



Release Notes for Cisco IP Solution Center, 5.0.2

Cisco IP Solution Center (ISC) 5.0.2 is a maintenance release that adds support for configurable router login prompts and a file-based config collect mechanism for use by Cisco MPLS Diagnostics Expert (MDE) 2.1.2. ISC 5.0.2 is a release with new functionality and problem fixes added since ISC 5.0.1. All ISC 5.0 and ISC 5.0.1 updates can be found in the respective Release Notes, [Release Notes for Cisco IP Solution Center, 5.0](#) and [Release Notes for Cisco IP Solution Center, 5.0.1](#).

All documentation, including this *Release Notes for Cisco IP Solution Center, 5.0.2* document and any or all of the parts of the ISC 5.0, ISC 5.0.1, and ISC 5.0.2 documentation sets, *might* be upgraded over time. Therefore, we recommend you access these documents at:

http://www.cisco.com/en/US/products/sw/netmgts/ps4748/tsd_products_support_series_home.html

You can also navigate to this documentation by clicking **Help** on the Home Page of the ISC product. The “[Related Documentation](#)” section on [page 14](#) gives the URL for the most current version of each manual to be used with ISC 5.0.2.

The information in this *Release Notes for Cisco IP Solution Center, 5.0.2* document gives you an overview of this release and helps you understand what has changed since ISC 5.0.1. Please read this document prior to reading any other manual for ISC.

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Introduction

Cisco IP Solution Center (ISC) 5.0.2 has new functionality added since ISC 5.0.1 (see the [“New and Changed Information” section on page 3](#)) and fixes to problems and enhancements found in ISC 5.0.x releases (see the [“Problems Fixed in ISC 5.0.2” section on page 11](#)). ISC 5.0.2 includes Cisco MPLS Diagnostics Expert (MDE) 2.1.2. The system recommendations for ISC 5.0.2 (see the [“System Recommendations” section on page 2](#)) are based on those for ISC 5.0.1. The new devices and platforms supported in addition to those supported in ISC 5.0.1 are listed in the [“New Device and Platform Support” section on page 2](#).

ISC 5.0.2 primarily contains enhancements for Cisco MPLS Diagnostics Expert 2.1.2. If you are using other ISC family products (L3 provisioning; L2 provisioning; TEM), you might choose to adopt this maintenance release if:

- you use the ISC NBI and have experienced deadlock issues
- you want to use configurable router prompts or configurable password prompts on devices in your network.

Steps for installing ISC 5.0.2 are found in the [“Installation Notes” section on page 11](#), and other important information is found in the [“Important Notes” section on page 13](#). For problems that were found and might still exist in ISC 5.0.2, see the URL in the [“Known Caveats in Cisco IP Solution Center 5.0.2” section on page 14](#).

URLs for base information about ISC 5.0 and an overview and suggested reading order of these documents is given in the [Cisco IP Solution Center Getting Started and Documentation Guide, 5.0](#) (http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/roadmap/docguide.html). The ISC 5.0.2 documentation set includes ISC 5.0 documents, some updated information for ISC 5.0.1, and these [Release Notes for Cisco IP Solution Center, 5.0.2](#), as indicated in the [“Related Documentation” section on page 14](#).

System Recommendations

The system recommendations and requirements listed in Chapter 1, “System Recommendations” of the [Cisco IP Solution Center Installation Guide, 5.0](#) (http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/installation/guide/install.html) are also applicable to ISC 5.0.2.

The recommendation is to thoroughly review all this information before even planning your installation, to be sure you have all the hardware and software needed for a successful installation.

Additionally, the new devices and platforms supported are explained in the [Release Notes for Cisco IP Solution Center, 5.0.1](#) and in the section, [New Device and Platform Support](#).

New Device and Platform Support

New devices and platforms supported are as follows:

- [Cisco IOS Device Support](#)
- [Cisco IOS XR Device Support](#)
- [Cisco IOS XE Device Support](#)

Cisco IOS Device Support

MDE 2.1.2 on ISC 5.0.2 supports the following devices with Cisco IOS releases:

- MGX-RPM in PE role with the following IOS releases:
 - MGX8800/RPM-XF in a PE role with Cisco IOS 12.4(6) T5a
 - MGX8800/RPM-PR in a PE role with Cisco IOS 12.2(15) ZS5
- Cisco 12000 (GSR) in a P and PE role with Cisco IOS 12.0(32) S10



Note Cisco IOS release 12.0(32) S10 supports MPLS OAM RFC.

