Doc. No. 78-2839-01

CiscoWorks Blue Maps 1.0 Release Note

April 25, 1996

This release note discusses CiscoWorks Blue Maps, Release 1.0, on the following platforms:

- RS/6000 with AIX
- HP 9000 series with HP-UX
- Sun with SunOS

Use this document in conjunction with the *CiscoWorks Blue Maps Installation Guide.*

Introduction

This release note contains the following sections:

Software and Hardware Requirements for CiscoWorks Blue Maps

CiscoWorks Blue Maps imposes requirements on the workstation and the Cisco routers to be managed.

Workstation Requirements

CiscoWorks Blue Maps can run on the following systems:

- IBM RISC System/6000 workstation, Model 370 or 37T or higher (any with Power Architecture), with AIX Version 3, Release 2.5, or Version 4, Release 1; plus NetView for AIX Version 3.1 or 4.1
- HP 9000 series with HP-UX A.09.05 and HP OpenView 3.3
- Sun workstation with SunOS 4.1.3 (or 4.1.3_U1) and SunNet Manager Version 2.2

The network management systems listed here (NetView for AIX, HP OpenView, and SunNet Manager) are optional but recommended.

All platforms require the following hardware and software:

- Color monitor
- PostScript-compatible printer (for printing window images)
- CD-ROM drive on the host system, or CD-ROM drive on an accessible remote host
- System software—X Window System Version 11, Release 5. On Sun workstations, the windowing system can also be the Sun XNeWS server.
- Hard disk space—5 MB in the root partition, 50 MB in the */usr* file system, plus 300 MB in the file system where your Sybase database management system is installed
- RAM size—192 MB minimum (256 MB recommended)
- Swap space size—128 MB or more

To verify your workstation's compliance with the requirements in this section, see Table 1.

Table 1 Hardware and Software Verification Methods

Verify	on AIX	on SunOS	on HP-UX
Hard Disk Space	`df -I`	`df -a`	`bdf`
OS Version	`oslevel`	`uname -a`	`uname -a`
NMS Version	`lslpp -L nv6000.base.obj`	`$SNMHOME/bin/ snm_version`	`/usr/OV/bin/ ovlicense`
RAM Size	`lscfg | grep mem`	`dmesg | grep mem`	`/etc/dmesg | grep Kbytes`
Swap Space Size	`lsps -a`	`pstat -s`	`swapinfo`
X Window System	Ask your system administrator.		

To create a file system, see the **mkfs**, **fsck**, **mkdir**, and **mount** manual pages.

Cisco Internetwork Operating System (Cisco IOS) Requirements

To be manageable by CiscoWorks Blue Maps applications, all routers must be running the appropriate software version:

- For RSRB Maps—Cisco IOS Release 11.0 or above
- For DLSw Maps—Cisco IOS Release 11.1 (2.1) or above
- For APPN Maps—Cisco IOS Release 11.0 (5.3) or 11.1 (1.1) or above

Cisco IOS Configuration Requirements for CiscoWorks Blue Maps

Configure the Cisco IOS software in every managed router as follows:

```
snmp-server community string RO
```

string is the read community string (a password for access to SNMP) in this router.

RO specifies read-only access to SNMP in this router.

For the RSRB Trap daemon (cwbrsrbtrapd) to perform optimally, all RSRB-enabled routers must specify their addresses in the traps that they generate. Therefore, configure the Cisco IOS software in every RSRB-enabled router as follows:

```
snmp-server trap-source interface
```

interface specifies the router interface (such as tokenring1) whose IP address is used as the local address for RSRB peering and stamped on the traps this router generates.

In addition, all RSRB-enabled routers must specify the CiscoWorks Blue Maps management host as the destination of RSRB traps. Therefore, configure the Cisco IOS software in every RSRB-enabled router as follows:

```
snmp-server host address string rsrb
```

address is the IP address of the management host, such as 123.45.678.90.

string is the read community string for access to SNMP in the management host.

rsrb limits the traps sent to *address* to RSRB-related traps.

CiscoWorks Blue Maps Installation Procedures and Caveats

Installation, Configuration, and Deinstallation on AIX

See the *CiscoWorks Blue Maps Installation Guide*.

Installation, Configuration, and Deinstallation on HP-UX and SunOS

Follow these steps to install and configure Maps on SunOS and HP-UX. The installation and configuration processes take at least 30 minutes.

Step 1 If you are installing from a remote CD-ROM drive, insert the CD-ROM into the drive on a remote system and export the CD-ROM file system (make it available to an outside system). See "Exporting a CD-ROM File System from a SunOS or HP-UX System" and "Mounting a Remotely Exported CD-ROM File System on a Local System."

