



Release Notes for Cisco Service Control Management Suite Subscriber Manager, Release 3.6.5

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Note

This document supports all 3.6.x releases.

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Introduction

This document outlines the new features and known caveats in the Cisco Service Control Management Suite (SCMS) Subscriber Manager (SM), Release 3.6.x.

For a list of the caveats that apply to Cisco SCMS SM, Release 3.6.5, see the [“Known Issues” section on page 4](#).

For a list of the caveats that apply to Cisco SCMS SM, Release 3.6.0, see the [“Known Issues” section on page 10](#).



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Cisco SCMS SM, Release 3.6.5

This section describes the new features, interoperability of the application programming interfaces (API), resolved issues, and known issues in Cisco SCMS SM, Release 3.6.5.

New Features

The following new features are included in Cisco SCMS SM, Release 3.6.5:

- Extended RADIUS attributes / VSAs
- Subscriber aging for RADIUS integration
- Quota Manager APIs
- SM API—Filter by subscriber properties
- Dynamic giaddr learning as an option
- Fairness usage policy for DHCP Sniffer LEG
- Support on UCS, VMware, and CentOS Release 5.4

API Interoperability

[Table 1](#) shows the Service Control Engine (SCE) 3.6.5 and SM 3.6.5 software components and the versions of the SM C/C++ API, SM Java API, and SCE Subscriber API with which they are compatible:

Table 1 Release 3.6.5 API Interoperability

API	SCE 3.6.5	SM 3.6.5
SM C/C++ API	—	3.5.x, 3.6.0, 3.6.5
SM Java API	—	3.5.x, 3.6.0, 3.6.5
SCE Subscriber API	3.5.x, 3.6.0, 3.6.5	—
CNR LEG ¹	—	3.5.x, 3.6.0, 3.6.5

1. Cisco Network Registrar Login Event Generator

Resolved Issues

The following issues are resolved in Cisco SCMS SM, Release 3.6.5:

CSCsu81671

Default value might overwrite the package when VSAs are used.

CSCsz27303

RADIUS Listener LEG doesn't support byte matching (x).

CSCsz69311

Port 68 is open even when Lease Query on SCE is disabled.

CSCta68647

QM: Replenish quota doesn't work when using sliding window.

CSCsu26400

3.5.0 Pull mode: Mappings with expired lease time are not synced to SCE.

CSCsw42568

3.5.0 CMTS: giaddr property is not deleted from subscriber properties.

CSCsz30546

SM RADIUS: incorrect duplicate NAS identifier error.

CSCta05077

CMTS: changing device from dynamic to static doesn't copy mapping table.

CSCtc17059

RADIUS Sniffer: Default value might overwrite the package.

CSCti49847

RADIUS Sniffer support VSA index whose values are more than 255.

CSCti54320

Remove all mappings CLI works fine for non-existing subscriber.

CSCti81362

SM not displaying VSA attribute values with more than 100 characters.

Known Issues

The following are known issues in Cisco SCMS SM, Release 3.6.5:

CSCtf74237

SCE RADIUS Sniffer LEG doesn't extract the RADIUS attributes required for subscriber integration.

Workaround:

1. On the CLI (enable 15) run the command:

```
show applications slot 0 lookup PL_RADIUS_ExtractedAttribute_LUT all-key
```

The output should be "Table is empty."

2. Force the SM to reconnect to this SCE by disabling and enabling the RPC adapter on the SCE.

Use the following CLI sequence:

```
SCE8000#>configure
SCE8000(config)#>no ip rpc-adapter
SCE8000(config)#>ip rpc-adapter
SCE8000(config)#>exit
```

3. Wait for 30 seconds, and then run the show CLI command used in Step 1.

The output should no longer be "Table is empty."

CSCtg44131

Active SM might get stuck in WAITING FOR ONLINE status.

Workaround:

Wait for enough time between the execution of `/etc/init.d/tt_pcubesm22 stop` multiple times.

