



Release Notes for Cisco Service Control Management Suite Subscriber Manager (SCMS SM) 3.1.6

Covers: SCMS SM 3.1.6, SCMS SM 3.1.5, SCMS SM 3.1.1, SCMS SM 3.1.0

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Introduction

These release notes for the Cisco SCMS SM describe the enhancements provided in Cisco Release SCMS SM 3.1.6.

These release notes are updated as needed. These release notes include various fixes of bugs that were identified as part of Cisco's on-going internal testing and during our interaction with our customers.

This document outlines the resolved issues of the SM 3.1.6 release. It assumes the reader already has a good working knowledge of the Cisco solution. For additional information, please refer to the Cisco Service Control Engine documentation.

For a list of the caveats that apply to Cisco Service Control Management Suite Subscriber Manager (SCMS SM) 3.1.6, see [Open Caveats, page 25](#).



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**Note**

Cisco has been streamlining and improving its user interface. To access the new Cisco Service Control online documentation site, please do the following:

1. Go to the following page on Cisco.com:
<http://www.cisco.com/web/psa/products/index.html>
2. From the **Select a category** list, select 'Service Exchange'.
3. From the **Select a sub-category** list, select the desired Cisco Service Control category.
4. From the **Select a product** list, select the desired Cisco Service Control product.

Release SCMS SM 3.1.6

This section describes the functional enhancements, inter-operability of the APIs, and the resolved issues in release 3.1.6.

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Functional Enhancements

Subscriber Manager 3.1.6 contains two functional enhancements:

- The SM C/C++ API, SM Java API, and SCE Subscriber API all now support private IP addresses or ranges over VPN as the network ID.
- The Quota Manager now supports an infinite aggregation period.

API Interoperability

The following table shows the SM 3.1.6 and SCE 3.1.6 software components and the versions of the SM C/C++ API, SM Java API, and SCE Subscriber API with which they are compatible.

API	SCE 3.1.6	SM 3.1.6
SM C/C++ API	—	3.0.6, 3.1.x
SM Java API	—	3.0.6, 3.1.x
SCE Subscriber API	3.0.6, 3.1.x	—
CNR LEG	—	3.0.6, 3.1.x

Resolved Issues

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SM is not upgraded correctly when strip char is configured

- Cisco number: CSCs126664

When upgrading the SM to 3.1.5, the configuration is not successfully upgraded if one or more RADIUS sections, defined in the original *p3sm.cfg* configuration file, contain a prefix-stripping rule.

The stripping rule can be defined in the following sections:

- Radius.Subscriber ID
- Radius.Policy.<name>

This issue is fixed in the SM in release 3.1.6.

SM upgrade fails when 'use default' is false

- Cisco number: CSCs130136

Upgrading the SM to 3.1.5 fails if in the [**Radius.Property.<name>**] section of the *p3sm.cfg* file, the **use_default** property is set to *false*, or if the default property is not configured.

This issue is fixed in the SM in release 3.1.6.

SM upgrade fails when radius_attribute_type parameter is missing

- Cisco number: CSCsl93065

When upgrading the SM to version 3.1.5, the upgrade fails when the **radius_attribute_type** parameter is not set in the **p3sm.cfg** configuration file.

This issue is fixed in the SM in release 3.1.6.

Import of a csv-file is terminated on non-critical errors

- Cisco number: CSCsk81576

If a non-critical error occurs when importing a subscriber csv file, the import is stopped at that point.

This issue is fixed in the SM in release 3.1.6.

(.*)@.* as a replacement for strip char is not complete

- Cisco number: CSCsl27855

The reduction rules **(.*)@.*** or **.*/.@(.)** as a replacement for **strip suffix/prefix** are not complete. It does not address the following cases:

- The strip char does not exist.
- The strip char appears twice in the attribute.

This issue is fixed in the SM in release 3.1.6.

SM-SCE synchronization in pull mode may cause timeouts

- Cisco number: CSCsl16919

SM-SCE synchronization in pull mode may result in db lock timeouts. This is due to the heavy load this situation may impose, resulting in long timeouts on pull requests, which in turn may cause the PRPC queues to fill up, and finally to put the SCE in quarantine state.

This issue is fixed in the SM in release 3.1.6.

Domain roaming does not work for some subscribers

- Cisco number: CSCsl30212

When a domain of a subscriber is changed during login, it is expected that the subscriber would be migrated to the new domain (“domain roaming” feature). However, the migration sometimes fails with the error:

“Subscriber/VPN’s domain is not the same as specified domain”

This issue is fixed in the SM in release 3.1.6.

SM deadlock during private-ip login behind a new VPN

- Cisco number: CSCs142977

Subscriber login with a network id of the form IP@VLAN-id may lead to a deadlock if the VLAN-id is not known to the SM.

When the VLAN-id is not known, the SM tries to create a new VPN to hold this network-id automatically. The automatic VPN creation may lead to a deadlock if another login operation of a private IP is taking place at the same time.

This issue is fixed in the SM in release 3.1.6.

