Brocade SMI Agent for EOS Products 2.7.2

Release Notes v1.0

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Brocade SMI Agent for EOS Products 2.7.2	First Release	August 16, 2010

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Introduction

These release notes describe the content of Brocade SMI Agent for EOS products patch release, version 2.7.2. This document supplements information contained in the product manuals.

For convenience, we have retained the legacy McDATA names to avoid any confusion. Please refer to the following table for the equivalent Brocade names for legacy McDATA products.

Brocade Names for Legacy McDATA Products

Brocade Names	Legacy McDATA Names
Brocade EFCM	EFCM
Brocade M-EOS	E/OS
Brocade M-EOSn	E/OSn
Brocade M6140 Director	Intrepid 6140 (ED-6140)
Brocade M4400 Switch	Sphereon 4400
Brocade M4500 Switch	Sphereon 4500
Brocade M4700 Switch	Sphereon 4700
Brocade Mi10K Director	Intrepid 10000 Director (i10k)

SMI Agent for EOS products Software Features

The SMI Agent for EOS products software provides a Common Information Model (CIM) agent for legacy McDATA switch and director products. The SMI Agent for EOS products performs the functions of a general purpose server as defined in the Storage Management Initiative Specification (SMI-S version 1.2.0) and enables a standard set of management functions to be performed by third-party CIM clients.

The SMI Agent for EOS products enables:

- Management of legacy McDATA switches and directors.
- Centralized management such as multi-vendor zoning and security.

What's New in this Release

- **Deleted zone members still remains in SMI-S cache when zone transaction is timed out or aborted:**

  If the zone session transaction is timed out or aborted when SMI Agent is connected through proxy mode(EFCM/DCFM), the set of Zone operations performed during aborted transaction still remains in SMI-S cache and these changes are in effect during the next transaction. This issue has been fixed in this release.
- Support for accepting connection established from OpenSSL version 0.9.8n client.

  The resolved issues in 2.7.2 are described under section Closed Defects with Code Change in SMI-S 2.7.2.

Upgrade and Downgrade Considerations

Upgrading is supported from SMI Agent 1.5.x or later version to SMI-S 2.7.2. To know about upgrade procedures for versions prior to 1.5.x, contact Customer Service for upgrade procedure.

System Requirements

The SMI Agent for EOS products is a switch interface, based on CIM and WBEM, installed on a platform supplied by the customer. SMI Agent for EOS products communication with legacy McDATA products is accomplished using TCP-based protocols.

The SMI Agent for EOS products solution requires the hardware and software described in the following sections.

Supported Switch Hardware

SMI Agent for EOS products 2.7.2 supports the following list of switch hardware

- Eclipse 1620
- Eclipse 2640
- Intrepid 6064
- Intrepid 6140
- Sphereon 3016
- Sphereon 3032
- Sphereon 3216
- Sphereon 3232
- Sphereon 4300
- Sphereon 4400
- Sphereon 4500
- Sphereon 4700
- Intrepid 10000

Recommended EOS versions

Following are the various EOS Firmware versions recommended for Brocade SMI Agent for EOS products 2.7.2

- EOSn 6.3, 6.4, 9.1, 9.2, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.8, 9.8.1, 9.9, 9.9.1, 9.9.2, 9.9.3, 9.9.5 9.9.6, 9.9.7 and 9.9.8
- EOSc 9.0, 9.1, 9.2, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2 , 9.8, 9.8.1, 9.9, 9.9.1, 9.9.2, 9.9.3, 9.9.59.9.6, 9.9.7 and 9.9.8
- EOSi 4.7 and 5.x (Supports with only EFCM proxy mode)

Supported EFCM / DCFM Versions

SMI Agent for EOS products	EFCM/DCFM Support
OPENconnectors SMI-S Interface 1.0	EFCM 8.6 and 8.7
OPENconnectors SMI-S Interface 1.1	EFCM 8.6, 8.7, and 8.8
OPENconnectors SMI-S Interface 1.1.1	EFCM 8.9
OPENconnectors SMI-S Interface 1.1.2	EFCM 8.7.1,8.9 and 8.9.1
OPENconnectors SMI-S Interface 1.5	EFCM 9.0 and 9.1