Cisco IOS XR Device Support

MDE 2.1.2 on ISC 5.0.2 supports the following devices with Cisco IOS XR releases:

- CRS-1 devices in a P and PE role with the following Cisco IOS XR releases:
 - IOS XR 3.3.5
 - IOS XR 3.5.3



Note MDE does not support CRS-1 devices in a PE role with Cisco IOS XR 3.5.2.

- Cisco 12000 (GSR) devices in a P and PE role with Cisco IOS XR 3.5.3

Cisco IOS XE Device Support

MDE 2.1.2 on ISC 5.0.2 supports the Cisco ASR 1000 Router Series operating in an N-PE role with IOS XE version 2.1 (discovered as a Cisco 7200 in ISC).

New and Changed Information

This section lists the new and changed functionality that was added or updated since ISC 5.0.1 to this ISC 5.0.2 release. For new and changed information in ISC 5.0.1 specific to MDE, see the [New and Changed Information section of the Release Notes for Cisco IP Solution Center, 5.0.1](#).

The categories in this section are:

- [“ISC Infrastructure Updates” section on page 3](#)
- [“MPLS Diagnostics Expert \(MDE\) Updates” section on page 9](#)

ISC Infrastructure Updates

The ISC infrastructure updates are as follows:

- [Custom Router Login Prompt](#)
- [Offline Configuration Collect Mechanism](#)

Custom Router Login Prompt

MDE 2.1.2 on ISC 5.0.2 now supports networks with routers that support custom user login prompts, for example, UserID:. MDE 2.1.2 on ISC 5.0.2 now allows you to configure the custom username and password using the ISC Graphical User Interface (GUI).



Note

The custom router login prompt is supported on all Cisco IOS and Cisco IOS XR versions supported by MDE.

To configure your custom router login prompt:

-
- Step 1** From the Home window of Cisco IP Solution Center (ISC), which you receive upon logging in, click the **Administration** tab.
 - Step 2** Click the **Control Center** icon.
The Hosts panel appears.
 - Step 3** Check the check box next to a hostname for which you want to know the existing properties and then click the **Config** button.
The Host Configuration panel appears.
 - Step 4** Click the + sign to expand the DCS folder.
 - Step 5** Select **DCS.customUsernamePrompt** to configure custom usernames, as shown in [Figure 1](#), and **DCS.customPasswordPrompt** to configure custom passwords, as shown in [Figure 2](#).
 - Step 6** Enter your custom prompt(s), separated by commas in the New Value text box.



Note

If your custom username or password prompt contains multiple lines, you only need to enter the final line into the ISC GUI or the Dynamic Components Properties Library (DCPL) property.