RADIUS listener might cause SM deadlock

- Cisco number: CSCsm66660

An SM deadlock may occur under the following conditions:

- The NAS's send packets at a high rate to the RADIUS listener
- The SM is in pull-mode
- Two login operations occur at the same time, one of which is also performing an implicit logout

This issue is fixed in the SM in release 3.1.6.

Incorrect version printed in CNR LEG

- Cisco number: CSCs114955

The version printed in the CNR LEG is '3.1.5LA B178' instead of '3.1.5 B 178'.

This issue is fixed in the SM in release 3.1.6.

Logging subscriber with whitespace may cause Unique constraint violation

- Cisco number: CSCs125374

Logging in a subscriber with whitespace at the end of the subscriber-Id may cause a Unique constraint error, which may cause inconsistent SM operation.

This issue is fixed in the SM in release 3.1.6.

SCE-Sniffer DHCP LEG suffers performance problems when support_ip_ranges=true

- Cisco number: CSCs167905

When the SCE-Sniffer DHCP LEG handles a DHCPACK packet that does not contain the subscriber ID, it queries the SM database for the subscriber ID using the IP address. If the **support_ip_ranges** parameter is **true**, this query can cause major performance degradation or high CPU utilization.

This issue is fixed in the SM in release 3.1.6.

Notifications are not retransmitted after QM-SCE reconnection

- Cisco number: CSCsg25700

If notifications are sent from the SCE to the quota manager (QM) when the QM-SCE connection is down, the API does not retransmit the notifications after QM-SCE reconnection.

This issue is fixed in the SM in release 3.1.6.

RADIUS Listener LEG opens UDP port 1812 for listening

- Cisco number: CSCsl04395

Enabling the RADIUS Listener LEG causes the SM to open UDP port 1812 (RADIUS Authentication) for listening. The RADIUS Listener LEG is not able to perform logon operations based on RADIUS Authentication messages; therefore, it is not necessary to listen on port 1812.

This issue is fixed in the SM in release 3.1.6.

DHCP Lease Query LEG not compatible with RFC 4388

- Cisco number: CSCsm82774

The RFC defines the following values for the message type option (option 53):

- 10 DHCPLEASEQUERY
- 13 DHCPLEASEACTIVE

However, the DHCP Lease Query LEG supports the following values:

- 13 DHCPLEASEACTIVE
- 16 DHCPLEASEACTIVE

This issue is fixed in the SM in release 3.1.6.

Unique Constraint violation on SE_INDICES and SE_LISTS tables in SM DB

- Cisco number: CSCsm98841

Synchronization of an SCE in an environment where there are SCEs in a 1+1 topology with infrequent failovers may cause unique constraint violation errors, which cause the synchronization process to fail.

This issue is fixed in the SM in release 3.1.6.

SCE Subscriber API—High Rate of quota-state-restore Indications Might Cause Timeouts

- Cisco number: CSCsi89409

In cases where the user code performs subscriber login operations at a very high rate, and most of the subscribers have an external quota policy, the quota-state-restore indication replies might be blocked by the login operations. The login rate needs to remain very high for a significant period of time to cause this behavior.

This can cause:

- Accumulation of RDRs in the quota RDR category
- Incorrect breach of subscriber's quota

This issue is fixed in the SM in release 3.1.6.

Quota Manager holds a zombie RPC connection

- Cisco number: CSCso49821

When using the quota manager, a zombie RPC connection to the SCE can be created if the SCE is removed from the SM configuration file when the RPC connection was down.

This issue is fixed in the SM in release 3.1.6.

Release SCMS SM 3.1.5

This section describes the functional enhancements, the backward compatibility support, and resolved issues in release 3.1.5.

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Functional Enhancements

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DSCP Marking enhancements

Release 3.1.5 decouples DSCP marking from the SCE platform queuing mechanism and provides a simplified GUI configuration for ToS marking based on seven possible DSCP values. After an application is classified by the SCE, the DSCP-marking functionality can mark the relevant packets per package, service, and traffic direction.

Managing MPLS-VPN branches

Release 3.1.5 extends the functionality of managing the MPLS-VPN encapsulation as a managed subscriber by supporting the ability to define a branch or site as the managed subscriber. The solution provides DPI usage analysis and control per branch of an enterprise in an MPLS-VPN encapsulation.

Identifying subscribers per VLAN ID and IP

Release 3.1.5 adds the ability to define the subscriber through combinations of VLAN ID and IP address range (subnet).

Flexible Subscriber Introduction

With the introduction of release 3.1.5, the RADIUS Listener LEG component of the Subscriber Manager infrastructure can now leverage a Regular Expressions infrastructure for extracting and manipulating VSA attributes

Regular Expression for Manipulation of Subscriber Parameters and Policy Assignment

The RADIUS Listener LEG contains a regular expression utility. The behavior of the utility is defined in the *p3sm.cfg* configuration file. The configuration file can be used to do the following:

- Define the fields to be extracted from the RADIUS packet.
- Define the reduction rule on each field value.
- Define the concatenation string between the reduced values.
- Define the mapping of the concatenated values to a possible integer value.

