



System Fault Management A.04.03.01.02 Release Notes

HP-UX 11i v1 June 2010

Announcement

System Fault Management (SFM) is a collection of tools used to monitor the health of HP servers and receive information about hardware such as memory, CPU, power supplies, and cooling devices. SFM operates in the Web-Based Enterprise Management (WBEM) environment.

SFM includes the following tools:

- SFM Providers
- EVWEB

Note: HP-UX need not be rebooted upon upgrade/install of this version.

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SFM Providers

SFM providers are tools that gather information related to various hardware devices and report to the Common Interface Model Object Manager (CIMOM).

Following lists the SFM providers, and their respective functions:

Providers	Functions
CPU Instance Provider	Retrieves information about processor inventory and consolidated health of the processor subsystem
Memory Instance Provider	Gathers information about memory inventory and consolidated health of the memory subsystem
EMS Wrapper Provider	Translates events generated by the EMS Hardware Monitors into indications and reports those indications to the CIMOM
Filter Metadata (FMD) Provider	Provides the facility to predefine the important filter in a repository. FMD also ensures that all important or chosen indications are logged to the local event archive. FMD creates HP-advised subscriptions when SFM is installed.
Environmental Providers	Retrieve information about cooling devices (fans) and power supply (bulk power supply and AC input lines) on HP servers. They also retrieve consolidated health of cooling, power, system temperature, and system voltage subsystems on HP servers.
Firmware Revision Instance Provider	Retrieves information about firmware revision of system hardware components, such as system firmware version and Management Processor (MP) firmware version
Disk Instance Provider	Retrieves information about the consolidated health status and inventory information of direct attached disk drives, such as SCSI drives
MP Instance Provider	Retrieves information about the management processor of the system
Management Processor Instance Provider	The Management Processor Instance Provider is available on PA-RISC-based systems that support IPMI. However, the IPMI driver must support the IPMI commands for the MP Instance Provider to

	retrieve information about the management processor.
Firmware Revision Instance Provider	The Firmware Revision Instance Provider is also available on PA-RISC-based systems that support the Intelligent Platform Management Interface (IPMI).

Note: SFM is compliant with vPars A.03.04

Supported EMS Hardware Monitors

The following Event Monitoring Service (EMS) monitors are supported by SFM on PA-RISC-based servers running the HP-UX 11i v1 operating system:

- LPMC (now CPU) (lpmc_em)
- Memory (dm_memory)
- Core HW (dm_core_hw)
- Chassis Code (dm_chassis)
- Disk (disk_em)
- High Availability Disk Array (ha_disk_array)
- IPMI Forward Progress Log Monitor (fpl_em)
- Itanium Core Hardware Monitor (ia64_corehw)

Note: ia64_corehw monitor is supported only on IPMI-based PA-RISC systems.

Defect Fixes

QXCR1000999142

Problem: The EMSWrapper is unable to register with EMS Framework due to the timing issue. As a result, monitoring for some of the hardware resources does not work.

Resolution: This problem is fixed.

QXCR1001042503

Problem: The following command when run on SFM 11i v1 systems dumps core:

```
evweb eventviewer -L
```

Resolution: This problem is fixed.

EVWEB

This section describes EVWEB.

What Is EVWEB

EVWEB is a tool that can be used to view and administer WBEM indications generated on the HP-UX 11i v1 system.

The EVWEB tool includes the following components:

- **Event Subscription Administrator**

Event Subscription Administrator enables users to subscribe to an indication and view it. In addition, users with administrative privileges can also modify, and delete subscriptions. By subscribing to an indication, users can obtain detailed information about various WBEM indications. As a part of event subscription, users must specify event subscription criteria. Users must also select one or more destinations to receive information about indications.

Users can select one or more destination from the following list:

- Event Archive: The path of Event Archive is `/var/opt/sfmdb/pgsql`. Event Archive is the default destination.
 - Email: Event notification will be emailed to the specified email address. Users can specify multiple email addresses.
- **Event Viewer**
- The Event Viewer enables users to view the indications stored in the Event Archive. In addition, users with administrative privileges can also delete these indications. By default, HP-advised subscriptions are stored in the Event Archive. The Event Viewer also enables users to search for an indication logged in the Event Archive.

Benefits

Following lists the benefits of EVWEB:

- Enables users to manage all WBEM indications that are supported by SFM.
- Provides an option to customize the indication destination to receive information about HP-advised subscriptions.
- Enables users to view the command-line equivalent of an action performed using the GUI, thereby, educating users about the usage of various commands.

