



System Recommendations

This chapter describes the system recommendations and requirements for Cisco IP Solution Center (ISC). ISC is a web-based application you install on a Sun Solaris server, along with a web server and other supporting packages. You access ISC using a web browser.

The recommendation is to thoroughly review this list before even planning your installation, to be sure you have all the hardware and software you must successfully install.

The recommendations are explained in the following topics:

- [ISC Server Hardware, page 1-1](#)
- [ISC Server Solaris Configuration, page 1-2](#)
- [ISC Client, page 1-4](#)
- [Supported Cisco Network Devices and Software Versions, page 1-4](#)

ISC Server Hardware

You must have a CD-ROM drive to install the ISC 4.2 product.

For the Sun™ Solaris server, the minimum recommendations are as shown in [Table 1-1](#).

Table 1-1 **Minimum Sun Solaris Server Recommendations for ISC Applications**

Class	Applications	Minimum Sun Solaris Server (or equivalent)	RAM	Swap Space	Disk Space
Entry	Cisco MPLS Diagnostics Expert or L2VPN and L3 MPLS with a total of up to 1500 attachment circuits	Sun Fire™ V210 (1 CPU)	2 GB	4 GB	73 GB hard drive

Table 1-1 Minimum Sun Solaris Server Recommendations for ISC Applications (continued)

Mid-range	Traffic Engineering Management (TEM) of up to 50 nodes or L2VPN and L3 MPLS with a total of up to 10,000 attachment circuits	Sun Fire™ V440 (2 CPU, expandable to 4 CPUs)	4 GB	8 GB	Four 73 GB hard drives
High End	Traffic Engineering Management (TEM) of more than 50 nodes or L2VPN and L3 MPLS with a total of more than 10,000 attachment circuits	Sun Fire™ V890(4 CPUs, expandable to 8 CPUs)	16 GB	32 GB	Two 146 GB hard drives

ISC Server Solaris Configuration

Solaris 8 and Solaris 10 are both supported in this release. The information found in this section is applicable to both Solaris 8 and Solaris 10.

- The information in [Solaris 8 Specific Requirements, page 1-3](#) is applicable specifically to Solaris 8.
- The information in [Solaris 10 Specific Requirements, page 1-3](#) is applicable specifically to Solaris 10.



Note

When you install Solaris 8 or Solaris 10, be sure to choose either the Developer System Support or the Entire Distribution software groups. Do *not* choose the End User System software group. The Developer System Support and Entire Distribution software groups contain the software required for a correct operating system installation (such as the **SUNWbtool** and **SUNWsprot** packages).



Caution

Make sure that the file descriptor limit is *not* set in the ISC workstation login shell file (which can be the **.login** file, the **.cshrc** file, the **.profile** file, or the **.kshrc** file). If the login shell file contains a line with the **ulimit -n** command (for example, “**ulimit -n <number>**”), comment out this command line in the file. Log out and then log back in to ensure that the **ulimit** is no longer set.

ISC cannot override the file descriptor limitation setting in the login shell file. If the value is set incorrectly, ISC might experience operational problems.

Solaris 8 Specific Requirements

Solaris 8 with recommended patches of at least 108528-29 for the kernel level of the patch cluster and JDK 1.4.2_08 patches are found at: <http://sunsolve.sun.com>. As a minimum, you must get your system up to the 108528-29 Kernel patch level. For installation instructions, see the README file which is at the same location as the patch bundle.

Table 1-2, “Solaris Software Requirements,” explains the Solaris requirements.

Table 1-2 **Solaris Software Requirements**

Requirements	Description
Solaris 8	Install Solaris 8 on the Sun server following these guidelines: Full Distribution—Install the full distribution, which includes the following required packages. If you did not install the full distribution, you can install these packages at any time. —SUNWlldap—LDAP libraries —SUNWfnsx5—FNS support for x.500 Directory Context —SUNWbzip—The bzip compression utility To check if your installation includes these packages, enter: pkginfo package where: <i>package</i> is one of the three packages listed above.

Solaris 10 Specific Requirements

Solaris 10 with recommended patches of at least 118822-30 for the kernel level of the patch cluster and JDK 1.4.2_08 patches are found at: <http://sunsolve.sun.com>. As a minimum, you must get your system up to the 118822-30 Kernel patch level. For installation instructions, see the README file which is at the same location as the patch bundle.

Table 1-2, “Solaris Software Requirements,” explains the Solaris requirements.

Table 3 **Solaris Software Requirements**

Requirements	Description
Solaris 10	Install Solaris 10 on the Sun server following these guidelines: Full Distribution—Install the full distribution, which includes the following required packages. If you did not install the full distribution, you can install these packages at any time. —SUNWlldap—LDAP libraries —SUNWbzip—The bzip compression utility To check if your installation includes these packages, enter: pkginfo package where: <i>package</i> is one of the three packages listed above.