The RADIUS Listener LEG contains a regular expression utility. This command line utility (CLU) can be used to do the following:

- Test regular expression “spelling” validity,
- Test and show the reduction and pattern-matching of an input list of strings against certain regular-expression patterns
- Provide the user with detailed output for each manipulation operation result

Backward Compatibility

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- [Classification in VLAN-based environment, page 9](#)

MPLS L3-VPN

Note that 3.1.5 configuration supports all the use cases described above. For more information, please consult the *Cisco Service Control Engine (SCE) Software Configuration Guide* and the *Cisco Service Control MPLS/VPN Solution Guide*.

Classification in VLAN-based environment

The ability of the SCE platform to import subscriber information from or export it to a CSV file is not supported in **VLAN classify** mode in release 3.1.5.

Resolved Issues

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Bad handling of connection failures during connection establishment

- Cisco number: CSCsj95495

If the link goes down during the establishment of the connection between the SM and the SCE, the connection remains in an inconsistent state. This causes the following symptoms:

- The SM does not send login/logout events to the SCE
- Subscriber management is shown as not-active in the output of the **p3net --show CLU**
- A manual sync by the CLU fails with the error "connection is not active"

This issue is fixed in the SM in release 3.1.5.

SM attempts to sync standby SCE

- Cisco number: CSCsk61878

When working in cascade mode, the SM tries to sync the standby SCE platform in **clear-all** or **resync-all** operations. The operation fails (as expected) with an error in the umlog.

This issue is fixed in the SM in release 3.1.5.

DHCP Sniffer issues unnecessary warnings for LQ transactions

- Cisco number: CSCsk42330

In a DHCP Sniffer installation, when there are lease query transactions passing through the SCE platform, the SCE sniffs the lease query transaction and sends RDRs to the LEG. The LEG ignores the RDR because the message type is not supported. As a result, the SM userlog is filled with many unnecessary warnings.

This issue is fixed in the SM in release 3.1.5.

SM Failover might fail (SM Cluster)

- Cisco number: CSCsl07876

When working with an SM cluster, the SM failover fails and the standby SM does not become active.

This issue is fixed in the SM in release 3.1.5.

SCE API - no logout notification when working with API 3.1 and SCOS 3.0.6

- Cisco number: CSCsj56049

When working with SCE API version 3.1.0 and SCOS 3.0.6, the SCE platform does not generate logout notification, so the API logout listener does not get any logout indication.

This issue is fixed in the SM in release 3.1.5.

QM does not support non-consecutive bucket configuration

- Cisco number: CSCsi75103

It is assumed that the bucket_ids are consecutive (bucket_ids=1,2,3,...). Need to be able to configure the QM for bucket-ids in addition to dosage and quota values.

This issue is fixed in the SM in release 3.1.5.

p3db --destroy fails if the database is installed in non-default location

- Cisco number: CSCsk23126

The **p3db --destroy** script has the default database location hard-coded in it. Therefore, the script fails if the db is not installed in the default location.

This issue is fixed in the SM in release 3.1.5.

Infinite loop when installing to non-existent folder

- Cisco number: CSCsk61637

When the **install-sm.sh** script specifies a non-existent directory, the `verify_dir` function goes into infinite loop.

This issue is fixed in the SM in release 3.1.5.

RADIUS Sniffer LEG cannot handle an attribute number greater than 127

- Cisco number: CSCsk90697

The RADIUS Sniffer LEG cannot handle data from RADIUS attributes that are greater than 127. This is true for all the subscriber parameters that are extracted from RADIUS (name, IP or package).

This issue is fixed in the SM in release 3.1.5.

Domain indices cache is reset on unique-constraint-violation errors

- Cisco number: CSCsk88078

The healing process for a unique-constraint-violation resets the domain indices cache, so any other thread that needs to query the domain index will try to create a new one instead of using the existing one.

This issue is fixed in the SM in release 3.1.5.

Deadlock when two threads hit a unique-constraint-violation

- Cisco number: CSCsk72496

Each time a unique-constraint-violation occurs, the SM runs a procedure on the database (DB) to try to fix the problem. During this procedure, the connections to the DB are locked, so that no other thread can update the DB while the operation is performed. If two threads hit a unique-constraint-violation simultaneously, both try to lock the DB, resulting in a deadlock.

This issue is fixed in the SM in release 3.1.5.

Corrupt subscriber name in the database results in attempt to reload the database

- Cisco number: CSCsk72499

If the hash code of the subscriber name is corrupted in the database, the healing process tries to reload the database into memory instead of fixing the local hash code problem.

This issue is fixed in the SM in release 3.1.5.

Changing subscriber domain to 'none' does not work

- Cisco number: CSCsi82213

When executing the **p3subs --set --domain** script with `domain = none`, the domain is not changed to no domain. It remains the same as specified in the last **p3subs --set --domain** command.

This issue is fixed in the SM in release 3.1.5.

