CHECK POINT SOFTWARE

TECH NOTE

Installation/Update Procedure for HP OpenView and FireWall-1 Interoperability

Todd MacDonald
Check Point Software

TABLE OF CONTENTS

Purpose

The purpose of this document is to outline the installation/update procedure to allow Firewall-1 to interact with HP OpenView. It provides customers the ability to open the Security Policy, Event Viewer, and Status screen from within HP OpenView. It also allows OpenView to recognize SNMP traps generated by Firewall-1.

This document is specific to an installation on a HP 9000 715/100 running HPUX 10.20. Installation instructions on a Sun are also included in this document.

Requirements

- HP OpenView must be running on a HP 9000. (Sun and NT compatibility will follow at a later date)

- The Firewall-1 GUI MUST be running on the same box as OpenView.

- The update software is compatible with Firewall-1 ver 4.0 only.

- Tested w/OpenView release B.04.11.

- HP 9000 series 700 or 800.

- CDROM drive.

- HP O/S requirements include: HP-UX ver 9.x, 10.01, 10.10, or 10.20

- SNMP loaded

  An SNMP agent is required on each management server. On HP-UX 9.X, the SNMP agent is included with HP's Network Node Manager (NNM) and is automatically installed. On HP-UX 10.X, the SNMP agent is included with the operating system.

  All HP-UX systems have the SNMP agent supplied with the operating system. (For Solaris systems, (future), the SNMP Extensible Agent is purchased separately.)

- Required disk space for HP Network Node Manager (NNM)

  HP Network Node Manager

HP-UX 9.X	65 Mbytes
HP-UX 10.X	65 Mbytes

Installation Procedure

The installation of HP OpenView Network Node Manager (NNM) was on a HP 9000. The Sun installation is outlined later in the document. The installation process is unique to each platform. The majority of the following info was found in the ReleaseNotes file on the OpenView CD.

HP OpenView - HP Installation

The installation of HP OpenView on a HP 9000 workstation is straightforward. We were running HPUX 10.20. HP OpenView was installed first. See the ReleaseNotes file on the CD.

To install OpenView on the HP 9000, mount the CD drive, go to the CDROM. A directory listing of the CD is show below.

```
dr-xr-xr-x    2 0     3      2048 Aug 24  1996 .
drwxr-xr-x     4 0    60001   512 Dec 18 17:37 ..
drwxr-xr-x    51 2    2      8192 Aug 24  1996 OVDEPOT
-r--r--r--     1 2    2     13147 Aug 22  1996 ReleaseNotes
drwxr-xr-x     2 2    2      2048 Aug 24  1996 SD-SETUP-HP10
drwxr-xr-x     2 2    2      2048 Aug 24  1996 SD-SETUP-HP9
drwxr-xr-x     2 2    2      2048 Aug 24  1996 SD-SETUP-SOLARIS
drwxr-xr-x     2 2    2      2048 Aug 24  1996 SD-SETUP-SOLARIS25
-r--r--r--     1 2    2     20268 Aug  5  1996 allcommon
-r-xr-xr-x     1 2    2      2288 Aug  5  1996 common.nnm
-r-xr-xr-x     1 2    2      9766 Aug  5  1996 install
-r-xr-xr-x     1 2    2      3832 Aug  5  1996 remove
#
```

Run the install from the CD.

```
#./install
```

This invokes the “swinstall” process and asks the following questions.

```
1)  English
2)  Japanese
Enter the number:  1

1)  NNM Full Product
2)  NNM Entry Product
Enter the number:  1

Do you want to enter manpages? (y/n):  y
Do you want to continue?  (y/n):  y
```

This is where the swinstall session actually starts. Recommended that in another shell, enter at the command prompt:

```
#tail –f /var/adm/sw/swagent.log
```

This will show, step-by-step, the status of the installation process as it writes it to the swagent.log file.

According to the installation instructions, the process will take between 30 – 45 minutes. The lab installation of HP OpenView took ~ 15 minutes.

A successful installation of OpenView NNM should look like the following.

```
=======  12/30/97 10:02:05 PST  BEGIN swinstall SESSION (setup mode)

     * Target connection succeeded for "/".
NOTE:    Analysis phase for "/" had notes.
     * Execution phase succeeded for "/".

     * More information may be found in the agent logfile (location
       is /var/adm/sw/swagent.log).

=======  12/19/97 10:15:50 PST  END swinstall SESSION (setup mode)

*******************************************************
* Your installation was successful.                   *
*                                                     *
* Review the notes and warnings from this installation *
* found in the last session recorded in the log file  *
* (/var/adm/sw/swagent.log). Each session is marked with *
* the starting date and time.                         *
*                                                     *
* Please refer to your installation manual for more   *
* information about what to do next.                  *
*                                                     *
*******************************************************
#
```

The OpenView NNM hierarchy consists of the following:

```
/opt/OV
        /ReleaseNotes
        /bin
        /contrib
        /doc
        /install
        /lib
        /man
        /newconfig
```

******NOTE******

Do NOT kill the installation process. It could leave the system in a corrupt state.

