CA SystemEDGE

Release Notes

Release 5.1.0



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Chapter 1: System Information

This chapter lists platform support that includes hardware and software requirement used to run SystemEDGE agent and Storage Resource Manager AIM.

For more information about platform support and hardware requirements to use the SystemEDGE agent with CA Virtual Assurance, see *CA Virtual Assurance Release Notes*.

This section contains the following topics:

SystemEDGE Operating System Support (see page 7)
Hardware Requirements (see page 10)
Software Requirements (see page 10)

SystemEDGE Operating System Support

A computer running SystemEDGE Version 5.1.0 requires one of the following operating systems:

Windows

- Windows Server 2003 SP2 Standard, Enterprise, Data Center, and Small Business Server Edition (32 bit, x86)
- Windows Server 2003 R2 SP2 Standard, Enterprise, and Data Center Edition (32 bit, x86)
- Windows Server 2003 R2 SP2 Standard, Enterprise, and Data Center Edition (64 bit, x64)
- Windows Server 2003 SP2 Edition (64 bit, x64)
- Windows Server 2008 R2 with SP1
- Windows Server 2003 SP2 64-bit Itanium Edition (64 bit)
- Windows Server 2008 Standard, Enterprise and Data Center Edition (32 bit, x86)
- Windows Server 2008 Standard, Enterprise and Data Center Edition (64 bit, x64)
- Windows Server 2008 R2 Standard, Enterprise and Data Center Edition (64 bit, x64)
- Windows Server 2008 64-bit Itanium Edition (64 bit)
- Windows XP Professional SP3 (32 bit, x86)
- Windows Vista SP1 Business, Enterprise, and Ultimate Edition (32 bit, x86)
- Windows Vista SP1 Business, Enterprise, and Ultimate Edition (64 bit, x64)
- Windows 7 Professional Edition (32 bit, x86)
- Windows 7 Professional Edition (64 bit, x64)

HP

- HP-UX 11.11 PA-RISC (64 bit)
- HP-UX 11.23 PA-RISC (64 bit)
- HP-UX 11.23 ia64 (64 bit)
- HP-UX 11.31 PA-RISC (64 bit)
- HP-UX 11.31 ia64 (64 bit)

IBM AIX

- IBM AIX 5L Versions 5.2 and 5.3 (32 bit, 64 bit)
- IBM AIX Version 6.1 (64 bit)

Linux

- Red Hat Linux Web Server, Advanced Server, and Enterprise Server 4.0 (32 bit, x86)
- Red Hat Linux Web Server, Advanced Server, and Enterprise Server 4.0 (64 bit, x64)
- Red Hat Linux 64-bit Itanium Web Server, Advanced Server, and Enterprise Server 4.0 (64 bit)
- Red Hat Linux Web Server, Advanced Server, and Enterprise Server 5.0 (32 bit, x86)
- Red Hat Linux Web Server, Advanced Server, and Enterprise Server 5.0 (64 bit, x64)
- Red Hat Linux 64-bit Itanium Web Server, Advanced Server, and Enterprise Server 5.0 (64 bit)
- SUSE Linux Enterprise Server 9.0 (32 bit, x86)
- SUSE Linux Enterprise Server 9.0 (64 bit, x64)
- SUSE Linux Enterprise Server 9.0 (64 bit, ia_64)
- SUSE Linux Enterprise Server 10.0 (32 bit, x86)
- SUSE Linux Enterprise Server 10.0 (64 bit, x64)
- SUSE Linux Enterprise Server 10.0 (64 bit, ia_64)
- SUSE Linux Enterprise Server 11 (32 bit, x86)
- SUSE Linux Enterprise Server 11 (64 bit, x64)
- Debian Linux Version 4.0 (Etch) (32 bit, x86)
- Debian Linux Version 4.0 (Etch) (64 bit, x64) - Legacy Mode Only
- Debian Linux Version 4.0 (Etch) (64 bit, ia_64) - Legacy Mode Only
- Debian Linux Version 5.0 (Lenny) (32 bit, x86)
- Debian Linux Version 5.0 (Lenny) (64 bit, x64) - Legacy Mode Only
- Debian Linux Version 5.0 (Lenny) (64 bit, ia_64) - Legacy Mode Only

zLinux

- SUSE Linux Enterprise Server 10 (zSeries) - Legacy Mode Only
- SUSE Linux Enterprise Server 11 (zSeries) - Legacy Mode Only
- Red Hat Enterprise Server 5.0 (zSeries) - Legacy Mode Only

