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# Release Notes for CiscoWorks Blue Maps and SNA View Software Release 2.1

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September 15, 1999

## Introduction

These release notes describe changes for CiscoWorks Blue Maps and SNA View release 2.1. They also list the caveats for installing and using Maps and SNA View, and list any known problems with release 2.1. They contain the following major sections:

- Updated Release Notes, page 1
- Mainframe Code Shipped on CD, page 1
- What's New in Software Release 2.1, page 2
- Updated Product Information, page 40
- Documentation, page 40
- Operational Tips and Caveats for CiscoWorks Blue, page 41
- Known Problems, page 43
- Cisco Connection Online, page 46

## Updated Release Notes

The most current release notes for this product are available on the World Wide Web (WWW) version of the Cisco Connection Online (CCO). See the "Cisco Connection Online" section of these release notes for information on accessing and using the web version of the CCO.

## Mainframe Code Shipped on CD

The CiscoWorks Blue Maps and SNA View mainframe code is also shipped on the UNIX CD-ROM. See the */mainframe/readme* file on the CD-ROM for information about how to install the mainframe code from the CD-ROM.

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## What's New in Software Release 2.1

This section describes the major changes for CiscoWorks Blue Maps and SNA View release 2.1. These changes are fully documented in the online help, and in the online versions of the product publications (see the “Documentation” section on page 40). The following new and changed functions are available in release 2.1:

- New Functions, page 3, described functions new to release 2.1.
  - New MIBs
  - SNA Switching Services
  - PU 4-PU 4 Sessions
  - Solaris LU 6.2 Connectivity to the Mainframe
- Improved Functions, page 12, describes functions that are improved in release 2.1.
  - Process Management and Message Log Windows
  - Suppressing Session List Fields
  - Enabling DNS Lookups for Device Queries
  - Configuring Ports
  - Discovery Improvements
  - MIB Variables Queried During Discovery
  - MIB Variables Queried During Polling
- Mainframe Changes, page 21, describes changes to the mainframe application.
  - Using CiscoWorks Blue Release 2.1 Workstation Software with SNA View 1.2 or 2.0 Mainframe
  - Configuring the Mainframe TCP/IP Stacks
  - PTFs Required for Mainframe TCP/IP Stacks
  - Configuring LU 6.2 Connectivity to the Mainframe
  - NetView Version 1.1 Automation Facilities
  - Mainframe JCL Name Changes
  - Mainframe Message Changes
  - Mainframe TRACE Command Changes
  - ISTECCS Linked in 24 or 31 Bit Mode
  - NSPSCMD No Longer Shipped
  - Sizing VSAM Datasets
- Workstation Changes, page 32, describes changes to the workstation commands.
  - Changes to Installation Procedure
  - Changes to Configuration Procedure
  - Process IDs and Last Message Added to cwb show status Command
  - Clearing the appnfile File with the cwb clear db Command
  - Using the cwbufgrade.sh License Command

- Deleting Inactive TGs
- Specifying a Directory with the `cwb tac` Command
- Changing the Local Workstation IP Address or Host Name
- Controlling TG Event Generation
- Required Software Changes, page 39, describes changes to the set of required software.
  - Required AIX Patches
  - Required HP-UX Patches
  - Setting HP-UX Kernel Parameters

## New Functions

This section describes functions that are new in release 2.1.

## New MIBs

In previous releases, Maps and SNA View supported just the standard Cisco proprietary MIBs. In release 2.1, Maps and SNA View support the standard IETF MIBs as well.

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**Note** If you see SNMP failures when querying MIB variables during discovery, polling, or other user queries that require SNMP responses (such as DLSw peer statistics) there may be a malfunction at the queried router. Please check with the manufacturer of the router being queried for MIB compliance.

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Maps and SNA View release 2.1 support the following MIBs:

### MIBs Added in Release 2.1

Maps and SNA View query the release 2.0 MIBs and the following new MIBs in release 2.1:

- IETF draft standard DLSw MIB (RFC 2024)
- IETF draft standard APPN MIB (RFC 2455)
- IETF draft standard DLUR MIB (RFC 2232)

### MIBs Supported in Release 2.0

Maps and SNA View queried the following SNA protocol MIBs in release 2.0:

- CISCO-RSRB-MIB
- CISCO-DLSW-MIB
- IBM-6611-APPN-MIB
- OLD-DLUR-MIB
- CISCO-TN3270-SERVER-MIB

# SNA Switching Services

Maps and SNA View support the SNA Switching Services feature of the Cisco IOS software. The SNA Switching Services feature identifies a new APPN branch extender network node (BrNN) and includes a new APPN stack in the Cisco IOS software. To support SNA Switching Services, the Cisco routers must be running Cisco IOS release 12.0(5)XN or release 12.1 or later. These product changes support the following SNA Switching Services:

- New Degraded TG Status in APPN, page 4
- New Branch Extender Network Node Type, page 4
- APPN Startup Change, page 4

## New Degraded TG Status in APPN

The Maps and SNA View release 2.1 APPN web interface now shows a new transmission group (TG) status: degraded TG. For a degraded TG, the CP-CP session is defined but not active.

## New Branch Extender Network Node Type

The APPN web interface now reports BrNNs, which provide SNA Branch Extender functionality. A BrNN looks like a network node to downstream nodes, but looks like an end node to upstream nodes.

## APPN Startup Change

The APPN Motif application no longer displays the Startup Query to prompt you to designate a network topology agent. If you want a network topology agent, you can designate one in the *cwbinit* file. When you first start the APPN Motif application, you should run discovery once to correlate IP addresses and CP names. Then, each time you start APPN, it polls all discovered routers for APPN information.

The APPN application displays a global map of the APPN network topology. The global map is made up of the APPN network nodes (NNs), BrNNs, Virtual Routing Nodes (VRNs) and the TGs between them.

# PU 4-PU 4 Sessions

Maps and SNA View provide session connectivity displays for PU 4-PU 4 sessions. The following changes support PU 4-PU 4 sessions:

- SNA View Basic Search Page, page 4
- SNA View Advanced Search Page, page 5
- Session Lists for PU 4, page 7
- PU 4 Session Connectivity Display, page 8
- New INCLUDE\_PU4 Mainframe Parameter Card, page 9

## SNA View Basic Search Page

In the SNA View Basic Search page (on the web), you can search for PU 4 sessions by selecting **PU4/NODE** in the Name Type field. The Basic Search page is shown in Figure 1.

Figure 1 SNA View Basic Search Page



In the Name Type field indicate the kind of name you entered in the Name field:

- PU2/2.1 specifies a PU 2 or PU 2.1 name.
- LU specifies an LU name.
- CP specifies a CP name.
- IDBLK/IDNUM specifies an IDBLK/IDNUM pair.
- PU4/NODE specifies a PU 4 name. You can also enter a physical line name, a physical line PU name, a logical line name, a logical line PU name, a local FEP name, a remote FEP name, or a link station name.

You can specify all of these fields with or without the domain name. If you specify a domain name, the named resource must have been discovered from VTAM with the domain specified or there will not be a match.

### SNA View Advanced Search Page

In the SNA View Advanced Search page (on the web), you can search for PU 4 sessions. The Advanced Search page is shown in Figure 2.

Figure 2 SNA View Advanced Search Page



In the Specify Basic Search Information Name fields, enter the PU or LU name of the resource:

- In the PU2/2.1 Name field enter the name of the PU 2 or PU 2.1.
- In the LU Name field enter the name of an LU.
- In the PU4/NODE Name field enter the name of the PU 4. You can also enter a physical line name, a physical line PU name, a logical line name, a logical line PU name, a local FEP name, a remote FEP name, a link station name, a switched major node name, an XCA major node name, or an NCP major node name.

You can specify all of these fields with or without the domain name. If you specify a domain name, the named resource must have been discovered from the VTAM with the domain specified or there will not be a match.

The values you enter in the Name fields determine what results are displayed:

- If you enter an asterisk (\*) in the PU2/2.1 Name field and a switched major node name in the PU4/NODE Name field, you will get all the PU 2s and PU 2.1s associated with the switched major node.
- If you enter an asterisk (\*) in the PU2/2.1 Name field and a PU 4 name in the PU4/NODE Name field, you will get all the PU 2s and PU 2.1s associated with the named PU 4.
- If you enter an \* in the LU Name field and a name in the PU2/2.1 Name field, you will get all the LUs associated with the named PU.
- If you enter a FEP name, you will get all the PU 4s at that FEP.
- If you enter a part of a PU 4 name and wildcards, you will get all the PU4 s that match the name pattern you specify.

The MAC Address/SAP Address field and the Status field apply to a PU 2 or a PU 4, depending on the node names you enter:

- If you enter a PU 4 name, or part of a PU 4 name and wildcards, you get a list of PU 4-PU 4 sessions. The MAC Address/SAP Address field and the Status field apply to the PU 4.
- If you enter just a PU 2 name, or part of a PU 2 name and wildcards, you get a list of PU 2 sessions. The MAC Address/SAP Address field and the Status field apply to the PU 2.
- If you enter both a PU 2 name and a PU 4 name, you get a list of PU 2 sessions that depend on the specified PU 4s. The MAC Address/SAP Address field and the Status field apply to the PU 2.

Session Lists for PU 4

The Session List displayed for a PU 4 search is shown in Figure 3.

**Figure 3 PU 4 Sessions List**

Sessions (Exact Match)

	Remote FEP Name	Logical Line PU	State	MAC1/SAP1	MAC2/SAP2	Node Name
Session Path	---	J0003002.MVSD	Unknown	---	---	N80X
Session Path	---	J0003004.MVSD	Unknown	---	---	N80X
Session Path	---	J0003006.MVSD	Unknown	---	---	N80X
Session Path	---	J0003008.MVSD	Unknown	---	---	N80X
Session Path	---	J000300A.MVSD	Unknown	---	---	N80X
Session Path	---	J000300C.MVSD	Unknown	---	---	N80X
Session Path	---	J000300E.MVSD	Unknown	---	---	N80X
Session Path	---	J0003010.MVSD	Unknown	---	---	N80X
Session Path	---	J0003012.MVSD	Unknown	---	---	N80X
Session Path	---	J0003014.MVSD	Unknown	---	---	N80X
Session Path	N09A	N03P2A.MVSD	Active	4000.3745.0009/04	4001.3745.1088/04	N80X
Total number of sessions: 11						

26/20

### Fields

The following fields are shown in the Sessions tables for a PU 4-PU 4 session:

Field	Description
Session Path	Click <b>Session Path</b> to see a Session Connectivity Display for the session.
Remote FEP	Remote FEP name. A remote FEP is a control unit that handles the remote PU 4 and might be a 3745 running NCP.
Logical Line PU	Local PU definition for the remote connection, which is the local VTAM's defined name for the remote PU 4. The remote PU 4 becomes active when the connection to the remote FEP becomes active.
State	Shows the state of each session: <b>Active</b> —VTAM status is ACTIV. <b>Inactive</b> —VTAM status is INACT. <b>Connectable</b> —VTAM status is CONCT. <b>Pending</b> —VTAM status is one of the pending statuses. <b>Never active</b> —VTAM status is NEVAC. <b>Other</b> —Session has some other status; often used for a session, such as a DLSw circuit, that could not be correlated to a PU. <b>Unknown</b> —No reported status. <b>Pending Active</b> —Status is pending active. <b>Pending Inactive</b> —Status is pending inactive.
MAC/SAP1 <sup>1</sup>	MAC and SAP addresses of the PU.
MAC/SAP2 <sup>2</sup>	MAC and SAP addresses of the host network connection.
Node Name	Name of the major node under which the PU is defined.