Figure 1 Example—Configuring Custom Username Prompts

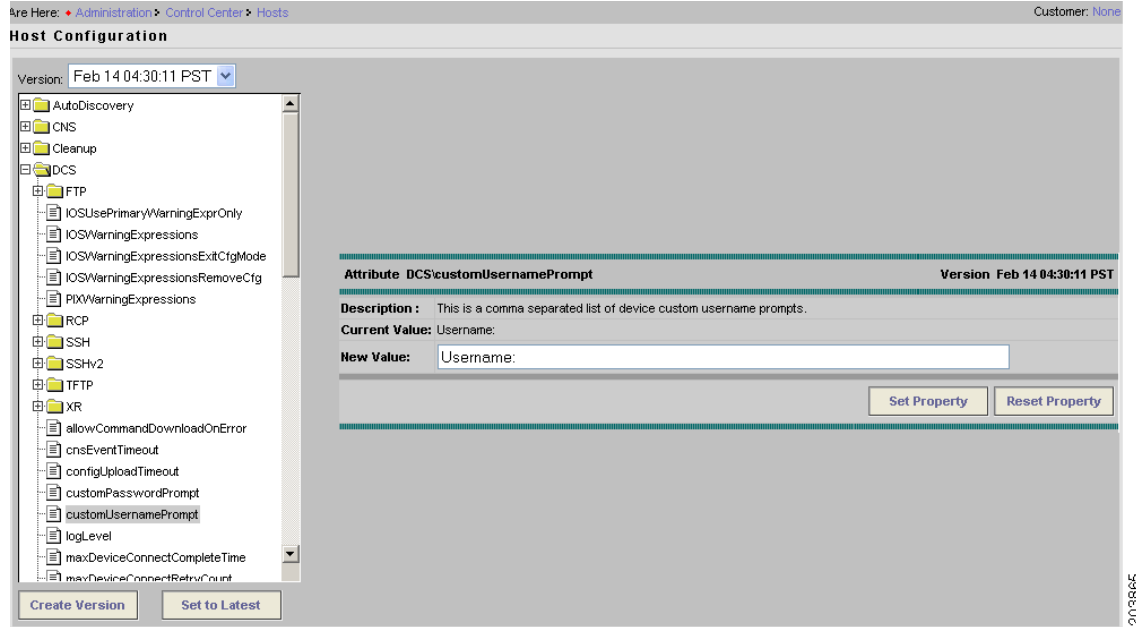
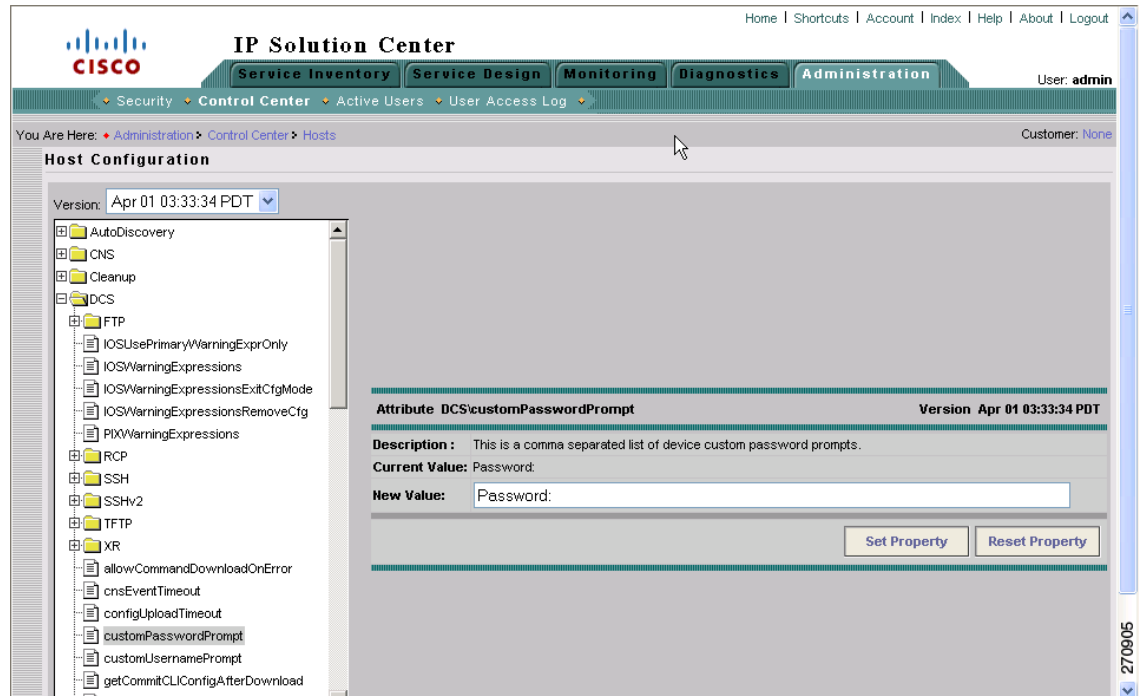


Figure 2 Example—Configuring Custom Password Prompts



Step 7 Click **Set Property**.

The Current Value field updates to display the new value set. The custom prompt entered must match the device logon prompt exactly. The custom prompt is case-insensitive. ISC sends the login credentials to a device with the username prompt included in the list.



Note

IOS XR login prompts are configured through a Tacacs+ server.

Offline Configuration Collect Mechanism

MDE 2.1.2 on ISC 5.0.2 allows you to load IOS and IOS XR configuration files from a UNIX file directory from the MDE server. Loading configuration files from an offline source enables you to collect up-to-date network inventory from P and PE routers for use by MDE, in diagnosis, and in test point selection.



Note

This offline configuration collect mechanism is only for MDE and should not be used with other modules.

A new task in ISC supports the offline approach to configuration collection. This task is similar to the existing ISC configuration collection task, except that the running configuration for a device is collected from a XML configuration file rather than running live commands on the device.

The configuration file must be in XML format. The XML file must have one `<Running_Config>` tag and one `<Version>` tag. The contents of the tags might contain characters that are illegal in XML format. Therefore, the XML file must also have the XML CDATA tag embedded in each of the `<Running_Config>` and `<Version>` tags.

