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USAGE NOTES

Usage Notes for the CiscoWorks NCM and LMS Co-residency Script

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1   Overview

As a CiscoWorks application, CiscoWorks Network Compliance Manager (NCM) integrates with the features and capabilities of other CiscoWorks products such as the LAN Management Solution (LMS) bundle.

For CiscoWorks NCM and LMS co-residency, the ports required for LMS installation conflict with CiscoWorks NCM port requirements. The LMS and CiscoWorks NCM services must be re-configured for these products to co-reside on the same host. For ease of the user, a batch script automates the co-residency procedure. This document contains information on how to use the automated script for LMS and CiscoWorks NCM to co-reside.

> **Note**   CiscoWorks NCM co-residency with LMS is only supported on the Windows platform.

This guide provides information on the following:

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2 Before You Begin

You can obtain the automated script for LMS and CiscoWorks NCM co-residency at the following URL:

http://www.cisco.com/cgi-bin/tablebuild.pl/cwncm-crypto

Before you use the automated script for LMS and CiscoWorks NCM co-residency, you need to be aware of the information contained in the following sections:

- CiscoWorks NCM and LMS Product Versions
- Command Syntax Conventions
- Windows Server Requirements
- CiscoWorks NCM and LMS Co-residency Requirements
- Extracting Co-residency Files

CiscoWorks NCM and LMS Product Versions

This script supports the following:

- CiscoWorks NCM version 1.3
- LMS versions 2.6 and 3.0

Command Syntax Conventions

Table 1 describes the syntax used with the commands in this document.

Table 1   *Command Syntax Guide*

Convention	Description
boldface italic	Commands and keywords.
italic	Command input that is supplied by you.
[ ]	Keywords or arguments that appear within square brackets are optional.
{ x	x	x }	A choice of keywords (represented by x) appears in braces separated by vertical bars. You must select one.
^ or Ctrl	Represent the key labeled *Control*. For example, when you read *^D* or *Ctrl-D*, you should hold down the Control key while you press the D key.
screen font	Examples of information displayed on the screen.
boldface screen font	Examples of information that you must enter.
< >	Nonprinting characters, such as passwords, appear in angled brackets.
[ ]	Default responses to system prompts appear in square brackets.

Windows Server Requirements

The following tables provide the recommended requirements when installing CiscoWorks NCM on a Windows platform. Keep in mind that the application server and the database server can be configured together or separately depending on the size of the network.

> **Note**   You must stop other network management applications, web servers, databases, and Syslog/TFTP servers running on the same system before installing CiscoWorks NCM. Applications include anti-virus (during Setup only) and WWW Publishing Server applications.

Table 2   Requirements for the Application Server on the Windows Platform

OS	Windows Server 2003 Enterprise Edition (recommended)
CPU	Intel Xeon or equivalent, 3.0+ GHz
Memory	2 GB RAM
Disk	10 GB, Fast SCSI
Network	100 Mbps Fast Ethernet, full duplex
Applications	Adobe Acrobat Reader 4.0 or higher (for viewing documentation)
	Microsoft Excel 2000 or higher (for viewing Summary Reports)
	Microsoft Internet Explorer 5.5 or higher or Mozilla Firefox 1.0 or higher

Table 3   Requirements for the Database Server on the Windows Platform

Supported Databases	One of the following:
	• Microsoft SQL Server 2000 (SP 2)
	• Microsoft SQL Server 2005
	• MySQL Max 3.23.55 (included with CiscoWorks NCM)
	• Oracle 9.2
	• Oracle 10.2.0.2 (32 bit)
CPU	Intel Xeon or equivalent, 3.0+ GHz
Memory	2 GB RAM
Disk	18 GB, Single Channel RAID, Fast SCSI
Network	100 Mbps Fast Ethernet, full duplex

Table 4   Requirements for the Application and Database on the Same Server on the Windows Platform

OS	Windows Server 2003 Enterprise Edition
Database	MySQL Max 3.23 (included)
CPU	Dual Processor Intel Xeon or equivalent, 3.0+ GHz
Memory	4 GB RAM
Disk	28 GB, Dual Channel RAID, Fast SCSI
Network	100 Mbps Fast Ethernet, full duplex

CiscoWorks NCM and LMS Co-residency Requirements

The following are the recommended requirements when you are enabling co-residency of CiscoWorks NCM and LMS:
- Operating System on the Application Server: Microsoft Windows 2003
- Server Hardware: At least a Xeon (or a Dual Core) Processor with 8 GB of RAM.