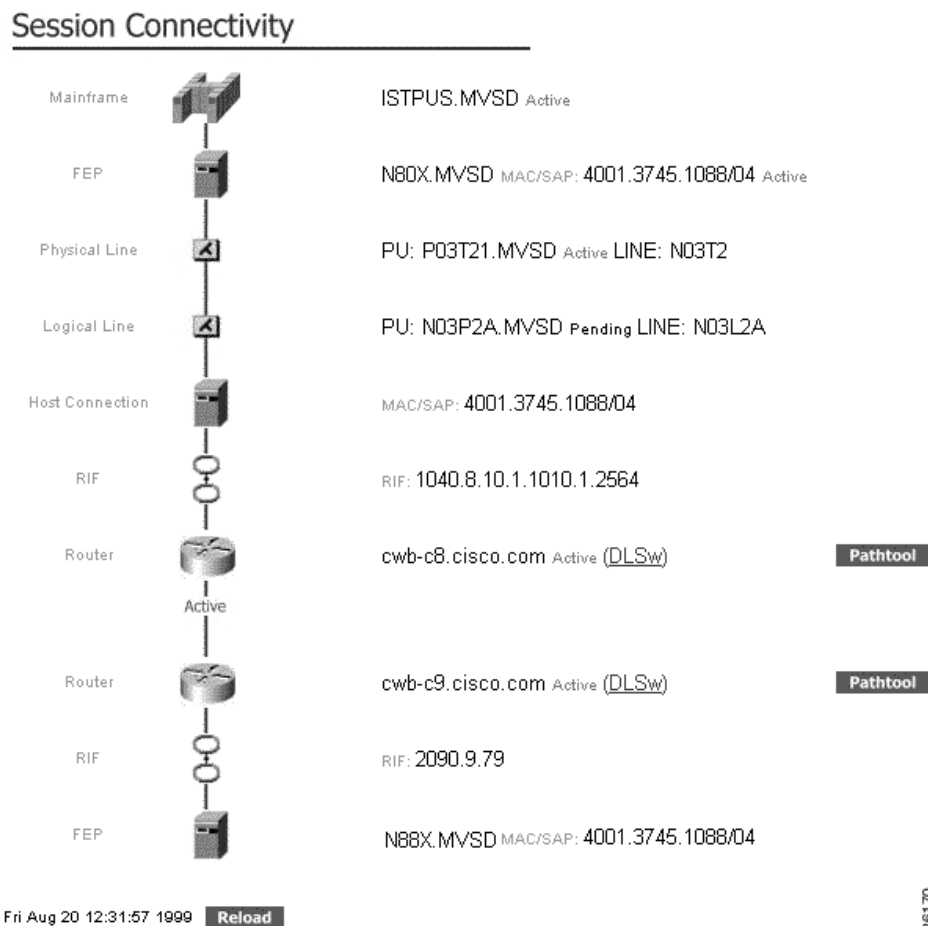
- 1 If no sessions on this page have PUs, this field is labelled MAC1/SAP1. If some sessions on this page do not have PUs, this field is labelled MAC1/SAP1 (Client).
- 2 If no sessions on this page have PUs, this field is labelled MAC2/SAP2. If some sessions on this page do not have PUs, this field is labelled MAC2/SAP2 (Destination).

### PU 4 Session Connectivity Display

When you search for and find PU 4-PU 4 sessions and then select a single session, you will see a Session Connectivity display, as shown in Figure 4. (If your filter matches only one session, you immediately see the Session Connectivity display for that session.)



**Figure 4 PU 4-PU 4 Session Connectivity Display**



### New INCLUDE\_PU4 Mainframe Parameter Card

To support PU 4-PU 4 sessions, a new parameter card is added. Use the INCLUDE\_PU4 parameter card to specify a list of SNA PU 4 major nodes (these are NCP names local to this mainframe) that will be monitored for PU 4-PU 4 connections.

You do not need to specify a PULU\_FILTER card. If you do also specify a PULU\_FILTER card, you must specify the following PU names:

- The patterns to match the names of the physical line PUs and logical line PUs in the specified NCPs for the PU 4 connections you want to monitor.
- The patterns to match the names of the PU 2s and LUs that you want to monitor.

### VTAM DD Card

For the mainframe application to be able to discover PU 4-PU 4 connections, the VTAM DD statement must be specified in the NSPOpen procedure. A VTAM DD card has been supplied as a comment. You can uncomment this card and supply the correct VTAM dataset containing the NCP members (substitute your dataset name in place of *SYS1.VTAMLST*):

```
//VTAM      DD DSN=SYS1.VTAMLST,DISP=SHR
```

### Default

If you do not specify an INCLUDE\_PU4 parameter card or a PULU\_FILTER card then all PU 4-PU 4 connections are monitored.

### Occurrences

You can include more than one INCLUDE\_PU4 parameter card.

### Card Syntax

```
INCLUDE_PU4 [NODE1 [... NODEn]]
```

Where:

*NODE1* [... *NODEn*] specifies the names, including wildcard characters, of one or more SNA PU 4 nodes (NCP names local to this mainframe), separated by spaces, whose PU 4-PU 4 connections are to be monitored.

You can use an asterisk (\*) wildcard in each resource name. You can use an asterisk in the following places:

- Beginning of a name
- End of the name
- Beginning and at the end of a name

You may not put an asterisk in the middle of the name.

If a resource name includes an asterisk, then any PU 4 name that meets the wildcard requirements will be included in the list of monitored PU 4 nodes.

## Examples

The examples are based on this sample configuration on mainframe HOST1:

```
Member (NCP1A)
N1G1  GROUP ....
  N1G1L1 LINE LOCADD=XXXX3745YYYY,
      ....
  N1G1PU1 PU ADDR=01,
      ...
  N1G1LU1 LU LOCADDR=0,
      ...
N1G2  GROUP PHYSRSC=N1G1PU1,
      ...
  N1G2L1 LINE ...
  N1G2PU1 PU ADDR=04CCCC3745DDDD,
      ...
  N1G2L2 LINE ...
  N1G2PU2 PU ADDR=04EEEE3745FFFF,
      ...
Member (NCP2C)
N2G1  GROUP ....
  N2G1L1 LINE LOCADD=XXXX3745YYYY,
      ....
  N2G1PU1 PU ADDR=01,
      ...
  N2G1LU1 LU LOCADDR=0,
      ...
N2G2  GROUP PHYSRSC=N1G1PU1,
      ...
  N2G2L1 LINE ...
  N2G2PU1 PU ADDR=04CCCC3745DDDD,
      ...
  N2G2L2 LINE ...
  N2G2PU2 PU ADDR=04EEEE3745FFFF,
      ...
```

The following examples show how to use search patterns:

- 1 To monitor all PU 4-PU 4 connections for NCP1A and NCP2C, use this card:

```
INCLUDE_PU4 NCP1A NCP2C
```

- 2 To monitor all PU 4-PU 4 connections for all PU 4 nodes with names that begin with the characters NCP1 or NCP2 use this card:

```
INCLUDE_PU4 NCP1* NCP2*
```

This technique is useful for installations that change the NCP name when changes to the NCP generation are made. The original NCP name might start as NCP1A. After the first change, it would be renamed NCP1B, then NCP1C, and so on. Instead of updating the filter card every time the NCP generation is changed, NCP1\* matches all these changes.

- 3 To monitor all PU 4-PU 4 connections for all PU 4 nodes with names that contain the character 1 or end in the letter C, use this card:

```
INCLUDE_PU4 *1* *C
```

- 4 To monitor the N1G2PU1 connection in NCP1A but not the N1G2PU2 connection in the same NCP, and to monitor all PUs and LUs with names in the format CWB\* or IBD\*, use these cards:

```
INCLUDE_PU4 NCP1*
PULU_FILTER N1G1* N1G2PU1* CWB* IBU*
```

## Solaris LU 6.2 Connectivity to the Mainframe

In release 2.1 you can connect a Solaris workstation to the mainframe using LU 6.2.

## Improved Functions

This section describes functions that are improved in release 2.1.

### Process Management and Message Log Windows

The Process Management and Message Log windows are upgraded to increase usability.

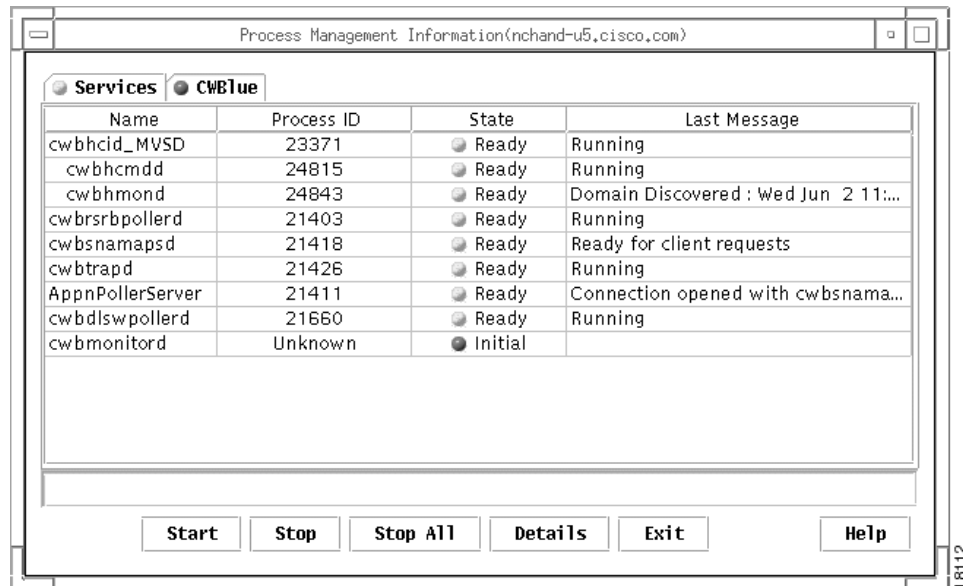
The Message Log Display tab (Figure 5) displays the accumulated messages from one message view.

**Figure 5** Message Log Display Tab



The CWBlue tab displays a list of the Maps and SNA View processes in the Process Management window (Figure 6).