If the active SM gets stuck, restart it.

CSCti89949

UMlog of SCE receives "java.lang.ClassNotFoundException: int" message.

Workaround:

None at this time.

CSCtg77699

UDP packet drop occurs on the SM at the time of FGC.

Workaround:

None at this time.

CSCtg77922

Packet drop occurs on the SM when the Disk I/O process is at 100%.

Workaround:

None at this time.

CSCtj01171

VPN subscriber mapping is not removed after interim aging interval.

Workaround:

None at this time.

CSCsw24358

After a restart, a SM running in cluster environment moves to initialization state. By default, SM should move to standby.

Workaround:

Wait up to 5 minutes, and the SM should change state to Active or Standby.

Enter the **p3cluster -standby** command to change the SM status to Standby.

CSCsx96511

SM: "Failed receiving packages from se x.x.x.x" error message in umlog.

Workaround:

Remove CM configuration in p3sm.cfg file.

CSCta14867

p3sm --load-config command doesn't read "enable= xxx" in some sections of p3sm.cfg file.

Workaround:

Restart the SM.

CSCta10461

CLI import subscribers from CSV file might fail while there are anonymous subscribers in the SCE with the same IP or IP range.

Workaround:

Import the subscribers before configuring the anonymous-group.

1. Remove the anonymous-group configuration:

```
SCE2000(config if)#>no subscriber anonymous-group name <group-name>
```

2. Clear all anonymous subscribers:

```
SCE2000#>clear interface LineCard 0 subscriber anonymous all
```

3. Import the subscribers from the CSV file:

```
SCE2000(config if)#>subscriber import csv-file file.csv
```

4. Configure the anonymous subscribers:

```
SCE2000#>configure
SCE2000(config)#>interface li 0
SCE2000(config if)#>subscriber anonymous-group name...
```

CSCsz87209

SM status doesn't indicate that problem was only at startup.

When stopping the Times Ten database on a SM server member of a Veritas cluster, the database properly restarts, but the **p3sm --show-status** command shows an error message.

Workaround:

Verify that the database is properly running using the **p3db --status** command.

CSCsw30642

Certain warning messages appear when reloading the SM:

```
"Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.SSUMBean", "createMainModuleFromPropertiesFile: could
not find /export/home/pcube/sm/server/root/ssu/anonymus.pro."
"Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname"
"Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname"
"Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname"
```

Workaround:

These error message are only cosmetic. SM operation is not affected.

CSCsq44686

Slower performance when working with multiple LEGs and APIs while support_ip_range is enabled.

Workaround:

None at this time.

CSCsu64446

SM: change of NAS name in p3sm.cfg is not supported.

The load fails when using the same NAS IP but different NAS name for 2 loads of p3sm.cfg.

An error indicates that the IP is already in use.

Workaround:

In order to rename the NAS:

1. Remove it from the configuration file by commenting out the section.
2. Load the SM configuration.
3. Uncomment and change the name of the NAS.
4. Load the configuration again.

CSCsz06190

SM install or upgrade procedure may fail on Linux platform.

The TT DB fails to be created with specific memory configuration.

Workaround:

If possible, reduce the SM process size.

CSCsz47864

Release 3.5.5—After the **p3db --upgrade-rep-protocol** command during a cluster upgrade, the SM doesn't return to a normal prompt.

Workaround:

1. Open a second telnet session to the SM.
2. Use the **p3sm --sm-status** command to verify when the SM status is either Initialization or Standby.
3. In the first telnet session to the SM, use Ctrl-C to return to a normal prompt.

CSCsr47706

CLU **p3subsdB --clear-all** command exits routine before the operation is completed in the SCE8000.

Workaround:

None at this time.

CSCsy92046

SM Cluster: During failover, faulted SM does not release the RADIUS accounting port 1813. When performing another failover, the SM fails to bind because port 1813 is still active and already in use.