If you are installing from a local CD-ROM drive, insert the CD-ROM into the drive on the local system, then mount the CD-ROM file system on the local system. See "Mounting a Local CD-ROM on SunOS or HP-UX."

Step 2 Perform installation. See "Installing on SunOS and HP-UX."

Step 3 Perform configuration. See "Configuring Maps on SunOS or HP-UX."

Step 4 After successful configuration, remove log files. See "Removing Log Files on SunOS or HP-UX."

Caution The instructions for mounting a remotely exported CD-ROM drive on a local system are for like systems. For example, the instructions are for exporting a CD-ROM file system from an HP-UX system and mounting it on another HP-UX system for installation, and for exporting from a SunOS system and mounting on SunOS, but not for cross-platform operation. If necessary, your system administrator can help you with cross-platform exporting and mounting.

If it is necessary to reinstall a CiscoWorks Blue product, deinstall the existing software using procedures in "Deinstalling on SunOS or HP-UX," then reinstall as if it were a new installation.

To stop the SunOS or HP-UX installation or configuration process at any time, press Break or Ctrl-C.

Exporting a CD-ROM File System from a SunOS or HP-UX System

The root *.rhosts* file on the remote system must contain the host name of your local system and an entry for the user *root*. Otherwise, you cannot access the remote system to download software from its CD-ROM drive. For more information, refer to the **rhosts** manual page.

To export a CD-ROM file system from a SunOS or HP-UX system, perform the following steps on the remote system:

Step 1 Place the CD-ROM in its caddy and insert it into the CD-ROM drive.

Step 2 Log in as the root user.

Step 3 Create a */cdrom* directory, if one does not exist, by entering the following command:

```
# mkdir /cdrom
```

If the */cdrom* directory already exists, proceed to the next step.

Step 4 Create an */etc/exports* file using a text editor, if the file does not exist.

Step 5 Edit the */etc/exports* file to include the following line:

```
/cdrom -ro
```

Step 6 If you just created */etc/exports* (in Step 4), you must enable your workstation as an NFS server. Start the *nfsd* server option by entering the following at the UNIX command line:

```
# /etc/nfsd 8 &
# /usr/etc/rpc.mountd -n
```

Step 7 Mount the CD-ROM by entering the following command:

On SunOS:

```
# /etc/mount -r -t hsfs /dev/device_filename /cdrom
```

On HP-UX:

```
# /etc/mount -o ro -t cdfs /dev/device_filename /cdrom
```

In the SunOS command, the **-r** option mounts the CD-ROM in read-only mode.

In the HP-UX command, the **-o ro** option mounts the CD-ROM in read-only mode.

In each command, **-t** indicates the type of file system: **hsfs** for the ISO 9660 standard and **cdfs** for the High Sierra standard with Rock Ridge extensions.

In the SunOS command, replace the *device_filename* variable with **/dev/sr0**.

In the HP-UX command, replace the *device_filename* variable with **/dev/dsk/c201d2s0** or a different device number reported by the **/etc/ioscan** program for the CD-ROM device.

Step 8 If the */etc/exports* file existed previously (before Step 4), enter the following command to run exportfs:

```
# exportfs -va
```

Step 9 If */etc/exports* did not exist previously, reboot your system.

```
# reboot
```

Step 10 Go to "Mounting a Remotely Exported CD-ROM File System on a Local System."

Mounting a Remotely Exported CD-ROM File System on a Local System

To mount a file system that is exported from a remote system, perform the following steps on the local SunOS or HP-UX system:

Step 1 Log in as the root user.

Step 2 Create a */cdrom* directory, if one does not already exist, by entering the following command:

```
# mkdir /cdrom
```

Step 3 To mount a file system that is exported from a remote system, enter the following at the command prompt:

```
hostname# mount remote_hostname:remote_filesystem local_mount_point
```

For example, to mount the */cdrom* file system from a remote host called *faraway* on a local directory named */cdrom*, enter the following command at the prompt:

```
hostname# mount faraway:/cdrom /cdrom
```

The remote CD-ROM is ready for installation of software on the local system.

Step 4 Go to "Installing on SunOS and HP-UX."

Mounting a Local CD-ROM on SunOS or HP-UX

To prepare the system for installation of software from a local CD-ROM drive, complete the following steps:

Step 1 Place the CD-ROM in its caddy and insert it into the CD-ROM drive.

Step 2 Log in as the root user.

Step 3 Create a */cdrom* directory, if one does not exist, by entering the following command:

```
# mkdir /cdrom
```

If the */cdrom* directory already exists, proceed to the next step.