**Figure 6 Process Management CWBlue Tab**



### Exit Buttons

The Process Management and Message Log windows have **Exit** buttons. Click the **Exit** button to exit the application.

### Host Name Displayed in Title Bar

The title bar of each Process Management and Message Log window displays the host name of the connected workstation.

### Status Colors

The Process Management window tabs use the following status colors for both processes and services:

- Green means that the process is currently active.
- Blue means the process is in its initial state and has not been started.
- Red means the process has been run and then stopped.
- Yellow means the process is being started or stopped.

## Suppressing Session List Fields

You can use the Session Field Suppression variables in the *cwbnit* file to configure fields to be suppressed from the SNA View web Sessions tables and Session Connectivity displays.

```
# SNA View Sessions and Session Connectivity Field Suppression
#
# The following allow the indicated field name and the related contents
# to be suppressed in the Sessions table and on the Session Connectivity
# display. By default all fields and their associated values are displayed.
# To suppress a field and its contents uncomment the field entry. You
# may want to do this to reduce the Sessions table width or to block
# sensitive data from being displayed to SNA View users.
# To turn on the field name suppression set the associated variable = on.
# Valid values: on/off. default value: off.

#suppressLUName = on
#suppressPU2Name = on
#suppressFEPName = on
#suppressLogicalLineInfo = on
#suppressPhysicalLineInfo = on
#suppressClientIP = on
#suppressMACSAP = on
#suppressIDBLKNUM = on
#suppressCPName = on
#suppressDLURName = on
#suppressDLUSName = on
#suppressNodeName = on
```

Use the “SNA View Sessions and Session Connectivity Field Suppression” variables to configure the following:

- Fields that can be suppressed on the SNA View Sessions tables.
- Information that is suppressed in a Session Connectivity display.

Initially the session suppression entries are set as comments so they are not active. Each value lets you suppress one or more related fields. For example, to suppress the display of the IDBLK/IDNUM field, you would uncomment the *suppressIDBLKNUM* line, as shown below:

```
suppressIDBLKNUM = on
```

You can suppress display of fields as shown in the following table:

This parameter...	Suppresses these fields...
suppressLUName = on	LU Name
suppressPU2Name = on	PU2 Name
suppressFEPName = on	FEP Names
suppressLogicalLineInfo = on	Logical Line PU field and logical line information
suppressPhysicalLineInfo = on	Physical line information
suppressClientIP = on	Client IP address
suppressMACSAP = on	Client MAC/SAP and Destination MAC/SAP or MAC1/SAP1 and MAC2/SAP2
suppressIDBLKNUM = on	IDBLK/IDNUM
suppressCPName = on	CPNAME
suppressDLURName = on	DLUR Name
suppressDLUSName = on	DLUS Name
suppressNodeName = on	Node Name

## Enabling DNS Lookups for Device Queries

When CiscoWorks Blue processes add a device to the database or make device queries, they use the device host names. If a domain name server is available, the processes can query the domain name server to resolve the host names. If a domain name server is not available, the processes must use the exact device names with which the devices were first discovered.

If you do not enable DNS queries, a device can be added only by the name with which the device was discovered. If you enable DNS queries, a DNS lookup will let you enter any other valid names for the device that can be resolved by a domain name server. For example, using DNS lookup, a device that was discovered as *heritage.cisco.com* could also be referred to as *heritage*.

You can select DNS lookup in the following ways:

- Selecting DNS Lookup During Configuration
- Selecting DNS Lookup with the `doDNSSearch` Variable

### Selecting DNS Lookup During Configuration

During configuration, a prompt asks you to specify whether or not to use a DNS lookup when devices are added to the database. See the “Changes to Configuration Procedure” section on page 33 for the new steps in the configuration procedure.

### Selecting DNS Lookup with the `doDNSSearch` Variable

The `doDNSSearch` variable in the `cwbininit` file lets you specify that a domain name server lookup will be done for queries to routers during discovery and polling. In previous releases, you had to enter the exact name of the router by which it was first discovered. In release 2.1 you can set this variable so that you can enter a different host name that can be resolved by a DNS lookup. This variable is used when you do the following:

- Discover devices with the Maps and SNA View web interface.
- Use the Administration program to discover, rediscover, and add devices.
- Use the `cw b start cw bdiscover` command.
- Use discovery or add devices in the Maps Motif application.

The following new section of the `cwbininit` file provides the `doDNSSearch` variable:

```
# This boolean value is used by both the cwbsnamapsd server process
# and other processes such as cwbadmin, cw bdiscover, dlsw and rsr b
# that add devices to the database.
#
# When adding a device to the database, this value is used to decide
# whether to do a DNS lookup on the name of the device being added,
# storing the DNS name in the DNS database table.
#
# cwbsnamapsd uses this value to decide whether to do a DNS lookup on
# a device name supplied in a user's request, if the request could
# not be satisfied with a device name or IP address lookup.
#
# The default value is "false", DNS lookups are not enabled. Set this
# value to "true" to enable DNS lookups.

doDNSSearch = false
```

---

**Note** The `doDNSSearch` value is also set during configuration.

---

You can set the *doDNSSearch* variable in the *cwbinit* file to *true* to discover and query routers by any valid name. Now you can enter the discovered name, a valid IP address, or any valid name for the router. For example, you could enter *cwb-c5* in the input field for a DLSw focus view even if the router was discovered as *cwb-c5.cisco.com*. To enable domain name server lookup for routers, change the *doDNSSearch* value to *true*:

```
doDNSSearch = true
```

The DNS lookup is done when the router is added to the database, and any time a device cannot be found by discovered name or IP address. This might impact performance.

---

**Note** After you change the *doDNSSearch* parameter, you should stop and restart *cwbsnamapsd*.

---

## Configuring Ports

The configuration part of the installation procedure, and the **cwb config** command, let you select the ports to be used for the CiscoWorks Blue web server, the Open Server Gateway, and the Name server. See the “Changes to Configuration Procedure” section on page 33 for the new steps in the configuration procedure.

## Discovery Improvements

In release 2.1, Maps and SNA View offer the following improvements to the process of discovering routers.

- Discovery Overhead Reduced, page 16
- New *cwb start cwbdiscover* Command, page 17

### Discovery Overhead Reduced

In release 2.1, the set of four independent discovery processes is combined into one discovery process that discovers data common to all protocols, such as IP addresses and ring-bridge tables, once rather than once for each protocol.

Devices that are not discovered for any one of the protocols are not added to the database. This process avoids the overhead of discovering unnecessary devices from an NMS database.

The Discovery Progress window now displays more informative status messages as devices are discovered.



## New `cwb start cwbdiscover` Command

In release 2.1, the `cwb start cwbdiscover` command replaces the old discovery commands (`cwb start cwbdlsdiscover`, `cwb start cwbpappdiscover`, `cwb start cwbrsrdiscover`, and `cwb start cwbtn3270discover`), which are no longer valid.

The syntax of the `cwb start cwbdiscover` command is as follows:

### Command

```
cwb start cwbdiscover [-d [d][r][a][t]]
                    [-r read_community_string [-s seed_file_name]]
                    [-h] [-v]
```

### Syntax Description

<b>-d</b> [d][r][a][t]	<p>Specifies one or more protocols to discover:</p> <ul style="list-style-type: none"> <li>• <b>d</b> discovers devices running the DLSw protocol.</li> <li>• <b>r</b> discovers devices running the RSRB protocol.</li> <li>• <b>a</b> discovers devices running the APPN protocol.</li> <li>• <b>t</b> discovers devices running the TN3270 protocol.</li> </ul> <p>If you specify the <b>-d</b> switch with no protocols, all protocols are discovered.</p> <p>If you enter multiple protocols, do not separate them with spaces.</p>
<b>-r</b> <i>read_community_string</i>	<p>Specifies a global read community string for all devices in the seed file that do not specify a read community string. If all read community strings are the same, you can put the device name in the seed file and specify the read community string on the command line.</p>
<b>-s</b> <i>seed_file_name</i>	<p>Specifies a seed file. Replace <i>seed_file_name</i> with the seed file name.</p>
<b>-h</b>	<p>Displays a help message.</p>
<b>-v</b>	<p>Displays the version.</p>

## MIB Variables Queried During Discovery

When discovery is run the discovery process queries a set of base MIB variables and then queries a set of variables specific to the protocol being discovered. This section lists the MIB variables queried during discovery. It contains these main topics:

- Base Discovery MIB Variables
- RSRB Discovery MIB Variables
- DLSw Discovery MIB Variables
- APPN Discovery MIB Variables
- TN3270 Discovery MIB Variables

### Base Discovery MIB Variables

The following variables are queried when discovery is run, no matter which protocol is being discovered:

sysObjectID	ipAdEntIfIndex
ifIndex	ipAdEntNetMask
ifType	dot1dSrPortLocalSegment
ifPhysAddress	dot1dSrPortBridgeNum
ipAdEntAddr	dot1dSrPortTargetSegment

### RSRB Discovery MIB Variables

The RSRB discovery process queries the following CISCO-RSRB-MIB variables in addition to the base MIB variables. These variables are unique to RSRB:

rsrbRemotePeerEncapsulation	rsrbRemotePeerState
rsrbRingLocal	rsrbVirtRingIPAddr
rsrbRemotePeerIPAddr	rsrbRingBridge
rsrbRingType	

### DLSw Discovery MIB Variables

The DLSw discovery process first queries the standard DLSW-MIB (RFC 2024). If that fails, the DLSw discovery process queries the CISCO-DLSW-MIB. The following DLSw MIB variables are queried in addition to the base MIB variables:

<b>DLSW-MIB (RFC 2024)</b>	<b>CISCO-DLSW-MIB</b>
dlswnodeStatus	ciscoDlswStatus
dlswTConnOperLocalTAddr	ciscoDlswTConnOperLocalTAddr
dlswTConnOperConnectTime	ciscoDlswTConnOperConnectTime
dlswTConnOperState	ciscoDlswTConnOperState
dlswTConnOperConfigIndex	ciscoDlswTConnOperConfigIndex
dlswTConnConfigTDomain	ciscoDlswTConnConfigTDomain
dlswTConnConfigLocalTAddr	ciscoDlswTConnConfigLocalTAddr
dlswTConnConfigRemoteTAddr	ciscoDlswTConnConfigRemoteTAddr
dlswCircuitS1DlcType	ciscoDlswCircuitS1DlcType
dlswCircuitS1RouteInfo	ciscoDlswCircuitS1RouteInfo
dlswCircuitS2TDomain	ciscoDlswCircuitS2TDomain
dlswCircuitS2TAddress	ciscoDlswCircuitS2TAddress
dlswCircuitState	ciscoDlswCircuitState

### APPN Discovery MIB Variables

The following APPN MIB variables are queried during discovery:

<b>APPN-MIB (RFC 2455)</b>	<b>IBM-6611-APPN-MIB</b>
appnNodeCpName	ibmappnNodeCpName
appnNodeType	ibmappnNodeType
appnNodeBrNn	

### TN3270 Discovery MIB Variables

The discovery process queries the device to determine whether it is configured with the *tn3270sCpuCard* TN3270 MIB variable.