One issue that came up while installing on the HP box is we needed to mount the CD to install OpenView. However, to successfully install the patch (later in this document), we had to edit the fstab file and comment out the CD mount instruction.

Check Point Firewall-1 Install

The assumption is being made that the firewall is already installed and operating correctly. To install Firewall-1, please refer to the manuals and other reference documents concerning the installation.

Some requirements consist of:

Must be running Firewall-1 rev 4.0
GUI must be running on the same platform as OpenView.

OpenView Update Installation on HP

For the HP installation, only the "FWMap.hpux.tar" file is necessary. Download this file to a temp directory.

From the /tmp directory, untar the file FWMap.hpux.tar.

/tmp

#tar –xvf FWMap.hpux.tar

This creates the following files:

FWMap.depot
fwmap.txt
fwmapinstall
readme.txt

From **/opt/OV/bin**

#./ovstart

OpenView must be running, but ovw (OpenView Windows) cannot be running. This gives the installation process access to the database files for modification.

From **/tmp**

#./fwmapinstall

This calls the swinstall process and performs the update. The update consists of modifying some of the OpenView database files by verifying and then adding fields specific to Check Point. The swinstall creates a log of the entire installation process in the file:

/var/adm/sw/swagent.log

******NOTE******

Since most installations record some kind of error, it is highly recommended that you review this log after each installation attempt. An example of a good HP OpenView installation log is provided at the end of this document. See

Once the update is completed successfully, start Firewall-1 and open NNM.

From **/opt/OV/bin** it is recommended that you stop the OpenView process then restart.

#./ovstop	Stops the OpenView process
#./ovstart	Starts the OpenView process
#./ov.envvars.sh	Sets OpenView environment variables
#./ovw&	Starts OpenView windows or NNM

Configuring OpenView on HP

The following procedure will configure HP OpenView to manage Check Point's Firewall-1, and recognize Firewall-1's SNMP traps.

1. When the OpenView application comes up, two windows will appear, the default window is called "Root", with a default object "IP Internet" showing in this window. Another window "Event Categories" will also appear.

2. In the "Root" window there should also be another object called "Firewalls". This was added as part of the installation. The pull down menus should also have been modified to include the menu item "Firewall".

3. Drill down or double click on the object "Firewalls". This will bring up a blank window called "Firewalls". This is where all of the firewall objects for the enterprise network will be displayed.

4. Within a short time, the firewalls in the network should be discovered and icons will be created on the Firewalls submap for each of them.

5. To manually designate a host as a firewall, select the icon on the network map and then select "Set as Firewall" from the "Firewall" drop down menu.

6. Right click on the new Firewall object "Firewall-1". Select "Describe/Modify Object…".

7. Under the Object Description window, select "Firewall-1 Management". Select "View/Modify Object Attributes". Enter the name of the "management server for this firewall" in this field. Select OK and close both windows.

8. At the Firewalls window, select or highlight the object "Firewall-1", Pull down the "FireWall" menu option, Select "Firewall-1", and you should have the ability to select any one of the following Firewall options "Log Viewer", "Security Policy", "System Status", and "Statistics".

9. By selecting "Security Policy", the Check Point Firewall-1 GUI sign on screen should appear. Sign on and the security policy screen for the firewall object you just configured should come up.

10. To edit the rule base for the firewall, refer to the Check Point Firewall-1 manuals.

This completes the OpenView configuration to manage a Firewall from within HP OpenView.

The second step is to setup OpenView to accept SNMP Traps generated by the Firewall. This configuration should have been automatic from the installation process, to verify, follow these steps.

1. From the Root window, pull down the menu "Options", select "Load/Unload MIBs:SNMP". Verify that the name "chkp.mib" appears in the list. If it is not there press the Load button. This brings up the "Load/Unload MIBs" window and is asking for a file. Double click or open the "Vendor" path. Open the "Check Point" path, and select the file "chkp.mib" in the right hand column. Select OK and it will ask for confirmation.

2. Close out the remaining windows and go back to the Root level window.

The following will test and verify the installation.