Step 4 Mount the CD-ROM by entering the following command:

On SunOS:

```
# mount -r -t hsfs /dev/device_filename /cdrom
```

On HP-UX:

```
# /etc/mount -o ro -t cdfs /dev/device_filename /cdrom
```

In the SunOS command, the **-r** option mounts the CD-ROM in read-only mode.

In the HP-UX command, the **-o ro** option mounts the CD-ROM in read-only mode.

In each command, **-t** indicates the type of file system: **hsfs** for the ISO 9660 standard and **cdfs** for the High Sierra standard with Rock Ridge extensions.

In the SunOS command, replace the *device_filename* variable with **/dev/sr0**.

In the HP-UX command, replace the *device_filename* variable with **/dev/dsk/c201d2s0** or a different device number reported by the **/etc/ioscan** program for the CD-ROM device.

Step 5 Go to "Installing on SunOS and HP-UX."

Installing on SunOS and HP-UX

After the CD-ROM is mounted, use this procedure to move the software to the host system.

The default for each prompt is the value in brackets. To accept any default value, press Enter. Note that you can press Break or Ctrl-C to stop the installation script at any time.

Step 1 Start the interactive installation and configuration script by entering the following commands:

```
# cd /cdrom
# cwbinstall
```

Step 2 In response the the following prompt, enter the source of the software to be installed.

On SunOS, press **Enter** to accept the default directory.

```
Source Directory :[/cdrom]
```

On HP-UX, enter the image file in which the software is stored.

```
Source File:[/cdrom/cwbmaps.tar]
```

Step 3 In response the the following prompt, press **Enter**. Do not override the default.

```
Where do you want to install the product :[/usr/cw-blue]
```

Step 4 In response to the following prompt, press **Enter** to accept a full installation of the RSRB, DLSw, and APPN Map applications.

```
What filesets do you want to install : [CWBIC CWBLUE-RSRB CWBLUE-DLSW CWBLUE-APPN]
```

CWBIC is a fileset containing configuration scripts for each Map application, so always install it. To install CiscoWorks Blue RSRB Map application only, type:

```
CWBIC CWBLUE-RSRB
```

To install the RSRB and DLSw Map applications, type:

```
CWBIC CWBLUE-RSRB CWBLUE-DLSW
```

Step 5 The installation program reviews your responses to the previous questions and asks:

```
Do you wish to continue? (y/n)[y]:
```

Press **Enter** to continue, or type **n** and press **Enter** to terminate installation.

Step 6 The program installs the software from CD-ROM and reports on its progress.

Step 7 Examine */tmp/update.log* for error messages by typing the following command:

On SunOS, type:

```
# more /usr/cw-blue/log/cwb_install.log
```

On HP-UX, type:

```
# more /tmp/update.log
```

Press **Enter** to advance the display one screenful at a time.

Step 8 Installation is complete. Go to “Configuring Maps on SunOS or HP-UX.”

If it is necessary to deinstall any or all CiscoWorks Blue Maps applications, see “Deinstalling on SunOS or HP-UX.”

Deinstalling on SunOS or HP-UX

If it is necessary to deinstall CiscoWorks Blue Maps, such as after a failed installation, follow this procedure. Note that you can press Break or Ctrl-C to stop the deinstallation script at any time.

Step 1 Log in as the root user and set the following environment variables: CWBROOT, NMSROOT, SYBASE, DSQUERY, and DBNAME.

If you are using the K shell, type commands like the following:

```
# export CWBROOT=/usr/cw-blue
```

If you are using the C shell or the TC shell, type commands like the following:

```
# setenv CWBROOT /usr/cw-blue
```

Step 2 To start the interactive deinstallation script, type the following commands:

```
# cd /usr/cw-blue/install/bin
# cwbdeinstall
```

The deinstallation script lists the Maps filesets that are installed (plus the CWBLUE-SNAVIEW dataset if CiscoWorks Blue SNA View is already installed).

Step 3 Press **Enter** to accept the default group of filesets to deinstall, or type an alternate set of filesets and press **Enter**. To deinstall the RSRB Map and APPN Map applications only, type the following:

```
CWBLUE-RSRB CWBLUE-APPN
```

The CiscoWorks Blue Maps database will be removed if you delete the CWBIC fileset.

Step 4 In response to the following prompt, press **Enter** to begin the deinstallation of filesets, or type **n** and press Enter to terminate deinstallation.

```
Do you wish to de-install? (y/n)[y]:
```

Step 5 When the system prompt returns, examine the deinstallation log file. Unless you see an error message in that file, deinstallation is complete.

On HP-UX, type:

```
# more /tmp/cwb_deinstall.log
```

On SunOS, there is no deinstallation log file.