RADIUS listener reports login exceptions to /var/adm/messages

- Cisco number: CSCsi96565

The following runtime exception is reported to /var/adm/messages instead of a proper user log message.

```
"16-May 2007", "17:20:11.562
MEST", "[2]", ERROR, "com.pcube.management.radiusproxy.ProxyLog", "LogonApi_1_3: "
javax.management.RuntimeOperationsException: RuntimeException thrown by the invoke
method of the Dynamic MBean
at com.sun.jdmk.MBeanServerImpl.invoke(MBeanServerImpl.java:1553)
at com.sun.jdmk.MBeanServerImpl.invoke(MBeanServerImpl.java:1519)
at com.sun.jdmk.MBeanServerForwarder.invoke(MBeanServerForwarder.java:220)
at
com.pcube.management.framework.agent.info.MBeanServerTraceInfo.invoke(MBeanServerTrace
Info.java:93)
at
com.pcube.management.api.common.ProxyHandlerApiDispatcher.invoke(ProxyHandlerApiDispat
cher.java:167)
at com.pcube.management.api.common.BaseApi.invoke(BaseApi.java:162)
at
com.pcube.management.smm.SubscriberManagerApiImpl.login(SubscriberManagerApiImpl.java:
53)
at com.pcube.management.radiusproxy.PCubeApi.LoginApi_1_3.login(LoginApi_1_3.java:116)
at
com.pcube.management.radiusproxy.PCubeApi.LogonEngine.incrementalSubscriberLogin(Logon
Engine.java:371)
```

This issue is fixed in the SM in release 3.1.5.

Exporting subscribers on SCE includes non-static subscribers

- Cisco number: CSCsk25018

When exporting subscribers on the SCE platform, all subscribers are exported. An export should include only static subscribers. Non-static subscribers should not be included in the export.

This issue is fixed in release 3.1.5.

SM Upgrade might cause SCE cascade pair failover

- Cisco number: CSCsi70273

During the upgrade of the SM from a 3.0.x system to 3.1.5, before the SCE upgrade, if the SCEs are part of a cascade setup, the SCEs might do a failover even though the sm-connection-failure action is set to **none**.

The reason for the failover is because the SM connection to the standby SCE is up while in the peer SCE the connection is down.

This issue is fixed in the SM in release 3.1.5.

Pull-response is sent for domain-less subscribers

- Cisco number: CSCsg97666

If a domain-less subscriber is created on the SM and an anonymous-subscriber is created in the SCE with the same IP address, the SM replies with a pull-response to the SCE.

If the same scenario is performed with a subscriber that is different to the SCE's domain, the SM does not send the pull-response.

This issue is fixed in the SM in release 3.1.5.

MPLS-VPN—subscriber IP removed when moving to support-ip-range enable

- Cisco number: CSCsj30193

If the **support-ip-range** configuration parameter is enabled, all IP addresses (without ranges) are deleted from the SM after restart without warning the user.

In release 3.1.5, a warning is logged to the user log if this configuration change takes place.

SM does not handle well the fact it is initiating quarantine from within a thread of the connection to the SCE

- Cisco number: CSCsj48931

The SCE goes into a quarantine state and is not able to get back to regular working state. This is caused when a CLI to remove all the anonymous subscribers is run on the SCE while there is traffic from many anonymous subscribers. The removal CLI takes a long time to execute, which causes many anonymous subscribers to be re-spawned and many pull requests are sent to the SM. However, this operation blocks the handling of the responses from the SM and causes back-pressure to the SM, which triggers the quarantine mechanism.

This issue is fixed in the SM in release 3.1.5.

System Uptime of SM Resets Every Full Hour

- Cisco number: CSCsj49025

The **p3sm --show** command displays the SM uptime since last running the **p3sm --start** command. However, the system uptime is reset every full hour that the system remains running.

This is shown in the following output:

```
bash-2.05$ p3sm --show
Subscriber Management Module Information:
=====
...
Up time:           59 minutes 59 seconds
...
Command terminated successfully
```

If the command is then run again immediately, the following output appears:

```
bash-2.05$ p3sm --show
Subscriber Management Module Information:
=====
...
Up time:           2 seconds
...
Command terminated successfully
This issue is fixed in the SM in release 3.1.5.
```

3.1.5 Cascade Synchronization—Subscriber Management Status is Active for Both SCEs

- Cisco number: CSCsj50602

From version 3.1.0 the output of the **p3net --show CLU** is inaccurate for the standby box of a cascade pair. The subscriber management status is displayed as “Not Active” instead of “Active”.

This issue is fixed in the SM in release 3.1.5.

Release SCMS SM 3.1.1

Resolved Issues

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- [QM Does Not Contain a Configuration Flag to Produce Breach Start/Stop Log Message, page 15](#)
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SCE Subscriber API, QM — Zombie Connections After API Disconnect

- Cisco number: CSCsi96559

If the auto-reconnect feature of the SCE subscriber API is used, and the client experiences a physical loss of connection with the SCE for a long time, several zombie connections might be created on the SCE when connectivity is restored.

This can cause the SCE to reject the client’s “legal” connections due to too many client connections.

This issue is fixed in the SM in release 3.1.1.

RADIUS Listener Fails to Initialize upon Failover in SM Cluster Setup

- Cisco number: CSCsj12480

RADIUS messages are not processed by the SM cluster. This occurs if the standby SM process (hereafter SM1) is restarted due to a failure or manually by the user, since on SM1 the Virtual IP (VIP) does not exist because it is assigned to the active SM (SM2). When the SM restarts, the RADIUS Listener tries to init on SM1, but fails to bind to the VIP because there is no VIP on this machine. However, the RADIUS Listener assumes that it is up and running, which is incorrect.

