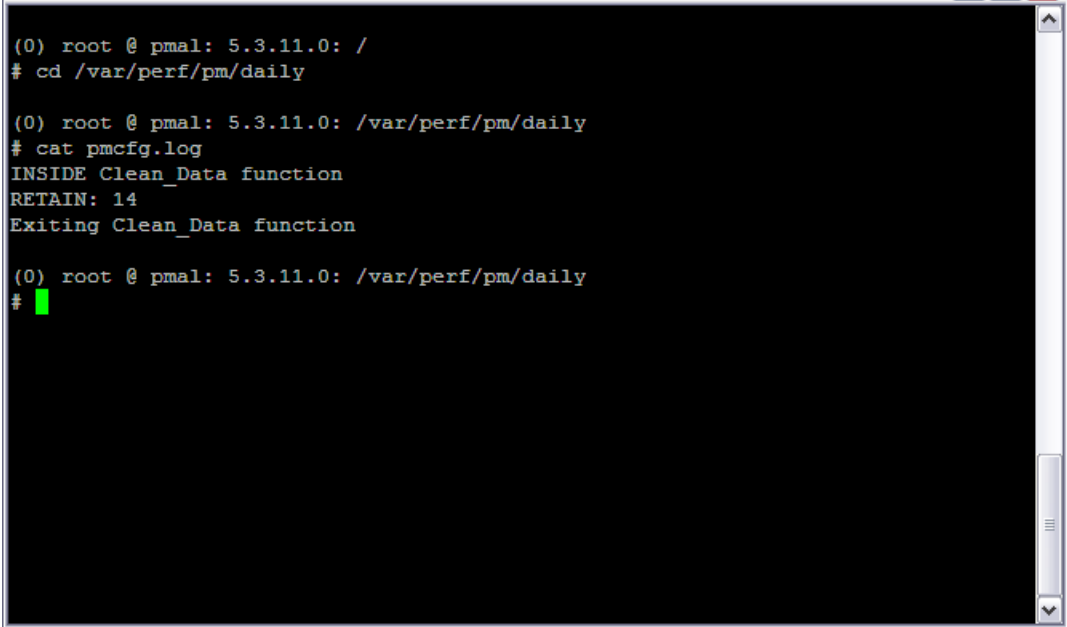
```
<PM-AIX>
# version 1.0.0 (C) Copyright IBM Corporation 2009,2009
# Begin Date: 200908061755
# End Date: 200908092350
</PM-AIX>
<vmstat>
<datacols>date time r b avm free re pi po fr sr cy int syscalls cs us sy idle w
a pc ec fi fo forks pending I/O waits free_frame waits executable filled_pages_f
aults iodones lock_misses pct_swap_used total_swap numperm instmem numproc entit
led_capacity online_lcpus oneline_vcpus</datacols>
2009-08-06 17:55:47 4.00 2.00 315752 1571009 0 5 0 0 0 0 280578 333 22 70.71 19.
12 1.00 9.17 2.00 0.00 5 0 0 0 1 0 1 2 1.42 131072.00 10.34 2097152.00 2 2.00 2
2
2009-08-06 18:08:28 5.00 2.00 335624 1721978 0 5 0 0 0 0 26129 94 12 81.50 6.02
0.75 11.73 2.00 0.00 5 0 0 0 1 0 1 2 1.44 131072.00 2.22 2097152.00 2 2.00 2 2
2009-08-06 18:13:28 1.00 0.00 337505 1718899 0 0 0 0 0 0 29514 10 2 1.67 1.23 96
.72 0.38 2.00 0.00 0 0 0 0 0 0 0 0 1.44 131072.00 2.28 2097152.00 2 2.00 2 2
2009-08-06 18:18:28 1.00 0.00 337560 1717989 0 0 0 0 0 0 35458 6 2 0.51 0.93 98.
44 0.12 2.00 0.00 0 0 0 0 0 0 0 0 1.44 131072.00 2.31 2097152.00 2 2.00 2 2
2009-08-06 18:23:28 1.00 0.00 337214 1717062 0 0 0 0 0 0 42226 1 1 0.21 0.20 99.
56 0.02 2.00 0.00 0 0 0 0 0 0 0 0 1.44 131072.00 2.36 2097152.00 2 2.00 2 2
2009-08-06 18:28:28 1.00 0.00 337290 1716977 0 0 0 0 0 0 45596 4 1 0.21 0.20 99.
57 0.03 2.00 0.00 0 0 0 0 0 0 0 0 1.44 131072.00 2.36 2097152.00 2 2.00 2 2
```

- Don't worry about the content of the file, make sure there is at least some kind of information
- Use ':q!' to quit vi editor

Be very careful to not change the contents of the file. This could cause bad data to be sent to IBM.