SMI Agent for EOS products	EFCM/DCFM Support
OPENconnectors SMI-S Interface 1.5.1	EFCM 9.0 and 9.1
OPENconnectors SMI-S Interface 1.5.2	EFCM 9.0, 9.1 and 9.1.1
Brocade SMI Agent for EOS products 2.0	EFCM 9.0, 9.1, 9.1.1 and 9.5
Brocade SMI Agent for EOS products 2.1	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6 and 9.6.1
Brocade SMI Agent for EOS products 2.1.1	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1 and 9.6.2
Brocade SMI Agent for EOS products 2.1.2	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1 and 9.6.2
Brocade SMI Agent for EOS products 2.1.3	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1 and 9.6.2
Brocade SMI Agent for EOS products 2.2	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2 9.7 and 9.7.1
Brocade SMI Agent for EOS products 2.2.1	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2 9.7 and 9.7.1
Brocade SMI Agent for EOS products 2.2.2	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1 and 9.7.2
Brocade SMI Agent for EOS products 2.5	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 DCFM 10.0.0 , 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3 and 10.1.4.
Brocade SMI Agent for EOS products 2.6	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3 ,10.1.4 and 10.3.0 *
Brocade SMI Agent for EOS products 2.6.1	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3 ,10.1.4 and 10.3.0 *
Brocade SMI Agent for EOS products 2.6.2	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 and EFCM 9.7.4 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3 ,10.1.4 and 10.3.0 *
Brocade SMI Agent for EOS products 2.7	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 and EFCM 9.7.4 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3, 10.1.4 ,10.3.0, 10.3.1, and 10.3.3
Brocade SMI Agent for EOS products 2.7.1	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 and EFCM 9.7.4 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3, 10.1.4 ,10.3.0, 10.3.1, 10.3.2 and 10.3.3
Brocade SMI Agent for EOS products 2.7.2	EFCM 9.0, 9.1, 9.1.1, 9.5, 9.6, 9.6.1, 9.6.2, 9.7, 9.7.1, 9.7.2, 9.7.3 and EFCM 9.7.4 DCFM 10.0.0, 10.0.1, 10.0.2, 10.0.3, 10.1.0, 10.1.1,10.1.2,10.1.3, 10.1.4 ,10.3.0, 10.3.1,10.3.2,10.3.3 and 10.3.4
* supported for mixed fabric with FOS switch as the seed switch.	

Supported Operating Systems

The SMI Agent for EOS products, version 2.7.2 supports the following operating systems (OS):

Windows	Windows XP with Service Pack 3
	Windows 2003 Server, Service Pack 2
	Windows Vista Business Edition*
	Windows Server 2008 Std*
Solaris	Solaris 9 for SPARC platform
	Solaris 10 for SPARC platform
Linux	Red Hat 9.0
	Red Hat AS version 4
	Suse Linux Enterprise Desktop 10.0

* Supported only in direct mode and DCFM proxy mode.

VMWare Support

VMWare ESX server 3.5. Following are the guest operating systems tested:

- Windows 2003 Server
- Red Hat Linux AS4
- Windows 2008

Note: Other virtualization software is not supported.

Related Documentation

The following documents provide additional support and information pertaining to Brocade SMI Agent for EOS products software:

- *Brocade SMI Agent for EOS products Installation Guide 2.7.2*
- *Brocade SMI Agent for EOS products User Guide 2.7.2*
- *Brocade SMI Agent for EOS products Developer's Guide 2.7.2*

The most recent version of documentation is provided on the Brocade Web site, through Brocade Connect. Go to http://www.brocade.com and click *MyBrocade* to register at no cost for a user ID and password.

Licensing

Please review the license agreement regarding Brocade SMI Agent for EOS products software while installing.

Important Notes

This section lists the details for New Feature, changes for the release, certain scenarios, and options to be used to resolve the issues.

- **Deleted zone members still remains in SMI-S cache when zone transaction is timed out or aborted:**

  If the zone session transaction is timed out or aborted when SMI Agent is connected through proxy mode(EFCM/DCFM), the set of Zone operations performed during aborted transaction still remains in SMI-S cache and these changes are in effect during the next transaction.
- Support for accepting connection established from OpenSSL version 0.9.8n client.

  The above issues are described under section Closed Defects with Code Change in SMI-S 2.7.2.

Connection Mode

Issue-1

SMI Agent installed on any other machine will fail to connect to DCFM server, which is running on Linux/Solaris.

Issue-2

SMI Agent cannot connect to DCFM server when SMI Agent and DCFM servers are installed in different subnets.

Solution

For the above two issues, make the following configuration changes.