Step 6 Remove the deinstallation log file. On HP-UX, type:

```
# rm /tmp/cwb_deinstall.log
```

Step 7 Remove the home directory of the *cwblue* user.

```
# rmdir /users/cwblue
```

You can now reinstall the software.

Configuring Maps on SunOS or HP-UX

Perform these steps on a SunOS or HP-UX system when installation of the software in complete.

The default for each prompt is the value in brackets. To accept any default value, press Enter. Note that you can press Break or Ctrl-C to stop the configuration script at any time.

Step 1 On HP-UX only, shut down CiscoWorks and enter the following commands to circumvent a bug:

```
# SYBASE/bin/isql -Usa -Psybasesa
1> shutdown with nowait
2> quit
```

Step 2 To start the interactive configuration script, type the following commands:

```
# cd /usr/cw-blue/install/bin
# cwbconfigure
```

Step 3 The following prompt appears only if the CWBROOT variable is not already set. Press **Enter** to accept the default (the same directory in which you placed the software during installation), or type an alternate directory name.

```
CiscoWorks Blue root directory: [/usr/cwblue]
```

Step 4 In response the the following prompt, press **Enter** to accept the default Sybase home directory detected by the configuration program, or type another directory and press **Enter**.

```
Sybase home directory: [/usr/nms/sybase]
```

Step 5 In response the the following prompt, press **Enter** to accept the Sybase server name detected by the configuration program, or type another directory and press **Enter**.

```
Sybase Server Name :[CW_SYBASE]
```

Step 6 In response the the following prompt, type the Sybase system administrator's password, typically *sybasesa*, and press **Enter**.

```
Sybase sa password:
```

Step 7 In response the the following prompt, press **Enter** to accept the creation of a Sybase database for CiscoWorks Blue Maps called *SNA*, or type a different name and press **Enter**.

```
CWBlue database name :[SNA]
```

Step 8 In response the the following prompt, press **Enter** to accept the default database size of 250 Mb, or type another value and press **Enter**.

```
CWBlue database size :[250]
```

Step 9 The configuration program reviews your responses to the previous questions and asks:

```
Do you wish to continue? (y/n)[y]:
```

Press **Enter** to continue, or type **n** and press **Enter** to terminate configuration.

Step 10 The program performs the configuration and reports on its progress.

Step 11 Unmount the CD-ROM by entering the following commands:

```
# cd /
# umount /cdrom
```

Step 12 Eject the CD-ROM.

Step 13 Configuration is complete. Go to "Removing Log Files on SunOS or HP-UX."

Removing Log Files on SunOS or HP-UX

During installation and configuration, messages are recorded in a log file to provide diagnostic information in case a problem arises. Perform these commands on a SunOS or HP-UX system when you are satisfied that configuration of the software is complete.

On SunOS:

```
# rm /usr/cw-blue/log/cwb_install.log
```

On HP-UX:

```
# rm /tmp/update.log
```

Note Do not use **`rm *.log`** to remove the log files because the directory might contain other applications' log files that you do not want to remove.

Installation and Configuration Caveats

The caveats in this section apply to CiscoWorks Blue Maps on AIX, HP-UX, and SunOS workstations.

Environment Variables

Table 2 lists the environment variables applicable to CiscoWorks Blue Maps on AIX, HP-UX, and SunOS. This table supercedes the one on page 2-16 of the *CiscoWorks Blue Maps Installation Guide*.

Table 2 CiscoWorks Blue Maps Environment Variables

Variable	RSRB	DLSw	APPN	Typical Value
CWBROOT	yes	yes	yes	/usr/cw-blue
NMSROOT	yes	yes	yes	/usr/nms
XAPPLRESDIR	yes	yes	yes	$CWBROOT/Xdefaults
SYBASE	yes	yes		On AIX: $NMSROOT/sybase10 On HP and Sun: $NMSROOT/sybase
DSQUERY	yes	yes		the name of the Sybase database server, such as CW_SYBASE
HHHOME	yes	yes	yes	$NMSROOT/hyperhelp
HHPATH	yes	yes	yes	$NMSROOT/hyperhelp/bin
DBNAME	yes	yes		If you specify any database name other than the default SNA during configuration of CiscoWorks Blue Maps, such as SNA-2, you must set this variable identically before starting a Map application.

You Need Not Set AIX Environment Variables Before Installation

You do not have to set the environment variables described in Step 3 of "Installing CiscoWorks Blue Maps Software Modules" in the *CiscoWorks Blue Maps Installation Guide*. The SMIT installation process performs this step automatically.