1. From the Root window, drill down one level to the "Firewalls" window. Select the Firewall and pull down the Firewall menu option. Select "Security Policy" and also select "Log Viewer".

2. Sign on to the Firewall to bring up the Security Policy. As an example, add a policy where:

   Source = ***"your workstation"***
   Destination = ***"anywhere outside the Firewall" (or to the Firewall itself)***
   Service = ***"Telnet"***
   Action = ***"Reject"***
   Track = ***"SNMP Trap"***

   Install this rule on the Firewall.

3. Sign on to the Log Viewer. Clear all events (just makes it easier, not required).

4. From the OpenView window "Event Categories" (comes up automatically when OpenView comes up), Select "All Events" and purge the contents.

5. From a shell, Telnet to the Firewall or outside the firewall (depending on the rule base you installed).

6. The telnet process should return an error showing the firewall is working and not allowing that service. You should also see an error logged in the Firewall Log Viewer.

7. From the Event Categories window, select "Application Alert Events" and the SNMP trap string will be shown in the "Application Alert Events Browser".

HP OpenView - Sun Installation

In the ReleaseNotes file on the CD are more specific instructions on how to install HP OpenView on a Sun platform. Some of them are included here.

Before attempting to install Hp OpenView on a Sun Solaris, specific environment variables need to be set. To verify enter:

#ipcs

```
IPC status from <running system> as of Thu Dec 18 14:50:32 1997
Message Queue facility not in system.
Shared Memory: facility not in system.
Semaphores: facility not in system.
#
```

If the above status is returned, semaphores need to be configured in the system file. Edit this file with the following settings.

/etc/system

```
forceload: sys/shmsys
forceload: sys/semsys
set semsys:seminfo_semaem=16384
set semsys:seminfo_semmap=66
set semsys:seminfo_semmni=70
set semsys:seminfo_semmns=200
set semsys:seminfo_semmnu=30
set semsys:seminfo_semume=10
set semsys:seminfo_semvmx=32767
set semsys:seminfo_semmsl=30  (for Ingres)
```

Reboot the system, and run ipcs again. The return should look something like this:

```
IPC status from <running system> as of Thu Dec 18 14:50:32 1997
Message Queue facility not in system.
Shared Memory:
Semaphores:
#
```

At this point, NNM can be installed on the Sun.

From the CDROM, run the install process. A directory listing of the CDROM is below.

```
# ls -an
total 137
dr-xr-xr-x    2 0     3        2048 Aug 24  1996 .
drwxr-xr-x     4 0    60001     512 Dec 18 17:37 ..
drwxr-xr-x    51 2    2        8192 Aug 24  1996 OVDEPOT
-r--r--r--     1 2    2       13147 Aug 22  1996 ReleaseNotes
drwxr-xr-x     2 2    2        2048 Aug 24  1996 SD-SETUP-HP10
drwxr-xr-x     2 2    2        2048 Aug 24  1996 SD-SETUP-HP9
drwxr-xr-x     2 2    2        2048 Aug 24  1996 SD-SETUP-SOLARIS
drwxr-xr-x     2 2    2        2048 Aug 24  1996 SD-SETUP-SOLARIS25
-r--r--r--     1 2    2       20268 Aug  5  1996 allcommon
-r-xr-xr-x     1 2    2        2288 Aug  5  1996 common.nnm
-r-xr-xr-x     1 2    2        9766 Aug  5  1996 install
-r-xr-xr-x     1 2    2        3832 Aug  5  1996 remove
#
```

Execute the install

#./install

This invokes the swinstall process. Answer the following questions:

1) English
2) Japanese

Enter the number: **1**

1) NNM Full Product
2) NNM Entry Product

Enter the number: **1**

Do you want to enter manpages? (y/n): **y**
Do you want to continue? (y/n): **y**

This is where the swinstall session actually starts. It is recommended that in another shell, enter at the command prompt:

#tail –f /var/adm/sw/swagent.log

This will show the status of the installation process as it writes it to the “swagent.log” file.

A successful installation of OpenView NNM should look like the following.

```
=======  12/30/97 10:02:05 PST  BEGIN swinstall SESSION (setup mode)

     * Target connection succeeded for "/".
NOTE:    Analysis phase for "/" had notes.
     * Execution phase succeeded for "/".

     * More information may be found in the agent logfile (location
       is /var/adm/sw/swagent.log).

=======  12/19/97 10:15:50 PST  END swinstall SESSION (setup mode)

*******************************************************
* Your installation was successful.                   *
*                                                     *
* Review the notes and warnings from this installation *
* found in the last session recorded in the log file  *
* (/var/adm/sw/swagent.log). Each session is marked with *
* the starting date and time.                         *
*                                                     *
* Please refer to your installation manual for more   *
* information about what to do next.                  *
*                                                     *
*******************************************************
#
```

The OpenView NNM hierarchy consists of the following:

```
/opt/OV
        /ReleaseNotes
        /bin
        /contrib
        /doc
        /install
        /lib
        /man
        /newconfig
```

Most installations generate some kind of error or warning.