Viewing pmcfg.log file for errors

- **Viewing pmcfg.log file**
 - If there are some problem generating the stats.send file, refer to the pmcfg.log file
 - Login as root
 - cd /var/perf/pm/daily
 - cat pmcfg.log
 - Note any errors



```
(0) root @ pml: 5.3.11.0: /  
# cd /var/perf/pm/daily  
  
(0) root @ pml: 5.3.11.0: /var/perf/pm/daily  
# cat pmcfg.log  
INSIDE Clean_Data function  
RETAIN: 14  
Exiting Clean_Data function  
  
(0) root @ pml: 5.3.11.0: /var/perf/pm/daily  
#
```

Single User Mode and no active recording

- **Single User Mode and no active recording**
 - When AIX is booted to single user or maintenance mode, there will not be an active recording
 - Note that PM_INSTALLED = true
 - To determine the run-level, use the 'who -r' command
- **Example of default run-level of 2**

The image shows three overlapping terminal windows from an AIX system in single user mode. The top window shows the output of the 'who -r' command, indicating the system is at run-level 2. The middle window shows the output of the 'ps' command, showing a single process (PID 323590) running as root. The bottom window shows the output of the 'uname -a' command, displaying system details such as hostname, machine type, model, serial number, manufacturer, OS name, version, LPAR, processor ID, HMC/IVM control status, processor type, and firmware information. The 'PM_INSTALLED = true' line is highlighted in red.

```
(0) root @ pmandrew: : /
# who -r
.          run-level 2 Aug 06 18:06      2  0  S

(0) root @ pmandrew: : /
# ps
pid      User      Fmt Start_time      Path
-----
323590   root      Running
Running

Command: OK          stdout: yes          stderr: no
Before command completion, additional instructions may appear below.

pid      User      Fmt Start_time      Path
-----
323590   root      Running

F1=Help
F8=Image
n=Find Next

Hostname = pmandrew
MachineType = 7029
MachineModel = 6E3
MachineSerial = XXXXXX
Manufacturer = IBM
OSName = AIX
OSType = AIX
OSVersion = 6100-03-01-0921
LPAR = 1
PROCESSOR_ID = 0006801C4C00
HMC_CONTROLLED = false
IVM_CONTROLLED = false
PROCESSOR_TYPE = PowerPC_POWER4
PM_INSTALLED = true
FIRMWARE = sys0!system:3F061030 |System Firmware:RG061030_d79e19_regatta;e
nt4!1410ff01.SCU015;siscsaia0144415255.050A008a;ent5!14106902.GOL002;siscsaia14
4415254.05080092;cd0!IBM-DROM00205.NR36;hdisk0!HUS1030.50505230.52505152;hdisk1!
HUS1030.50505230.52505152;hdisk2!IC35L03.44543031.53323846;cd1!IBM-DVRM00203.A15
0;
BUILDLEVEL = 0932A_61H
ESA_LPP_VERSION = 6.6.4.0
```

Single User Mode and no active recording (cont.)

- **Single User Mode and no active recording (cont.)**
 - Note that in run-level 5, there is not an active recording

The image displays three overlapping screenshots from a Linux terminal environment:

- Top-left screenshot:** Shows the initial boot sequence. It includes the text "DIAGNOSTIC OPERATING INSTRUCTIONS", "LICENSED MATERIAL and LICENSED INTERNAL CODE - PROPERTY OF IBM.", and "FUNCTION SELECTION". The function selection menu lists:
 1. Diagnostic Routines
 2. Advanced Diagnostic Routines
 3. Task Selection (Diagnostics)
 4. Resource Selection
 5. Single User Mode
- Bottom-left screenshot:** Shows the system continuing the boot process. It displays:


```
The system will now continue the boot process. Please wait...
Saving Base Customize Data to boot disk
Starting the sync daemon
Starting the error daemon
System initialization completed.

INIT: SINGLE-USER MODE
Password:
```
- Top-right screenshot:** Shows a terminal window with the following output:


```
(0) root @ pmandrew: : /
# who -r
      run-level 5 Aug 12 10:54      2  0  S

(0) root @ pmandrew: : /
#
```
- Bottom-right screenshot:** Shows the "COMMAND STATUS" window. It displays:


```
Command: [command]      stdout: yes      stderr: no
Before command completion, additional instructions may appear below.
-----
There is no active recording
-----
F1=Help      F2=Refresh      F3=Cancel      F6=Command
F8=Image     F9=Shell        F10=Exit       /=Find
n=Find Next
```

ESA and no 'Performance Management' Option

- **If you have selected 'Disable Data Transmission'**
 - The 'Performance Management' will be removed from the ESA screens

ESA and no 'Performance Management' Option (cont.)