After installing DCFM server, stop the DCFM server

- In /DCFM10/conf directory edit the dcfmsvc.conf file
- Dcfmsvc.conf file there is a property set.BIND_ADDRESS = 0.0.0.0
- Modify the set.BIND_ADDRESS = IP address of the DCFM server
- Save the file and restart the DCFM server

Now SMI Agent will be able to connect to DCFM server.

Issue:

SMI Agent installed in SUSE Linux desktop 10.0 fails to return instances after DCFM restart/Switch addition or deletion in DCFM server

Solution:

Perform the following configuration settings before connecting SMI Agent from SUSE Linux Desktop 10.0 to any DCFM server

Under /etc, edit the "hosts" file to include SUSE Linux Desktop 10.0 system IP address and hostname. Save the file and connect SMI Agent to DCFM server.

Configuration setting should be as follows in hosts file.

<IP Address of SUSE Linux> <System Name>

Upgrade and Connection mode change scenarios

Scenario-1:

If SMI Agent 2.X is managing fabric(s) through EFCM and if the EFCM server is migrated to any other higher version of EFCM or DCFM then SMI Agent will not connect to migrated version.

Scenario-2:

User wants to switch SMI Agent connected to one version of EFCM/DCFM in a machine to a different version of EFCM/DCFM in another machine

Scenario-3:

SMI Agent 2.X is managing fabric(s) through EFCM. If user migrates from EFCM to other higher version of EFCM or DCFM along with migrating from SMI Agent 2.X to 2.7.2 then SMI Agent 2.7.2 will not connect to migrated version.

Scenario-4:

User wants to switch between proxy mode and direct mode.

Solution:

For the above four connection scenarios, follow the below steps to get the connection when SMI Agent is started in server mode

1. Stop the SMI Agent 2.X server.
2. Delete the mcdataProductInterface properties file available at < Install Folder > \SMI_Agent_for_EOS_products\agent\server\jserver\bin.
3. Start the SMI Agent 2.X server by executing the Start_server.bat (Windows)/Start_server.sh (UNIX)
4. Choose the appropriate connection mode.

For the above four connection scenarios, follow the below steps to get the connection when SMI Agent started in service mode

1. Stop the SMI Agent 2.X service and uninstall the service.
2. Delete the mcdataProductInterface properties file available at < Install Folder > \SMI_Agent_for_EOS_products\agent\server\jserver\bin.
3. Start the SMI Agent 2.X service by executing the install_service.bat (Windows)/install_service.sh (UNIX)
4. Choose the appropriate connection mode.

IPV6 Support

SMI Agent installed in an IPv4-only stack cannot connect to EFCM started in an IPv6 address.

Solution:

EFCM server should be started either with v4 address or in dual mode.

Connectivity with EFCM

The Server Configuration Tool (SCT) cannot be launched when the SMI Agent is started after binding the SMI Agent to an IPv6 address without [ ] brackets

Solution:

Bind the SMI Agent to the IPv6 address by enclosing it in square brackets ([]) in the Jserver.properties file. This Jserver.properties file is located under <Install Folder>\SMI_Agent_for_EOS_products\agent\server\jserver\bin. This should be followed with restarting SMI Agent.

Add the following line after "java.net.preferIPv4Stack=false" in Jserver.properties file

"com.wbemsolutions.jserver.bindto=[<Host ipv6 address>]

For E.g.:

java.net.preferIPv4Stack=false

com.wbemsolutions.jserver.bindto= [<Host ipv6 address>]

Connectivity with DCFM

SMI Agent will not connect to a DCFM server through an IPv6 address.

DCFM Restart or DCFM Discovery change

When SMI Agent is connected to DCFM in proxy mode and DCFM is subsequently restarted or a switch is newly discovered, the following behavior may be seen:

1. Switch online/offline indications may not be delivered
2. Zoneset activate/de-activate indications may not be delivered
3. If a new blade is inserted or an existing blade is removed from a switch, the corresponding instance may not get reflected in the SMI Agent

Solution:

Brocade recommends that users restart SMI Agent if DCFM is restarted or a switch is added to DCFM discovery.

Co-existence of EOS and FOS SMI Agent

The Brocade SMI (EOS) Agent can co-exist on the same host with the Brocade SMI (FOS) agent version 120.8.0 and above. However, when the agents co-exist on the same host they need to be configured to run on the different ports.

System Requirements: 4 GB RAM or higher, 3 GHz CPU, 1 GB JVM memory size for each agent.

