Release Notes for Cisco Service Control Application for Broadband (SCA BB) 3.1.1

Revised: September 27, 2007, OL-8958-12
Covers: SCA BB 3.1.1, SCA BB 3.1.0

These release notes for the Cisco SCA BB describe the enhancements provided in Cisco SCA BB Release 3.1.1. These release notes are updated as needed.

For a list of the caveats that apply to Cisco SCA BB Release 3.1.1, see Open Caveats, page 13.

For further information, please refer to the following related Release Notes:

- Release Notes for Cisco Service Control Application for Broadband (SCA BB) 3.0.6

  Release Notes for Cisco Service Control Operating System (SCOS) 3.1.1

  Release Notes for Cisco Service Control Management Suite Subscriber Manager (SCMS SM) 3.1.1

  Release Notes for Cisco Service Control Management Suite Collection Manager (SCMS CM) 3.1.0

Contents

Introduction

This document describes the functional enhancements, and known issues in SCA BB release 3.1.1.

It is assumed that the reader already has a good working knowledge of the Cisco Service Control solution. For additional information, please refer to the Cisco SCA BB documentation.

SCA BB Release 3.1.1

Information About Functional Enhancements

Cisco Service Control Application for Broadband User Guide

Protocol Support

Protocol List	Protocol ID	Description	Changes to the Default Service Configuration
Live Messenger (MSN) v8.1	883	Instant messaging client	Added as a new protocol and to Instant Messaging Service
Location Free	1045	TV broadcast streaming	Added as a new protocol and to P2P Service
Joost	1046	P2P TV	Added as a new protocol and to P2P Service
Zattoo	1047	P2P TV	Added as a new protocol and to P2P Service
MS Push Mail	1048	E-mail to PDA/Smartphone Windows	Added as a new protocol and to new MS Push Mail Service
Pando	1049	P2P file sharing	Added as a new protocol and to P2P Service
Kugoo	1050	P2P music file sharing	Added as a new protocol and to P2P Service

Protocol List	Protocol ID	Description	Changes to the Default Service Configuration

> **Note** When upgrading old PQB files, new signature-based protocols are not assigned to any service. Signature-based protocols that are not assigned to a service are classified as generic TCP. To fix this, manually assign these protocols to a service.

Protocol Updates

Protocol Name	Description	Cisco Number
Gnutella	Support enhanced	CSCsi52884
ICQ	Voice recognition enhanced	CSCsi96940
PPLive	V1.6.19 classification enhanced	CSCsi25885
PPLive	Support enhanced	CSCsj53023 CSCsj75652
PPStream	Updated to support v2.0	CSCsj76001
Poco	Updated to support 2007 beta version	CSCsi87040
SIP	Added bundling of RTP flow when the connection information of the WAN IP to bundle appears only in the SDP "Ringing" status	CSCsi25885
SMTP	Improved classification of non-standard SMTP sessions	CSCsi87468
Skype	Misclassifications resolved	CSCsj14278 CSCsj43543
Vonage	Support enhanced	CSCsh84903
Yahoo Messenger	Updated to support v8.1.0	CSCsi96962
eMule	Updated to support v0.48	CSCsj48543

Information About Resolved Caveats

-
-

Cannot install new OS from the SCA BB console

-

Cannot apply service configuration created in SCA BB 3.0.6

-

Cannot update Global Controller parameters via console after upgrade

-

In pull mode, the quota for the first flow is not accounted

-

RDR RADIUS: no RDRs sent after PQI install or application assignment

-

Compatibility Information

Capacity Information

Device (Capacity Option)	Number of Subscribers	Number of Flows
		1.7M [850K bidirectional]
SCE2000 (SubscriberLessSCE2000)	2,000	2M [1M bidirectional]
SCE1000_2U (EngageDefaultSCE1000_2U)	40,000	1.7M [850K bidirectional]
SCE1000_2U (SubscriberLessSCE1000_2U)	1,000	2M [1M bidirectional]

SCA BB Release 3.1.0

-
-
-
-
-
-

Information About New Features

-
-
-
-
-

Asymmetric Routing Classification

most likely to occur when the insertion point for service control is at the peering point.) SCA BB 3.1.0 introduces the first step toward supporting classification when only one side of a flow traverses a specific SCE platform.

When the Cisco Service Control solution is deployed in an asymmetric routing environment and unidirectional classification is enabled, SCA BB classifies unidirectional flows more accurately while the classification accuracy of bidirectional flows is preserved. The SCE platform handles unidirectional flows independently, with no synchronization with other SCE platforms that might handle the flows in the opposite direction. Sizing should be performed when planning for deployment in such environments, since the transactions length is expected to be lower, reducing the effective SCE performance envelope.