Workaround:

None at this time.

CSCtb31249

SM RADIUS Listener not sending Response in certain circumstances.

Conditions:

- The SM receives RADIUS packets from some RADIUS Forwarder (Proxy).
- SM RADIUS Listener is set with NAS IP that matches only the Source IP of the RADIUS packet, i.e. the RADIUS Proxy IP rather than NAS-Identifier or NAS-IP-Address attributes.
- The RADIUS Proxy uses multiple source ports for sending RADIUS accounting messages to the SM. Thus, it allows simultaneous sending of multiple Accounting Messages with the same ID (but over different source ports).

With the above conditions, the SM might receive two accounting messages with the same ID at the same time, i.e. the second message arrives before the SM has responded to the first message. In such a case, the SM sends a response to the first message, but it does not send a response packet to the second RADIUS request even though it processes the second message.

Workaround:

None at this time.

Cisco SCMS SM, Release 3.6.0

This section describes the new features, interoperability of the application programming interfaces (API), resolved issues, and known issues in Cisco SCMS SM, Release 3.6.0.

New Features

Subscriber Manager 3.6.0 contains the following new features:

- Cable Modem Termination System (CMTS)-awareness for DOCSIS 3.0
- Clone CM medium access control (MAC) identifications
- Red Hat Enterprise Linux (RHEL) 64-bit for the SM

API Interoperability

Table 2 shows the Service Control Engine (SCE) 3.6.0 and SM 3.6.0 software components and the versions of the SM C/C++ API, SM Java API, and SCE Subscriber API with which they are compatible:

Table 2 Release 3.6.0 API Interoperability

API	SCE 3.6.0	SM 3.6.0
SM C/C++ API	—	3.1.x, 3.5.x, 3.6.0
SM Java API	—	3.1.x, 3.5.x, 3.6.0
SCE Subscriber API	3.1.x, 3.5.x, 3.6.0	—
CNR LEG ¹	—	3.1.x, 3.5.x, 3.6.0

1. Cisco Network Registrar Login Event Generator

Resolved Issues

The following issues are resolved in Cisco SCMS SM, Release 3.6.0:

CSCtd54729

SCE Subscriber Manager (Sniffer RADIUS Leg) does not assign Subscriber Domain based on RADIUS Access-Accept packet. Default Domain - specified with " aliases="*" property also results in domain=null

Issue is applicable only when custom Domain name is used. If domain name is "subscribers" and rad_sniff.cfg is configured to process only access-accept packets, problem is not experienced.

CSCta10627

When the Subscriber Manager (SM) fails to connect to the TimesTen database, it is loading the default configuration. This is causing the setup to be in push mode which can cause troubles with SM configured in pull mode with a large amount of subscribers. When the SM succeed to connect to the database, it loads the correct configuration and goes back to the configured mode.

This is seen on SM 3.5.0 on a Veritas cluster when the TimesTen database is manually shut down.

CSCtd38359

When using RADIUS Listener - accounting stop followed closely by accounting start for the same subscriber might be handled in the SM in the incorrect order.

CSCtd90293

SM Java API implementation or SCE Subscribers API implementation may reach out of memory exceptions as a results of a memory leak in some Statistics class of the API.

CSCtc02318

Java API for SCE SM returns log message similar to the following:

```
ERROR [Statistics]
RPC.OutputQueue.NB.SM-API.J_10.20.30.40[output]/10.20.30.44:14374.sentMessages is already
registered
```

CSCtc94773

Upgrading the SM to 3.5.5 the quota manager database is wiped out and now previous quota information is kept in the database.

CSCtc64186

SM hits high CPU utilization. This occurs when a Quota Profile (in p3qm.cfg) is set with aggregation_period=x minutes where x is greater than 35791.

CSCtb08146

The upgrade from 3.5.0 to 3.5.5 fails when 3.5.0 had been upgraded previously from 3.1.X. The system cannot properly start because of database setup failure.

