



## **Cisco Insight Reporter Release Notes**

Release 5.0.0

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# Introduction

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## Document Details

Cisco Service Center Release	Part Number	Publication Date
Release 5.0.05.0.0	OL-31876-01	July 2014

This Release Note pertains to the official release of Cisco Insight Reporter v5.0.0

It includes all the defects and caveats that were identified as part of internal testing. It assumes that the reader has a good working knowledge of the Cisco Insight Reporter software.

This document covers the following sections:

- [Target Operating Environment](#)
- [Compatibility with Cisco DPI Devices](#)
- [Differences with previous releases](#)
- [New Features and Enhancements](#)
- [Closed Caveats](#)
- [Open Caveats](#)

# Target Operating Environment

Cisco Insight Reporter is the web reporting application designed for the Cisco Service Control Engine (SCE) solution. It provides reports, dashboards and advanced functions to analyze traffic information retrieved through the Deep-Packet-Inspection (DPI) capabilities of Cisco SCE devices.

This release 5.0.0 provides the support of the Next-Generation SCE devices such as the SCE10000 and Virtual SCE platforms.

Cisco Insight Reporter is a software-only solution: it is primarily designed to be installed as an independent component on a dedicated hardware. This scenario is the most suitable for medium/large SCE deployments for which it is advisable to keep the data collection and storage layers on separate hardware and dedicate resources to the Cisco Insight Reporter application.

For demo purpose or small SCE deployments, the application can be installed on the same host as the Cisco Collection Manager (CM). In this scenario, the embedded MySQL Enterprise 5.6 database engine, provided with the application, will also be used to store traffic data. The Collection Manager needs to be configured to point to the embedded MySQL server.

The software can be deployed also on virtualized systems provided that the hosted operating system is supported and that all the requirements on prerequisites are met.

## Hardware Requirements

The Cisco Insight Reporter release 5.0.0 can be installed on any physical or virtual host with the following minimal specifications:

**Table 1. Hardware Specifications**

Components	Specifications
CPU	Multi-core Intel x86/64 processor - 2.0 GHz or greater. 8 or more cores recommended.
RAM	4 GB or greater. At least 16 GB of RAM are recommended when using the bundled MySQL Enterprise Server to store traffic data.
Storage	The application requires at least 1 GB free in the /home partition.  In case the embedded MySQL Enterprise database is NOT used to store traffic data: it is recommended to allocate at least 100 GB of storage.  In case the embedded MySQL Enterprise database is used to store traffic data: the appropriate disk size depends mainly on the RDR settings of SCE devices and the desired data retention policies to apply.  In this scenario it is recommended to allocate at least 1 TB of storage – please contact Cisco support for a more accurate sizing of the storage.
Network interface	At least 1 Fast Ethernet (100Mbps) or Gigabit Ethernet (1 Gbps) network interface is required.



In case of doubt, you can contact Cisco Support to get an estimation of the required CPU power, RAM capacity and disk storage.

**Note**

The performance of the Cisco Insight Reporter depends on the size of the SCE deployment and the number of users simultaneously running the reports. To get an optimal performance, the hardware may have to be scaled accordingly.

The above recommendation is for a good response time when running ONLY the Cisco Insight Reporter software. In case the same environment is shared to co-host other applications, the allocated resources need to be increased accordingly (CPU, RAM, storage).

## Operating Systems

You can install Cisco Insight Reporter release 5.0.0 on any server or virtual appliance running the following operating systems:

Table 2. **Supported Operating Systems**

OS and architecture	Version	Architecture
Red Hat Enterprise Linux or CentOS	5.x 64bit	Intel x86 64 bit
	6.x 64bit	

## Java Runtime Environment (JRE)

Cisco Insight Reporter 5.0.0 requires the Java Runtime Environment release 6.

If JRE6 is not found on the system, Cisco Insight Report will automatically install it.

## Supported Browsers

Cisco Insight Reporter release 5.0.0 is compliant with the following browsers:

- Firefox v3.0 and later
- IE v6.0 and later
- Google Chrome v5.0 and later

**Notes**

- As a prerequisite, the Flash Player 10.x browser plug-in should be installed on all client PCs that will be used to display reports.
- Cisco Insight Reporter supports both HTTP and HTTPS connectivity.