## MIB Variables Queried During Polling

This section lists the MIB variables that are queued during polling, and contains the following subsections:

DLSw MIB Variables Queried During Polling, page 19

APPN MIB Variables Queried During Polling, page 20

### DLSw MIB Variables Queried During Polling

During DLSw polling, the poller queries the MIB that was discovered for DLSw. If the Cisco IOS release has changed so that MIB support has changed, you must rediscover this device. The following DLSw MIB variables are queried during polling:

<b>DLSW-MIB (RFC 2024)</b>	<b>CISCO-DLSW-MIB</b>
dlswnodeUpTime	ciscoDlswUpTime
dlswTConnOperLocalTAddr	ciscoDlswTConnOperLocalTAddr
dlswTConnOperConnectTime	ciscoDlswTConnOperConnectTime
dlswTConnOperState	ciscoDlswTConnOperState
dlswCircuitS1DlcType	ciscoDlswCircuitS1DlcType
dlswCircuitS1RouteInfo	ciscoDlswCircuitS1RouteInfo
dlswCircuitS2TDomain	ciscoDlswCircuitS2TDomain
dlswCircuitS2TAddress	ciscoDlswCircuitS2TAddress
dlswCircuitState	ciscoDlswCircuitState

### APPN MIB Variables Queried During Polling

During APPN polling, the poller queries the MIB that was discovered for APPN. If the Cisco IOS release has changed so that MIB support has changed, you must rediscover this device. The following APPN MIB variables are queried during polling:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIM
appnNodeCpName	ibmappnNodeCpName
appnNodeType	ibmappnNodeType
appnLocalTgOperational	ibmappnLocalTgOperational
appnLocalTgCpCpSession	

Next, the process queries the following variables from the DLUR MIB:

DLUR-MIB (RFC2232)	OLD-DLUR-MIB
dlurDlusSessnStatus	dlurDlusSessnStatus
	dlurDlusName

If the **appn\_pu\_polling** parameter in *cwbininit* is set to **ON**, the following DLUR-MIB (RFC 2232) variables are also polled:

DLUR-MIB (RFC2232)	OLD-DLUR-MIB
dlurPuSscpSuppliedName	dlurPuName
dlurPuStatus	dlurPuStatus
dlurPuActiveDlusName	dlurPuActiveDlusName

If **appn\_port\_polling** parameter in *cwbininit* is set to **ON**, the following APPN-MIB variables are also polled:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIB
appnPortOperState	ibmappnNodePortState

If **appn\_link\_polling** parameter in *cwbininit* is set to **ON**, the following APPN-MIB variables are also polled:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIB
appnLsOperState	ibmappnNodeLsState
appnLsAdjCpName	ibmappnNodeLsCpName
appnLsTgNum	ibmappnNodeLsTgNum

### First Time Polling

The first time a device is polled, the following APPN MIB variables are also polled:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIB
appnLocalTgDestVirtual	ibmappnLocalTgDestVirtual
appnNodeBrNn	
	ibmappnLocalTgCpCpSession

If **appn\_port\_polling** parameter in *cwbinit* is set to **ON**, the following APPN MIB variables are also polled the first time:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIB
appnPortDlcType	ibmappnNodePortDlcType
appnVrnPortName	

If **appn\_link\_polling** parameter in *cwbinit* is set to **ON**, the following APPN MIB variables are also polled the first time:

APPN-MIB (RFC 2455)	IBM-6611-APPN-MIB
appnLsPortName	ibmappnNodeLsPortName
appnLsCpCpSessionSupport	ibmappnNodeLsCpCpSession
	ibmappnNodeLsDlcType

### Network Topology Polling

For network topology polling, the following IBM-6611-APPN-MIB variables are polled initially and as changes are detected (APPN-MIB variables are not queried during network topology polling):

ibmappnNnNodeFRName	ibmappnNnNodeFRFrsn
ibmappnNnNodeFRType	ibmappnNnNodeFRCongested
ibmappnNnNodeFRQuiescing	ibmappnNnTgFROwner
ibmappnNnTgFRDest	ibmappnNnTgFRNum
ibmappnNnTgFRFrsn	ibmappnNnTgFRDestVirtual
ibmappnNnTgFROperational	ibmappnNnTgFRCpCpSession

For network topology polling, the following IBM-6611-APPN-MIB variables are polled at each poll interval to detect changes in the network topology (APPN-MIB variables are not queried during network topology polling):

ibmappnNodeUpTime	ibmappnNodeNnFrsn
-------------------	-------------------

If changes are detected, the initial variables are polled for the changed resources.

## Mainframe Changes

This section describes changes to the mainframe application made in release 2.1.

### Using CiscoWorks Blue Release 2.1 Workstation Software with SNA View 1.2 or 2.0 Mainframe

If you use a TCP/IP connection, you can migrate your workstations to CiscoWorks Blue release 2.1 while leaving the mainframe at release 1.2 or 2.0. CiscoWorks Blue release 2.1 Maps and SNA View applications work and communicate with the older release 1.2 or 2.0 mainframe application over TCP/IP, but only at the release 1.2 or 2.0 level of function. If you chose to leave the mainframe at release 1.2 or 2.0 for now, you should plan to upgrade it to release 2.1 soon to get the full release 2.1 capability.

---

**Note LU6.2 Users:** If you plan to upgrade the workstations to release 2.1 and use LU 6.2 communication, you must upgrade the mainframe to release 2.1 as well. Both mainframe and workstation **must** be at release 2.1 to benefit from the improvements in reliability and efficiency of the LU 6.2 connection found in release 2.1.

---

## Configuring the Mainframe TCP/IP Stacks

To use either of these TCP/IP stacks in MVS, make the following changes to the NSPOPEN procedure or JCL.

- Add the Cisco IOS for S/390 or Interlink TCP/IP for MVS link library, and then add the Cisco IOS for S/390 or Interlink TCP/IP load library, to the STEPLIB and NSPCLIB ahead of the SNA View load library. This task is necessary because SAS/C libraries are shipped in the SNA View load library, and the Cisco IOS stack and Interlink stack ship their own SAS/C copy of the LSCNCOM module that must replace the copy that is shipped with the SAS/C library.
- If you want the NSPOPEN proc to use the Cisco IOS stack or an Interlink stack that does **not** use the default subsystem name of ACSS, you will need to apply a fix to the NSPSLOAD dataset. You can retrieve the fix using the Cisco CCO. Contact the Cisco TAC for details.

If you are using the Interlink stack, you must also supply the 4-character name of the Interlink stack in the NSPOPEN EXEC card in the NSPOPEN proc:

```
//NSPOPEN EXEC PGM=NSPOPEN, PARM='=ICS_SUBSYS=SUBS' ,  
//          TIME=1440, REGION=&RGN,
```

Where *SUBS* is the 4-character subsystem name for the Interlink TCP/IP stack.

## PTFs Required for Mainframe TCP/IP Stacks

If you are using Cisco IOS 390 release 1 or TCP Access 4.1 (or earlier), and you are not using the default subsystem name of ACSS, you must apply PTF TP06511 from Interlink/Sterling. PTF TP06511 requires the following other PTFs:

- TP04545
- TP04823
- TP06256
- TP06308

You can obtain all these PTFs from [ftp.interlink.com/pub/ptf410](http://ftp.interlink.com/pub/ptf410). PTFs TP04545 and TP04823 are in the 9712 Cumulative.

If you are using Cisco IOS 390 release 2, or TCP Access 5.2, you do not need these PTFs.

## Configuring LU 6.2 Connectivity to the Mainframe

This section explains how to configure LU 6.2 connectivity between the SNA host workstation component and the mainframe.

This section contains these main topics:

- Before Configuring the SNA Host Component for Maps and SNA View
- Configuring LU 6.2 Connectivity for eNetwork Communications Server on AIX

- Configuring LU 6.2 Connectivity for SNAplus2 on HP-UX
- Configuring LU 6.2 Connectivity for SNAP-IX on Solaris

### Before Configuring the SNA Host Component for Maps and SNA View

Before starting the steps to allow the SNA Host component on the workstation to communicate with the mainframe, you must first do the necessary configuration to allow an LU 6.2 session to flow from the workstation to the mainframe. You may need to make changes to both VTAM and the workstation application that supports LU 6.2 sessions. The following workstation LU 6.2 programs are supported:

- On HP-UX systems—SNAplus2 (including SNAplus2 Link and SNAplus2 API)
- On AIX systems—IBM eNetwork Communications Server for AIX, Version 5.0
- On Solaris systems—Data Connection SNAP-IX V6.0.6 for SPARC Solaris (for information see the URL <http://www.datacon.co.uk>).

If the workstation is not directly connected to the mainframe running the SNA Host component, but the session instead passes through one or more VTAMs before reaching the destination VTAM, then the correct configuration may require changes to all VTAMs (and possibly NCPs in the path).

---

**Note** It is not the intent of this document to identify all the steps necessary to set up the network. See the relevant IBM VTAM and NCP publications for more setup information.

---

If this LU 6.2 configuration has not yet been done, the installation should be delayed until the LU 6.2 configuration is complete. One way to determine whether there is LU 6.2 connectivity between the workstation and the mainframe is to issue the VTAM command **D NET,APING,ID=NETID.RESOURCE**. The *NETID.RESOURCE* is the fully qualified name of the SNA workstation. Until this command returns a positive response, the mainframe is unable to connect to the workstation.

After the initial LU 6.2 configuration is complete, you can use the procedures in the following sections to complete the configuration for the SNA host component.

### Configuring LU 6.2 Connectivity for eNetwork Communications Server on AIX

If the AIX workstation is connected to the mainframe using SNA LU 6.2, use this procedure to configure the LU 6.2 operating environment. This procedure creates the *sna\_tps* file for transaction program profiles for the command server and the message server and a logmode named PARALLEL.

To configure AIX, create a file named *sna\_tps*, and configure PARALLEL mode processing, as described in the following sections:

- Creating the *sna\_tps* File on AIX
- Configuring PARALLEL Mode on AIX

### Creating the *sna\_tps* File on AIX

To configure the LU 6.2 transaction programs that the SNA host component uses to communicate between an AIX workstation and a mainframe, create the configuration file */etc/sna/sna\_tps*, as described in the IBM eNetwork Communication Server for AIX publications. Use the *sna\_tps* file to define two transaction programs (TPs) called NSPOPNSMS and NSPOPNCSS. The following example shows a sample *sna\_tps* file:

```
[NSPOPNCSS]
LUALIAS = ""
DESCRIPTION = ""
USERID = root
GROUP = system
TIMEOUT = 30
TYPE = NON-QUEUED
STYLE = EXTENDED
PATH = /opt/CSCOCb/bin/cwbstarttp
ARGUMENTS = cwbhcmd_server MYDOMAIN

[NSPOPNSMS]
LUALIAS = ""
DESCRIPTION = ""
USERID = root
GROUP = system
TIMEOUT = 30
TYPE = NON-QUEUED
STYLE = EXTENDED
PATH = /opt/CSCOCb/bin/cwbstarttp
ARGUMENTS = cwbhci_server MYDOMAIN
```

This sample *sna\_tps* file defines two TPs:

- NSPOPNSMS is for the message server.
- NSPOPNCSS is for the command server.