After another failover back from SM2 to SM1 the RADIUS Listener does not work because it is actually not active.

This issue is fixed in the SM in release 3.1.1.

Sniffer LEGs—Maximum Number of SCEs is Limited to 100

- Cisco number: CSCsj23672

The **max_connections** parameter in the [RDR Server] section of the **p3sm.cfg** SM configuration file sets the number of connections accepted by the RDR server. If you set this value higher than 100 there is no warning and additionally, when loading the configuration file there is also no warning and no log message.

Setting this value higher than 100 will cause RDR connections from the SCEs that cannot be established.

This issue is fixed in the SM in release 3.1.1.

QM Does Not Contain a Configuration Flag to Produce Breach Start/Stop Log Message

- Cisco number: CSCsi82573

The QM currently produces breach logs and aggregation-period start events only under the log-all configuration flag. This limits the usability of this feature as using the log-all configuration flag causes excessive logging.

This issue is fixed in the SM in release 3.1.1 using the following configuration flag:

```
[Quota Manager]
# Logging to user-log parameters:
# log_breach_events - logs only events of subscriber
# bucket breach and new aggregation period
# (default: false)
log_breach_events=true
```

SM Boot Time Depends on the SM Database Capacity

- Cisco number: CSCsj01526

The SM restart and failover times depend on the number of subscribers in the database. The boot time is affected when there are several millions of subscribers in the SM database.

This issue is fixed in the SM in release 3.1.1.

Shutdown on SCE causes SM to identify both cascade SCEs as standby

- Cisco number: CSCsj75583

In some cases where the user runs the ROOT CLI **shutdown** on the active SCE, the SM can get into a state where it treats both of the SCEs in the cascade pair as though they are in a standby state.

This issue is fixed in the SM in release 3.1.1.

Re-Sync via CLU of a cascade pair returns immediately

- Cisco number: CSCsj75585

When the second SCE is the active SCE of the pair (named XXX_cascade2) the **p3sm --resync -n <cascade-pair-name>** CLU returns immediately without synchronizing any of the SCEs.

This issue is fixed in the SM in release 3.1.1.

Loss of sync between the SM and the SCE when a subscriber has a high rate of logons

- Cisco number: CSCsj85483

In pull mode when a certain subscriber repeatedly logs in and logs out, the SM and SCE might lose synchronization on this subscriber. When the synchronization is lost the SM is unaware that the subscriber is being handled by the SCE.

This issue is fixed in the SM in release 3.1.1.

Subscriber who is added via the GUI is not pushed to the SCE

- Cisco number: CSCsj91232

In push mode when a subscriber is added via the SM GUI, the subscriber is added to the SM correctly but is not pushed to the SCE.

This issue is fixed in the SM in release 3.1.1.

Loss of sync between the SM and the SCE when a subscriber has a high rate of logons

- Cisco number: CSCsj85483

In pull mode when a certain subscriber repeatedly logs in and logs out, the SM and SCE might lose synchronization on this subscriber. When the synchronization is lost the SM is unaware that the subscriber is being handled by the SCE.

Workaround:

Run the following CLU to re-sync the SCE.

```
p3sm --resync -n SCE-NAME
```


Release SCMS SM 3.1.0

This section describes the new features, supported operating systems and platforms, resolved issues, and removed features in release 3.1.0.

- [Information About New Features, page 17](#)
- [Supported Operating Systems and Platforms, page 18](#)
- [Resolved Issues, page 19](#)
- [Information About Removed Features, page 24](#)

Information About New Features

- [Scaling Enhancements, page 17](#)
- [SM Updates Only the Active SCE, page 17](#)
- [Enhanced Subscriber ID Character Support, page 17](#)
- [Virtual Links, page 18](#)
- [Quota Manager—Quota Change Within Aggregation Period, page 18](#)
- [Automatic Domain Roaming, page 18](#)
- [Support for Solaris 10, page 18](#)

Scaling Enhancements

The SM has been enhanced to support a larger number of subscribers, LEGs, and SCEs.

- Support for 20 million subscribers when running on a 64-bit Solaris platform.
- Login/logout rates of 800 per second now supported
- Support for 120 incoming PRPC connections
- Support for 200 SCEs

SM Updates Only the Active SCE

Since SCE 3.1.0 the SCEs in a cascade pair are able to replicate all the subscriber data between them, so that the SM updates only the active SCE. The SCE configuration in the SM configuration file is changed to provide the SM with the knowledge of which SCEs are interconnected in a cascade pair. See the *Cisco SCMS Subscriber Manager User Guide*.

Enhanced Subscriber ID Character Support

The Subscriber ID is a string representing a subscriber that is a unique identifier for each subscriber from the customer perspective.

In previous versions of the SM, there were several limitations of characters that could not be used for the subscriber ID. The subscriber ID can now contain up to 64 characters. All printable characters with an ASCII code between 32 and 126 (inclusive) can be used; except for 34 ("), 39 ('), and 96 (^).