Solaris

SystemEDGE supports all Solaris Zone configurations for the Solaris 10 operating system.

- Solaris UltraSPARC 8 (64 bit)
- Solaris UltraSPARC 9 (64 bit)
- Solaris UltraSPARC 10 (64 bit)
- Solaris 8 (32 bit, x86)
- Solaris 9 (32 bit, x86)
- Solaris 10 (32 bit, x86)
- Solaris 10 (64 bit, x64)

Note: Patches 109326 (SPARC) and 109327 (x86) are required for Solaris 8 SPARC and Intel, or SystemEDGE does not start. We recommend the patches 117000 (SPARC) and 117001 (x86) for Solaris 8 SPARC and Intel, which fixes the issue with incorrect CPU statistics.

Tru64 UNIX

- HP Tru64 UNIX Version 5.1B (64 bit)

CA Virtual Assurance-specific features such as deployment and configuration may not be supported on all platforms.

Hardware Requirements

The hardware requirements for SystemEDGE and AIMs are as follows:

Minimum

CPU: Same as OS vendor

RAM: Same as OS vendor

Free disk space: 50 MB (Managed Node, SystemEDGE only *)
Free disk space: 250 MB (AIM Server with all CA Virtual Assurance AIMs installed)

Network Interface Controller (NIC): 100 Mbps

Recommended

CPU: Same as OS vendor

RAM: Same as OS vendor

Free disk space: 150 MB or more (Managed Node, SystemEDGE only **)
Free disk space: 500 MB (AIM Server with all CA Virtual Assurance AIMs installed)

Network Interface Controller (NIC): 100 Mbps or more

(*) UNIX and Windows space requirements vary somewhat. For Windows installations space requirement is for installation using MSI installer.

(**) Space requirements for runtime files increase when diagnostic traces are enabled. Size of diagnostic trace is capped to 10 MB by default.

Software Requirements

The following software is required on specific platforms:

- The IA-32 Execution Layer is required to install SystemEDGE on Linux IA64 systems. For more information, see Install on Linux IA64 Systems (see page 11).
- The edgetrapmon utility supersedes xtrapmon on Linux, UNIX and Windows and does not require additional libraries.

  Note: In this release, edgetrapmon is available in all platforms. The previously available xtrapmon utility is no longer available.

Chapter 2: General Considerations

This section contains the following topics:

Microsoft Data Center Certification (see page 11)
Install on Linux IA64 Systems (see page 11)
Supported Upgrades (see page 12)

Microsoft Data Center Certification

The SystemEDGE agent does not touch the system kernel, whether it runs on a UNIX, Linux, or Windows system. SystemEDGE does not require Data Center Certification.

Install on Linux IA64 Systems

The SystemEDGE installation infrastructure is only available on x86 architecture. While installing SystemEDGE on Linux IA64 systems, you must check if IA-32 Execution Layer is already installed on Linux systems.

You can check if the layer is available using the following command:

```
/etc/init.d/ia32el
```

If the Execution Layer is not available, you need to install the layer on Linux systems.

To install IA-32 Execution Layer

1. Install ia32el rpm.
2. Install the appropriate glibc i686 RPM for your operating system version. To check which version to install, run the following command:

   ```
   rpm-qa | grep glibc
   ```

   The /emul/ia32-linux folder is created.
3. Add the legacy IA64 C++ libraries (compat-libstdc++-33-3.2.3-61.ia64.rpm).

   The exact package version varies for different operating system releases.