Extracting Co-residency Files

To extract the CiscoWorks NCM and LMS co-residency script files, do the following:

Step 1   Double-click the zipped file cwncm_1_3_coresidency_script_win.zip and extract all the files.

Step 2   Run the commands from a local extracted folder.

3   Syntax

Below are co-residency script commands and their syntax.

Starting and Stopping Services

Command	Function
coreside /start	Starts LMS and CiscoWorks NCM services.
coreside /stop	Stops LMS and CiscoWorks NCM services.
coreside /start lms	Starts LMS services.
coreside /stop lms	Stops LMS services.
coreside /start cwncm	Starts CiscoWorks NCM services.
coreside /stop cwncm	Stops CiscoWorks NCM services.

Run Co-residency

Command with Optional Argument	Function
coreside /bind [cwncm_http:port] [cwncm_https:port] [cwncm_rmi:port] [lms_apache:port][lms_syslog:port]	Sets up co-residency.

Undo

Command	Function
coreside /release	Removes co-residency setup.

Clear History

Command	Function
coreside /cl or *coreside /clearhistory*	Deletes any existing co-residency LMS and CiscoWorks NCM configuration files if present.

Help

Command	Function
coreside /help	Displays help.
coreside /h	Displays help.
coreside /?	Displays help.
coreside	Displays help.

Default Co-residency Port Settings

For CiscoWorks NCM and LMS to co-reside on the same host, the ports required for CiscoWorks NCM and LMS must be reconfigured. The following table lists the default ports used by CiscoWorks NCM and LMS prior to co-residency configuration along with the modification required for co-residency.

Service Name	LMS Default Port	LMS Modified Port	CiscoWorks NCM Default Port	CiscoWorks NCM Modified Port
Syslog	514	9514	514	Not changed
HTTP	N/A	N/A	80	9080
HTTPS	443	7443 (if Oracle is installed)	443	9443
RMI	4444	Not changed	4444	9444
JNP	1099	If IPM is installed, set the IPM PM server's Startup Type to Manual	1099	Not changed
TFTP	69	Stopped	69	Not changed

4 Co-residency Setup

To setup CiscoWorks NCM and LMS co-residency, do the following:

Step 1 Install and configure LMS Common Services, Resource Manger Essentials, and other modules.

Step 2 Temporarily stop the LMS services. Go to the folder where the co-residency files are extracted. Run the command *coreside /stop lms* to stop LMS services.

Note that all co-residency commands must be executed from this local folder.

Step 3 Install CiscoWorks NCM. Start the appropriate version of the Windows CiscoWorks NCM installer.

Step 4 When prompted Do you want to install NCM connector, make sure that the option I want to install NCM connector is unchecked and click Next. It is important that this option is unchecked. You should not be prompted for the NMSroot path.

Step 5 Temporarily stop the CiscoWorks NCM services. Run the command *coreside /stop cwncm* to stop CiscoWorks NCM services.

Step 6 If CiscoWorks NCM or LMS services are not yet stopped, stop CiscoWorks NCM and LMS services.

  a. Run the command *coreside /stop cwncm* to stop CiscoWorks NCM services.

  b. Run the command *coreside /stop lms* to stop LMS services.

OR

  a. Run the command *coreside /stop* to stop both CiscoWorks LMS and NCM services.