For an example of an XML config file, the output of the `show running-config` IOS command must be placed in the CDATA section of the `<Running_Config>` tag. Similarly, the output of the `show version` IOS command must be placed in the CDATA section of the `<Version>` tag.

[Example 1](#) provides the details of the contents of a typical configuration file.

Example 1 Typical Configuration File

```
<?xml version="1.0" encoding="UTF-8"?>
<Device_Config xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="C:\Documents and Settings\user\Desktop\DeviceConfig.xsd">
  <Running_Config><![CDATA[

    ]]>
  </Running_Config>
  <Version><![CDATA[

    ]]></Version>
</Device_Config>
```

1. You are responsible for storing and updating the configuration files. Each configuration file must contain a hostname that corresponds to a device that has been created in ISC with exactly this hostname, that is, that hostname also exists in an ISC repository.

2. ISC searches the repository for the hostname. If the device exists, the configuration file is parsed and the device is updated with the collected configuration; otherwise task logs show an error message informing you that the device is not present in the repository.
3. If a file does not contain a hostname, the task logs display an error message for that device stating that the task has failed to get a hostname from the IOS configuration file.
4. If the search of the ISC repository for a hostname returns more than one device, ISC attempts to match the domain name (provided that the domain name is present in the running configuration file) against the domain name of each device in the repository. If ISC finds a match, the device is updated with the running configuration file. If ISC does not find a match or a domain name is not present in the configuration file, the task logs display an error message stating that the device is not unique in the inventory.
5. Hostname and domain name matching is case-sensitive.
6. Parsing of the configuration files occurs in alphanumeric order.
7. Multiple collections from different directories can be set up at the same time.
8. If the file contains no interfaces, a warning appears in the task logs stating that the configuration collect task could not find any interfaces in the given file.
9. If there is more than one file with the same hostname defined, the task logs display an error message for that device, stating the device has already been updated in this task.
10. If a device exists as an IOS device in the ISC repository, but the configuration file for the device indicates that it is an IOS XR device, or vice versa, the task logs display a warning stating that the device is an IOS device, but the configuration file indicates IOS XR.
11. If ISC finds that the hostname obtained from the configuration file has been used to create a device other than a Cisco router in its repository, ISC informs you that the device is not a Cisco router.
12. A file that contains a hostname and interface names is considered to be a valid configuration file.
13. In terms of changes to RBAC to support the new task, the existing collection role is augmented so that it can be used for both Config-Collect from device and Config-Collect from file.

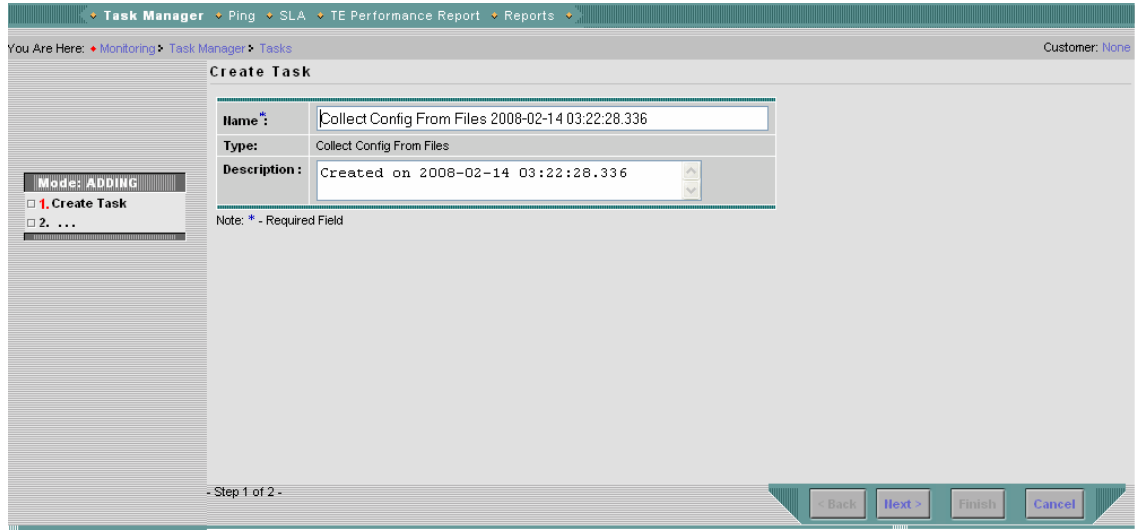
**Note**

In the case of a device that is running IOS XR, new interfaces that have no configuration do not appear in the running configuration. You need to add some configuration to these interfaces before running the task for them to appear in ISC. Otherwise they are unable to configure the interfaces using ISC. The interfaces do not have to be fully configured to appear in the running configuration. That is, adding a single line configuration to the interface suffices as a description for the interface.