Features

Following lists the features that EVWEB offers:

- Provides quick search and advanced search mechanisms to view events from the Event Archive
- Generates a list of events in a printer-friendly format (GUI only)
- Enables users with administrative privileges to delete indications
- Enables users with administrative privileges to manage subscriptions, such as creating, modifying, and deleting indications
- Enables users to view subscriptions created using EVWEB
- Enables users to view externally created subscriptions.
Subscriptions created by using tools other than EVWEB are termed as externally created event subscriptions.
- Enables users to view HP-advised subscriptions. HP-advised subscriptions are provided by default by HP.

Note: EVWEB supports these features on browser-based GUI and the CLI.

What Is New in EVWEB

- EVWEB now supports indications generated by High Availability (HA) monitors.
- The Event Viewer provides a formatted view of details of an event. The formatted view is applicable for events from the HP_DeviceIndication class only.

Limitations

- When a HP-advised subscription is copied to create or modify another subscription, the subscription criteria is not copied. However, only destinations are copied to the new subscription.
- Event details displayed in EVWEB Event Viewer and embedded in the EVWEB email notification may not have similar readability or formatting as provided by the EMS event notification. The readability or formatting will be enhanced in a future release.

System Requirements

SFM is supported on the following systems running the HP-UX 11i v1 operating system:

- rp2400
- rp2430
- rp3410
- rp3440
- rp4410
- rp4440
- rp4505
- rp5400
- rp5450
- rp5470
- rp7400
- rp7410
- rp7420
- 9000/800/rp7440
- rp8400
- rp8420
- 9000/800/rp8440
- SD16000, SD32000, SD64000
- SD16A, SD32A, SD64A
- 9000/800/SD16B
- 9000/800/SD32B
- 9000/800/SD64B
- 9000/800/A180
- 9000/800/A180C
- 9000/800/A400-6x
- 9000/800/A500-44
- 9000/800/A500-5x
- 9000/800/A500-6x
- 9000/800/A500-7x
- 9000/800/D390
- 9000/801/D200
- 9000/810/D280 (hversion 5af is not supported)
- 9000/811/D210
- 9000/831/D350
- 9000/841/D360
- 9000/851/D360
- 9000/800/K360 (hversion 0x591 supported)
- 9000/800/K380
- 9000/800/K580

- 9000/802/K250
- 9000/804/K450
- 9000/809/K100
- 9000/829/K400
- 9000/839/K210
- 9000/849/K410
- 9000/859/K220
- 9000/879/K260
- 9000/889/K460
- 9000/898/K370
- 9000/899/K460
- 9000/899/K570
- 9000/800/L1000-36
- 9000/800/L2000-36
- 9000/800/L1500-7x
- 9000/800/L1500-8x
- 9000/800/L3000-6x
- 9000/800/L3000-7x
- 9000/800/L3000-8x

On the following systems, the CPU Instance Provider does not provide information about deconfigured processors, empty CPU slots, part number, and serial number:

- 9000/800/A180
- 9000/800/A180C
- 9000/800/D390
- 9000/801/D200
- 9000/810/D280
- 9000/811/D210
- 9000/831/D350
- 9000/841/D360
- 9000/851/D360
- 9000/800/K360
- 9000/800/K380
- 9000/800/K580
- 9000/802/K250
- 9000/804/K450
- 9000/809/K100
- 9000/829/K400
- 9000/839/K210
- 9000/849/K410
- 9000/859/K220
- 9000/879/K260
- 9000/889/K460
- 9000/898/K370
- 9000/899/K460
- 9000/899/K570

On the following systems, the CPU Instance Provider does not provide information about the part number and the serial number:

- 9000/800/A500-44
- 9000/800/A500-5x
- 9000/800/A500-6x
- 9000/800/A500-7x
- rp2400
- rp2430
- rp5400
- rp4505
- rp5450
- rp5470
- rp7400

On the following systems, the Memory Instance Provider does not provide information about the part number and the serial number :

- 9000/800/A180
- 9000/800/A180C
- 9000/800/D390
- 9000/801/D200
- 9000/810/D280

- 9000/811/D210
- 9000/831/D350
- 9000/841/D360
- 9000/851/D360
- 9000/800/K360
- 9000/800/K380
- 9000/800/K580
- 9000/802/K250
- 9000/804/K450
- 9000/809/K100
- 9000/829/K400
- 9000/839/K210
- 9000/849/K410
- 9000/859/K220
- 9000/879/K260
- 9000/889/K460
- 9000/898/K370
- 9000/899/K460
- 9000/899/K570

On the following systems, additional DIMM Properties like Artwork Revision, ScanRevision and EngineeringDateCode are reported:

- 9000/800/SD64B
- 9000/800/SD32B
- 9000/800/SD16B
- 9000/800/rp8440
- 9000/800/rp7440

On the following systems, the Environmental Instance Provider does not provide information about the power or cooling subsystems:

- 9000/800/A180
- 9000/800/A180C
- 9000/800/D390
- 9000/801/D200
- 9000/810/D280
- 9000/811/D210
- 9000/831/D350
- 9000/841/D360
- 9000/851/D360
- 9000/800/K360
- 9000/800/K380
- 9000/800/K580
- 9000/802/K250
- 9000/804/K450
- 9000/809/K100
- 9000/829/K400
- 9000/839/K210
- 9000/849/K410
- 9000/859/K220
- 9000/879/K260
- 9000/889/K460
- 9000/898/K370
- 9000/899/K460
- 9000/899/K570

Note: SFM is not supported on HP workstations running the HP-UX 11i v1 operating systems.