You Must Set Environment Variables Before Deinstallation on Any Platform

Before deinstalling the Maps from any platform, you must set the following environment variables by hand: CWBROOT, NMSROOT, SYBASE, DSQUERY, and DBNAME.

SMIT Screens in AIX 3.2.5 Are Not the Same As in AIX 4.1

The *CiscoWorks Blue Maps Installation Guide* describes installation of the product using the System Management Interface Tool (SMIT) that is part of AIX 3.2.5. In AIX 4.1, the SMIT screens are slightly different.

Do Not Click "Select All"

When you are using SMIT to install the CiscoWorks software from the CD-ROM onto the AIX system, and you reach the Multi-Select List dialog on page 3-9 of the *CiscoWorks Blue Maps Installation Guide*, follow the instructions carefully. Click the individual object names that you want to install, but do not click the **Select All** button at the bottom of the dialog window. The **Select All** button activates a SMIT/AIX software bug.

Administrator Must Assign Password to cwblue User

When installation is complete, the user must assign a password to the *cwblue* user.

CiscoWorks Blue Maps Online Help and Documentation Caveats

The following errata have been discovered in the *CiscoWorks Blue Maps Installation Guide* and online help system.

- No online help is available for the seed file on the **Admin> Discover** window.
- When you request online help for the **Edit> Modify Device**, you see help for **Edit> Add Device**.
- In the DLSw Map application, the Help button for the Information view and for the Statistics view incorrectly brings up help entitled "About DLSw." At the "About DLSw" help panel, click the **Browse** button until you see the text you need.
- If the online help system ever issues an error such as "Warning ! Bad Macro," ignore the message and click the **OK** button. The correct help panel will appear.
- In the APPN Map application, the Help button on the **View> Locate** window does not work.

CiscoWorks Blue Maps Operational Tips and Caveats

The tips and caveats in this section apply to all CiscoWorks Blue Maps application on all platforms unless otherwise noted.

Set the CWBROOT Variable before Starting the NMS

To run any Map application from an NMS menu, you must have set the CWBROOT environment variable before starting the NMS.

If you are using the K shell, type the following on the command line:

```
# export CWBROOT=/usr/cw-blue
```

If you are using the C shell or the TC shell, type the following on the command line:

```
# setenv CWBROOT /usr/cw-blue
```

Launching Map Applications from SunNet Manager

To launch a CiscoWorks Blue Maps application from SunNet Manager, you must have started SunNet Manager with the the **-i** option. For example:

```
# snm -i
```

Unimplemented Features

The following features (described in both the installation guide and online help) are not implemented in any Map application:

- **File> Print**
- **Admin> Show Key**
- **View> See All**

Running Path Tool from the Tools Menu of Any Map Application

Only a member of the CiscoWorks group can select and execute **Tools> Path Tool**. The default name of the CiscoWorks group (set during configuration of the prerequisite CiscoWorks product) is *cscworks*.

Modifying Color Schemes for Map Applications

After installation, you can modify the color scheme of the Map applications by copying any `Color.`*schemename* file in the `$CWBROOT/Xdefaults` directory to the file named `$CWBROOT/Xdefaults/Color`. For example:

```
$ cd $CWBROOT/Xdefaults
$ cp Color.Rembrandt Color
```

A new color scheme takes effect the next time you start a Map application (but does not affect the CiscoWorks Blue SNA View product).

Discovering Devices From the SunNet Manager Database

Using **Admin> Discover** to launch discovery of devices known to the SunNet Manager database is time consuming because all devices in that database are queried. [CSCdi48739]

Discovering Devices From a Seed File

Using **Admin> Discover** to launch discovery of devices listed in a seed file, the default read community string is *public*. If the read community string of your routers is not *public*, type each router's read community string into the seed file. [CSCdi52040]

When the Application Is Busy During Screen Update

The user is sometimes prevented from using the application because it is busy handling screen updates. The updates also affect views that do not require updates (no objects on the view have changed state). [CSCdi52042]

In information dialog boxes like Virtual Ring Info and the Locator window, the user is not notified the interface is busy by means of a busy cursor. [CSCdi52044]

If RSRB Peer Info Fails

If Peer Info fails in the RSRB Map application, the dialog box appears with all values set to zero. [CSCdi52047]

RSRB Virtual Rings

If multiple virtual rings are configured on the router:

- Peer information is not always reported by the RSRB Map application correctly. [CSCdi52052]
- The RSRB Map application's Virtual Ring view displays real rings whether they are associated with the target virtual ring or another virtual ring. [CSCdi52055]

Physical Units Associated with DLSw Appear on RSRB Map

In routers that have both RSRB and DLSw configured, the RSRB Map application cannot distinguish between virtual rings/PUs that are associated with DLSw and those associated with RSRB. Both are drawn. [CSCdi52056]