The reason for this problem is the upgrade procedure tries to add an index to the subscribers table (pcube.subs) that is already there.

CSCsz94204

When the SCE is integrated with Broadhop Policy Manager SME, sometimes the SCE stops sending login pulls to the SME.

CSCsy26232

PRPC connection fails when log4j v1.2 is on the classpath.

When using SM or SCE API in the application that works with log4j v1.2 and when trying to connect to the SM or SCE the following error is generated: NoSuchMethodError on RollingFileAppender.setMaxFileSize.

CSCsz81927

CMTS: show-vlink-data does not work.

p3vlink -- show-vlink-data -vlink-id=<vlink id> -n <sce name> --direction=<direction> command does not work. Execution of the command either returns false result or generates an error message.

CSCta05067

CMTS: Replacing an existing dynamic device to a static one is unsuccessful.

CSCsy26232

PRPC connection fails when log4j v1.2 is on the classpath.

When using SM or SCE API in the application that works with log4j v1.2 and when trying to connect to the SM or SCE the following error is generated: NoSuchMethodError on RollingFileAppender.setMaxFileSize.

CSCsw47660

Warning and wrong output displayed during SM upgrade from 3.1.5 to 3.5.x.

When upgrading the SM from version 3.1.5 to 3.5.x using either the upgrade-sm.sh script or the cluster-upgrade.sh script, a number of warnings appear and the displayed number of subscribers is incorrect:

```
** Cannot find the response from the file '/tmp/ttinst9968/sparc64/./pqb-response70.txt'.
** WARNING: There were installation questions that were not found in the batch file
'/tmp/ttinst9968/sparc64/./pqb-response70.txt'.
install-sm.sh: Current subscribers number: 0 (while there are subscribers in the SM)
ttMigrate: Warning received while restoring table PCUBE.TABLE_VERSIONS -- Table was
created with default PAGES= value. This could result in reduced performance.
```

CSCsz21625

Configuration of profiles with slices is passing with all aggregation types.

Monthly and weekly aggregation periods are not supported with slices but the following sample section can be loaded successfully to the SM:

```
[QuotaProfile.temp]
packages=0
bucket_sizes=104600338,53766960 dosage_sizes=658681,750046
aggregation_period=monthly
gap=67
slice_period=14880
```

CSCsz27303

RADIUS Listener LEG regular expression does not support byte matching (\x).

Subscriber Manager - RADIUS Listener LEG fails to perform byte matching using "\x" RegEx directive. In addition, RADIUS Listener does not process any value in the RADIUS attribute that is not printable.

CSCsw81718

SM Cluster 3.5.0 missing subscribers in 3.0.6 to 3.5.0 cluster upgrade.

When performing the upgrade from 3.0.6 to 3.5.0, there is a small timeframe during which subscribers may be dropped.

Known Issues

The following are known issues in Cisco SCMS SM, Release 3.6.0:

CSCtc42204

SM Cluster Upgrade fails constantly although it was done by strictly following the upgrade documentation.

First upgrade attempt had failure and a roll back was done.

Workaround:

Contact Customer Advocacy.

CSCsz69311

Port 68 is open on SCE when lease query is disabled.

DHCP lease query on the SCE requires port 68 to be open, however even when not active the port is still open and cannot be disabled.

Workaround:

No known workaround.

CSCsq44686

Performance issues when using Multiple APIs and support_ip_ranges=true

The system suffers from slow performance when working with multiple LEGs or multiple SM APIs and when the support_ip_ranges parameter is set to true.

Workaround:

No known workaround.

CSCsr47499

Incorrect error when importing VPNs in Pull Mode

When importing the VPNs using the SM in pull mode, an incorrect error is generated in the import.csv:

```
RuntimeException thrown by the invoke method of the Dynamic MBean.
```

The correct error that should be generated is:

```
Pull mode is not supported for vpns.
```

Workaround:

VPNs are not supported by the SM when working in pull mode.