To create a task for the offline configuration collection:

- Step 1** From the Home window of Cisco IP Solution Center (ISC), which you receive upon logging in, click the **Monitoring** tab.
- Step 2** Click **Task Manager**.
The Tasks page appears.
- Step 3** Click **Create**.
- Step 4** From the resulting drop-down list, choose **Collect Config from Files**.
The Create Task page appears, as shown in [Figure 3](#).

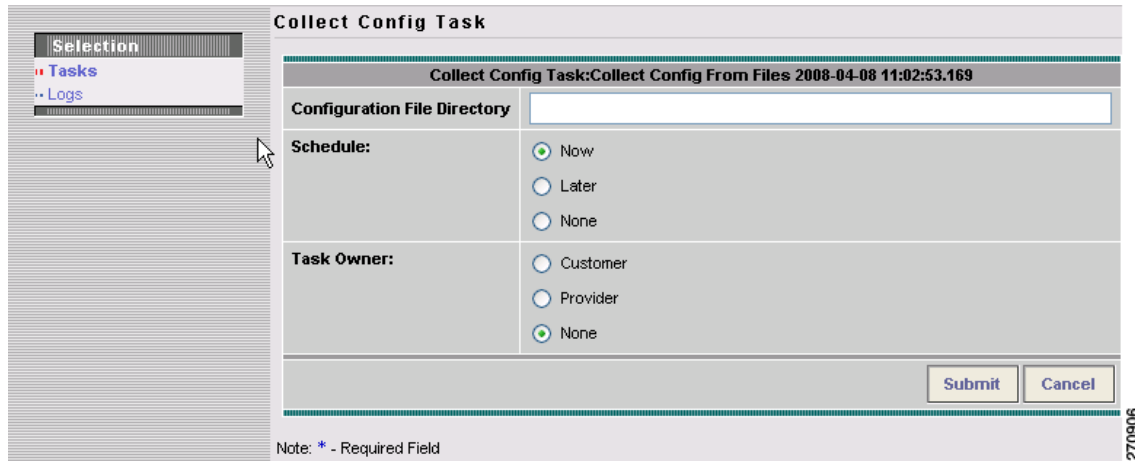
Figure 3 Example—Create Task



Step 5 Click **Next**.

The Collect Config Task page appears, as shown in [Figure 4](#).

Figure 4 Example—Collect Config Task



Step 6 Enter the path to the directory on your ISC server into the Configuration File Directory text box, to indicate the directory on the ISC server where the offline configuration files are stored.

Step 7 Click **Submit**.

The new collect configuration task is created. The Tasks list page appears with the new task added to the top of the list of tasks.

MPLS Diagnostics Expert (MDE) Updates

The MDE updates are as follows:

- [MDE Device Selector GUI Enhancement](#), page 9
- [New MDE Observations \(Enhancement: CSCsi96376\)](#), page 10

This MDE 2.1.2 release (on ISC 5.0.2) adds to features in MDE 2.1.1 (on ISC 5.0.1) that are important to MDE customers. These include:

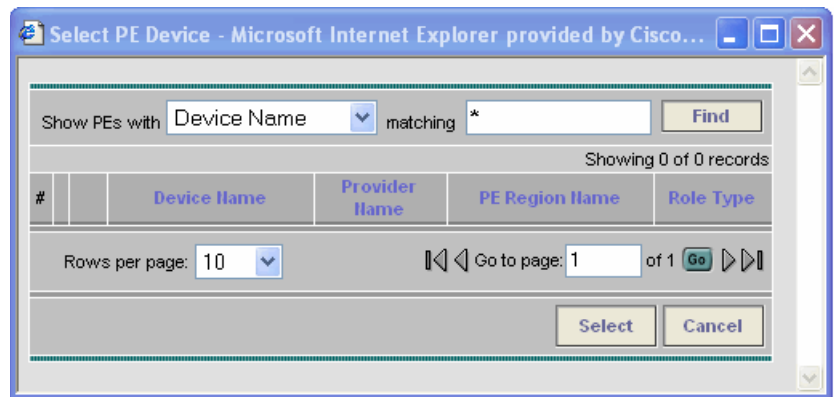
- MDE now diagnoses in Cisco devices and networks that use IETF RFC 4379 compliant Label Switched Path (LSP) ping and LSP traceroute, in addition to non RFC compliant OAM-based networks.
- The MDE PE-PE (core) test type now supports direct entry of the Loopback name, in addition to the Loopback IP address.