Shortcomings of Edit> Modify

If no device is selected on the map, **Edit> Modify** prompts you for a device name. If the device name you specify is in the database, but not drawn on the map, you cannot select, create, or modify it. [CSCdi52057]

If you use **Edit> Modify** to modify a device (to correct a community name, for example) it is marked as undiscovered and will not be picked up by the polling process. The user should "discover" that device individually or wait for the discover daemon (if running) to discover it. [CSCdi52049]

RSRB and DLSw Daemon Troubles

The user is not warned if the Monitor or Poller daemons fail or are stopped. [CSCdi52074]

When a daemon terminates abnormally, the **Admin> Process Control** window still reports it as running. [CSCdi49334]

Layout and Window Drawing Caveats

If you modify the layout of a view, either by moving an object or by selecting a layout other than the default, you must save that layout with **File> Save** before changing views if you intend to see the modified view again. [CSCdi52079]

Routers, links, and rings are occasionally drawn on top of one another. In particular, if there are three objects in a view, some of the links may overlap completely. [CSCdi50367 and CSCdi50221]

When a large number of objects are being added to the screen, the objects are all placed in the upper left hand corner of the view before being laid out. This process can take minutes. [CSCdi52041]

If a view appears blank but the Locator window is not blank, use the Locator to bring the objects into the view.

On HP-UX only, **Layout> Zoom In** and **Layout> Zoom Out** do not work.

Do Not Press CapsLock or NumLock

If the CapsLock or NumLock keys on the keyboard are pressed (set), the mouse and mouse buttons do not work on map objects. [CSCdi52080]

Problems with the Locator Window

If you create a new window or clone one, and then you use **Option> Show Locator** to activate the Locator, and then you close the window, the Locator remains but is inoperative. Attempts to use this locator window results in the application crashing. Use **Option> Show Locator** to deactivate the Locator without trying to use or move it. [CSCdi52092]

View> Locate Can Fail to Show a Located APPN Device

If you use APPN's **View> Locate**tool when the Locator window is deactivated (by use of **Option> Show Locator**), the target device will be highlighted if found but you might have to scroll horizontally or vertically to bring it into view.

If you use APPN's **View> Locate**tool when the Locator window is operating (by use of **Option> Show Locator**), the target device will be highlighted if found but you might have move the Locator box to bring it into view on the map window.

Opening Map Files

All Map applications fail if you open a map file not created by the same application. [CSCdi49680]

Using dbutil to Check the Transaction Log

Periodically use the *dbutil* program to verify that the transaction log does not exceed 20% of the "CW Blue Database Size" you configured during installation.

The *dbutil* program does not work on HP-UX.

DLSw Map Application Reports Some Statistics as 0

The DLSw Map application reports some statistics as 0. With a future release of the Cisco IOS, the DLSw Map application will yield more complete statistics.

Don't Run RSRB and DLSw Maps Simultaneously

The RSRB and DLSw Map applications can create a database contention problem.

Don't Use Edit> Rediscover on HP-UX

On HP-UX, the **Edit**> **Rediscover** menu item causes the RSRB and DLSw Map applications to fail.

Multiple Instances of a Map Application Are Possible

To have more than one instance of any Map application, start each instance under a different user name.

Routers With Multiple IP Addresses

A router with multiple IP addresses might appear on a map as multiple routers.

If you list the multiple IP addresses of one router in the seed file, the router will appear multiple times on the map.

Format Seed Files Correctly

An incorrectly formatted seed file can cause any Map application to fail. Extraneous space characters at the end of a line are one culprit.

Troubleshooting CiscoWorks Blue Maps

This section describes how to detect and correct problems with a Map application. It replaces the "Troubleshooting CiscoWorks Blue Maps" chapter in the *CiscoWorks Blue Maps Installation Guide*.

Troubleshooting the RSRB and DLSw Map Applications

If the RSRB or DLSw Map applications fail to operate correctly, perform each of the following diagnostic procedures as the root user:

Step 1 In the **runrsrb** or **rundlsw** script, verify that the environment variables are set according to the table in the "Installing CiscoWorks Blue Maps" chapter of the *CiscoWorks Blue Maps Installation Guide*.

Step 2 Verify that the Sybase dataserver that you named during installation is active by using the **showserver** command in the *$SYBASE/install* directory.

Step 3 Use the **dbutil** command in the *$CWBROOT/etc* directory to verify that the database transaction log space is at least 20 percent the size of the database.

If the problem has not been resolved, a daemon might have failed. Consider the following possibilities.