******NOTE******

Do NOT kill the installation process. It could leave the system in a corrupt state.

The installation can take 30-40 minutes. On my test system, it took ~13 minutes.

The initial part of the installation process is an analysis of the system. This is usually where the errors are generated. Obviously, fix the first generated error first.

The Analysis phase also looks at the existing installation. If you need to reinstall, deleting the original installation first is not necessary.

OpenView Update Installation on a Sun

For the Solaris installation, the "FWMap.solaris 2.tar" file is necessary. Download this file to a temp directory.

From the /tmp directory, untar the file FWMap.solaris .tar.

/tmp

#tar –xvf FWMap.solaris.tar

This creates the following files:

CHKPfwmap.pkg
CHKPfwmap.adm
fwmap.txt
fwmapinstall
readme.txt

From **/opt/OV/bin**

#./ovstart

OpenView must be running, but ovw (OpenView Windows) cannot be running. This gives the installation process access to the database files for modification.

From **/tmp**

#./fwmapinstall

This calls the swinstall process and performs the update. The update consists of modifying some of the OpenView database files by verifying and then adding fields specific to Check Point. The swinstall creates a log of the entire installation process in the file:

/var/adm/sw/swagent.log

From **/opt/OV/bin** it is recommended that you stop the OpenView process then restart.

#./ovstop	Stops the OpenView process
#./ovstart	Starts the OpenView process
#./ov.envvars.sh	Sets OpenView environment variables
#./ovw&	Starts OpenView windows or NNM

To configure HP OpenView, please refer to the section **"Configuring OpenView on HP"**