CSCsr50960

SM does not sync SCE after splitting cascade pair

SM does not synchronize multiple SCEs that were previously part of the cascade pair. The SCEs are configured as standalone SCEs

Workaround:

To synchronize the SCEs as a cascade pair:

1. Comment out the sections that define the SCEs in p3sm.cfg
2. Load the SM configuration file (p3sm --load-config)
3. Uncomment the sections
4. Reload the SM configuration file (p3sm --load-config)

CSCsu64446

A change of NAS name in p3sm.cfg file is not supported.

When using the same NAS IP for loading the p3sm.cfg configuration file two times, but with different NAS names, the load fails with an error that indicates that the IP is already in use.

Workaround:

To rename the NAS:

1. Remove it from the configuration file (comment the section)
2. Load SM configuration
3. Uncomment and change the name of the NAS
4. Load the configuration again

CSCsw24358

p3culster -show command or p3sm -sm-status commands shows that the system in initialization state.

1. SM is running in cluster environment
2. SM was restarting

Workaround:

1. Wait up to 5 minutes, the SM will change its state to Active or Standby according to Cluster decision.
2. Perform p3cluster -standby, this will change the SM status to standby.

CSCsx96511

SM - "Failed to receive packages from the se x.x.x.x" error in the umlog

An exception is generated when trying to manage the subscribers from SCA BB SM GUI. The CM is configured in the p3sm.cfg for VLM.

The following exception is generated in the umlog:

```
[rpc-40-[worker#0]:usr.engage] ", ERROR, "com.pcube.apps.engage.sm.En
gageSM_MBean", "Failed receiving packages from se x.x.x.x"
(see attachment for full stack trace).
, being "x.x.x.x" the CM and not an SCE.
```

Workaround:

Remove the CM configuration from the p3sm.cfg.

CSCsz06190

SM install or upgrade failed on linux - TT DB creation failed

SM installation or upgrade procedure might fail on Linux because the TT DB creation with specific memory configuration fails.

The TT DB creation failed with the following error in the umlog:

```
BRST", "[main]", ERROR, "com.pcube.management.smm.database.DataRepositoryTimesTenImpl", "[Time
sTen][TimesTen 7.0.5.2.0 ODBC Driver][TimesTen]TT0837: Cannot attach data store
shared-memory segment, error 12 -- file "db.c", lineno 7896, procedure "sbDbCreate",
sqlState: 08001, errorCode: 837"
```

The "./p3sm --sm-status" output contains a similar error.

Workaround:

If possible, reduce the SM process size.

CSCsz47864

3.5.5 Cluster Upgrade:p3db upgrade-rep-protocol does not return prompt.

During the upgrade procedure to release 3.5.5, the prompt is not returned after executing the following command:

```
# /export/home/pcube/sm/server/bin/p3db --upgrade-rep-protocol
.....
SM is down
The pcubesm22 daemon has stopped successfully.
The pcubesm22 daemon has started successfully.
Starting SM
waiting for SM to come up
SM is up..
```

Workaround:

1. Open a new telnet session to the SM
2. Run the **p3sm --sm-status** command until the status of SM is Initialization or Standby

Go to the previous telnet connection where you executed the **p3db --upgrade-rep-protocol** command, press Ctrl-C to get back the prompt.

CSCsr47706

The SM core is hard-coded to wait certain amount of time for the command to finish on the SCE - the timeout fits SCE2000 and should be adapted to SCE8000.

As a result, the p3subsdB CLU returns to the user while the command is still running at the SCE.

Workaround:

No known workaround.

CSCsy92046

During failover (cables disconnected) the Radius listener was not stopped properly on the faulted SM and as a result the Radius accounting port was not released.

The Netstat output shows that the port (1813) is active on both active and standby SMs.

When doing another failover the SM failed to bind because the port is already in use.

Workaround:

No known workaround.