Virtual Links

The DHCP Lease Query LEG and the SCE-Sniffer DHCP LEG now both allow the user to define multiple policies including the package-Id, monitor flag, and the upstream and downstream virtual links. The policies are configured in the **dhcp_pkg.cfg** configuration file of the relevant LEGs.

Quota Manager—Quota Change Within Aggregation Period

In previous versions of the Quota Manager, it was not possible to change the quota of a subscriber within an aggregation period. Two new operations have been added to the **p3qm** CLU to allow setting and adding to a subscriber's quota buckets within an aggregation period: **--set-quota** and **--add-quota**.

Automatic Domain Roaming

The SM API now allows subscribers to be automatically moved between domains by calling the **login()** method of the API for a subscriber with an updated domain parameter.

Support for Solaris 10

The Subscriber Management components can be installed on Solaris 10. See [Supported Operating Systems and Platforms](#) for further details.

Supported Operating Systems and Platforms



Note

From release 3.1.0, Solaris 8 is no longer supported.

The following table details which operating systems and platforms are supported by the SM.

Component	Red-Hat ES\AS 3 On Intel architecture (32-bit)	Red-Hat ES\AS 4 On Intel architecture (32-bit)	Solaris 9 On SPARC architecture (64-bit)	Solaris 10 On SPARC architecture (64-bit)
SM	Supported	Supported	Supported	Supported
VCS agents				
SCE-Sniffer RADIUS LEG				
SCE-Sniffer DHCP LEG				
RADIUS Listener LEG				
DHCP Lease Query LEG				
SM Java API				
SM C/C++ API				
SCE Subscriber API				
SOAP LEG				
CNR LEG	Not Supported	Not Supported	Supported	Supported
MPLS-VPN BGP LEG	Supported	Supported	Not Supported	Not Supported

Resolved Issues

This section describes the resolved issues in release 3.1.0.

- [CLU --prefix Option does not Filter Correctly, page 19](#)
- [leaseActiveReplyNoSubId Error does not Exist in the DHCP Lease Query LEG User Log, page 20](#)
- [RADIUS Listener LEG Activities are not logged into the User Log, page 20](#)
- [Thread Remains Open after Disconnecting from SM/SCE Java APIs, page 20](#)
- [SCE Subscriber API Readme file Indicates the API can work with Java Version 1.5, page 20](#)
- [RADIUS Listener LEG is Limited to a Single CPU, page 20](#)
- [SM-SCE Connection Problem may Impact Other SM-SCE Connections, page 20](#)
- [The Upgrade Script Installs a New Java Without Removing Old Java, page 21](#)
- [CLU Error when Extracting Support File with Output File Path, page 21](#)
- [The p3subsdB --export --prefix CLU is Always Case Sensitive, page 21](#)
- [SM Upgrade Causes QM Configuration Loss, page 22](#)
- [Upgrade Script Might Fail when /etc/motd file is Not Empty, page 22](#)
- [Executing CLU Commands as User other than pcube Throws Exception, page 22](#)
- [Adding Subscriber with a Domain when aliases=* is Configured adds Subscriber with Wrong Domain, page 22](#)
- [Quota Manager—No User Log for Subscriber Quota Breach, page 22](#)
- [p3net CLU Truncates IP Addresses, page 22](#)
- [p3subs --set CLU Does Not Add a Subscriber if it Does Not Exist, page 23](#)
- [SCE Subscriber API Failover Might Cause Loss of Client Context, page 23](#)
- [SCE Cascade Pair does not Exchange all Quota Information, page 23](#)
- [QM Cannot Provision More Than 1 GB, page 23](#)
- [PRPC Session Hangs on establishConnection, page 24](#)
- [Renaming the Domain Name Causes Subscriber to Lose Domain, page 24](#)
- [CLU p3sm --load-config Does Not Create a Userlog Message, page 24](#)
- [PRPC User File is Overwritten on Upgrade, page 24](#)
- [DHCP Lease Query LEG on the SCE—Auto Logout does not Work After Activation, page 24](#)

CLU --prefix Option does not Filter Correctly

- Cisco number: CSCsb97704

When using the --prefix option, the CLU correctly recognizes the option. However, when trying to insert --pre, the following error is displayed:

```
unknown option '--pre'
use '--help' for more information.
```

This issue is fixed in the SM in release 3.1.0.

leaseActiveReplyNoSubId Error does not Exist in the DHCP Lease Query LEG User Log

- Cisco number: CSCsg56778

When the subscriber ID is missing – because the configured attribute for the association is missing – there is no user log message.

This issue is fixed in the SM in release 3.1.0.

RADIUS Listener LEG Activities are not logged into the User Log

- Cisco number: CSCsg61669

Some of the RADIUS Listener LEG activities are not logged; such as, decoding failures, and the reason for discarding incoming RADIUS packets.

This issue is fixed in the SM in release 3.1.0.

Thread Remains Open after Disconnecting from SM/SCE Java APIs

- Cisco number: CSCsg76248

The `main()` function of an application that uses the SM/SCE API might not return due to the existence of a thread that handles resiliency to time changes during the life of the API.

This issue is fixed in the SM in release 3.1.0.