In the file, each TP name is enclosed in brackets, as shown below:

```
[NSPOPNSMS]
[NSPOPNCSS]
```

For each TP, code the following entries:

- **USERID**—Specifies the username under which the SNA Host component launches the two TPs. This username must be **root**.
- **GROUP**—Specifies the group for these TP programs (code **system**, as shown in the sample).
- **TIMEOUT**—Specifies the timeout period (code **30** as shown in the sample file).
- **TYPE**—Specifies the type **NON-QUEUED** as shown in the sample file.
- **STYLE**—Specifies the style **EXTENDED** as shown in the sample file.

---

**Note** In release 2.0, the **STYLE** was set to **COMPATIBLE**. In release 2.1 and later, when the new eNetwork Communications Server protocol stack is used, you must set the **STYLE** to **EXTENDED**.

---



- **PATH**—Specifies the path to the executable file that handles the transaction programs. Code `/opt/CSCOcb/bin/cwbstarttp` as shown in the sample.
- **ARGUMENTS**—Specifies the name of the TP executable file and the name of the SNA domain. Replace MYDOMAIN in the sample file with the name of your SNA domain (use uppercase characters).

### Configuring PARALLEL Mode on AIX

After you create the `/etc/sna/sna_tps` file, create a new LU 6.2 session profile named PARALLEL as described in the eNetwork Communication Server for AIX publications. Use the **xsnaadmin** command to configure an LU 6.2 PARALLEL logmode. The **xsnaadmin** command can often be found in the `/usr/lpp/X11/bin` directory.

**Step 1** At the command prompt, enter the **xsnaadmin** command:

```
% xsnaadmin
```

The xsnaadmin window is displayed.

---

**Note** Ensure that your DISPLAY environment variable is correctly set. You might also have to set the LANG environment variable to your language.

---

**Step 2** In the xsnaadmin window, select **Services>APPC>Modes**.

**Step 3** If the PARALLEL mode is not in the list of defined modes, select **Add**. The Add Mode window is displayed.

If the PARALLEL mode is already in the list of defined modes, you can exit the window.

**Step 4** In the Add Mode window, enter **PARALLEL** for the Mode Name and either accept the defaults or customize the values for your operating environment.

If you need to create a PARALLEL log mode, accept the default parameter values:

Field	Default value
COS Name	#CONNECT
Initial session limit	2
Maximum session limit	32767
Min con. winner sessions	1
Auto-activated sessions	0
Receive pacing window (Initial)	4

### Configuring LU 6.2 Connectivity for SNAplus2 on HP-UX

This section describes how to configure SNAplus2 for LU 6.2 support on HP-UX. To configure HP-UX SNAplus2, you first create a file named *sna\_tps*, and then you configure PARALLEL mode processing, as described in the following sections:

- Creating the *sna\_tps* File on HP-UX
- Configuring PARALLEL Mode on HP-UX

#### Creating the *sna\_tps* File on HP-UX

To configure the LU 6.2 transaction programs that the SNA host component uses to communicate between an HP-UX workstation and a mainframe, create the configuration file */etc/opt/sna/sna\_tps*, as described in the *SNAplus2 Administration Guide* and *SNAplus2 Installation Guide*. Use the *sna\_tps* file to define two transaction programs (TPs) called NSPOPNMS and NSPOPNCS. The following example shows a *sna\_tps* file.

```
#SNA Host Message Server
[ "NSPOPNMS" ]

PATH          = /opt/CSC0cb/bin/cwbstarttp
ARGUMENTS    = cwbhci_server MYDOMAIN
TYPE         = NON-QUEUED
TIMEOUT      = 30
USERID       = root
GROUP        = sys

#SNA Host Command Server
[ "NSPOPNCS" ]

PATH          = /opt/CSC0cb/bin/cwbstarttp
ARGUMENTS    = cwbhcmd_server MYDOMAIN
TYPE         = NON-QUEUED
TIMEOUT      = 30
USERID       = root
GROUP        = sys
```

This sample *sna\_tps* file defines two TPs:

- NSPOPNMS is for the message server.
- NSPOPNCS is for the command server.

In the file, each TP name is enclosed in quotation marks and then in brackets, as shown below:

```
[ "NSPOPNMS" ]
[ "NSPOPNCS" ]
```

For each TP, code the following entries:

- **PATH**—Specifies the path to the executable file that handles the transaction programs. Code */opt/CSC0cb/bin/cwbstarttp* as shown in the sample.
- **ARGUMENTS**—Specifies the name of the TP executable file and the name of the SNA domain. Replace MYDOMAIN in the sample file with the name of your SNA domain (use uppercase characters).
- **TYPE**—Specifies the type **NON-QUEUED** as shown in the sample file.
- **TIMEOUT**—Specifies the timeout period (code **30** as shown in the sample file).

- **USERID**—Specifies the username under which the SNA Host component launches the two TPs. This username must be **root**.
- **GROUP**—Specifies the group for these TP programs (code **sys**, as shown in the sample).

### Configuring PARALLEL Mode on HP-UX

After you create the *sna\_tps* file, use the **xsnapadmin** command to configure SNAplus2 for PARALLEL log mode. The **xsnapadmin** command is often found in the */opt/sna/bin/X11* directory.

**Step 1** At the command prompt, enter the **xsnapadmin** command, as shown below.

```
% xsnapadmin
```

The xsnapadmin window is displayed.

---

**Note** Ensure that your DISPLAY environment variable is correctly set. You might also have to set the LANG environment variable to your language.

---

**Step 2** In the xsnapadmin window, select **Services>APPC>Modes**.

**Step 3** If the PARALLEL mode is not in the list of defined modes, select **Add**. The Add Mode window is displayed.

If the PARALLEL mode is already in the list of defined modes, exit the window.

**Step 4** In the Add Mode window, enter **PARALLEL** for the Mode Name and either accept the defaults or customize the values for your operating environment.

If you need to create a PARALLEL log mode, accept the default parameter values:

Field	Default value
Receive pacing window	4
Initial session limit	2
Max session limit	32767
Min con. winner sessions	1
Auto-activated sessions	0

### Configuring LU 6.2 Connectivity for SNAP-IX on Solaris

This section describes how to configure SNAP-IX for LU 6.2 support on Solaris. To configure SNAP-IX, you first create the file *sna\_tps*, and then you configure PARALLEL mode processing, as described in the following sections:

- Creating the *sna\_tps* File on Solaris
- Configuring PARALLEL Mode on Solaris

#### Creating the *sna\_tps* File on Solaris

To configure the LU 6.2 TPs that the SNA host component uses to communicate between a Solaris workstation and a mainframe, create a configuration file named */etc/opt/sna/sna\_tps*, as described in the SNAP-IX publications. Use the *sna\_tps* file to define two TPs called NSPOPNSMS and NSPOPNCNS. The following example shows a *sna\_tps* file:

```
[NSPOPNCNS]
LUALIAS = ""
DESCRIPTION = ""
USERID = root
GROUP = other
TIMEOUT = 30
TYPE = NON-QUEUED
PATH = /opt/CSCOcb/bin/cwbstarttp
ARGUMENTS = cwbhcmd_server MYDOMAIN

[NSPOPNSMS]
LUALIAS = ""
DESCRIPTION = ""
USERID = root
GROUP = other
TIMEOUT = 30
TYPE = NON-QUEUED
PATH = /opt/CSCOcb/bin/cwbstarttp
ARGUMENTS = cwbhci_server MYDOMAIN
```

This sample */etc/sna/sna\_tps* file defines two TPs:

- NSPOPNSMS is for the message server.
- NSPOPNCNS is for the command server.

In the file, each TP name is enclosed in brackets, as shown below:

```
[NSPOPNSMS]
[NSPOPNCNS]
```

For each TP, code the following entries:

- **PATH**—Specifies the path to the executable file that handles the transaction programs. Code */opt/CSCOcb/bin/cwbstarttp* as shown in the sample.
- **ARGUMENTS**—Specifies the name of the TP executable file and the name of the SNA domain. Replace MYDOMAIN in the sample file with the name of your SNA domain (use uppercase characters).
- **TYPE**—Specifies the type **NON-QUEUED** as shown in the sample file.
- **TIMEOUT**—Specifies the timeout period (code **30** as shown in the sample file).
- **USERID**—Specifies the username under which the SNA Host component launches the two TPs. This username must be **root**.
- **GROUP**—Specifies the group for these TPs (code **other**, as shown in the sample)

### Configuring PARALLEL Mode on Solaris

After you create the `/etc/opt/sna/sna_tps` file, create a new LU 6.2 session profile named PARALLEL as described in the SNAP-IX publications. Use the `xsnaadmin` command to configure an LU 6.2 PARALLEL logmode. The `xsnaadmin` command can often be found in the `/opt/sna/bin/X11` directory.

**Step 1** At the command prompt, enter the `xsnaadmin` command, as shown below.

```
% xsnaadmin
```

The xsnaadmin window is displayed.

**Note** Ensure that your DISPLAY environment variable is correctly set. You might also have to set the LANG environment variable to your language.

**Step 2** In the xsnaadmin window, select **Services>APPC>Modes**.

**Step 3** If the PARALLEL mode is not in the list of defined modes, select **Add**. The Add Mode window is displayed.

If the PARALLEL mode is already in the list of defined modes, exit the window.

**Step 4** In the Add Mode window, enter **PARALLEL** for the Mode Name, and either accept the defaults or customize the values for your operating environment.

If you need to create a PARALLEL log mode, accept the default parameter values:

Field	Default value
Initial session limit	2
Maximum session limit	32767
Min con. winner sessions	1
Auto-activated sessions	0
Receive pacing window (Initial)	4

## NetView Version 1.1 Automation Facilities

If you are using Tivoli NetView for OS/390 version 1.1 or later, SNA View and Maps can use the new NetView automation facilities rather than the CiscoWorks Blue PPI task. This change improves performance of the status updates. To make this change, edit the `NSPSVTBL` member and change which automation table statement is used.