- PM_INSTALLED = false and ESA does not have 'Performance Management' Option

```

root@pmmandrew:~# lscfg -l /etc/lscfg/ibm
MachineType = 7029
MachineModel = 6E3
MachineSerial = XXXXXX
Manufacturer = IBM
OSName = AIX
OSType = AIX
OSVersion = 6100-03-01-0921
LPR = 1
PROCESSOR_ID = 0006801C4C00
HMC_CONTROLLED = false
IVM_CONTROLLED = false
PROCESSOR TYPE = PowerPC_POWERPC
PM_INSTALLED = false
FIRMWARE = sys0!system:3F061
nt4!1410ff01.SCU015;sisccsia
4415254.05080092;cd0!IBM-DRG
HUS1030.50505230.52505152;hd
0;
BUILDLEVEL = 0932A_61H
ESA_LPP_VERSION = 6.6.4.0
~

```

IBM Electronic Service Agent

Welcome root Logout Help

Electronic Service Agent

Status
Current status of Electronic Service Agent on this system or logical partition.

Status: Active

Problem information
Work with problems.

Service information
View information about the service information related to hardware configuration, and performance.

Activity log
View Electronic Service Agent activity

IBM Electronic Service Agent

Welcome root Logout Help

Service information

Select action Collect information Go

Select	Type	Enabled	Last collected	Next collection
<input type="checkbox"/>	System configuration	Yes	8/7/09 10:20:41 AM	8/14/09 10:16:36 AM
<input type="checkbox"/>	Hardware	Yes	8/13/09 10:13:07 AM	8/14/09 10:12:36 AM
<input type="checkbox"/>	Software	Yes	8/13/09 10:31:58 AM	8/14/09 10:14:36 AM

Run operational test OK

ESA and no 'Performance Management' Option (cont.)

- Example screens showing `PM_INSTALLED = true` and ESA has 'Performance Management' option

```

Hostname = pmandrew
MachineType = 7029
MachineModel = 6E3
MachineSerial = XXXXXX
Manufacturer = IBM
OSName = AIX
OSType = AIX
OSVersion = 6100-03-01-092
LPAR = 1
PROCESSOR_ID = 0006801C4C0
HMC_CONTROLLED = false
IVM_CONTROLLED = false
PROCESSOR_TYPE = PowerPC_E
PM_INSTALLED = true
FIRMWARE = sys0!system:3F0
nt4!1410ff01.SCU015;sisccs
4415254.05080092;cd0!IBM-I
HUS1030.50505230.52505152;
0;
BUILDLEVEL = 0932A_61H
ESA_LPP_VERSION = 6.6.4.0
  
```

The screenshot displays the IBM Electronic Service Agent (ESA) interface. The status is 'Active' (indicated by a green checkmark). The 'Service information' section shows a table of services, with 'Performance Management' selected and highlighted by a red box. The table includes columns for 'Select', 'Type', 'Enabled', 'Last collected', and 'Next collection'.

Select	Type	Enabled	Last collected	Next collection
<input checked="" type="checkbox"/>	Performance Management	Yes	8/11/09 10:02:36 AM	8/11/09 10:13:36 AM
<input type="checkbox"/>	System configuration	Yes	8/7/09 10:20:41 AM	8/14/09 10:16:36 AM
<input type="checkbox"/>	Software	Yes	8/10/09 10:27:22 AM	8/11/09 10:14:36 AM
<input type="checkbox"/>	Hardware	Yes	8/10/09 10:24:41 AM	8/11/09 10:12:36 AM

Confirm IBM.ServiceRM active on Server and HMC

- **Overview**
 - The HMC needs to communicate with IBM.ServiceRM on each server/partition. Without it running, the HMC will not be able to pick up the performance data file
 - Ensure that the IBM.ServiceRM is active on both the HMC and server/partition
- **Additional information**
 - Unless there is a microcode problem IBM.ServiceRM should always be running
 - Crashing three times within a short time span will stop the service
- **To check the status on the server/partition**
 - Login as root
 - `lssrc -g rsct; lssrc -g rsct_rm`
- **To restart the service on the server/partition**
 - Login as root
 - `/usr/sbin/rsct/bin/rmcctrl -z`
 - `/usr/sbin/rsct/bin/rmcctrl -A`
 - `lsrsrc IBM.Sensor`
- **Checking status or restarting IBM.ServiceRM on HMC server**
 - Generally restarting HMC server will correct problem
 - Contact IBM Support if you continue to experience a problem

Confirm IBM.ServiceRM active on Server and HMC (cont.)