There are two possible scenarios for the agents to co-exist on the same host:

CASE I

Install SMI (EOS) agent

Install SMIA (FOS) with non-default ports (say https:6000 and http:6001)

Note: SMIA (EOS) will run on default ports (https:5989 and http:5988) in the above scenario.

CASE II

Install SMI (EOS) agent

Change the http and https port numbers by using the Server Configuration tool (SCT) and restart the SMI (EOS) agent

Install SMIA (FOS) with default ports

Notes

1. SMI (EOS) agent 2.7.2 has an option to change only the https port number during installation.
2. If SMIA (FOS) is installed in a host in which SMI (EOS) agent already installed, it will register to the SLP service installed by the SMI (EOS) agent. If any client queries the SLP service running in the host, it will list both the SMI (EOS) and SMI (FOS) agents.

Scalability of the SMI Agent for EOS Products

The following table lists the tested object count for scalability testing.

The SMI Agent for EOS Products can manage more than one fabric and the FC port limit must be within the scalability limit listed in the table

Fabric Object	SMI Class Name	Scalability number
Switch	McDATA_Switch	18
FC Ports in Switches	McDATA_FCPort	1952
Devices	McDATA_Node	2092
FC Ports in Devices	McDATA_NodePort	2192
Zones	McDATA_Zone	1456
WWN Zone Members	McDATA_ZoneMembershipSettingData	1002

Closed Defects with Code Change in SMI Agent for EOS Products 2.7.2

Defect ID: DEFECT000310127	**Technical Severity**: Medium
Summary: Zoning: If the zone session transaction is timed out or aborted, the Zone operations performed during aborted transaction still remains in SMI-S cache	
Symptom: Provider performed the Zone operations of a aborted Zone trasaction irrespective of the actual transaction	
Feature: ZONING	**Function**: Zoning
Probability: Medium	**Risk of Fix**: Medium
Found in Release: SMI-S2.7.0	

Defect ID: DEFECT000310129	**Technical Severity**: Medium
Summary: Pegasus client with OpenSSL version 0.9.8n couldn't connect to SMI-S provider	
Symptom: CIM clients with open SSL version 0.9.8n couldn't connect to SMI-S provider	
Feature: Http/Https Connectivity	**Function**: Http/Https Connectivity
Probability: Medium	**Risk of Fix**: Medium
Found in Release: SMI-S2.7.0	

Restrictions and Behavior

Multiple Indications during Firmware upgrade/downgrade:

Multiple port status change Indications will be generated during a switch firmware upgrade or downgrade. The SMI (EOS) agent is delivering multiple indications since the Switch is sending events for all managed ports.

Blade sub profile instance:

The Brocade SMI Agent for EOS products gives blades the sub profile instance even for switches that do not support blades.

For an SMI Agent connected to EFCM/DCFM in proxy mode, blade instances will not be updated when slots are removed from the M-i10k partition.

Managing M-i10K Director devices (Direct mode):

Procedure for creating new McDATA_ManagedSwitch instances in M-i10K

While creating M-i10K McDATA_ManagedSwitch instances, always use the API login credentials. This is not a required attribute for creation of other switch type instances.

For firmware version 9.0 and higher, the default API credentials are as follows:

User Name: APIuser

Password: password

For firmware version 6.x, the user should use the user name as Administrator.

Note: When migrating the firmware from 6.x to 9.x or 9.x to 6.x, the older password alone gets migrated and the user name will not get migrated

Eclipse router (1620/2640) in DCFM proxy mode:

Brocade SMI Agent for EOS products will not support discovery of an Eclipse router (1620/2640) in DCFM proxy mode.

Connectivity with EFCM:

A test connection for EFCM proxy mode connectivity will pass for invalid credentials in the SMI-S provider.

J WBEM Service advertisement through SLP

J WBEM service will not be advertised through SLP while running J WBEM in service mode after SMI Agent installation.

For the J WBEM service to be advertised through SLP in service mode after agent installation, stop the service, run the agent in server mode and again switch over to the service mode.

DomainIDLocked property:

The “DomainIDLocked” property value for McDATA_FCSwitchSettings class cannot be changed from false to true.

EOS virtual switch behavior in SMI Agent:

All virtual switches belong to the same I10k partition will be discovered in the EOS agent when any one of the virtual switches is managed in DCFM.

Previous Releases

To view/download SRNs for releases previous to 2.7.2, please go to http://www.brocade.com and click *Connect* > *My Brocade* to register at no cost for a user ID and password, and view/download the SRNs.