The `NSPSVTBL` member has two sections that let you decide which automation table statement to use. The first automation table statement, which is the default statement (it is not commented), always works regardless of which level of NetView you are using.

```
IF (MSGID='IST093I' | MSGID='IST105I' | MSGID='IST259I' |
    MSGID='IST590I' | MSGID='IST619I' | MSGID='IST621I' |
    MSGID='IST1132I' | MSGID='IST1133I' | MSGID='IST1416I') &
TEXT=MESSAGE
THEN EXEC(CMD('NSPSVTAM ' MESSAGE)
ROUTE(ONE NSPAUTO1));
```

The second automation table statement (commented) is for NetView VIR1 or later. It provides a direct PPI communication using NetView pipelines and gives better performance. To use this statement, comment all the lines of the first statement and uncomment all the lines of the second statement.

```
IF (MSGID='IST093I' | MSGID='IST105I' | MSGID='IST259I' |
    MSGID='IST590I' | MSGID='IST619I' | MSGID='IST621I' |
    MSGID='IST1132I' | MSGID='IST1133I' | MSGID='IST1416I')
THEN EXEC(CMD('PIPE (NAME NSP2PPI END ") SAFE * '
    '| EDIT /0006/ X2C N 1.* N '
    '| A:COUNT BYTES | EDIT PAD /0/ 1.* D2C RIGHT 2 N '
    '| B:FANIN | JOINCONT // '
    '| C:PPI SVOOPEN | HOLE '
    '| A: | B: '
    '| C: | NLOCATE /+0000000000/ '
    '| EDIT /PPI SEND FAILED, RC:/ NW 1.* NW '
    '|/(SEE "HELP PIPE PPI")/ NW | LOG NETLOG')
ROUTE(ONE NSPAUTO1));
```

## Mainframe JCL Name Changes

In all the mainframe JCL shipped with release 2.1, all names in the format NSP200\*.\* or NSPS200\*.\* are changed to NSP210\*.\* and NSPS210\*.\*.

## Mainframe Message Changes

The following new messages are added to the mainframe program.

### Error Message

NSP030 *task1* COULD NOT ADD ADDRESS TO *task2* FREE QUEUE (*count*)

Where:

*task1* is the name of the subtask attempting to add a message to another subtask's free queue.

*task2* is the name of the subtask whose queue is being added to.

*count* is the number of times the attempt has failed.

**Explanation** An attempt by one subtask to add to the free queue of another subtask has failed. The request is retried.

**Recommended Action** No action is required. This is a diagnostic message that can be used to determine the cause of other problems that will be indicated with their own error messages.

### Error Message

NSP049 ERROR OPENING FILE *file*

Where:

*file* is the name of the member that could not be opened.

**Explanation** The application could not open the requested file. You may receive this message with the member name being that of the HOSTPU for the VTAM, this is not a problem.

**Recommended Action** If the error is received for any member name other than the host VTAM, contact the Cisco TAC.

**Error Message**

NSP050 *task* COULD NOT FREE MESSAGES (*count*)

Where:

*task* is the name of the subtask that is attempting to free messages

*count* is the number of times the operation has been attempted.

**Recommended Action** No action is required. This is a diagnostic message that can be used to determine the cause of other problems that will be indicated with their own error messages.

**Error Message**

NSP051 NO PARAMETERS ALLOWED ON THE STOP COMMAND. TRY KILL

**Explanation** The **STOP** command was issued with a parameter. This is not a valid command.

**Recommended Action** Enter the **STOP** command without any parameters to stop the address space. If you are attempting to stop only one subtask, use the **KILL** command.

## Mainframe TRACE Command Changes

You can use the **TRACE** command inside the *NSPPARM* member by doing the following:

- Remove the characters “*F NSPOPEN*,” from the beginning of the **TRACE** command.
- Put the **TRACE** command in the *NSPPARM* file directly after the subtask card for the subtask it is tracing.

**Examples**

- 1 To use the **TRACE** command from within the *NSPPARM* member to start tracing of the DISCOVER subtask, put the following in *NSPPARM*:

```
DISCOVER NSPDSC1
TRACE INT DISCOVER
```

- 2 To use the **TRACE** command from within the *NSPPARM* member to start internal detail tracing of the TCP subtask, put the following in *NSPPARM*:

```
TCP 6104 6104
TRACE INT TCP DETAIL
```

## ISTEXCCS Linked in 24 or 31 Bit Mode

When you provide your own exit routine, you can link the ISTEXCCS exit routine in 24-bit or 31-bit mode.

**Configuring Exit Manager for Maps and SNA View and Customer Exit**

By default, the combined exit will be linked with attributes AMODE(24),RMODE(24) as specified in the *NSPELNKS* member in the *NSPSSAMP* dataset. If your exit requires a 31-bit address mode, you may change *NSPELNKS* to have attributes AMODE(31),RMODE(24) because the supplied SNA View exits will operate with 31-bit address mode.

### Configuring Exit Manager for Maps and SNA View, ISM and Customer Exit

By default the combined exit will be linked with attributes `AMODE(24),RMODE(24)` as specified in the `NSPELNKB` member in the `NSPSSAMP` dataset. If your exit requires a 31-bit address mode, you may change `NSPELNKB` to have attributes `AMODE(31),RMODE(24)` because the supplied SNA View exits will operate with 31-bit address mode.

## NSPSCMD No Longer Shipped

Maps and SNA View no longer ship member `NSPSCMD`, so you do not copy the `NSPSCMD` member to a NetView CLIST data set.

## Sizing VSAM Datasets

This section describes how to calculate the sizes of both the PRIMARY and BACKUP databases in NSPDBVSM. Use the sample member provided in the member `prefix.NSPS210I.NSPSSAMP(NSPDBVSM)` to allocate two VSAM databases used by the NSPEXCCS exit routine. Use the following formula to calculate the size of both the PRIMARY and BACKUP databases in NSPDBVSM:

- Step 1** Estimate the total number of switched PUs that will connect into the VTAM.
- Step 2** Multiply the number in Step 1 by 230.
- Step 3** Add a contingency factor (100 percent is suggested).
- Step 4** The result is the minimum number of bytes to allocate for each VSAM database in NSPDBVSM (PRIMARY and BACKUP).

## Workstation Changes

This section describes changes at the workstation for release 2.1.

## Changes to Installation Procedure

The CiscoWorks Blue configuration procedure has new prompts for when you have applied a license key from an evaluation copy of the products or license key that is invalid.

If you have installed the products but you have applied a temporary license key for an evaluation copy of Maps or SNA View, or a license key that is invalid, you might see one of the following messages:

```
INFO:Your current CiscoWorks Blue Maps license expires on mm/dd/yyyy.  
Do you want to enter CiscoWorks Blue Maps license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue SNA View license expires on mm/dd/yyyy.  
Do you want to enter CiscoWorks Blue SNA View license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue Maps license key is not valid.  
Do you want to enter CiscoWorks Blue Maps license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue SNA View license key is not valid.  
Do you want to enter CiscoWorks Blue SNA View license key[yes|no]? [Y]
```



If you have already installed the products but did not apply any license, and then you reran the installation program, you will see the following message:

```
INFO:Your current CiscoWorks Blue license keys are not valid.  
Do you want to enter CiscoWorks Blue license key(s) [yes|no]? [Y]
```

Press **Enter** if you now want to apply a valid, permanent license key for Maps or SNA View.

## Changes to Configuration Procedure

The CiscoWorks Blue configuration procedure is started at the end of installation or when you enter the **cwb config** command. The configuration procedure now prompts you to enable DNS queries and to select ports used by CiscoWorks Blue processes.

### Using the Default Values

The CiscoWorks Blue configuration procedure starts with a set of predefined default values. After you run the CiscoWorks Blue configuration procedure the first time, the choices you make become the default values for the next time you run the program. For example, the first time you run the program, the default for enabling DNS queries is **N**:

```
Would you like to enable DNS search [yes|no]? [N]
```

If you change the **N** to **Y** and press Enter to enable DNS queries, then the next time you run the configuration procedure the default changes to **Y**:

```
Would you like to enable DNS search [yes|no]? [Y]
```

---

**Note** In the prompts in the following section, the values shown in brackets are the predefined default values used when you first run the configuration program.

---

### Using the New Steps

The following new steps are added to the configuration procedure:

- Step 1** In response to the following prompt:
- Type **Y** to specify that you do want a DNS lookup when devices are added to the database. Press **Enter**.
  - Type **N** to specify that you do not want a DNS lookup when devices are added to the database. Press **Enter**.
  - Press **Enter** to accept the default.

---

**Note** The option you select here is used to set the *doDNSSearch* variable in the *cwinit* file.

---

If you select **N**, then a device can be added only by the name with which the device was discovered. If you select **Y**, then a DNS lookup will let you enter any other valid names for the device that can be resolved by a domain name server. For example, using DNS lookup, a device that was discovered as *heritage.cisco.com* could also be referred to as *heritage*.

Devices in the network may be referred to in different ways. For example a device may be discovered as *router1.cisco.com*, but a Maps/SNA View user may refer to the device just as *router1*. In order for the application to identify both names as the same device it must perform a DNS lookup on the device name both when it is discovered and for each client request that can not be identified based upon the device name supplied. Enabling DNS searches can increase the device discovery time and the amount of time it takes to service requests, especially if the DNS searches fail for the devices being discovered.

```
Would you like to enable DNS search [yes|no]? [N]
```

- Step 2** In response to the following prompt press **Enter** to accept the default port for use by the CiscoWorks Blue web server or type in another TCP port above 1023 and press **Enter**. Initially the default port is port 80.

```
Enter 80, 8080 or an unused tcp port above 1023 for Web Server:[80]
```

The configuration program checks to see whether the selected port is available. If it is unavailable, you will be prompted to select another port for the web server.

- Step 3** In response to the following prompt press **Enter** to accept the default port for use by the CiscoWorks Blue Open Server Gateway or type in another TCP port above 1023 and press **Enter**. Initially the default port is port 44541.

```
Enter an unused tcp port above 1023 for Open Server Gateway:[44541]
```

The configuration program checks to see whether the selected port is available. If it is unavailable, you will be prompted to select another port for the Open Server Gateway.

- Step 4** In response to the following prompt press **Enter** to accept the default port for use by the CiscoWorks Blue Name server or type in another UDP port above 1023 and press **Enter**. Initially the default port is port 44542.

```
Enter an unused udp port above 1023 for Name Server:[44542]
```

The configuration program checks to see whether the selected port is available. If it is unavailable, you will be prompted to select another port for the Name server.

**Note** Ensure that the ports that you select are not used by other applications. During configuration, the `/etc/services` file and current ports in use are checked, but a service might not be active at the moment. If you need to change this port later, you must reconfigure the product using the `cwb config` command.