ISC Client

The following is needed for the ISC client:

- A web browser is needed for the client machine on which to run ISC. Internet Explorer 6.0 and Netscape 7.0 are supported.



Note

In Internet Explorer, we recommend disabling the script debugging feature. To do this, in Internet Explorer, navigate to **Tools > Internet Options** and click the **Advanced** tab. Select the check box **Disable script debugging** and click **OK**.

- Java Runtime Environment (JRE) and Java Web Start must be installed on the client machine to run Inventory Manager. JRE 1.4.2_04 and 1.4.2_08 are supported.



Note

Java Web Start Topology Tool application is supported on Windows 2000 only on the client machine.



Note

When using more than one ISC login, ensure each login is using a different HTTP session. To do so, run each session in a separate browser launched from the command line or by clicking on the browser icon on the desktop or Start menu. Do not run parallel ISC logins in tabs within the same browser window or in browser windows launched from existing browser windows.

Supported Cisco Network Devices and Software Versions

The following hardware and software are recommended and required as specified:

- ISC 4.2 testing on an Oracle database has been on Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - 64 bit Production. If you would like to use another version of Oracle, see Oracle's compatibility information.
- CEs are supported with Cisco IOS 12.1 or later.

Table 1-4, “[Network Devices and Related Software Supported with ISC 4.2](#),” specifies the version of software supported by ISC on specified network devices. These are listed alphabetically beginning with the application.

Table 1-4 Network Devices and Related Software Supported with ISC 4.2

Application	P and PE Network Devices, Exceptions Noted	ISC Supported with Specified Software
L2TPv3	Cisco 7200 Series Routers	Cisco IOS 12.2(27) SBB
	Cisco 7500 Series Routers	Cisco IOS 12.2(27) SBB
	Cisco 12000 Gigabit Switch Router (GSR) Series Routers	Cisco IOS 12.0(31) S

Table 1-4 **Network Devices and Related Software Supported with ISC 4.2 (continued)**

Application	P and PE Network Devices, Exceptions Noted	ISC Supported with Specified Software
L2VPN	Cisco Catalyst 2950 Series Switches, U-PE	Cisco IOS 12.1(22) EA1
	Cisco ME 3400 Series Ethernet Access Switches, PE-AGG and U-PE	Cisco IOS 12.2(25) SEG
	Cisco Catalyst 3550 Series Switches, PE-AGG and U-PE	Cisco IOS 12.1(22) EA1
	Cisco Catalyst 3750 ME Series Switch, N-PE, PE-AGG, and U-PE	Cisco IOS 12.2(25) EY
	Cisco Catalyst 4500 Series Switches, PE-AGG and U-PE	Cisco IOS 12.2(25) EWA
	Cisco Catalyst 6500 Series Switches, N-PE, PE-AGG, and U-PE	Cisco IOS 12.2(18) SXF
	Cisco ME 6524 Ethernet Switch, PE-AGG and U-PE	Cisco IOS 12.2(25) EX
	Cisco 7200 Series Routers, N-PE	Cisco IOS 12.2(28) SB
	Cisco 7600 Series Routers, N-PE, PE-AGG, and U-PE	Cisco IOS 12.2(33) SRA
	Cisco 12000 (GSR) Series Routers, N-PE	Cisco IOS 12.0(32) SY

Table 1-4 **Network Devices and Related Software Supported with ISC 4.2 (continued)**

Application	P and PE Network Devices, Exceptions Noted	ISC Supported with Specified Software
MPLS	Cisco 2800 Integrated Service Routers (ISR) Series Routers	Cisco IOS 12.3(14) T
	Cisco ME 3400 Series Ethernet Access Switches, PE-AGG and U-PE	Cisco IOS 12.2(25) SEG
	Cisco Catalyst 3750 ME Series Switch, Multi-VRF CE	Cisco IOS 12.2(25) EYa
	Cisco 3800 (ISR) Series Routers	Cisco IOS 12.3(14) T
	Cisco Catalyst 4500 Series Switches, U-PE	Cisco IOS 12.2(25) EWA
	Cisco 7200 Series Routers	Cisco IOS 12.2(28) SB
	Cisco 7400 Series Routers, Multi-VRF CE	Cisco IOS 12.2(4) B3
	Cisco 7500 Series Routers	Cisco IOS 12.2(28) SB
	Cisco 7600 Series Routers	Cisco IOS 12.2(33) SRA
	Cisco 10000 Edge Services Router (ESR) Series Routers	Cisco IOS 12.2(28) SB
	Cisco 12000 (GSR) Series Routers	Cisco IOS 12.0(32) SY
	Using EIGRP	Cisco IOS 12.0(31) S