Following lists the software requirements for using SFM:

- HP-UX 11i v1
BUNDLE11i – B.11.11.0306.1 (June 2003 or later)
- HWEnable11i – (Applicable customer version)
- WBEM Services – A.02.05 (December 2006 or later)
- SysMgmtWeb – A.2.2.5 (December 2006)
- OpenSSL – A.00.09.07i.012 (December 2006 or later)
- OnlineDiag – B.11.11.18.05

Highly Recommended: (if 11i v1 OE is not latest version, install the following bundle):

GOLDBASE11i - B.11.11.0612.459 Base Patches for HP-UX (December 2006)

Installing the GOLDBASE11i fulfills all system patch requirements and will provide the customer with a stable supported environment.

Notes:

- If present, previous versions of SFM (A.01.00.01 or A.03.00.xx) must be uninstalled before installing SFM version A.04.00.04.
 - WBEM Services, Online Diagnostics, SysMgmtWeb, and HP SIM are available on the Operating Environment (OE) media and can be selected for install during the SFM installation.
 - The listed versions of the software are the minimum supported requirements. Subsequent versions are compatible with this version of SFM unless otherwise noted.
 - System Management Homepage (SMH) – bundled in SysMgmtWeb – is an optional install. However, if it is not installed you can not access the Event Viewer (EVWEB) user interface.
 - HP Systems Insight Manager (HP SIM) is an optional install. However, HP recommends using the latest available version to remotely administer indications and instances. The minimum requirement for this SFM version is the June 2006 releases: HP SIM 5.0 with Update 2-HP-UX (C.05.00.02.00)
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Supported Browsers

Following lists the browsers supported by SFM:

- Internet Explorer version 6.0 and above
 - Mozilla version 1.5 and above
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Limitations

- If the default log directory is deleted, log messages are not logged. A message is logged in syslog stating that the SFM log file could not be opened. Only a root user can remove this directory. HP recommends that users do not delete this default log directory.
 - After the system is rebooted or the CIMOM is restarted, the first request to SFM hardware inventory providers such as the CPU Instance Provider, Memory Provider, and the Environmental Providers may fail with the generation of the CIM_ERR_FAILED status code. Also, a message is displayed on the client system that states " Inventory information is being built currently. Please try after some time" . However, on subsequent requests, the SFM hardware inventory providers respond with requested information instantaneously.
 - The MP status displayed on HP System Management Homepage (HP SMH) may be reported as Unknown on certain systems, even if the status of the MP is OK, because the Power On Self Test (POST) status is not obtained.
 - If the POST on the MP fails, the status of the MP is reported as Degraded, indicating an error on the MP board, even if the MP is functioning properly.
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Known Problems and Workarounds

- None
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Product Documentation

For more information on SFM, see the following documents at:

<http://www.hp.com/go/hpux-diagnostics-docs>

- Frequently Asked Questions (FAQs)
 - System Fault Management Administrator's Guide
 - SFM Provider Data Sheets
 - SFM Tables of Versions
 - SFM Patch Descriptions
 - SFM Event Descriptions
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Software and Documentation Availability in Native Languages

SFM software and documents are available only in the English language.

Product Structure

The SFM product, consisting of SFM providers and EVWEB, is installed as part of the `SysFaultMgmt` bundle.

Following are the commands you must use to obtain the bundle, product, sub-product, and the fileset information about the `SysFaultMgmt` depot:

- Bundle

```
$ swlist -s <SysFaultMgmt Depot Location>
SysFaultMgmt A.04.03.xx.yy HPUX System Fault Management
```

- Product(s)

```
$ swlist -l product -s <SysFaultMgmt Depot Location>
SFM-CORE A.04.03.xx HPUX System Fault Management
SFMDB A.04.03.xx HP System Management Database (SFMDB)
```

- Sub-product(s)

```
$ swlist -l subproduct -s <SysFaultMgmt Depot Location>
SFM-CORE.HS-PROVIDER HS-PROVIDER
SFM-CORE.ERROR-MGMT Error Management Technology
SFM-CORE.EVWEB
SFM-CORE.FMD-PROVIDER FMD-PROVIDER
SFM-CORE.GS GS
SFM-CORE.SFM-HAS SFM-HAS
SFM-CORE.SFM-PROVIDER SFM-PROVIDER
SFMDB A.04.03.xx HP System Management Database (SFMDB)
```