Step 7 Set up co-residency for LMS and CiscoWorks NCM. Run the command:

coreside /bind [*cwncm_http:por*t]

[*cwncm_https:port*]

[*cwncm_rmi:por*t]

[*lms_apache:port*]

[*lms_syslog:port*]

Keep in mind the following:

- The *coreside /bind* command can be run multiple times with different configuration parameters without running *coreside /release*.
- Running the *coreside /bind* command without parameters uses the default co-residency ports.
- If the *coreside /bind* command is run with the default value for *cwncm_https,* then access the CiscoWorks NCM URL at https://<ip address of machine>:9447.
- If the *coreside /bind* command is run with the configured value for *cwncm_https:https_port* ,then access the CiscoWorks NCM URL at https://<server ip address>:https_port/.
- Note that running the *coreside /bind* command does not setup cross-launch facility between CiscoWorks NCM and LMS. To setup cross-launch follow the manual procedures described in Step 9 below
- If the *coreside /bind* command is run with the default value for *lms_apache*, then access the LMS URL at http://<ip address of machine>:1741.
- If the *coreside /bind* command is run with the configured value for *lms_apache:apache_port*, then access the LMS URL at https://<server ip address>:apache_port/.
- While running the *coreside /bind* command, some of the CiscoWorks NCM and LMS configurations need to be modified for the products to co-reside. The script makes a copy of the configuration files in the default folder before modifying them. If the default folder contains a copy of the configuration files, then the script does not overwrite existing configuration files.
- The default and the recommended ports for *command /bind* are:
  - *cwncm_http*: 9080
  - *cwncm_https*: 9443
  - *cwncm_rmi*: 9444
  - *lms_apache*: 7443(if oracle is installed)
  - *lms_syslog*: 9514

Step 8 Start the CiscoWorks NCM and LMS services.

- **a.** Run the command *coreside /start cwncm* to start the CiscoWorks NCM services.
- **b.** Run the command *coreside /start lms* to start LMS services.

OR

- **a.** Run the command *coreside /start* to start both the CiscoWorks NCM and LMS services.

Step 9 Configure cross-launching between LMS and CiscoWorks NCM. Do the following to add references to LMS from CiscoWorks NCM.

- **a.** Login to CiscoWorks NCM at https://localhost:<cwncm_https: default 9443>/.
- **b.** Navigate Admin > Administrative Settings > Server to access the Administrative Settings - Server window. Note that the My Favorites field on the left side of the window does not display the CiscoWorks link.
- **c.** Navigate Start > Run.
- **d.** Enter cmd.exe and click OK.
- **e.** Enter ipconfig. Note the host ip address.
- **f.** Enter the URL as http://< *ip_address*>:1741/ where *ip_address* is the IP address of the local host.
- **g.** Click Save at the top of the Administrative Settings - Server window.

Note that the CiscoWorks URL now appears in the My Favorites field on the left side of the window.

Step 10 Do the following to add references to CiscoWorks NCM from LMS.

    a. Navigate Start > Run.

    b. Enter cmd.exe and click OK.

    c. Navigate to *<CWNCM directory>*\CWNCM\client where *CWNCM directory* is the location of the directory where CiscoWorks NCM is installed.

    d. At the prompt, enter *<LMS path>*\bin\perl .\cmic_reg-win.pl *<ip address of the current server> <cwncm https_port_configured – default 9443>* add

        where *ip address of the current server* is the IP address of the current server. For example:

        C:\progra~1\cscopx\bin\perl .\cmic_reg-win.pl 172.20.105.170 9443 add

The following is an example of the output from this command. Note that the actual path and IP addresses may defer on your host.

```
SERVER 172.20.105.150
PORT 9443
JAVA C:\PROGRA~1\CSCOpx\bin\cwjava -cw C:\PROGRA~1\CSCOpx -cp:p
MDC\tomcat\webapps\cwhp\WEB-INF\lib\cwhp.jar;lib\classpath\cmic.jar;MDC\tomcat\shared\lib\xerces.jar;objects
\log4j\1.2.8\log4j-1.2.8.jar;MDC\tomcat\shared\lib\MICE.jar;MDC\tomcat\shared\lib\NATIVE.jar
com.cisco.nm.cwcs.cwhp.applications.add CWNCM-cwhp 9443 https 172.20.105.150
[Thu Dec 06 17:59:53 PST 2007] CCR HostName is NCM-PC1
[Thu Dec 06 17:59:53 PST 2007] Host name is 172.20.105.150
[Thu Dec 06 17:59:53 PST 2007] Registring the application with CWNCM-cwhp, 172.20.105.150, 9443, https
[Thu Dec 06 17:59:53 PST 2007] INFO   [CMICLogger : info]  : com.cisco.nm.cmf.cmic.registry.OperateRecords
Processing template C:\PROGRA~1\CSCOpx/objects/data/cmf/cmic/mst-templates/CWNCM-cwhp.xml
 [Thu Dec 06 17:59:54 PST 2007] INFO   [CMICLogger : info]  : com.cisco.nm.cmf.cmic.registry.OperateRecords
The number of records to be added : 7
 [Thu Dec 06 17:59:54 PST 2007] INFO   [CMICLogger : info]  :
com.cisco.nm.cmf.cmic.registry.RegistryInteractor Successfully added record to the registry :7
 [Thu Dec 06 17:59:54 PST 2007] INFO   [CMICLogger : info]  : com.cisco.nm.cmf.cmic.registry.OperateRecords
Writing registered template at
C:\PROGRA~1\CSCOpx/objects/data/cmf/cmic/registered-templates/networkcompliancemanager.1.2.172.20.105.150.94
43.https.xml
```

5 Known Issues

The following are known CiscoWorks NCM and LMS co-residency issues.

Description: HTTP automatically forwards HTTPS. Before the CiscoWorks NCM and LMS co-residency setup, http://ncm-server:default port/ is forwarded to https://ncm-server:default port/ automatically. After the co-residency setup, the http login page does not automatically forward to the https login page.

Workaround: You must explicitly enter https://*<ncm_server_name>*:*<configured port>*.

Description: The LMS application registration shows the CiscoWorks NCM version as 1.2. After cross-launch is completed, navigate Goto > Common Services > Server > Home Page Admin. Choose Application Registration from the left panel. Note that CiscoWorks NCM is registered with the version 1.2.

Workaround: If you would like the CiscoWorks NCM application registration to reflect the latest version number on the RME's application registration page, do the following:

1. Run the script: C:*<LMS PATH>*\bin\perl *<NCM_INSTALL_DIR>*/client/cmic_reg-win.pl *<server hostname or ip address><cwncm_https_port - default 9443>* remove

    For example:

    C:\Progra~1\CSCOpx\bin\perl C:\CWNCM\client\cmic_reg-win.pl 172.20.115.72 9443 remove

2. If you would like CiscoWorks NCM to reflect the latest version on the RME's application registration page, navigate to C:*<NCM Install path>*\client\ CWNCM-cwhp.xml. Look for the line: AppName=Network Compliance Manager AppVersion=1.2. Update the version to: AppVersion=1.3.

3. Re-run the script: C:\<*LMS PATH*>\bin\perl <*NCM_INSTALL_DIR*>\client\cmic_reg-win.pl <*server hostname or ip address*> <*cwncm_https_port - default 9443*> add

For example:

C:\Progra~1\CSCOpx\bin\perl C:\CWNCM\client\cmic_reg-win.pl 172.20.115.72 9443 add

6 Troubleshooting

This section provides helpful information and procedures in case you encounter CiscoWorks NCM and LMS co-residency issues.

Description: After CiscoWorks NCM and LMS co-residency setup but before cross-launch setup, the LMS page displays a CiscoWorks NCM Application Menu portlet.

This could be a result of the option I want to install NCM connector being checked during the CiscoWorks NCM installation. See Step 4 in the section "Co-residency Setup" for details.

Workaround: The CiscoWorks NCM Application Menu portlet must be removed. To remove it, do the following:

Step 1 Navigate Start > Run.

Step 2 Enter cmd.exe and click OK.

Step 3 Navigate to <*CWNCM directory*>\Rendition\client where CWNCM directory is the location of the directory where CiscoWorks NCM is installed.

Step 4 At the prompt, enter:

<*LMS_PATH*>\bin\perl .\cmic_reg-win.pl <*ip address of the current server*> 443 remove

If the above does not remove the CiscoWorks NCM menu portlet, run the same command, replacing the IP address with the hostname of the current server.