In release 3.1.0, SCA BB can identify 56 distinct protocols based on only one flow direction, including the network's most common protocols, for example, HTTP, and P2P application protocols including BitTorrent, eDonkey, Encrypted eMule, Gnutella, Warez, POCO, PPStream, and PPLive.

Behavioral P2P

SCA BB release 3.1.0 introduces a new classification mechanism that identifies P2P application traffic according to networking characteristics common to all P2P applications.

The Behavioral P2P mechanism tracks events in subscriber traffic that may indicate the existence of a P2P application. These events are stored in an internal, stateful database and if a flow is not classified using any other protocol signature, the database is consulted. If the flow appears to match the characteristics of P2P traffic, it is classified to the Behavioral P2P protocol signature.

Classification to a specific P2P protocol signature has a higher precedence than Behavioral P2P classification. This allows the service provider to set specific actions to known P2P protocols, if required.

The Behavioral P2P mechanism allows the correct classification of flows from new P2P applications or new version of applications that do not yet have a protocol signature defined in SCA BB.

Virtual Links

divided into a set of smaller "virtual" links, which are separately monitored and controlled. Each Virtual Link has its own set of global controllers, which are initially defined by a Virtual Link "Template". These global controllers can later be tuned dynamically according to need. The SCA Reporter provides per Virtual Link report capabilities similar to the per package capabilities.

A typical use case of this feature applies to cable modem operators, allowing them to enforce service tier policy per physical cable. Each physical cable can be managed and monitored as a virtual link within the SCE platform's physical link.

Each physical link (that is, sub-interface representing an aggregation point, such as VLAN, VC, or CableModem) can be managed and monitored as a virtual link within the SCE platform's physical link.

Protocol Name	Description	Cisco Number

Generic Upload/Download Settings

Reporting of P2P File Extensions

Information About Backward Compatibility

Layer 7 Filtering

Information About Resolved Caveats

-
-
-
-

Traffic Processing

-
-
-
-

NTPv2 is misclassified as Skype

-

Redirect not working immediately when trying same URL again

-

DSS may cause SCE to reboot

-

HTTP URL extraction should be limited in size

-

Malicious Traffic RDR timestamps have mismatch

-

Discrepancy in reported call minutes between Link and Media Reports

-

RPT_LUR. The RPT_LUR field will, in some cases, be consistently higher (by up to 10%) than the corresponding RPT_MEDIA field.

This issue is resolved in this release.

This subsection describes caveats relating to traffic control that are resolved in SCA BB release 3.1.0.

QP session limit allows Number of Sessions + 1 before applying breach action

•

QP redirected (due to quote depletion) sessions are counted as used

•

Internal quota with SM pull mode not working properly

•

Quota Replenish Scatter - does not work as expected

•

Concurrent session limitation is not working

-

change in the subscriber's package.

This issue is resolved in this release.

Miscellaneous

-
-
-
-

Services are sometimes shown by number in reports

-

Subscriber import exception for site with SCE having no service configuration applied

-

Enable/disable of Anomaly Detection does not enable/disable the attack filter

-

PQI install is not saving all the application configuration

-

Compatibility Information

Capacity Information

Device (Capacity Option)	Number of Subscribers	Number of Flows

Open Caveats

-
-
-

Traffic Processing

-
-
-

Traffic Classification

-
-
-
-

Content Filtering-CPA client hangs when losing connection to the server

-

L7 functionality is not supported for HTTP traffic that is not browsing

-

Unexpected flow classification after adding service element with non-default zone

-

1.

2.

3.

4. Create a new service "doom2 gaming servers". Add a service-element where protocol="doom2" and zone="gaming servers".

5. The SCE will now classify flows that match the "doom2" protocol and the "gaming servers" zone to the new "doom2 gaming servers" service, as expected.

6.

7.

Workaround

Add the service element <New port-based protocol, Initiated by either side, *, *>to an existing service. (You can also define a new service for this purpose.) Once you do that, transactions using the specific protocol but with network IP addresses that do not match the specific zone, will go to the less specific service.

For the example given above, add the service element <doom2, Initiated by either side, *, *>to the "Generic TCP" service.

Cisco number: N/A

In release 3.0.0, the limit for the number of items in the HTTP URL list was increased from 10K to 100K. Note that adding more than 10K items to the list affects flow capacity. Using 100K list items can degrade system capacity by up to 50K flows compared with the capacity numbers presented in Capacity Information, page 5.

This subsection describes open caveats in SCA BB release 3.1.1 that relate to traffic accounting and reporting.

Cisco number: CSCsi82268

In some cases, the interception of RADIUS and DHCP events stops functioning and notifications on these events are not sent. As a result, subscriber information is not provisioned to the SCE.

:

Make sure that the SCE is working within its capacity envelope.