- If the RSRB or DLSw map is blank, synchronization with the network management system (NMS) or seedfile may have failed. Make sure that network devices have been discovered by the NMS and use **Admin> Process Control** to reset the Sync daemon. Note that SunNet Manager maintains a separate device database for each user. You have to use the RSRB or DLSw Map application as the user whose database you want to synchronize.
- If a device fails to appear on the Map, the Discover daemon may have failed. Perform the following steps:
  - Enter the following commands to verify the device's entry in the Sybase *devices* table. This example is for a database named *SNA*.

    ```
    $ SYBASE/bin/isql -Usa -Psybasesa
    1> use SNA
    2> go
    3> select count(*) from snasuper.devices
    4> go
    ```

    If the reported count is zero, the *devices* table is empty.

    If the table is not empty, use the following commands to see if the device's entry is in the *devices* table.

    ```
    5> select device_name from snasuper.devices
    6> go
    7> quit
    ```

    If the device is not in the *devices* table, check for its existence in the NMS database. If the device is in the *devices* table, verify that the device is running the correct release of the Cisco IOS, and that you can ping the device from the NMS. Also use **Edit> Modify**to verify that its read community string is correct.
  - Use **Edit> Add Device** to add the device to the map. The application attempts to discover a newly added device automatically.
- If a device appears on the map but the information about it appears to be out of date, the Poller or Monitor daemons may have failed. Use the **dbutil** command in the *$CWBROOT/etc* directory to verify that:
  - All Sybase triggers and stored procedures are in place.
  - The transaction log file does not exceed 20% of the "CW Blue Database Size" that you set during configuration. If the transaction log is too large, use the following commands to dump it:

    ```
    $ SYBASE/bin/isql -Usa -Psybasesa
    1> dump tran SNA with NO_LOG
    2> go
    3> quit
    ```

    Then use the **dbutil** command in the *$CWBROOT/etc* directory to verify that the database transaction log is smaller.

If the problem still has not been resolved, see "Running Daemons in Debug Mode."

Running Daemons in Debug Mode

You can restart any or all suspect daemons in the debug mode (with the **-d** option detailed in the "CiscoWorks Blue Maps Daemons" appendix of the *CiscoWorks Blue Maps Installation Guide*), read their output on *stdout*, and report your observations to the TAC if necessary. If you restart the Monitor daemon with the **-c** option, you must restart the RSRB, DLSw, or APPN Map applications.

On startup, every daemon checks for a running instance of itself. If you restart any daemon with the **-f** or **-s** option, an existing instance is automatically killed. Without **-f** or **-s**, the existing instance survives and a new instance does not start.

For a list of running RSRB and DLSw daemons and their process identification numbers, use the *cwbdaemons* utility in the *$CWBROOT/etc* directory.

RSRB and DLSw Error Messages

These error messages are shared by the RSRB Map and DLSw Map applications.

Error Message
`Discovery failed.`

Explanation The application failed to query network devices.

Recommended Action On HP-UX and AIX, use */usr/OV/bin/ovstatus* to verify that the HP OpenView daemons are running.

Error Message
`No response from update server.`

Explanation The monitor daemon is not running.

Recommended Action Use **Admin> Process Control** to start or reset the Monitor daemon.

Error Message
`device_name` `already exists.`

Explanation **Edit> Add** detected that the device you specified already has an entry in the database.

Recommended Action If you receive this message in error, log in to the Sybase database and delete the entry for device in the Devices table.

Error Message
`device_name` `no such device.`
`device_name` `failed to add.`

Explanation The *device_name is* not known to the operating system or the domain name server.

Recommended Action Check to see whether the domain name server has been configured.

Error Message
daemon_name `is already active.`

Explanation A copy of *daemon_name* is already running.

Recommended Action Select the **Reset** button in the Process Control window.

Error Message
`Rediscover Device(s) failed.`

Explanation The SNMP query to a device was not successful. Either the device is no longer reachable from the management station or it is not responding to the SNMP query.

Recommended Action Ping the router. Telnet to the router and check the configuration.

Error Message
`Cannot log into the database.`

Explanation Application either cannot get to the data server or cannot log in.

Recommended Action Check the environment variables, try to log in to the dataserver from a separate window, and check the transaction log. Then try to restart the application.

Error Message
`Database initialization failure`

Explanation Failure to connect to the NMS database before discovery.

Recommended Action Verify integrity of the network management processes by running the **OVstatus** command in the */usr/OV/bin* directory.

Troubleshooting the APPN Map Application

This section presents scenarios and troubleshooting techniques for the APPN Map application.