For complete details about ISC 5.0.1, see the [Release Notes for Cisco IP Solution Center, 5.0.1](http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0.1/release/notes/relnotes.html) (http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0.1/release/notes/relnotes.html).

MDE Device Selector GUI Enhancement

MDE 2.1.2 on ISC 5.0.2 allows you to configure the default value of the MDE device selector, as shown in [Figure 5](#). Possible values are Device Name, Provider Name, and PE Region Name.

Figure 5 Device Selector



To configure the default value displayed in the device selector window:

- Step 1** From the Home window of Cisco IP Solution Center (ISC), which you receive upon logging in, click the **Administration** tab.
- Step 2** Click the **Control Center** icon.
The Hosts panel appears.
- Step 3** Check the check box next to a hostname for which you want to know the existing properties and then click the **Config** button.
The Host Configuration panel appears.
- Step 4** Click the + sign to expand the DCS folder.

- Step 5** Select **GUI.Common.PeSelectionCategory**.
 - Step 6** Select the appropriate value from **DEVICE**, **REGION**, or **PROVIDER**.
 - Step 7** Click **Set Property**.
-

New MDE Observations (Enhancement: CSCsi96376)

An observation is displayed when troubleshooting of the Layer 3 VPN has been unable to find the cause of the failure and MDE has determined that traffic is not flowing through the MPLS core as expected. Depending on the conditions detected, one of the following observations is displayed:

- [New Observation #1, page 10](#)
- [New Observation #2, page 10](#)
- [New Observation #3, page 10](#)

New Observation #1

Core troubleshooting could not be performed. MDE is unable to determine the LSP to test, because the PE <PE Name> has no valid VPN route to the remote prefix <IP address> within the VRF <VRF name>. The next-hop is inaccessible. This might be due to a problem within the Core Interior Gateway Protocol (IGP) or IP connectivity failure. To test LSP connectivity, you might want to run a PE to PE Core test that allows you to specify the LSP endpoints manually.

New Observation #2

Core troubleshooting could not be performed. MDE is unable to determine the LSP to test, because the PE <PE Name> has no valid VPN route to the remote prefix <IP address> within the VRF <VRF name>. The route is not learned through an internal Border Gateway Protocol (BGP) vpnv4 neighbor. It is known through the <Routing Protocol Name>. The next-hop for this external route is <IP address>. Traffic does not flow through the MPLS core, as expected. This might be an intentional back door link, however, it is often a symptom of PE - CE misrouting. To test LSP connectivity, you might want to run a PE to PE Core test that allows you to specify the LSP endpoints manually.

New Observation #3

Core troubleshooting could not be performed. MDE is unable to determine the LSP to test, because the PE <PE Name> has no valid VPN route to the remote prefix <IP address> within the VRF <IP address>. The route is not learned through an internal BGP vpnv4 neighbor. It is known through the <Routing Protocol Name>. The next-hop for this external route is inaccessible. This might be an intentional back door link, however, it is often a symptom of PE - CE misrouting. To test LSP connectivity, you might want to run a PE to PE Core test that allows you to specify the LSP endpoints manually.

Problems Fixed in ISC 5.0.2

Table 1, “Customer-found Problems Fixed in ISC 5.0.2,” describes all the customer-found problems fixed in ISC 5.0.2. For problems fixed in ISC 5.0.1 see the *Problems Fixed section of the Release Notes for Cisco IP Solution Center, 5.0.1*.

Table 1 Customer-found Problems Fixed in ISC 5.0.2

CDETS Number	Subject
API:	
CSCsl57013	Multiple NBI sessions cause thread deadlock
MPLS Diagnostics Expert (MDE):	
CSCsi96376	Access Circuit Backdoor routing might be incorrectly identified as a problem with the Border Gateway Protocol (BGP) vpnv4 next-hop for a Virtual Private Network (VPN) route.
CSCso42483	MDE aborts during label-switched path (LSP) visualization when device interaction fails.