Table 1-4 Network Devices and Related Software Supported with ISC 4.2 (continued)

Application	P and PE Network Devices, Exceptions Noted	ISC Supported with Specified Software
MPLS Diagnostics Expert (MDE) 2.0	Cisco 3800 Series (PE only)	Cisco IOS 12.4(6) *
	Cisco 6500 Series	Cisco IOS 12.2(18) SXF
	Cisco 7200 Series	Cisco IOS 12.0(27) S to 12.0(31) S and 12.2(28) SB
	Cisco 7200 Series (PE only)	Cisco IOS 12.2(15) T4, 12.2(18) S, 12.3(10), and 12.3(13)
	Cisco 7300 Series	Cisco IOS 12.2(28) SB
	Cisco 7300 Series (PE only)	Cisco IOS 12.2(20) S and 12.2(25) S4
	Cisco 7500 Series	Cisco IOS 12.0(27) S to 12.0(31) S and 12.2(28) SB
	Cisco 7500 Series (PE only)	Cisco IOS 12.2(15) T4, 12.2(18) S, 12.3(15) B, and 12.3(17) A
	Cisco 7600 Series with SUP 720	Cisco IOS 12.2(18) SXE, 12.2(18) SXF, and 12.2(33) SRA
	Cisco 10000 Series with Performance Routing Engine 2 (PRE2)	Cisco IOS 12.2(28) SB
	Cisco 10000 Series with Performance Routing Engine 2 (PRE2) (PE only)	Cisco IOS 12.3(7) X17
	Cisco 12000 (GSR) Series	Cisco IOS 12.0(27) S to 12.0(31) S, 12.0(32) S, and 12.0(32) SY
QoS (Ethernet QoS)	Cisco ME 3400 Series Ethernet Access Switches, as U-PE only	Cisco IOS 12.2(25) SEG
	Cisco Catalyst 3550 Series Switches	Cisco IOS 12.1(22) EA1a
	Cisco Catalyst 3750 ME Series Switch	Cisco IOS 12.2(25) EYa
	Catalyst 6500 Series Routers and Cisco 7600 Series Routers	Cisco IOS 12.2(33) SRA

Table 1-4 Network Devices and Related Software Supported with ISC 4.2 (continued)

Application	P and PE Network Devices, Exceptions Noted	ISC Supported with Specified Software
QoS (IP QoS)	As a CE on Cisco 800, 1700, 2600, 3600, 3745, and 7200 Series Routers	Cisco IOS 12.3(5)
	Cisco 2800 (ISR) Series Routers and Cisco 3800 (ISR) Series Routers (PE and CE)	Cisco IOS 12.3(14) T
	Cisco 7200 Series Routers	Cisco IOS 12.2(28) SB
	Cisco 7500 Series Routers	Cisco IOS 12.2(28) SB
	Cisco 7600 Series Routers	Cisco IOS 12.2(33) SRA
	Cisco 10000 (ESR) Series Routers	Cisco IOS 12.2(28) SB
	Cisco 12000 (GSR) Series Routers	Cisco IOS 12.0(32) SY
	Cisco Router Processor Model-PR (RPM-PR)	Cisco IOS 12.3(3)
Traffic Engineering Management (TEM)	Cisco 7200 Series Routers, in core	Cisco IOS 12.0(32) S
	Cisco 7200 Series Routers, on edge	Cisco IOS 12.2(28) SB
	Cisco 7500 Series Routers, in core	Cisco IOS 12.0(27) S4
	Cisco 7600 Series Routers, in core	Cisco IOS 12.2(18) SXF
	Cisco 10000 (ESR) Series Routers, in core	Cisco IOS 12.0(30) S3
	Cisco 10000 (ESR) Series Routers, on edge	Cisco IOS 12.2(28) SB
	Cisco 12000 (GSR) Series Routers, in core	Cisco IOS 12.0(32) S and Cisco IOS-XR 3.2
	Cisco Carrier Routing System-1 (CRS-1) Series Routers	Cisco IOS-XR 3.2

* Cisco IOS MPLS LSP Ping/Traceroute must be configured to use version 3 of the Internet Engineering Task Force (IETF) label switched path (LSP) Ping draft (draft-ietf-mpls-lsp-ping-03.txt). For details of how to configure the Cisco IOS MPLS LSP Ping/Traceroute version, see the [Cisco MPLS Diagnostics Expert 2.0 User Guide on ISC 4.2](#).