**Step 5** If one of the selected ports is reserved in the `/etc/services` file but does not appear to be in use at this time, you might see the following message. If you want to keep the port reserved and use another port, type **N** and press **Enter**.

```
WARNING: Port port_number/protocol is reserved for application_name service in
/etc /services file.
Do you want to use port_number/protocol anyway [yes|no]? [N]
```

**Step 6** In response to the following prompt type **Y** and press **Enter** to stop and restart CiscoWorks Blue processes or type **N** and press **Enter** to restart them at a later time. If you make any changes to the CiscoWorks Blue configuration, you must stop and restart all CiscoWorks Blue processes before those changes become active.

```
CiscoWorks Blue configuration has changed. You must restart
all CiscoWorks Blue processes to make these changes effective.
Do you want to restart CiscoWorks Blue processes [yes|no]? [Y]
```

## Process IDs and Last Message Added to cwb show status Command

When you use the `cwb show status` command, the resulting display shows you the status and process ID of all servers and processes. The Last Message column displays the last message sent by the process to the Process Manager.

```
CiscoWorks Blue Naming Server Started.
CiscoWorks Blue Process Manager Started.
Process Manager running with processes:
```

PROCESS	STATE	PID	Last Message
CWBHTTAdapter	Ready	45818	Running
CWBOSAMonitor	Ready	25078	Running
cwbhcid_MVSDTCP	Ready	26162	Running
cwbhcmd	Ready	17106	Running
cwbhmond	Ready	18690	Domain Discovered : Mon Aug 2 17:189
CWBPMMonitor	Ready	19262	Running
cwbrsrpollerd	Ready	27004	Running
cwbsnamapsd	Ready	26422	Ready for client requests
cwbtrapd	Ready	15548	Running
CWBMsgLogServer	Ready	40696	Running
AppnPollerServer	Ready	21386	Connection opened with cwbsnamapsd
cwbdlswpollerd	Ready	29058	Running
cwbhci_server_MVSDLU62	Initial		
cwbhcmd_server_MVSDLU62	Initial		
CWBDBAdapter	Ready	33598	Running
cwbmonitord	Initial		

## Clearing the appnfile File with the cwb clear db Command

The `cwb clear db` command clears the data base and the `appnfile` file:

```
cd /opt/CSCOcB/bin
cwb clear db
```

## Using the `cwbupgrade.sh` License Command

After installation, you can use the `cwbupgrade.sh` command to apply the Maps and SNA View license keys. To enter a license key, use the following procedure:

**Step 1** Start the `/opt/CSCOb/install/cwbupgrade.sh` program:

```
/opt/CSCOb/installcwbupgrade.sh
```

**Step 2** When you see the following prompt, type `y` to enter a license key:

```
Do you want to enter CiscoWorks Blue Maps license key [yes|no]? y
```

**Step 3** When you see the following prompt, enter the Maps license key:

```
Enter the CiscoWorks Blue Maps license key (example 123456789012) or press enter  
if not licensed for CiscoWorks Blue Maps: 123456789012
```

**Step 4** When you see the following prompt, enter the SNA View license key:

```
Enter the CiscoWorks Blue SNA View license key (example 123456789012) or press  
enter if not licensed for CiscoWorks Blue SNA View: 123456789012
```

**Step 5** If you applied a temporary license key for an evaluation copy of Maps or SNA View, or a license key that is invalid, you might see one of the following messages:

```
INFO:Your current CiscoWorks Blue Maps license expires on mm/dd/yyyy.  
Do you want to enter CiscoWorks Blue Maps license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue SNA View license expires on mm/dd/yyyy.  
Do you want to enter CiscoWorks Blue SNA View license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue Maps license key is not valid.  
Do you want to enter CiscoWorks Blue Maps license key[yes|no]? [Y]
```

```
INFO:Your current CiscoWorks Blue SNA View license key is not valid.  
Do you want to enter CiscoWorks Blue SNA View license key[yes|no]? [Y]
```

Press **Enter** if you now want to apply a valid, permanent license key for Maps or SNA View.

**Step 6** If Maps or SNA View is now running, press **Enter** when you receive the following message:

```
INFO: CiscoWorks Blue Servers are currently running. You must restart all CiscoWorks  
Blue processes to make these changes effective.  
Do you want to restart CiscoWorks Blue processes [yes|no]? [Y]
```

## Deleting Inactive TGs

A change to the Cisco IOS software deletes inactive dynamic TGs from the router database. If you want to keep those inactive TGs in the Maps and SNA View cache, set the `keep_deleted_tgs` option in the `cwbinit` file to **on**. The following `keep_deleted_tgs` option is new in the `cwbinit` file:

```
# This option controls the CWBlue cache deletion of TGs that are no longer  
# reported by local topology agents. A Cisco IOS change was made to delete  
# inactive dynamic TGs from the router database.  
# To delete TGs that are no longer reported by the agent,  
# set this parameter to 'off'.  
# To keep those TGs in the CWBlue cache, set this parameter to 'on'. If TG  
# events are enabled, this will trigger an event if the TG becomes  
# operational again.  
# valid values:on/off  
keep_deleted_tgs = off
```

## Specifying a Directory with the `cwb tac` Command

The `cwb tac` command lets you specify a directory for saving the command output.

The `cwb tac` command runs the CiscoWorks Blue TAC collection program to collect and zip all the information you will need when you call the Cisco TAC. You must be the root user to use the `cwb tac` command.

### Command

```
cwb tac [-o outputdirectory]
```

### Syntax Description

**-o** *outputdirectory*

Specifies a directory where the command output is saved.

If you omit this operand, the output is saved as file `cwbtac_n.tar.Z` in a temporary directory, where the *n* is increased for each successive use. The `cwb tac` command searches for a temporary directory in this order: `/usr/tmp`, `/var/tmp`, `/tmp`. You can specify an output directory in which to save the output of the `cwb tac` command:

- You can specify an absolute directory by preceding the path with a `/` character. If the specified directory does not exist, the `cwb tac` command prompts you to create it. The following command saves the zipped file as `/usr/cwblue/cwbtac_1.tar.Z`:

```
cwb tac -o /usr/cwblue
```

- You can specify a relative directory. This directory is always relative to `/opt/CSCOcb/etc`. The following command saves the zipped file as `/opt/CSCOcb/etc/tac/cwbtac_1.tar.Z`:

```
cwb tac -o tac
```

## Changing the Local Workstation IP Address or Host Name

During installation, the CiscoWorks Blue products save the host name of the workstation in a set of files for use during processing. If you later change the host name of the workstation, you must also change the host name in those files.

To change the host name, use the following process:

**Step 1** Use the following command to stop all CiscoWorks Blue processes:

```
/opt/CSCOcb/bin/cwb stop all
```

**Step 2** Change the host name in the following files:

- */opt/CSCOcb/classes/com/cisco/nm/cmfb/kubit/process/*
  - *PMInstall.properties*
  - *displayMain.properties*
  - *procMgrServer.properties*
  - *processCLI.properties*
- */opt/CSCOcb/classes/com/cisco/nm/cmfb/kubit/logger/ logger.properties*
- */opt/CSCOcb/etc/*
  - *Services.conf*
  - *runprocess*
- */opt/CSCOcb/apache/etc/httpd.conf*
- */opt/CSCOcb/db/ctlibs/interfaces*

**Step 3** Use the following command to restart all CWBlue processes:

```
/opt/CSCOcb/bin/cwb start servers
```

The CiscoWorks Blue products do not include the local workstation's IP address in any of its files, so you can change the IP address without impact.

## Controlling TG Event Generation

In release 2.1, the **eventgen\_tg** option in the *cwinit* file adds an **all** value to control how events are generated for TGs:

- Set **eventgen\_tg=on** to generate an event when an existing TG has a change in operational status.
- Set **eventgen\_tg=off** to not generate events for any TG status changes.
- Set **eventgen\_tg=all** to not generate an event whenever an existing TG has a change in operational status and when a new TG becomes active.

Events are not generated during the first polling cycle for each agent to prevent events for every active TG from being sent because all TGs will be new to the Cisco Works Blue cache.

The following **event\_gen** option is changed in the *cwinit* file:

```
# This option controls TG event generation.
# To turn off TG event generation, set eventgen_tg = off.
# To generate event for existing TGs when an operational state change
# is detected, set eventgen_tg = on.
# To generate events for existing TGs when an operational state change
# is detected and for newly created operational (active) TGs,
# set eventgen_tg = all.
# Exception: No events are generated for TGs created on
# the first poll cycle. This avoids a storm of events during
# process startup.
# valid values: on/off/all
eventgen_tg = on
```

## Required Software Changes

This section describes changes to the set of required software for release 2.1.

### Required AIX Patches

#### AIX 4.2

The following patches are required on AIX version 4.2:

- bos.rte 4.2.1.3
- bos.rte.libc 4.2.1.15
- bos.rte.install 4.2.1.7
- bos.rte.libpthreads 4.2.1.6
- x1C.rte 3.6.6.0

#### AIX 4.3

The following patches are required on AIX version 4.3:

- bos.rte.libpthreads 4.3.0.2
- x1C.rte 3.6.6.0

### Required HP-UX Patches

The HP-UX patches listed by version in this section are required to install Maps and SNA View. To obtain the patches, contact your Hewlett Packard representative.

---

**Note** Hewlett Packard often obsoletes old patches and incorporates their functions in new patches with different numbers. In the following sections, we list both the original patch we require and the latest patch, that we are aware of, that contains the required functions.

---

#### HP-UX 10.20 Patches

The following minimum patch level is required on HP-UX version 10.20:

- We recommend that you install PHSS\_15043 (old) or PHSS\_17872 (new) for HP 10.20, s700\_800 10.X HP aC++ runtime library components (A.01.18).

#### HP-UX 11.00 Patches

The following minimum patch levels are required on HP-UX version 11.00:

- You must install PHSS\_14577 (old) or PHSS\_16587 (new) for HP 11.00, s700\_800 11.00 HP C++ runtime library components (A.03.10).
- We recommend that you install PHSS\_16620 (old) or PHSS\_18013 (new) for HP 11.00, X/Motif2.1 Runtime Nov98 Periodic Patch.

## Setting HP-UX Kernel Parameters

If you install the CiscoWorks Blue applications on an HP-UX system, you might need to change the following kernel parameters, if they are lower than the following settings, using the HP-UX **sam** command:

- nproc—600
- nfile—3000
- ninode—1900
- semmni—512

See your HP-UX publications for instructions on changing these values.

These values are the minimum values needed for Maps and SNA View. If you have other resource-intensive applications on this workstation, you might need to increase these values. If you are unable to start the Process Manager, if you get “out of space” errors trying to start other CiscoWorks Blue processes, or if you get java exceptions with the message “out of memory,” try increasing the swap space.

## Updated Product Information

There is a CCO web page for CiscoWorks Blue Maps and SNA View that contains links to marketing and technical documentation and includes the latest downloadable CiscoWorks Blue files. Maintenance releases for the CiscoWorks Blue products will be available on CCO as problems are found and fixed. To find the latest product information, point your web browser to the following location:

<http://www.cisco.com/kobayashi/sw-center/sw-netmgmt.shtml>

Select the **CiscoWorks Blue Software Module Updates** link and then follow the links to the desired product, version, and operating system.