For more information about the ia32el package, see the vendor documentation.

Supported Upgrades

You can upgrade to SystemEDGE 5.1.0 from the following previous versions:

- SystemEDGE 5.0, 5.0.1, 5.0.2
- Any version of SystemEDGE r4.3
- SystemEDGE r4.2 patch level 3 and above

SystemEDGE r4.2 cannot contain any AIMs for the upgrade to work, while all AIMs in r4.3 are upgraded.

Note: For more information about performing an upgrade, see the *SystemEDGE User Guide*.

You can upgrade the CA eHealth Service Availability AIM to SRM 3.1.0 from any version of Service Availability 2.1.

Note: For more information about upgrading the SRM AIM, see the *SRM User Guide*.

Chapter 3: New Features and Enhancements

This section contains the following topics:

SystemEDGE Features (see page 13)
New Features and Enhancements (see page 14)

SystemEDGE Features

SystemEDGE is an SNMP-compliant agent which provides an access to the monitored elements using an industry standard MIB. SystemEDGE also provides an extensible plug-in (AIM) interface which allows you to monitor additionally vCenter Server, Solaris Zones, or Service Response. SystemEDGE provides the status and performance data to the CA Virtual Assurance manager. To manage the virtual environments and servers, SystemEDGE is mandatory.

The features provided by SystemEDGE are listed as follows. The listed features help you to compare and identify the difference between SystemEDGE and other agents:

- SNMP compliant agent
- SNMP based traps
- SNMP v1/v2/v3 communications
- Monitoring restriction by computer name/address
- CAM based communications (for configuration operations only)
- Support for multiple manager instances
- Support for Spectrum IM
- Support for eHealth
- Support for NSM
- Support for 3rd Party Managers
- File based configuration
- Manager UI based configuration
- Multi-tier hierarchical object model

- Agent based threshold monitoring
- Aggregated monitors
- Support for Host Resource MIB
- Windows performance metrics (partial support)
- Wide breadth UNIX or Linux monitoring
- True average performance monitoring
- Support for service response monitoring (AIM)
- Support for remote (agent-less) monitoring (AIM)
- Support for vCenter Server management (AIM)
- Support for Hyper-V management (AIM)
- Support for Solaris Zones management (AIM)
- Support for LPAR management (AIM)
- Support for MSCS management (AIM)
- Support for UCS management (AIM)

New Features and Enhancements

The new and enhanced features in this release of SystemEDGE include the following:

- SNMP Getbulk support for improved table retrieval performance
- Perl-compatible regular expressions (PCRE)
- Regular expressions with UTF-8
- Support for multiline pattern matching in log monitors
- Support for text pattern exclusion in log monitors
- I18n support

Chapter 4: MIB Object Support

This chapter lists the objects from each supported MIB that the SystemEDGE agent does not support on specific platforms.

This section contains the following topics:

Windows (see page 15)
Solaris (see page 18)
HP-UX (see page 22)
AIX (see page 24)
Tru64 UNIX (see page 27)
Linux (see page 29)

Windows

This section lists the unsupported MIB objects on Windows operating systems.

MIB-II Objects

SystemEDGE does not support MIB-II on Windows XP and 2003 systems, because the Microsoft Master agent already provides this support.

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for Windows:

- hrSystemInitialLoadParameters
- hrStorageAllocationFailures
- hrFSRemoteMountPoint
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate
- hrFSAccess
- hrSWRunEntry.SWRunPath
- hrSWRunEntry.SWRunParameters
- hrSWInstalledID

The following Host Resources MIB objects are not implemented in the current release:

- hrPrinterTable
- hrFSBootable

The following Host Resources MIB objects have the indicated object comments:

hrDeviceID

Hardware manufacturers have not assigned IDs.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for Windows:

- ipSystemStatsTable
- ipIfStatsTable
- ipAddressPrefixTable
- ipAddressTable
- ipNetToPhysicalTable
- ipDefaultRouterTable
- ipNetTo

Systems Management MIB Objects

The following Systems Management MIB objects are not supported for Windows 2003 (x86_64, ia_64):

- kernelConfig.romVersion
- ntSystem.ntIoPageLockLimit
- ntSystem.ntCmdlineOptions
- ntSystem.ntDosMemSize
- ntSystem.ntWowCmdline
- ntSystem.ntWowSize
- ntSystem.ntSysBiosVersion

The Systems Management MIB object ntSystem.ntSysBiosDate is not supported for Windows 2003 (x86_64).