SCE Subscriber API Readme file Indicates the API can work with Java Version 1.5

- Cisco number: CSCsg89203

The readme file of the SCE Subscriber API states that the API can be installed on any platform that supports Java version 1.4/1.5; however, the API works only with Java 1.4.

This issue is fixed in the SM in release 3.1.0.

RADIUS Listener LEG is Limited to a Single CPU

- Cisco number: CSCsh24167

There is a lock between the RADIUS packet handlers that allows only one handler to work at a time. This prevents the LEG from scaling its performance on machines with multiple CPUs.

This issue is fixed in the SM in release 3.1.0 and performance is improved.

SM-SCE Connection Problem may Impact Other SM-SCE Connections

- Cisco number: CSCsh24501

If the PRPC connection to the SCE stays up, but the subscriber login rate significantly decreases, the output queue from the SM to the SCE fills up and every additional message in the queue is delayed.

The login process to the SM updates the SM DB and in some cases – depending on login operations and on the introduction mode – updates one SCE or more.

The ability to automatically quarantine the SCE if a login message to it fails to execute due to a timeout in putting a message into the queue to the SCE was added to SM 3.1.0.

The following algorithm is implemented:

1. When there is a timeout, the SCE is put into a quarantine state for 60 seconds (quarantine timeout). For the duration of the quarantine time, the connection is forced down.
2. After the quarantine timeout, the SCE enters a post quarantine state for 10 minutes (post-quarantine timeout) during which it is treated as any healthy SCE.
 - If a message fails to be sent to the SCE within the post-quarantine time frame, the SCE is put in quarantine again (stage 1 above), and the quarantine timeout is doubled.
 - Otherwise, the SCE exits the post-quarantine state into a not-in-quarantine state.



Note

Running the **p3net --connect -n <SCE name>** CLU resets the quarantine state.

The Upgrade Script Installs a New Java Without Removing Old Java

- Cisco number: CSCsh24501

When upgrading the SM, the upgrade script installs the new version of the Java Runtime Environment (JRE). However, it does not remove the old version of the JRE.

This issue is fixed in the SM in release 3.1.0.

CLU Error when Extracting Support File with Output File Path

- Cisco number: CSCsh37874

When using the CLU to extract a support file with an absolute path, an error occurs. For example:

- When the path uses a user's home directory:

```
-bash-3.00$ p3sm --extract-support-file -o ~pcube/1.zip
Error - Operation buildInformationFile failed
null
```

- When using the full path:

```
-bash-3.00$ p3sm --extract-support-file -o /export/home/pcube/3.zip
Error - Operation buildInformationFile failed
null
```

This issue is fixed in the SM in release 3.1.0.

The p3subsdb --export --prefix CLU is Always Case Sensitive

- Cisco number: CSCsh49464

When using the **p3subsdb --export** CLU with the **--prefix** option, the prefix is always case sensitive regardless of the *subscriber_id_case_sensitivity* parameter.

This issue is fixed in the SM in release 3.1.0.

SM Upgrade Causes QM Configuration Loss

- Cisco number: CSCsh74071
The QM configuration file is overridden during the SM upgrade process.
This issue is fixed in the SM in release 3.1.0.

Upgrade Script Might Fail when /etc/motd file is Not Empty

- Cisco number: CSCsh77653
When upgrading the SM with the upgrade script, if the /etc/motd file is not empty, the upgrade may fail.
This issue is fixed in the SM in release 3.1.0.

Executing CLU Commands as User other than pcube Throws Exception

- Cisco number: CSCsh90641
Running any CLU command as a user other than 'pcube' causes an exception instead of printing a suitable error message to the log.
This issue is fixed in the SM in release 3.1.0.

Adding Subscriber with a Domain when aliases=* is Configured adds Subscriber with Wrong Domain

- Cisco number: CSCsi03426
When running the CLU **p3subs --add -s w --domain=subscribers** the subscriber is logged in with the correct domain.
When the domain section of the SM configuration file contains **aliases=*** and running the same command, the subscriber is logged into the wrong domain.
This issue is fixed in the SM in release 3.1.0.

Quota Manager—No User Log for Subscriber Quota Breach

- Cisco number: CSCsi08176
In the case of a subscriber quota breach, there is no user log entry to indicate that this has occurred. These messages are logged under the **log_all** configuration parameter.
This issue is fixed in the SM in release 3.1.0.

p3net CLU Truncates IP Addresses

- Cisco number: CSCsi08188
When using the **p3net --show-all --detail** CLU, if an SCE has an IP address with values larger than 100 in each of the octets, the last octet is truncated.
For example, the IP address 211.183.122.225 is truncated to 211.183.122.22.
This issue is fixed in the SM in release 3.1.0.

p3subs --set CLU Does Not Add a Subscriber if it Does Not Exist

- Cisco number: CSCsi16865

The **p3subs --help** CLU states that the **--set** option can be used to add or update a subscriber. However, **--set** does not add a subscriber and returns an error if the subscriber does not exist. For example:

```
-bash-3.00$ p3subs --set -s s1
Error - Failed to update the subscriber 's1'
Subscriber 's1' does not exist in the subscriber database
This issue is fixed in the SM in release 3.1.0.
```

SCE Subscriber API Failover Might Cause Loss of Client Context

- Cisco number: CSCsi48339

After an API client failover, login-pull-requests and quota-events may stop after a few minutes.