- If the global map is blank, the problem could be that:
  - — You specified an incorrect IP address or read community string in the startup dialog.
  - — The IP path to the network topology agent is down or degraded.
  - — The IP address and read community string you specified is not of an APPN network node, or APPN is not started in that node.

  To resolve this problem, perform one or more of the following:
  - — Use **Admin> Discover All**.
  - — Verify operation of the network topology agent by pinging it, or use Path Tool to verify it is accessible.
  - — Use telnet to access the agent and start the APPN protocol.

- If the status of all network nodes is unknown to the application, the network topology agent could have failed or APPN could have been stopped in that device. Ping the network topology agent or use Path Tool to verify it is still accessible. If necessary, use telnet to access the agent and start the APPN protocol.
- If a known LU cannot be found by the application, perform Get Directory for additional network nodes. When you have collected the directory from enough network nodes, the LU can be found.
- If a known link station does not appear in the List TGs and Links window, close the window, perform Get Local Topology for the node at which the link is defined, and reopen the List TGs and Links window to see that the link is listed. Alternatively, set the *autolocaltopo* variable in the *appninit* file to ALL or NN_ONLY and restart the application.
- If a known good connection appears degraded (yellow), a defunct transmission group number may exist in the network topology agent's database. In a number of days, the network topology agent will delete the defunct number. When you start the APPN Map application after that deletion occurs, the connection does not appear degraded.
- If the status of a port, link, or endpoint transmission group is reported incorrectly, perform Get Local Topology for the owning node. Alternatively, automate the Get Local Topology function by setting the *autolocaltopo* variable in the *appninit* file to something other than NONE and the *loctopopoll* variable to a desired setting, then restart the application.

APPN Map Error Messages

These error messages are unique to the APPN Map application.

Error Message
`Device name & read community required`

Explanation The application must send an SNMP MIB request to a node, but no device name is known for this node.

Recommended Action If the displayed default is not correct, enter the device name and read community string. Your input also sets the default for future SNMP MIB requests. If you don't know the device name or the node cannot be an SNMP agent, click Cancel to terminate the request.

Error Message
`Startup input required`

Explanation The startup dialog is being displayed because the application has not yet accessed a network topology agent. If a valid CP Name has been selected, it may require a device name to be filled in.

Recommended Action Select a valid CP Name or device name, or discover a network topology agent. To prevent this dialog from being shown in the future, specify an agent in the *appninit* file or as an option to the **runappn** command.

Error Message
`View may be incomplete`

Explanation An Adjacent Nodes view is being shown for a node that does not have local topology information available. Only adjacent nodes learned from the global view or from local topology collection from other nodes are displayed. Adjacent end nodes and LEN nodes are most likely not shown.

Recommended Action If this node can act as an agent and you know its IP address, or device name and read community string, collect its local topology now.

Error Message
`View could not be retrieved`

Explanation A view requires data that is not available to the application. Most commonly this is the Ports and Links view, and local topology is not available from the target node.

Recommended Action If this node can act as an agent and you know its IP address, or device name and read community string, collect its local topology now.

Error Message
`Will retry by polling`

Explanation A network topology agent has been selected, but is not returning network topology information. No global map is currently available. The application will retry this agent at the network topology polling rate.

Recommended Action Perform the following steps in order. Stop when one is successful.

Step 1 You may select **Admin> Discovery** to discover a new network topology agent.

Step 2 Ensure the selected agent is an APPN network node with the APPN MIB, and that the IP address or device name you specified is correct. If not, stop the application and restart with a new network topology agent.

Step 3 Ensure that the APPN protocol is active on the target agent.

Step 4 Ping the agent to see if it is alive and a path to it is available.

Error Message
`Database initialization failure`

Explanation Failure to connect to the NMS database before discovery.

Recommended Action Verify integrity of the network management processes by running the **OVstatus** command in the */usr/OV/bin* directory.

Error Message
`No APPN NNs discovered`

Explanation Discovery was completed but a network topology agent was not found.

Recommended Action Review the devices in the seedfile or NMS database to ensure that at least one active APPN network node exists. Then use **Admin> Discover** to retry, or exit the application and restart it and specify a known-good network topology agent in the startup dialog.

Error Message
`No devices discovered`

Explanation There were no devices available to be discovered.

Recommended Action Review the device list in the seedfile or NMS database so that discovery has a chance of success. Then use **Admin> Discover** to retry, or exit the application and restart it and specify a known-good network topology agent in the startup dialog.

Cisco Connection Online

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Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously—a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, Internet e-mail, and fax download options, and is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: `http://www.cisco.com`.
- Telnet: `cco.cisco.com`.
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact `cco-help@cisco.com`. For additional information, contact `cco-team@cisco.com`.

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