The following Systems Management MIB objects are not supported for all Windows operating systems:

- system.hostid
- devTable.devTfiles
- devTable.devFfiles
- devTable.devMaxNameLen
- devTable.devFstr
- devTable.devInodeCapacity
- kernelConfig.serialNumber
- kernelConfig.maxInode
- kernelConfig.maxFiles
- kernelConfig.maxClist
- kernelConfig.maxMemPerProc
- kernelConfig.openMaxPerProc
- kernelConfig.posixJobCtrl
- kernelConfig.posixVersion
- bootconf
- streams
- userTable.userUID,GID
- userTable.userShell
- processTable.processFlags
- processTable.processUID,GID
- processTable.processParentPID
- processTable.processInBlks,outBlks
- processTable.processMsgsSent,Recv
- processTable.processSysCalls
- processTable.processMinorPgFaults
- processTable.processNumSwaps
- processTable.processVolCtx,InvolCtx
- kernelperf.diskWaitNum
- kernelperf.pageWaitNum

- kernelperf.swapActive
- kernelperf.sleepActive
- kernelperf.numTraps
- kernelperf.numPageSwapIns
- kernelperf.numPageSwapOuts
- kernelperf.numSwapIns
- kernelperf.numSwapOuts
- kernelperf.numPageReclaims
- kernelperf.pageScans
- ipc
- buffers.mbuf
- buffers.strbuf
- ioBufferCache.numBufSleeps
- ioBufferCache.numAgeAllocs
- ioBufferCache.numLRUAllocs
- ioBufferCache.numBufHdrs
- ioBufferCache.numAllocBuff
- dnlc
- ntRegistry.ntRegistryCurrentSize
- rpc
- nfs
- cpuStatsTable.cpuStatsWait
- cpuStatsTable.cpuStatsWaitPercent

The Systems Management MIB object performance (except kernelperf) is not implemented in the current release.

Solaris

This section lists the unsupported MIB objects on Solaris operating systems.

MIB-II Objects

The following MIB-II objects are not supported for Solaris:

- ifTable.ifEntry.ifLastChange
- ifTable.ifEntry.ifInNUCastPkts
- ifTable.ifEntry.ifDiscards
- ifTable.ifEntry.ifInUnknownProtos
- ifTable.ifEntry.ifOutNUCastPkts
- ifTable.ifEntry.ifOutQLen
- ifTable.ifEntry.ifSpecific

The agent supports the following MIB-II objects for Solaris if you have installed the appropriate patches:

- ifTable.ifEntry.ifSpeed
- ifTable.ifEntry.ifInOctets
- ifTable.ifEntry.ifOutOctets

The egp MIB-II object is not implemented in the current release.

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for Solaris:

- hrStorageAllocationFailures
- hrSWRunID
- hrSWInstalledID

The following Host Resources MIB objects are not implemented in the current release:

- hrSystemInitialLoadParameters
- hrPrinterTable
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate
- hrFSBootable

The following Host Resources MIB objects have the indicated object comments:

hrDeviceID

Hardware manufacturers have not assigned IDs.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs.

hrSWRunPath

Process may change these values or the process may not supply this value.

hrSWRunParameters

Process may change these values or the process may not supply this value.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for Solaris:

- ipIfStatsTable
- ipAddressPrefixTable

Systems Management MIB Objects

The following Systems Management MIB objects are not supported for Solaris:

- streams.numMuxLinks
- streams.dblockUse
- streams.dblockMax
- streams.dblockFail
- performance.cpuSxbrk
- kernelperf.diskWaitNum
- mbufAllocTable
- strbufAllocTable
- ioBufferCache.numAgeAlloc
- ioBufferCache.numLRUAlloc
- ioBufferCache.minNumBufHdrs
- ioBufferCache.numAllocBuf
- nt
- nfs.clientNFSclsleep

The following Systems Management MIB objects are not implemented in the current release:

- kernelperf.pageWaitNum
- kernelperf.swapActive
- kernelperf.sleepActive

Solaris 10 Systems Management MIB Objects

Solaris 10 does not support the following Systems Management MIB objects:

Note: The objects that are not supported for all Solaris operating system are also not supported for Solaris 10.

- queID
- queKey
- queMode
- queOwner
- queGroup
- queNBytes
- queNMesg
- queDel
- shmemID
- shmemKey
- shmemMod
- shmemOwner
- shmemGroup
- shmemSegSz
- shmemNLcks
- shmemDel
- semID
- semKey
- semMode
- semOwner
- semGroup
- semNsems
- semDel

HP-UX

This section lists the unsupported MIB objects on HP-UX operating systems.

Note: SystemEDGE may not report loopback interface on HP-UX (35025).

MIB-II Objects

The following MIB-II objects are not supported for HP-UX:

- ifTable.ifEntry.ifSpecific
- ip.ipRouteEntry.ipRouteMetric5

The following MIB-II objects are not implemented in the current release:

- ip.ipRouteEntry.ipRouteInfo
- egp

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for HP-UX:

- hrStorageAllocationFailures
- hrPartitionTable
- hrSWRunID
- hrSWInstalledID

The following Host Resources MIB objects are not implemented in the current release for HP-UX:

- hrSystemInitialLoadParameters
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate
- hrFSBootable
- hrPrinterTable

The following Host Resources MIB objects have the indicated object comments for HP-UX:

hrDeviceID

Hardware manufacturers have not assigned IDs.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs.

hrSWRunPath

Process may change these values.

hrSWRunParameters

Process may change these values or they may not be supplied.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for HP-UX:

- ipSystemStatsTable
- icmpStatsTable

Systems Management MIB Objects

The following Systems Management MIB objects are not supported for HP-UX:

- kernelconfig.romVersion
- kernelconfig.maxInode
- kernelconfig.maxFiles
- kernelconfig.maxClist
- kernelconfig.maxMemPerProc
- streams
- performance.cpuSxbrk
- mbuf (group, table)
- bootconf (group)
- strbufAllocTable
- ioBufferCache
- nt
- rpc.clientRPC
- nfs.clientNFSclseeps
- diskStatsTable.diskStatsReads
- diskStatsTable.diskStatsWrites

AIX

This section lists the unsupported MIB objects on AIX operating systems.

MIB-II Objects

The following MIB-II objects are not supported for AIX:

- ifTable.ifEntry.ifSpecific
- ip.ipInUnknownProtos
- ip.ipInDiscards
- ip.ipFragOKs
- ip.ipFragFails
- ip.ipFragCreates
- tcp.tcpOutRsts
- udp.udpInDatagrams
- udp.udpNoPorts
- udp.udpOutDatagrams

The MIB-II object egp is not implemented in the current release.

The ifTable.ifEntry.ifSpeed MIB-II object is an estimated value to due AIX 5.2 and 5.3 limitations.

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for AIX:

- hrStorageAllocationFailures
- hrPartitionTable
- hrSWRunID

The following Host Resources MIB objects are not implemented in the current release:

- hrPrinterTable
- hrSystemInitialLoadParameters
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate
- hrFSBootable
- hrSWRunPath
- hrSWRunParameters

The following Host Resources MIB objects have the indicated object comments:

hrDeviceID

Hardware manufacturers have not assigned IDs.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for AIX:

- ipIfStatsTable
- ipAddressPrefixTable
- ipNetToPhysicalTable

Systems Management MIB

The following Systems Management MIB objects are not supported for AIX:

- devTable.devFstr
- kernelConfig.maxFiles
- kernelConfig.maxMemPerProc
- processTable.processSysCalls
- whoTable.whoEntry.whoPid
- performance.diskWaitNum
- performance.pageWaitNum
- performance.sleepActive
- performance.numSwapIns
- performance.numSwapOuts
- msgqueTable
- shmemTable
- semTable
- strbufs
- ioBufferCache

- nt
- distribsys
- diskStatsTable.diskStatsQueueLength

The following Systems Management MIB objects are not implemented in the current release:

- bootconf
- streams

Tru64 UNIX

This section lists the unsupported MIB objects on Tru64 UNIX operating systems.

MIB-II Objects

The following MIB-II objects are not supported for Tru64 UNIX:

- ifTable.ifEntry.ifOutQLen
- ip.ipRouteEntry.ipRouteAge

The following MIB-II objects are not implemented in the current release:

- ip.ipRouteEntry.ipRouteInfo
- egp

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for Tru64 UNIX:

- hrSystemInitialLoadParameters
- hrStorageAllocationFailures
- hrFSBootable
- hrSWRunID

The following Host Resources MIB objects are not implemented in the current release:

- hrSystemInitialLoadDevice
- hrPrinterTable
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate

The following Host Resources MIB objects have the indicated object comments:

hrDeviceID

Hardware manufacturers have not assigned IDs.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs

hrSWInstalledID

Manufacturers have not assigned IDs.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for Tru64 UNIX:

- ipIfStatsTable
- ipAddressPrefixTable
- ipNetToPhysicalTable

Systems Management MIB Objects

The following Systems Management MIB objects are not supported for Tru64 UNIX:

- kernelConfig.serialNumber
- kernelConfig.romVersion
- kernelConfig.maxInode
- bootconf
- streams
- processTable.processNumThreads
- processTable.processSysCalls
- kernelperf.diskWaitNum
- kernelperf.pageWaitNum
- kernelperf.swapActive
- kernelperf.sleepActive
- kernelperf.numTraps
- kernelperf.numPageSwapIns

- kernelperf.numPageSwapOuts
- mbufs.freeClusters
- mbufs.numWaits
- strbufAllocTable
- ioBufferCache.numBufSleeps
- ioBufferCache.numAgeAllocs
- ioBufferCache.numLRUAllocs
- ioBufferCache.minNumBufHdrs
- ioBufferCache.numAllocBuf
- dnlc
- nt
- diskStatsEntry.diskStatsUtilization
- diskStatsEntry.diskStatsReads
- diskStatsEntry.diskStatsWrites

Linux

This section lists the unsupported MIB objects on Linux operating systems.

MIB-II Objects

The following MIB-II objects are not supported for Linux:

- ifTable.ifEntry.ifInOctets
- ifTable.ifEntry.ifInNUcastPkts
- ifTable.ifEntry.ifOutOctets
- ifTable.ifEntry.ifOutNUcastPkts
- ifTable.ifEntry.ifOutQLen
- ifTable.ifEntry.ifSpecific
- ip.ipRouteEntry.ipRouteAge
- ip.ipRouteEntry.ipRouteInfo
- ip.ipRoutingDiscards

- tcp.inErrs
- tcp.OutRsts

The following MIB-II objects have the indicated object comments:

ifTable.ifEntry.ifType

Estimated due to Linux limitations.

ifTable.ifEntry.ifSpeed

Estimated due to Linux limitations.

Host Resources MIB Objects

The following Host Resources MIB objects are not supported for Linux:

- hrSystemInitialLoadParameters
- hrStorageAllocationFailures
- hrPartitionTable
- hrFSBootable
- hrSWRunID
- hrSWInstalledTable

The following Host Resources MIB objects are not implemented in the current release:

- hrSystemInitialLoadDevice
- hrPrinterTable
- hrFSLastFullBackupDate
- hrFSLastPartialBackupDate

The following Host Resources MIB objects have the indicated object comments:

hrDeviceID

Hardware manufacturers have not assigned ID.

hrDeviceErrors

Supported if supported by the device itself.

hrProcessorFrwID

Manufacturers have not assigned IDs.