This is caused when there is an SCE Subscriber API failover between two clients that use the same client name. If the first client fails and does not disconnect correctly, a context in the server which is used for the APIs with this client name is removed after a timeout and the SCE will stop producing login-pull-requests.

This issue is fixed in the SM in release 3.1.0.

SCE Cascade Pair does not Exchange all Quota Information

- Cisco number: CSCsf97557

The SCE cascade pair exchanged only a portion of the quota information, this caused the failover in the SCE cascade topology to be stateless with regard to quota.

On SCE failover, all the subscribers went into an immediate breach state, which is the same as the use-case for a first subscriber login. As a result of the subscribers being in a breach state, the external server must provide quota to all active subscribers immediately after the failover.

The first quota notification after failover also contains an incorrect quota report which must be ignored. Ignoring the quota report means that there is quota leakage of the quota used since the last periodic update.

After an SCE failover there may be many breach notifications which can cause performance issues in the quota manager and the APIs.

This issue is fixed in the SM in release 3.1.0.

QM Cannot Provision More Than 1 GB

- Cisco number: CSCsi55038

When the dosage size is configured to a value greater than 1 GB, the QM does not give any validation error, but it fails to update the SCE.

Also, when the SCE requests more than 1 GB of quota, the QM fails to provide the requested quota.

This issue is fixed in the SM in release 3.1.0.

PRPC Session Hangs on establishConnection

- Cisco number: CSCsi58251

In some cases when the connection is established at the PRPC Server side, the session gets stuck in an infinite loop.

If you run the **p3sm --sm-status** CLU, the following error will be displayed:

```
Could not connect to SM
Error - The operation cannot be performed
This issue is fixed in the SM in release 3.1.0.
```

Renaming the Domain Name Causes Subscriber to Lose Domain

- Cisco number: CSCsi58450

If a subscriber has been added to domain X and the name is changed to domain Y, after performing a load-config operation, the subscriber moves to a domain-less domain.

This issue is fixed in the SM in release 3.1.0.

CLU p3sm --load-config Does Not Create a Userlog Message

- Cisco number: CSCsi61346

When running the **p3sm --load-config** CLU, there is no user log message for the command.

This issue is fixed in the SM in release 3.1.0.

PRPC User File is Overwritten on Upgrade

- Cisco number: CSCsi66917

The PRPC user file is overwritten when upgrading the SM. Any users that the SCA BB Console uses are lost.

This issue is fixed in the SM in release 3.1.0.

DHCP Lease Query LEG on the SCE—Auto Logout does not Work After Activation

- Cisco number: CSCsi70860

When the DHCP Lease Query LEG is installed on the SCE, the LEG does not query the DHCP server before logging a subscriber out when the previous lease time has expired. If the subscriber is still active, an anonymous subscriber is created and a lease query is sent to the DHCP Server. The subscriber service might be interrupted during the logout and re-login.

This issue is fixed in the SM in release 3.1.0.

Information About Removed Features

This section describes the removed features in release 3.1.0.

- [Static Subscriber Support Removed from the SM, page 25](#)
- [Support for Solaris 8, page 25](#)

Static Subscriber Support Removed from the SM

- Cisco number: CSCsh24361

The subscriber's SCE persistent support configuration in the SM causes several problems when it is used; such as, low performance and large amounts of writing into files on the SCE. Superior functionality is provided by importing the subscribers directly to the SCE or by disabling this feature.

This feature is removed from the SM in 3.1.0.

Support for Solaris 8

From version 3.1.0 of the SM, Solaris 8 is no longer supported by the SM, LEGs, and APIs.

Open Caveats

This section describes the open caveats in SCMS SM release 3.1.6.

p3subsdb --clear-all CLU times out for the SCE8000 with more than 200000 IPs

- Cisco number: CSCsr47706

The p3subsdb --clear-all CLU times out when the SM is connected to an SCE 8000 because the SM is hard-coded to wait a certain amount of time for the command to finish on the SCE and the command takes a long time to execute on the SCE8000.

This may cause the user to think that the CLU has finished while it is still running on the SCE.

Workaround: Increase the timeout value for the CLU.

TimesTen Replication Sometimes Fails on Linux

- Cisco number: CSCsv49973

When using TimesTen replication on a Linux platform replication sometimes fails and produces the following error messages:

```
Warning 8025: Replication Log Threshold limit reached at master. The Replication state
for this subscriber data store is now set to FAILED. This store is not in sync with
the master
*** [TimesTen][TimesTen 6.0.4 ODBC Driver][TimesTen]TT8025: Replication Log Threshold
limit reached at master. The Replication state for this subscriber data store is now
set to FAILED. This store is not in sync with the master -- file "db.c", lineno 9866,
procedure "sDbConnect()"*** ODBC Warning = S1000, TimesTen Warning = 8025
```

Performance Problem when using Multiple APIs and support_ip_ranges=true

- Cisco number: CSCsq44686

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.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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