7 Undoing Co-residency Setup

To undo CiscoWorks NCM and LMS co-residency setup, do the following:

Step 1 Undo cross-launch configuration for CiscoWorks NCM and LMS by removing references to LMS from CiscoWorks NCM.

　　a. Log in to CiscoWorks NCM at https://localhost:9443/.

　　b. Navigate Admin > Administrative Settings > Server to access the Administrative Settings - Server window. The CiscoWorks URL should display in the CiscoWorks Server URL field. Note that the My Favorites field on the left side of the window displays the CiscoWorks link.

　　c. Remove the URL http://< ip_address>:1741/ associated with CiscoWorks Server URL field.

　　d. Click Save at the top of the Administrative Settings - Server window.

Step 2 Remove references to CiscoWorks NCM from LMS.

　　a. Navigate Start > Run.

　　b. Enter cmd.exe and click OK.

　　c. Navigate to <*CWNCM directory*>\CWNCM\client where *CWNCM directory* is the location of the directory where CiscoWorks NCM is installed.

　　d. At the prompt, enter <*LMS_PATH*>\bin\perl .\cmic_reg-win.pl <*ip address of the current server*> <*cwncm https_port_configured – default 9443*> remove and remove the IP address of the current server.

Step 3 Stop the CiscoWorks NCM and LMS services. Go to the folder where the co-residency files are extracted.

    a. Run the command *coreside /stop cwncm* to stop the CiscoWorks NCM services.

    b. Run the command *coreside /stop lms* to stop the LMS services.

OR

    a. Run the command *coreside /stop* to stop both the CiscoWorks NCM and LMS services.

Step 4 Release the co-residency setup for LMS and CiscoWorks NCM.

    a. Run the command *coreside /release*.

        – Running *coreside /release* reverts the configuration to the LMS and CiscoWorks NCM configurations that existed prior to running *coreside /bind setup*. It does not revert to the previous *coreside /bind state*.

        – If the command *coreside /cl* has cleared the default folder, *coreside /release* will fail.

        – If the command *coreside /cl* has cleared the default configuration but the folder contains the configuration files crated after running the *coreside /bind* command, running *coreside /release* will update LMS and CiscoWorks NCM with the configuration from the default folder.

Step 5 Start either the LMS or CiscoWorks NCM services. When co-residency is not setup only one of the services must be started.

    a. Run the command *coreside /start cwncm* to start the CiscoWorks NCM services.

OR

    a. Run the command *coreside /start lms* to start the LMS services.

8 Cleanup

⚠

Warning **This command should be run only if you are definite about clearing or overwriting the default configuration files. There is no way to undo this action.**

The *coreside /clearhistory* or *coreside /cl* commands delete all configuration files in the default folder. When the commands are run in the following sequence, the changes made are irreversible.

Example

1. Go to the folder where the co-residency files are extracted. Run the command *coreside/clearhistory* or *coreside/cl* to clear the configuration files in the default folder.

2. Run the *coreside/bind* script. Some configuration files in the default folder are modified for co-residency.

   For example, if the file confFile needs to be modified for co-residency setup, running the *coreside /bind* script saves a copy of the base file as confFile.original in the 'default' folder.

3. The confFile file is then modified and overwritten. In this example, the modified files is referred to as confFile.mod1.

4. Run *coreside /clearhistory* or *coreside /cl* after running *coreside/bind.* The file confFile.original is deleted from the default folder.

5. Run *coreside /bind* on the server . The file confFile.mod1 is now saved as the base file. Note that the original confFile file is lost. The modified confFile file becomes the base file.

Note that running *coreside /release* on the server after running *coreside /cl* will fail if there is no default folder.

To clear or overwrite the default configuration files, do the following:

Step 1 Run the command *coreside /clearhistory* or *coreside /cl* to clear the configuration files in the default folder.

9 Related Documentation

Use these Usage Notes with the *Quick Start Guide for CiscoWorks Network Compliance Manager*, *Release Notes for Network Compliance Manager*, and the *User Guide for Network Compliance Manager*. These documents are available online through Cisco.com at the following URL:

http://www.cisco.com/en/US/products/ps6923/tsd_products_support_series_home.html

10 Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

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

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