Installation Notes

This section contains the following information:

- [Version Supported, page 11](#)
- [Upgrade Paths, page 11](#)
- [Uninstall, page 13](#)

Version Supported

ISC 5.0.2 is a patch release that supports upgrading from ISC 3.2.2, 3.2.2.3, 3.2.2.5, 4.0, 4.0.1, 4.1, 4.1.1, 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 5.0, or 5.0.1.



Note

To install the ISC 5.0.2 patch release, you must have ISC 5.0.1 installed.

If you are upgrading from a version of ISC prior to ISC 3.2.2, see Chapter 2 in the *Cisco IP Solution Center Installation Guide, 5.0*.

Upgrade Paths

If you are upgrading from ISC 3.2.2, 3.2.2.3, 3.2.2.5, 4.0, 4.0.1, 4.1, 4.1.1, 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, or 5.0, you must install ISC 5.0.1 first, as explained in the *Release Notes for Cisco IP Solution Center, 5.0.1*. After upgrading to ISC 5.0.1, download and install the ISC 5.0.2 maintenance patch located at <http://www.cisco.com/cgi-bin/tablebuild.pl/isc> on the same server.

**Note**

If you are using an Oracle database prior to Oracle 10, you *must* upgrade your Oracle installation and your Oracle database. The Oracle database supported with this release is 10g Enterprise Edition Release 10.2.0.1.0 - 64bit Production with the Partitioning, OLAP, and Data Mining options.

To upgrade, follow these steps:

-
- Step 1** Before upgrading to this ISC 5.0.2 Maintenance Release, complete the discovery workflow. Otherwise, when you upgrade these previously initiated discovery workflows, the data discovered during that process might be lost.
- Step 2** Before proceeding to install the ISC 5.0.2 Maintenance Release, be sure to back up your repository, as explained in Appendix C of the *Cisco IP Solution Center Installation Guide, 5.0* (http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/installation/guide/install.html).
- Step 3** Go to <http://www.cisco.com/cgi-bin/tablebuild.pl/isc> (where, in **tablebuild.pl**, the last character is the lower-case letter “l”) to retrieve the ISC 5.0.2 Maintenance Release (**isc-5.0.2-patch.tar.gz**).
- Step 4** Prior to installing the ISC 5.0.2 Maintenance Release, verify that you have 100 MB of free space in the **\$ISC_HOME** directory and that you are logged in with the same username as the owner of your supported version of ISC.
- Step 5** Source the ISC environment file in the **\$ISC_HOME/bin** directory:
For **sh**, **ksh**, and variant shells: **. \$ISC_HOME/bin/vpnenv.sh**
For **csh** and variant shells: **source \$ISC_HOME/bin/vpnenv.csh**
- Step 6** Navigate to a directory other than **\$ISC_HOME**.
- Step 7** Use the following command to untar and unzip the **isc-5.0.2-patch.tar.gz** file:
gunzip -c isc-5.0.2-patch.tar.gz | tar xf -
- Step 8** If ISC is running, use the following command to stop the database, name server, and WatchDog on the machine on which it is running:
\$ stopall
- Step 9** If you are running on ISC 3.2.2, 3.2.2.3, 3.2.2.5, 4.0, 4.0.1, 4.1, 4.1.1, 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, or 5.0, install ISC 5.0.1, as documented in the *Release Notes for Cisco IP Solution Center, 5.0.1*.

**Note**

Prior to installing ISC 5.0.1, if you are moving a repository from one machine to another, the schema upgrade fails unless the repository has been initialized on the new machine. This requires that you successfully run **initdb.sh** on the repository to update the host entry.

-
- Step 10** Use the following command to run the patch installation script:
\$./iscpatchinstall
- When you run this script, you are asked to ensure that you have followed the equivalent of **Step 8**, and as part of the installation, you are asked to confirm the equivalent of **Step 4**.
 - To accept the default value for a prompt indicated in [], for example, [**n**] or [**y**], press **Enter**. To terminate the installer at any time, press **Ctrl-C**. Specifically, you are asked to enter a new path or press **Enter** for the default [**<ISC_OWNER_HOME_DIR>/isc-5.0.1**].
 - At the end of the installation, you receive a message that the patch installation is complete.