- Fileset(s)

```
$ swlist -l fileset -s <SysFaultMgmt Depot Location>
# SFM-CORE A.04.03.xx HPUX System Fault Management
SFM-CORE.HS_PRO_COREIA A.04.03.xx HealthState Instance Provider Platform Specific Fileset
SFM-CORE.HS_PRO_COREPA A.04.03.xx HealthState Instance Provider Platform Specific Fileset
SFM-CORE.CTR_PRO_COMM A.04.03.xx Control Provider Common Fileset
SFM-CORE.CTR_PRO_COREIA A.04.03.xx Control Provider Platform Specific Fileset
SFM-CORE.CTR_PRO_COREPA A.04.03.xx Control Provider Platform Specific Fileset
SFM-CORE.EMT_COMM A.04.03.xx EMT Common components
SFM-CORE.EMT_COREIA A.04.03.xx EMT core platform specific fileset
SFM-CORE.EMT_COREPA A.04.03.xx EMT core platform specific fileset
SFM-CORE.EVWEB_COMM A.04.03.xx Event Manager (EvWEB) Common components
SFM-CORE.EVWEB_COREIA A.04.03.xx EvWEB core platform specific fileset
SFM-CORE.EVWEB_COREPA A.04.03.xx EvWEB core platform specific fileset
SFM-CORE.EVWEB_DOC A.04.03.xx EvWEB Online help fileset
SFM-CORE.EVWEB_GUI_COMM A.04.03.xx EvWEB GUI common fileset
SFM-CORE.EVWEB_GUI_IA A.04.03.xx EvWEB GUI platform specific fileset
SFM-CORE.EVWEB_GUI_PA A.04.03.xx EvWEB GUI platform specific fileset
SFM-CORE.EVWEB_MAN A.04.03.xx EVWEB Man pages fileset
SFM-CORE.FMD_PRO_COMM A.04.03.xx Filter Metadata Instance Provider Common Fileset
SFM-CORE.FMD_PRO_COREIA A.04.03.xx Filter Metadata Instance Provider Platform Specific Fileset
SFM-CORE.FMD_PRO_COREPA A.04.03.xx Filter Metadata Instance Provider Platform Specific Fileset
SFM-CORE.GS_COMM A.04.03.xx General Services Common Fileset
SFM-CORE.GS_COREIA A.04.03.xx General Services Platform Specific Fileset
SFM-CORE.GS_COREPA A.04.03.xx General Services Platform Specific Fileset
SFM-CORE.HAS-IA A.04.03.xx Hardware Access ServicesIA
SFM-CORE.HAS-PA A.04.03.xx Hardware Access Services PA
SFM-CORE.MISC_COMM A.04.03.xx MISC Common Fileset
SFM-CORE.MISC_COREIA A.04.03.xx MISC Platform Specific Fileset
SFM-CORE.MISC_COREPA A.04.03.xx MISC Platform Specific Fileset
SFM-CORE.SFM_PRO_COMM A.04.03.xx SysFaultMgmt Provider Module COMMON
SFM-CORE.SFM_PRO_IA A.04.03.xx SysFaultMgmt Provider Module IA
SFM-CORE.SFM_PRO_PA A.04.03.xx SysFaultMgmt Provider Module PA
# SFMDB A.04.03.xx HP System Management Database (SFMDB)
SFMDB.SMPGSQL-DOC A.04.03.xx PostgreSQL (SFMDB) Documentation Files
SFMDB.SMPGSQL-INC A.04.03.xx PostgreSQL (SFMDB) Header Files
SFMDB.SMPGSQL-LIB A.04.03.xx PostgreSQL (SFMDB) Library Files (Architecture dependent)
SFMDB.SMPGSQL-LIB A.04.03.xx PostgreSQL (SFMDB) Library Files (Architecture dependent)
SFMDB.SMPGSQL-MAN A.04.03.xx PostgreSQL (SFMDB) Manual Pages
SFMDB.SMPGSQL-RUN A.04.03.xx PostgreSQL (SFMDB) Executable Files (Architecture dependent)
SFMDB.SMPGSQL-RUN A.04.03.xx PostgreSQL (SFMDB) Executable Files (Architecture dependent)
SFMDB.SMPGSQL-SHA A.04.03.xx PostgreSQL (SFMDB) Share File
SFMDB.SMPGSQL-SRC A.04.03.xx PostgreSQL (SFMDB) Source Files
```

Reporting Defects

You can report defects related to SFM by filing a request on QUIX. The name of the project is SysFaultMgmt. If you do not have access to QUIX, contact your local HP representative to file a defect on your behalf.

[Top of Page / http://www.hp.com/go/hpux-diagnostics-docs](http://www.hp.com/go/hpux-diagnostics-docs)

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