- **Example checking on IBM.ServiceRM status on server/partition**
 - Confirm that IBM.ServiceRM has an 'active' status

```
(0) root @ pmking:127.0.0.1: /
# lssrc -g rsct; lssrc -g rsct_rm
Subsystem      Group      PID      Status
ctrmc          rsct       278686   active
ctcas          rsct       278686   inoperative
Subsystem      Group      PID      Status
IBM.CSMAgentRM rsct_rm    315552   active
IBM.ServiceRM  rsct_rm    299168   active
IBM.AuditRM    rsct_rm    299168   inoperative
IBM.ERRM       rsct_rm    299168   inoperative
IBM.LPRM       rsct_rm    299168   inoperative
IBM.HostRM     rsct_rm    299168   inoperative
IBM.DRM        rsct_rm    299168   inoperative

(0) root @ pmking:127.0.0.1: /
# █
```

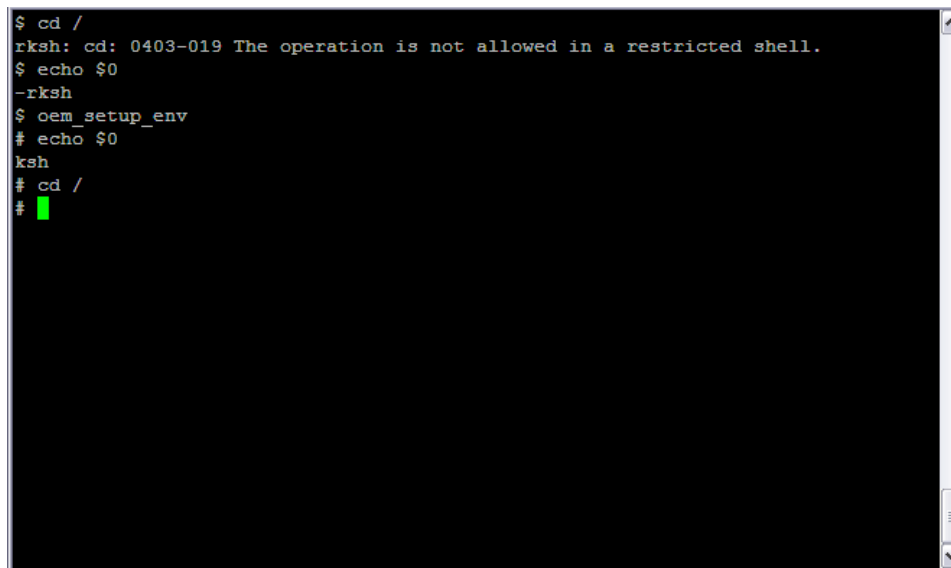
Getting 'root' Authority on VIOS

- **Overview**

- Normally when logging into VIOS, the 'padmin' user is used
- This user has limited authority (restricted korn shell) and will be hard to debug problems. Use `echo $0` to determine the current shell.
- Use the `'oem_setup_env'` command to switch to a 'root' authority user (full korn shell)

- **Important Information**

- It is recommended that you don't use `smit` to configure PM AIX Collection Agent when in the special 'root' authority mode
- Type `'exit'` to return back to the 'padmin' login and use `'cfgassist'`



```
$ cd /
rksh: cd: 0403-019 The operation is not allowed in a restricted shell.
$ echo $0
-rksh
$ oem_setup_env
# echo $0
ksh
# cd /
#
```

Confirm Recording Added to /etc/inittab

- **To confirm that the recording has been added**
 - Login as root
 - `grep topasrec /etc/inittab`
 - Note that the job has been added
- **Additional Information**
 - The 'Start New Recording' should add the entry for you
 - Without this entry, the recording will not automatically start when you restart your server

```
(0) root @ pmking:127.0.0.1: /
# grep topasrec /etc/inittab
xmdaily:2:once:/usr/bin/topasrec -L -s 300 -R 1 -r 7 -o /etc/perf/daily/ -F -ype
rsistent=1 2>&1 >/dev/null # Start daily recording

(0) root @ pmking:127.0.0.1: /
#
```



IBM Performance Management for Power Systems



www.ibm.com/systems/power/support/pm/

End of Presentation