## Documentation

All changes for the release 2.1 products are fully described in these Release Notes.

The following release 2.0 printed publications are not updated for release 2.1. Instead, the release 2.1 publications are distributed online both through Cisco’s CCO web page and as PDF files distributed with this product.

- *CiscoWorks Blue Maps and SNA View Mainframe Installation Guide*
- *CiscoWorks Blue Maps and SNA View Workstation Installation and Administration Guide*
- *CiscoWorks Blue Maps and SNA View User Guide*

The following release 2.1 publications are available as PDF files in the /docs directory on the product CD-ROM.

- cwbmfig.pdf—*CiscoWorks Blue Maps and SNA View Mainframe Installation Guide*
- cwbmsvg.pdf—*CiscoWorks Blue Maps and SNA View Workstation Installation and Administration Guide*
- cwbmaps.pdf—*CiscoWorks Blue Maps and SNA View User Guide*
- cwbrelnotes.pdf—*Release Notes for CiscoWorks Blue Maps and SNA View Software Release 2.1*



## Operational Tips and Caveats for CiscoWorks Blue

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

### HP-UX Systems May Require More Swap Space

On HP-UX systems, each process must reserve its own swap space. If all available swap space is reserved, even if it is not used, no more processes can be started. CiscoWorks Blue will normally run in a system that has 256MB of swap space. However, we recommend at least 384MB, especially if you run all the client applications or other programs such as OpenView. If processes fail to start with “out of space” in the Process Manager client Last Message field, you should increase the swap space. Use the `swapinfo -ta` command to check for available space.

### Maximum Length for a Device Name

The maximum length for a device name that the CiscoWorks Blue applications can handle is 100 characters. Names longer than 100 characters will not be added.

### Discover Fails on a Slow/Voluminous Router

If discovery fails and displays a “Process Not Responding” message, it might be because the discover process took longer than 5 minutes to discover the last router (normally the last router in the **Edit>Key Devices** list). The discovery process runs until discovery of this router is finished. Use the `ps` command to determine when the discovery process is complete and then run the discovery process again. For information on using the command line options, see the “Commands and Processes” appendix of the *CiscoWorks Blue Maps and SNA View Workstation Installation and Administration Guide*. [CSCdj52257]

### Extraneous Warning Messages

When starting a Maps application, you might get the following warning messages in the xterm window. You can safely ignore these messages. [CSCdj03762]

```
Warning: Color name " " is not defined
Warning: Cannot parse default background color spec
```

### Zoom In and Zoom Out Motif Functions Not Available on HP-UX

The Zoom In and Zoom Out functions are not available on HP-UX. However, the See All and Zoom Reset functions are available on HP-UX. [CSCdj52945]

### DLSw Not Sending Events for Peer Down If Router Stops Responding to Polls

If a DLSw router stops responding to poll requests, and then begins responding to poll requests again at a later time, Maps does not issue events (Traps) for any of its peers that changed their state during this time. There is no workaround at this time. [CSCdj15551]

## Switching Views After Using Layout>See All Can Cause Problems with Layout of Device Icons

Selecting **Layout>See All** resizes the icons in the current window so that they are all viewable within the window. On a crowded view, using this function might cause problems in other views, such as icons being displayed on top of each other. Selecting a different item on the Layout menu does not correct this problem. [CSCdj53042]

## APPN Adjacent Node View Might Not Update Adjacent Node Icon

If an adjacent node icon type or status changes, the adjacent node or ports and links view of another node will not update the status or icon of the changed node if that is the only view change. To get the updated status or icon, select the focus node and then reselect **View Adjacent Nodes**. [CSCdj41219]

## APPN End Nodes Might Still Display Green After Dynamic Link Goes Inactive

In the APPN adjacent nodes view, if the focus node's dynamic link to an end node goes down, the transmission group (TG) or link will display red, but the end node icon will stay green even though Maps no longer knows the status (the icon should turn blue). Observe the status of the link to determine end node connectivity rather than the end node icon status.

## Layout Preferences Lost in Motif If There Are File Write Problems When Exiting

If you change the layout of objects on the screen, use **File>Save** to save the changes. Otherwise, if you encounter problems saving when you exit the application, any screen changes you've made might be lost. If you get an error when you try to save, check your file permissions and disk space. [CSCdj52534]

To fix this layout problem, use the following procedure:

- Step 1** Select **File>Clone Window**.
- Step 2** Close the original window.
- Step 3** Select **Layout>Circular**, **Layout>Hierarchical**, or **Layout>Symmetrical** in the new window.

## DLSw Peer Statistics Not Available for Unknown Routers from Motif Interface

When the Motif interface for DLSw is used, peer statistics are not available for unknown routers. To view statistics for unknown routers, use the web interface instead. [CSCdj51719]

## DLSw Peer Statistics SAP List Might Be Truncated

On HP-UX, the list of service access points (SAPs) might be truncated. [CSCdj52122]

## Virtual Ring Does Not Display in Focus View for Only One RSRB Peer

In RSRB, if only one RSRB peer is defined to a virtual ring, the focus view for that peer does not show the virtual ring. [CSCdi87301]

## Online HTML Help Does Not Display

If the online help for the web browser, the Administration program, the Process Manager, or the Message logger does not launch successfully, edit the following files to ensure that the path to the Netscape executable is correct:

- */opt/CSCOcb/etc/runweb*
- */opt/CSCOcbC/classes/com/cisco/nm/cmfb/kubit/process/displayMain.properties*
- */opt/CSCOcbC/classes/com/cisco/nm/cmfb/kubit/logger/logger.properties*

The installation program asks you for this path. If you enter the wrong path, the online HTML help might not work.

## Known Problems

### PU Discovery Problems with New Releases of VTAM

Customers using newer versions of VTAM, versions that contain the characters “CS” in their version strings, might find that not all PUs are discovered. To find out whether this problem exists, issue the following VTAM command:

```
D NET,VTAMOPTS,OPTION=HOSTPU,FORMAT=CURRENT
```

If the returned version string contains the characters “CS” before the VxRy string, you will need to obtain a fix from the Cisco TAC.

#### Symptoms

Some PUs are not discovered.

#### Workaround

Obtain a fix from the Cisco TAC.

### DLSw IOS Traps for Promiscuous Peers Lost Not Handled on SNM or NV

Traps sent by Cisco routers for promiscuous peer connections (connections that are configured only at the remote routers) lost are not forwarded to the CWBlue trap daemon by SunNetManager and NetView because the dlswTConnOperState shows NO\_SUCH\_INSTANCE. CWBlue must rely on polling to learn of the connection outage. Alternatively, if the remote peer is explicitly configured on the local router, the trap will be processed. [CSCdm90577]

### RIFs May Be Displayed in Arbitrary Order

The Routing Information Field (RIF) is displayed in RING.BRIDGE.RING format in various places, such as the SNA View Session Connectivity page, the Maps DLSw Circuit Details web page, and the Maps DLSw Circuit Information View and its dialog. When the direction of the RIF can not be determined, the ring and bridge numbers can appear to be backwards. Do not assume an order when you see RIF data. [CSBdm56440]

## Using Process Manager and Message Log Clients from X Emulator Software

If you run Process Manager and Message Logger from a remote PC (you export UNIX windows to a PC) your PC X emulator software should be started in XDCMP mode.

## Problems with csh and tcsh Shells on HP-UX

On HP-UX, some versions of **csh** and **tcsh** shells fail after stopping the CiscoWorks Blue Administration application. [CSCdm11785]

### Symptoms

After exiting the CiscoWorks Blue Administration application, the window from which it was started quickly repeats the system prompt and scrolls.

### Workaround

Kill the window that is scrolling. Use a different shell or find a newer version of these shells. The problem occurs only with older versions of these shells.

## Problems with Process Management and Message Log Client Windows

The Process Management and Message Log client windows might occasionally stop functioning correctly and might need to be closed and restarted. The CiscoWorks Blue processes themselves are unaffected. [CSCdk91839]

### Symptoms

Process Manager or Message Logger client windows lose data, for example:

- Blank Process Manager or Message Logger window
- Messages not logged or Process Manager processes not appearing

### Workaround

Stop all CiscoWorks Blue processes and restart them using the following commands:

```
cwb stop all
cwb start servers
cwb start MsgLogClient
cwb start ProcMgrClient
```

## Using X-Windows Interfaces from Web

If you are using the web interface from a PC and you click a CiscoView or TN3270 link, you must have an X-Windows System server running on your PC. Otherwise you will not see the CiscoView or TN3270 interface nor will you see an error message.

## Processes Do Not Start

### Symptoms

The Process Manager is running, but when you issue the **cwb show status** command, the output shows all CWBlue processes in the *Initial* state but CWBMsgLogServer is in the *Starting* state. The MsgLogServer gets the following message during startup:

```
Unable to bind to Process Manager Server
```

This message is followed by a detailed CORBA System Exception information.

### Workaround

The problem appears to be a third-party package error. A workaround may be available by changing the **localhost** entry in the */etc/hosts* file. Check the */etc/hosts* file. The **localhost** entry should be the first uncommented entry in the */etc/hosts* file as shown in the following examples:

```
# comment line in hosts file
127.0.0.1      localhost loghost
```

or

```
127.0.0.1      localhost
```

To make the **localhost** entry the first entry, change the */etc/hosts* file as shown below:

**Step 1** Become the root user:

```
su root
```

**Step 2** Edit the */etc/hosts* file.

**Step 3** Either add this line as the first entry or move this line to the first entry.

```
127.0.0.1      localhost [loghost]
```

---

**Note** Note: If this entry exists in the file, there may be additional aliases on this line, before or after the **localhost** entry, such as the **loghost** alias. Keep the line intact when you move it to the first entry position.

---

**Step 4** Stop all servers:

```
/opt/CSCOcb/bin/cwb stop all
```

**Step 5** Start all servers:

```
/opt/CSCOcb/bin/cwb start servers
```

## Problems with jre Processes Running

If a Process Management or Message Log client window is started remotely, but the DISPLAY environment variable is not correctly set, the clients do not start, as can be expected, but a *jre* process remains running, consuming a small amount of system resources. [CSCdm01487]

### Symptoms

You might have many *jre* processes running in the system, affecting system performance.

### Workaround

Set your DISPLAY environment correctly:

```
setenv DISPLAY workstation:0.0
```

You can kill the stray *jre* processes with **kill -9**, or by stopping the CiscoWorks Blue product and restarting it:

```
/opt/CSC0cb/bin/cwb stop all  
/opt/CSC0cb/bin/cwb start servers
```

## Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

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You can access CCO in the following ways:

- WWW: <http://www.cisco.com>
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- WWW: <http://www-china.cisco.com>
- Telnet: [cco.cisco.com](http://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 connection rates up to 28.8 kbps.

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

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