IPv6 MIB Objects

The following IPv6 MIB objects (RFC 4293) are not supported for Linux:

- ipIfStatsTable
- ipNetToPhysicalTable

Systems Management MIB Objects

The following Systems Management MIB objects are not supported for Linux:

- kernelConfig.maxClist
- kernelConfig.maxMemPerProc
- bootconf
- streams
- processTable.processNumThreads
- processTable.processInBlks
- processTable.processOutBlks
- processTable.processMsgsSent
- processTable.processMsgsRecv
- processTable.processSysCalls
- processTable.processMinorPgFlts
- processTable.processNumSwaps
- processTable.processVolCtx
- processTable.processInvolCtx
- kernelperf.diskWaitNum
- kernelperf.pageWaitNum
- kernelperf.swapActive
- kernelperf.sleepActive
- kernelperf.numTraps
- kernelperf.numSyscalls
- kernelperf.numSwapIns
- kernelperf.numSwapOuts
- kernelperf.numPageReclaims
- kernelperf.numPageFaults

- kernelperf.pageScans
- ipc
- buffers
- dnlc
- diskStatsEntry.diskStatsQueueLength
- diskStatsEntry.diskStatsServiceTime
- diskStatsEntry.diskStatsUtilization
- cpuStatsTable.cpuStatsWait
- cpuStatsTable.cpuStatsWaitPercent
- cpuStats.cpuTotalWait
- cpuStats.cpuTotalWaitPercent
- nt

The Systems Management MIB object kernelConfig.clockHZ is not implemented in the current release.

The following Systems Management MIB objects have the indicated object comments:

devTable.devTfiles

Supported if underlying kernel or module supports them.

devTable.devFfiles

Supported if underlying kernel or module supports them.

devTable.devInodeCapacity

Supported if underlying kernel or module supports them.

Chapter 5: Known Issues

This chapter provides information about known issues. For known issues related to CA Virtual Assurance integrated functionality, such as agent deployment and configuration, see the *CA Virtual Assurance Release Notes*.

This section contains the following topics:

ifSpeed Metric Limitation (see page 33)
Linux Port Binding (see page 33)

ifSpeed Metric Limitation

A pre-existing limitation in the SystemEDGE agent causes the ifSpeed metric to be reported as "1" if the metric cannot be gathered or is not available from the system kernel.

Linux Port Binding

On Linux systems, if you start the SystemEDGE agent manually on the command line with the same port multiple times, it binds to the same port multiple times. To work around this limitation, always use the Linux startup script ($CASYSEDGE/bin/sysedgectl start) to start SystemEDGE on Linux.

Chapter 6: Published Fixes

The complete list of published bug fixes for this product can be found through Published Solutions on CA Support Online.

Chapter 7: International Support

SystemEDGE is an internationalized product. An *internationalized* product is an English product that runs correctly on certified local language versions of the required operating system and required third-party products, and supports local language data for input and output. Internationalized products also support the ability to specify local language conventions for date, time, currency and number formats.

A *translated* product (sometimes referred to as a *localized* product) is an internationalized product that includes local language support for the product's user interface, online help and other documentation, and also local language default settings for date, time, currency, and number formats.

Internationalization (i18n)

CA SystemEDGE, CA Virtual Assurance AIMs, and selected command line utilities support internationalization based on UTF-8 character encoding.

SystemEDGE Control Panel Applet

The SystemEDGE Control Panel Applet uses the system locale regardless of the locale specified during the installation. If specific language resources for the system locale are not available, the UI of the SystemEDGE Control Panel Applet is presented in English.

SystemEDGE Configuration File

When you modify the sysedge.cf configuration file to add language-specific characters, verify that the text editor you use supports UTF-8 as a storage format. If your text editor inserts a UTF-8 Byte Order Mark when saving the file, SystemEDGE ignores the Byte Order Mark when reading the configuration file.