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## Screen Resolution

The application GUI supports a variety of screen resolution modes including 1280x1024, 1024x768, and 1680x1050 with consistent support of 4:3 and 16:9 aspect ratios (wide screen). For a better user experience it is recommended to use a minimum vertical resolution of 1024 pixels.

**Note**

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A minimal screen resolution of 1024x768 is supported with vertical and horizontal scroll bars. For other resolutions, scrollbars may appear if the screen resolution is lower than the application workspace or if there are too many toolbars configured on the browser. To maximize the user experience, it is suggested to set the browser to full-screen mode (that can be set usually by pressing the F11 function key).

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## Supported Databases

Cisco Insight Reporter release 5.0.0 is delivered with a bundled MySQL Enterprise database server v5.6 that is used for internal operations, but it can also be used to store traffic data populated by one or more Cisco Collection Managers.

**Note**

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When installing Cisco Insight Reporter on the same host as Cisco Collection Manager, both the traffic data and the application internal tables need to be located on the same database engine, thus it is required to use the database server shipped with the application.

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Traffic data can also be stored on an external database server, in that case Cisco Insight Reporter supports the same database technologies as Cisco Collection Manager software:

- MySQL 5.x and greater
- Oracle 9.x and greater
- Sybase ASE 12.x and greater

Cisco Customers are in charge of providing the license of external database servers. They are also required to manually copy the software drivers on Cisco Insight Reporter to enable the connectivity between this latter and the external databases.

**Note**

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For licensing issues, when working with Oracle and Sybase databases, customers are required to provide the software JDBC connectors and copy them on a specific path of the application, as described in the Installation Guide.

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Before installing the application make sure there is no firewall running on the hosting server or between the hosting server and the client workstations.

If the firewall(s) cannot be disabled, make sure the inbound/outbound TCP/UDP ports are enabled, as described in the Installation Guide.

## SELinux option

Before installing the application make sure the SELinux option is disabled on the target Operating System, otherwise the installation wizard will terminate the setup process.

## Removing all conflicting SW packages

It is required to remove all previous versions of MySQL software and packages, before installing the application.

Use the `rpm -e` command to remove any previous version of MySQL software and libraries, such as those shipped with the Operating System.

## Configuring MySQL database for best performance

When using MySQL database technology to store traffic data, it is important to make sure the database engine is running with the appropriate settings in order to have good performance.

Cisco Insight Reporter is shipped with an embedded MySQL Enterprise database release 5.6 that can be used to store traffic information. This database release uses InnoDB as the default engine.

## Working with firewalls

Before installing the application make sure there is no firewall running on the hosting server or between the hosting server and the client workstations.

If the firewall(s) cannot be disabled, make sure the inbound/outbound TCP/UDP ports are enabled, as described in the Installation Guide.

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If storing traffic tables with RDR content on the embedded MySQL server, it is required to make sure the optimized settings for the InnoDB engine have been applied in the configuration file of the database server. Failure in doing so will result in poor performance during the generation of reports.

Since the InnoDB engine settings are dependent on the target resources (CPU, RAM) allocated to the database server, we are providing some guidelines to adjust the configuration file used at startup by the embedded MySQL database.

The end-user is expected to configure the InnoDB engine settings according to those guidelines.

Please refer to the Installation Guide for more details and instructions.



### Note

The same settings can also be applied to external MySQL databases, in case traffic tables are not store on the embedded database

## Change of usage policies for the embedded MySQL Enterprise database

Starting from this release, the embedded MySQL Enterprise database can only be used by Cisco Insight Reporter or Cisco Collection Manager software. No access is granted to end-users or third party applications.

The password of the MySQL root user is configured by the installation wizard and kept secret.

This is particularly important for Customers planning to use the embedded database to store traffic information. Once they set up the Cisco Service Control solution, they can only access the stored data through a series of functions, provided by Cisco Insight Reporter.