-
- Step 11** Navigate to `$ISC_HOME/bin`.
- Step 12** Enter the `startwd` command to restart ISC.
-

Uninstall

To uninstall the ISC 5.0.2 Maintenance Release that was successfully installed by following the steps in the “[Upgrade Paths](#)” section on page 11, follow these steps:

- Step 1** Log in with the same username as the owner of ISC.
- Step 2** If ISC 5.0.2 is running, navigate to the directory `$ISC_HOME/patch/isc5.0.2-patch`, where all the files replaced by the ISC 5.0.2 Maintenance Release were stored.
- Step 3** Source the ISC environment file in the `$ISC_HOME/bin` directory:
- For `sh`, `ksh`, and variant shells: `.$ISC_HOME/bin/vpnenv.sh`
- For `csh` and variant shells: `source $ISC_HOME/bin/vpnenv.csh`
- Step 4** Use the following command to stop the database, name server, and WatchDog on the machine on which it is running:
- ```
$ stopall
```
- Step 5** Use the following command to run the patch script to uninstall:
- ```
$./iscpatchrollback
```
- When you run this script, you are asked to ensure that you have followed the equivalent of [Step 1](#) and [Step 2](#).
 - To accept the default value for a prompt indicated in [], for example, [n] or [y], press **Enter**. To terminate the installer at any time, press **Ctrl-C**.
 - At the end of the uninstall, you receive a message that the patch rollback is complete.
- Step 6** Navigate to `$ISC_HOME/bin`.
- Step 7** Enter the `startwd` command to restart ISC.
-

Important Notes

- All ISC patches are available at: <http://www.cisco.com/cgi-bin/tablebuild.pl/isc>.
- The supported Sybase and Oracle databases behave differently. All GUI queries are case-insensitive for Sybase and case-sensitive for Oracle.
- ISC does not work with pop-up blockers in a web browser. If you have pop-up blockers installed, disable them.
- When using an external Oracle database, the embedded Sybase database is still automatically launched for SLA support.
- For all APIs, the service request name is unique and therefore, each Create Service Request API call needs to maintain this uniqueness.

Known Caveats in Cisco IP Solution Center 5.0.2

To find known caveats in Cisco IP Solution Center, use the following URL:

<http://tools.cisco.com/Support/BugToolKit>

You must log in to Cisco.com.

You can search for specific bugs or search for a range by product name. This tool enables you to query for keywords, severity, range, or version.

The results display bug ID and title, found-in version, fixed-in version, and status. The bug ID is a hyperlink to detailed information for the bug ID's product, component, severity, first found-in, and release notes.

The results could be displayed in a feature matrix or spreadsheet.

Related Documentation

The entire documentation set for Cisco IP Solution Center, 5.0.2 can be accessed at:

http://www.cisco.com/en/US/products/sw/netmgmtsw/ps4748/tsd_products_support_series_home.html



Tip

To cut and paste a two-line URL into the address field of your browser, you must cut and paste each line separately to get the entire URL without a break.

The following documents comprise the ISC 5.0.2 documentation set.

General documentation (in suggested reading order)

- *Cisco IP Solution Center Getting Started and Documentation Guide, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/roadmap/docguide.html
- *Release Notes for Cisco IP Solution Center, 5.0.2.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0.2/release/notes/relnotes.html
- *Release Notes for Cisco IP Solution Center, 5.0.1.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0.1/release/notes/relnotes.html
- *Cisco IP Solution Center Installation Guide, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/installation/guide/install.html
- *Cisco IP Solution Center Infrastructure Reference, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/infrastructure/reference/guide/infrastructure.html
- *Cisco IP Solution Center System Error Messages, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/system/messages/mess.html

Application and technology documentation (listed alphabetically)

- *Cisco IP Solution Center Metro Ethernet and L2VPN User Guide, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/metro_ethernet/user/guide/l2vpn.html
- *Cisco IP Solution Center MPLS VPN User Guide, 5.0.1.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0.1/mpls_vpn/user/guide/mpls501.html
- *Cisco IP Solution Center Traffic Engineering Management User Guide, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/traffic_management/user/guide/tem.html
- *Cisco MPLS Diagnostics Expert 2.1 Failure Scenarios Guide on ISC 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/mpls_failure_scenarios/user/guide/mdefsg.html
- *Cisco MPLS Diagnostics Expert 2.1 User Guide on ISC 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/mpls_diagnostics/user/guide/mde.html

API Documentation

- *Cisco IP Solution Center API Programmer Guide, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/developer/guide/api_gd.html
- *Cisco IP Solution Center API Programmer Reference, 5.0.*
http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.0/developer/reference/xmlapi.zip



Note

All documentation *might* be upgraded over time. All upgraded documentation will be available at the same URLs specified in this document.

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

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