CSCsz69311

Port 68 is open on SCE when lease query is disabled

DHCP lease query on the SCE requires port 68 to be open, however even when not active the port is still open and cannot be disabled.

Workaround:

No known workaround.

CSCtb31249

SM Radius Listener not sending Response in certain circumstances.

Workaround:

No known workaround.

CSCta14867

The `p3sm --load-config` CLI command doesn't read some part of the `p3sm.cfg` file. As the result, in some cases, restarting SM is needed after the config change.

Workaround:

Restart SM.

CSCta10461

The import failed because there were anonymous subscribers with the same IPs. However, the subscribers were added to the SCE and removed the IP from the anonymous subscribers. As a result, the anonymous subscribers remained in the SCE with no mapping(s).

Workaround:

No known workaround.

CSCsz87209

When stopping Times Ten database on a Subscriber Manager server member of a Veritas cluster, the database restarts properly, but the command `p3sm --show-status` shows the following error message:

```
$ p3sm --sm-status
SM is running.
SM operational state is Standby
Error - Times-Ten DB is not set up correctly:
[TimesTen][TimesTen 7.0.5.2.0 ODBC Driver][TimesTen]TT0799: Unable to connect
to daemon; check daemon status -- file "db.c", lineno 9162, procedure "sbDbConnect"
Errors/warnings - during SM startup:
=====
1) Error occured while validating configuration: SMM:name=SMM:
RuntimeException thrown by the invoke method of the Dynamic MBean
Use "--reset-sm-status" option in order to reset the errors.
Command terminated successfully
"Errors/warnings - during SM startup:" should actually come before "Error - Times-Ten DB
is not set up correctly"
```

Workaround:

Verify that the database is properly running with the command: `p3db --status`

CSCsz87189

When stopping Times Ten database on a Subscriber Manager server member of a Veritas cluster, the database restarts properly, but the command `p3sm --show-status` always shows the following error message, even after using `p3sm --reset-sm-status`

```
$ p3sm --sm-status
SM is running.
SM operational state is Standby
Error - Times-Ten DB is not set up correctly:
[TimesTen][TimesTen 7.0.5.2.0 ODBC Driver][TimesTen]TT0799: Unable to connect
to daemon; check daemon status -- file "db.c", lineno 9162, procedure "sbDbConnect"
Errors/warnings - during SM startup:
=====
1) Error occured while validating configuration: SMM:name=SMM:
RuntimeException thrown by the invoke method of the Dynamic MBean
Use "--reset-sm-status" option in order to reset the errors.
Command terminated successfully
```

Workaround:

Verify that the database is properly running with the the command: `p3db --status`.

CSCsw30642

The following warning message appears everytime reloading Subscriber Manager.

```
"Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.SSUMBean", "createMainModuleFromPropertiesFile: could not
find /export/home/pcube/sm/server/root/ssu/anonymus.pro." "Day-Mon Year", "TT:MM:SS.msec
xxx", "[main]", WARN , "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname" "Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname" "Day-Mon Year", "TT:MM:SS.msec xxx", "[main]", WARN
, "com.pcube.management.smm.ssu.MainModule", "no value given for property
smm.ssu.application.classname"
```

Workaround:

There is no known workaround. Cosmetic only-does not affect Subscriber Manager functionality.

CSCtg77699

Under the following conditions:

- The radius event rate is very high (number of incoming radius packet at the maximum rate)
- The CPU deals with other SM operation

SM java process memory size is increased gradually and reaches the maximum memory usage limit.

When the process hits maximum memory size, java triggers Full time Garbage collection(FGC) to free up some un-used object spaces for the process to continue using the memory without any issues, and during this period Java FGC pauses all the process applications thread. Since Radius Listener is an multithreaded component and UDP based, it is not able to process any more packets during this Java FGC, which leads to packet drops.

Workaround:

None

Obtaining Documentation and Submitting a Service Request

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