## Compatibility with Cisco DPI Devices

Cisco Insight Reporter is the reporting platform for both Cisco Service Control Application and Application Visibility & Control solutions.

This release 4.1.0 supports the following devices and configurations:

**Table 3. Supported devices and releases**

SCE devices	SCOS release	CM schema version
SCE 1K, 2K, 8K	3.5.0 to 4.1.0	same as SCOS release



(only 8K models support IPv6 traffic)		
SCE 10K, vSCE	5.0.0	same as SCOS release

## Differences with previous release

Cisco Insight Reporter release 5.0.0 is backward compatible with previous software versions and SCE models.

The release supports software upgrade to allow customers to perform a seamless installation of the application without the need to reconfigure all settings and existing report customizations (SCE networks, saved/scheduled reports, dashboard, color settings, etc.)

The following matrix describes the main differences between the two versions:

**Table 4. Comparison with former release**

Major feature	Insight Reporter v4.1	Insight Reporter v5.0
Web2.0 GUI	Yes, based on Flex client	
Embedded database (for internal operations, but can also be used to store RDR information)	MySQL Enterprise 5.1	MySQL Enterprise 5.6
External database support (to store RDR information)	MySQL, Oracle and Sybase (commercial editions)	
SCE model support	SCE1000, SCE2000, SCE8000	also SCE10K and vSCE (NG SCE models)
SCE report template support (SCA BB)	3.5.0 to 4.1.0	3.5.0 to 4.1.0 (SCE8K) 5.0.0 (NG SCEs)
Multi-device configurations	Yes, with report configuration	
Authentication support with external AAA servers	Yes, support of RADIUS and TACACS+	
Deployment architecture	Can be installed on a single appliance or distributed	

## New Features and Enhancements

This release 5.0.0 provides the following new features and enhancements, described more in detail in the User Guide:

- Support of Next-Generation SCE devices introduced in 2014: the SCE10000 and the Virtual SCE.
- Introduction of a report template based on the new database schema provided with Cisco Collection Manager 5.0.0.
- Improved scalability to support higher RDR rates generated by NG SCE devices.
- Live reporting feature enabled for the User Dashboard.
- Optimization of all report queries for faster execution of reports.
- Migration of the embedded database to MySQL Enterprise 5.6, for improved performance.
- Activation of new metrics for Web monitoring reports.
- Activation of Package filter for all supported reports.
- Activation of multiple selection of Packages for all supported reports.
- Adjustment to Video QoE monitoring report.
- New library for PDF layout.
- Improved debuggability options.
- New policies applied to end-user access to the embedded MySQL Enterprise server (compliance to Oracle rules).

## Closed Caveats

The following issues have been fixed since the delivery of previous software release:

CSCuh48393	DS-Lite option missing for VLink bandwidth per package
CSCul48950	Reports showing topology series display duplicated entries in Data Grid
CSCum04692	Issues with Traffic Monitoring - IPv6 reports
CSCum50320	Global/Package/Zone Call Minutes per VoIP Service - Issue with Oracle DB
CSCum45402	Top Cells report is not working after executing update_vlinks.sh in CM
CSCum44924	Video Service Quality report should show QoE scores per service
CSCum88239	Usage Per PCF Report throwing Error while executing Report in Oracle DB
CSCun38478	In CSV Insight is not displaying parent services
CSCun83199	Zone Concurrent Sessions per Topology throws error
CSCun38474	Empty CSV is generated.
CSCuo41393	Top Video Hosts/Providers reports show wrong top Rank_bit_rate
CSCuo95225	Error running 'Daily peak BW for Specific Subscriber' on SYBASE
CSCuo95162	Report 'Number of subscribers per location' in Oracle gives exception
CSCuo95138	Running report 'Zone Bandwidth per Service' in SYBASE gives ERROR
CSCup13878	Insight just supports 50 chars for Service name, CM supports 255 chars.
CSCuo95176	Report 'Top Domains Trend' gives 'Error during report execution'
CSCup10073	Please restart MySQL at end of upgrade process from 4.1.0 to 4.2.0
CSCuo95215	Data fetched for report 'Usage per APN' differs in 4.0.0. VS 5.0.0
CSCup32024	Hierarchical packages are not visible in Insight Reporter
CSCup52145	No action on Select all option
CSCup75831	Top Hosts report should run on Volume, Bandwidth and Duration
CSCty80275	Invalid time format showing 24:40 in the report tooltip
CSCue42418	Network cannot be saved if Service tree has more than 250 entries