Regular Expressions with UTF-8 encoded characters

If you want to use UTF-8 encoded characters in regular expressions used for SystemEDGE monitors, enable the PCRE regular expression library. For more information about using PCRE, see the *SystemEDGE User Guide*.

SystemEDGE CLI Commands

The following commands provide localized output and console help information:

- edgemon
- edgewatch
- emphistory
- se_enc

If you use the optional –L switch, the utility detects the current locale of the console and language catalog if available. If a language catalog is not found, the utility falls back to English as a default language.

Customize Console Display

If you want to display console data that contains language-specific characters, verify the following prerequisites for CLI commands:

- Verify that the appropriate language support is available on your operating system.
- Enable the Lucida Console font in the Windows Command Prompt for running your commands.
- Enable UTF-8 character encoding in the UNIX or Linux console that you want to use to run your commands. Enter the following command in the terminal console to display the current language setting:

  ```
  echo $LANG
  ```

  If UTF-8 is not enabled, enter, for example, the following command in a console window (use the appropriate character encoding: en_US.UTF-8, ja_JP.UTF-8, fr_BE.UTF-8, de_DE.UTF-8, and so on):

  ```
  LANG=en_US.UTF-8; export LANG
  ```

Limitations

SystemEDGE supports only hostnames with the characters 'a - z', 'A - Z', '0 - 9' and '-'. A hostname cannot start with a hyphen ('-') or be all numeric. The NetBIOS name of a Windows system must match its DNS hostname.

SystemEDGE supports only ASCII characters in:

- All SystemEDGE parameters with the exception of policy names
- SystemEDGE Privilege Separation User (UNIX and Linux only)
- SNMP read, read/write, and trap community strings
- %TEMP% environment variable
- All SystemEDGE installation target paths

Support Statement for Non-ENU (U.S. English) Language Environments

The following versions of SystemEDGE are certified on the following non-English language environments:

- SystemEDGE r4.2 PL5 has been certified for operation on JPN editions of Windows Server 2003.
- SystemEDGE r4.3 PL2 has been certified for operation on JPN editions of Windows Server 2003, Solaris 9 SPARC, Solaris 10 SPARC, and Solaris 10 Intel
- SystemEDGE r5.0.1 has been certified for operation on JPN editions of Windows Server 2003 R2 x86 (SP2 and higher), Windows Server 2008 R2 x86 (SP1 and higher), Red Hat Enterprise Linux 5.6 x86, and Solaris 10 SPARC.
- SystemEDGE r5.1.0 and CA Virtual Assurance r12.5 AIMs support international environments. For details, see the Internationalization (i18n) (see page 37) section in this guide and the *CA Virtual Assurance Release Notes*.

Unless listed above, SystemEDGE and associated components such as the SRM (previously Service Availability) AIM have *not* been certified or tested by CA's Quality Assurance teams for operation on non-ENU language operating system environments.

For this reason, SystemEDGE releases prior to r5.1.0 and associated components *are not officially supported* on these environments. While CA are not aware of any technical limitations with installing SystemEDGE and associated components on non-ENU language operating systems, customers who choose to install into these environments do so at their own risk.

If SystemEDGE releases prior to r5.1.0 and associated components such as SRM are installed into non-ENU language operating system environments, our Technical Support team will do their best to provide assistance, by attempting to reproduce the problem on a standard ENU version of the operating system. However, if the problem cannot be reproduced, is found to be language-related, or an issue specific to the non-ENU operating system, it is highly likely that the problem will not be corrected. In such cases, the Problem Ticket tracking the problem will be closed, because the product is being operated in an unsupported environment.

Chapter 8: Documentation

The PDF guides provided with the agent are as follows:

- SystemEDGE Release Notes (SE_Release_ENU.pdf)
- SystemEDGE User Guide (SE_User_ENU.pdf)

To view PDF files, you must download and install the Adobe Reader from the Adobe website if it is not already installed on your computer.

The CA Virtual Assurance documentation set also contains these guides.

Updated guides are available at http://ca.com/support.