–

–

–

–

–

–

Control Engine Software Configuration Guide

BW reports may contain spikes after DoS attacks

-

Clarification regarding VoIP accounting

-

Seconds Counter—This counter is dedicated to VoIP accounting. It tracks the aggregated call duration in seconds. It is also included in Subscriber Usage RDRs.

Seconds Counter for VoIP Services—Counts the duration of voice calls and not the duration of VoIP control flows. This makes this counter appropriate for voice usage reports; the VoIP Reports in the Reporter are based on this counter.

Seconds Counter for Non-VoIP Services—Counts the aggregated duration of sessions.

Concurrent Sessions Counter—Tracks the number of concurrent sessions.

For voice sessions this counter tracks the number of control sessions, not the number of calls.

Inactive sessions are counted until they are terminated due to aging.

Unlike the Sessions Counter, this counter shows the value at the time that the RDR is generated and not an aggregated value.

Concurrent Active Subscribers Counter—Tracks the number of subscribers that have an open session for the reported service.

For voice sessions, this counter tracks the number of subscribers that have open control sessions, rather than subscribers that have active voice calls; the number of concurrent talking subscribers cannot be deduced from this counter.

Like the Concurrent Sessions Counter, this counter shows the value at the time that the RDR is generated; it is not an aggregate metric.

Cisco number: CSCsb60539

When enabling TUR RDRs for RTSP, the session ID field in RTSP TUR contains incorrect values due to the session ID being extracted from the wrong place in the RTSP packets.

This subsection describes open caveats in SCA BB release 3.1.1 that relate to traffic control.

Virtual links is not supported for the SCE1010 platform

-

Quota Threshold RDRs are not supported for Number of Sessions bucket

-

Flow redirection and blocking might not work in cascade mode

-

Inaccurate BW control when using the default global controller

-

Resolution limitation on quota breach detection

•

SCA BB Console

•

•

•

•

•

•

•

General

•

•

•

A PQB file is saved when Save is selected from tools other than the Service Configuration Editor

•

Limitations in navigating from the Reporter to the Service Configuration Editor

•

After applying a service configuration, service and package names are not refreshed in the Reporter

•

Installation

•

•

•

•

Network Navigator configuration not removed when SCA BB Console uninstalled

•

deleted, but instead is kept for future SCA BB Console installations. \

:

To clear these settings, manually delete the following folder:

C:\Documents and Settings\<username>\.scasbb300

Internet Explorer 5.5 (or up) required

•

Uninstalling while GUI is open

•

Must uninstall SCA BB Console before reinstalling it

•

Network Navigator

-
-
-
-
-

-
-

Installing OS Fails with an Error

-

Changing the port of the RPC server cause failure

-

Two identical devices can be created

-

Incorrect error message for failure to connect

-

Running an FTP server on the workstation might cause Network Navigator operations to fail

-

Concurrent operations on the same SCE platform are not supported

•

Updating CM with service configuration values in a NAT environment

•

> **dc.ip.remap.<n>=<address1>,<address2>** **engage.ini**
> **dc.ip.remap.1=10.1.12.224,212.194.11.27**

> **engage.ini**

<scas-bb-console-installation>/plugins/policy.contribution/config

**C:\Program Files\Cisco SCAS\SCAS BB Console
3.0.0\plugins\policy.contribution_1.0.0\config\engage.ini**

> **Workaround**

Workaround

Workaround

Configuration Management

-
-

General

-
-
-
-
-

Reboot after apply causes the SCE to come up with no application

-

After applying a service configuration, there is a short period of time (~20 seconds) where rebooting the SCE causes it to come up with no application.

:

Do not reboot the SCE during the 20 seconds after applying a service configuration.

Cisco number: N/A

SCA BB flow and subscriber capacity numbers can be tuned during the installation by selecting the appropriate capacity option. See Capacity Information, page 5 for available capacity options for each SCE platform type.

To install the PQI on the SCE with a non-default capacity option, you should install the PQI using CLI, and specify the name of the capacity option on the 'options' modifier of the PQI install CLI command.

For example, to install the PQI with 'SubscriberLessSCE2000' capacity, use the following CLI commands:

```
#>configure
(config)#>interface LineCard 0
(config if)#>pqi install file eng30037.pqi options
capacityOption=SubscriberLessSCE2000
```

```
ERROR: Persistent storage of the Service Configuration on the SCE has failed
```

```
#more user-log
...
2005-12-18 10:20:54 | INFO | CPU #000 | Engage Policy Applied:
username@hostname/64.103.125.159, filename.pqb, Fully-Functional, 6(+1)Packages, 38
Services
...
```

Backward compatibility with SCA BB 2.5 Service Configuration API

-

Unneeded connections should be closed

-

Obtaining Technical Assistance

-
-

Cisco.com

Technical Assistance Center

-
-

Contacting TAC by Using the Cisco TAC Website

-

-

Contacting TAC by Telephone

-

-