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## Open Caveats

The following is the list of open issues reported for current release:

### **CSCup20794 – Errors occurring on the GUI cannot be logged in the application logs**

#### **Symptoms:**

Errors occurring on the Graphical User Interface (such as HTTP Request errors, or similar events) cannot be logged on the application log file, even if the application logger is set to DEBUG mode..

#### **Conditions:**

This problem occurs only for errors generated at the GUI level (on the client browser, such as HTTP Request errors).

You can generate the HTTP Request error by suddenly disconnecting the client workstation from the network, so that the server hosting Insight Reporter can no longer be reached.

#### **Workarounds:**

None. GUI errors are currently not designed to be stored on the application log file. They can only be read on screen.

### **CSCup61773 – Favorite Reports: override operation actually creates copy of report**

#### **Symptoms:**

When editing an existing report in the list of Favorites, the override option actually creates a copy of the report, instead of modifying the existing instance.

#### **Conditions:**

Try to edit an existing report in the list of My Favorites.

Change some parameters and then click the Save button.

The application will ask if you want to Override the existing instance.

#### **Workarounds:**

There is no workaround: the user needs to delete the previous favorite report and create a new one with the desired parameters, then save it.

### **CSCup66595 – Video QoE report is missing filter on Packages**

#### **Symptoms:**

The Video QoE report doesn't allow to select an option to filter per Package.

#### **Conditions:**

When working with CM/SCOS schema v4.1.0 and greater, select and run the Video QoE monitoring report.

#### **Workarounds:**

None.

### **CSCup84787 – Default my.cnf has no optimized parameters for InnoDB engine (MySQL DB)**

#### **Symptoms:**

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Insight Reporter v5.0 installs MySQL5.6 and creates a default my.cnf file inside /usr directory. But that file does not contain optimized values for InnoDB engine. It sets the default values that do not give optimum performance.

**Conditions:**

Check the my.cnf file located in the /usr directory after installing Insight Reporter 5.0.0.

The my.cnf file contains the default settings that are not optimized for good performance of the InnoDB engine.

**Workarounds:**

Manually update the my.cnf file located inside /usr directory

It is recommended to set up to max 70% physical memory to innodb\_buffer\_pool\_size

Example:

```
innodb_buffer_pool_size=4GB
innodb_flush_neighbors = 0
innodb_io_capacity = 2000
innodb_io_capacity_max = 6000
innodb_buffer_pool_instances = 8
innodb_read_io_threads=64
thread_cache = 64
max_connections = 500
```

**CSCtq46342 – Cumulative Distribution of Subscriber SMTP Sessions cannot be generated****Symptoms:**

The Cumulative Distribution of Subscriber SMTP Sessions report cannot be generated if the applied SCE configuration does not contain a Subscriber Service Counter associated to service 'SMTP'.

**Conditions:**

Verify there is no Subscriber Service Counter associated to service 'SMTP' on the SCA BB Console.

On Insight Reporter, open the Report Wizard, select the Malicious -> Spam -> Distribution and execute the report.

**Workarounds:**

On the SCA BB Console, define a Subscriber Service Counter for service 'SMTP'. Then apply the pqb configuration to all SCE devices of the network.

**CSCub67401 – Tomcat server must be restarted if the DB server went down****Symptoms:**

If, for any reason, the database engine hosting the traffic schema has been restarted or had a temporary failure, the application can no more connect to it until the Tomcat web server is also restarted.

**Conditions:**

Shutdown and restart the traffic database, then try using the application without restarting the Tomcat server.

**Workarounds:**

You manually need to restart the Tomcat server to restore the connection pools to the traffic database.