SWAGENT.LOG File – Example #1 HP OpenView Install

This is an example of the swagent.log file that shows a successful HP OpenView installation. The swagent.log file resides in the /var/adm/sw directory.

```
=======  12/30/97 15:11:08 PST  BEGIN install AGENT SESSION (pid=1488)
       (jobid=setup-0001)

     * Agent session started for user "root@mildread". (pid=1488)

     * Beginning Analysis Phase.
     * Source:          mildread:/dev/cdrom/OVDEPOT
     * Target:          mildread:/
     * Target logfile:   mildread:/var/adm/sw/swagent.log
     * Options:
         loglevel               1
         create_target_path       true
         use_alternate_source      false
         mount_all_filesystems     true
         autoreboot              false
         enforce_dsa             true
         install_setup_cmd        /usr/lbin/sw/install_setup
         system_prep_cmd          /usr/lbin/sysadm/system_prep
         system_file_path         /stand/system
         kernel_build_cmd         /usr/sbin/mk_kernel
         kernel_path             /stand/vmunix
         install_cleanup_cmd       /usr/lbin/sw/install_clean
         uncompress_cmd           /usr/contrib/bin/gunzip
         retry_rpc               1

         autorecover_product       false
         reinstall               true
         allow_downdate           false
         allow_multiple_versions    false
         allow_incompatible        false
         enforce_dependencies      true
         enforce_scripts          true
         enforce_kernbld_failure    true
         defer_configure          false

         reinstall_files          true
         reinstall_files_use_cksum  true
         write_remote_files        true
         compress_files           false

     * Reading source for product information.
     * Reading source for file information.
     * Checking mounted filesystems.
     * Checking existing products and filesets.
NOTE:    The fileset "OVLicense.OVLICENSE,r=B.04.11.00" will be
       reinstalled because the "reinstall" option is set to "true".
```

```
NOTE:    The fileset "OVLicenseMan.OVLICENSE-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVSNMPAgent.MASTER,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVSNMPAgent.SUBAGT-HPUNIX,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVSNMPAgent.SUBAGT-MIB2,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVMIN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVWIN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVEVENT-MIN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVSNMP-MIN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVPMD-MIN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVWIN-BGROUND,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatform.OVWIN-BITMAPS,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVNNMgr.OVNNM-RUN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVNNMgr.OVMIB-CONTRIB,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVNNMgrMan.OVNNM-RUN-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatformMan.OVEVENTMIN-MAN,r=B.04.11.00" will
         be reinstalled because the "reinstall" option is set to
         "true".
NOTE:    The fileset "OVPlatformMan.OVMIN-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatformMan.OVPMD-MIN-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVPlatformMan.OVSNMP-MIN-MAN,r=B.04.11.00" will
         be reinstalled because the "reinstall" option is set to
         "true".
NOTE:    The fileset "OVPlatformMan.OVWIN-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
NOTE:    The fileset "OVSNMPAgentMan.AGENT-MAN,r=B.04.11.00" will be
         reinstalled because the "reinstall" option is set to "true".
       * Running any "checkinstall" scripts.
       * Running "checkinstall" script for product "OVPlatform".
       * Running "checkinstall" script for fileset "OVPlatform.OVMIN".
       * Running "checkinstall" script for fileset "OVPlatform.OVWIN".
       * Running "checkinstall" script for fileset
         "OVPlatform.OVEVENT-MIN".
       * Running "checkinstall" script for fileset
         "OVPlatform.OVSNMP-MIN".
       * Running "checkinstall" script for fileset "OVNNMgr.OVNNM-RUN".
       * Checking product and fileset dependencies.
       * Checking disk space requirements.
NOTE:    The used disk space on filesystem "/" is estimated to remain
         unchanged.
         This will leave 34819 Kbytes of available user disk space
```

```
        after the installation.
NOTE:   The used disk space on filesystem "/opt" is estimated to
        increase by 60672 Kbytes.
        This will leave 23310 Kbytes of available user disk space
        after the installation.
NOTE:   The used disk space on filesystem "/var" is estimated to
        decrease by 22 Kbytes.
        This will leave 6198 Kbytes of available user disk space after
        the installation.
NOTE:   The used disk space on filesystem "/usr" is estimated to
        remain unchanged.
        This will leave 105210 Kbytes of available user disk space
        after the installation.
      * Checking bundle version and security restrictions.
NOTE:   The bundle "NNMEngHP10full,r=B.04.11.00" will be reinstalled
        because the "reinstall" option is set to "true".
NOTE:   The bundle "NNMEngHP10man,r=B.04.11.00" will be reinstalled
        because the "reinstall" option is set to "true".
NOTE:   The bundle "OVLicenseSvrHP10,r=B.04.11.00" will be reinstalled
        because the "reinstall" option is set to "true".
      * Checking for orphan bundles.

      * Summary of Analysis Phase:
          Reinstall     NNMEngHP10full,r=B.04.11.00
          Reinstall     NNMEngHP10man,r=B.04.11.00
          Reinstall     OVLicenseSvrHP10,r=B.04.11.00
          Reinstall     OVLicense.OVLICENSE,r=B.04.11.00
          Reinstall     OVLicenseMan.OVLICENSE-MAN,r=B.04.11.00
          Reinstall     OVSNMPAgent.MASTER,r=B.04.11.00
          Reinstall     OVSNMPAgent.SUBAGT-HPUNIX,r=B.04.11.00
          Reinstall     OVSNMPAgent.SUBAGT-MIB2,r=B.04.11.00
          Reinstall     OVPlatform.OVMIN,r=B.04.11.00
          Reinstall     OVPlatform.OVWIN,r=B.04.11.00
          Reinstall     OVPlatform.OVEVENT-MIN,r=B.04.11.00
          Reinstall     OVPlatform.OVSNMP-MIN,r=B.04.11.00
          Reinstall     OVPlatform.OVPMD-MIN,r=B.04.11.00
          Reinstall     OVPlatform.OVWIN-BGROUND,r=B.04.11.00
          Reinstall     OVPlatform.OVWIN-BITMAPS,r=B.04.11.00
          Reinstall     OVNNMgr.OVNNM-RUN,r=B.04.11.00
          Reinstall     OVNNMgr.OVMIB-CONTRIB,r=B.04.11.00
          Reinstall     OVNNMgrMan.OVNNM-RUN-MAN,r=B.04.11.00
          Reinstall     OVPlatformMan.OVEVENTMIN-MAN,r=B.04.11.00
          Reinstall     OVPlatformMan.OVMIN-MAN,r=B.04.11.00
          Reinstall     OVPlatformMan.OVPMD-MIN-MAN,r=B.04.11.00
          Reinstall     OVPlatformMan.OVSNMP-MIN-MAN,r=B.04.11.00
          Reinstall     OVPlatformMan.OVWIN-MAN,r=B.04.11.00
          Reinstall     OVSNMPAgentMan.AGENT-MAN,r=B.04.11.00
      * The Analysis Phase succeeded.


      * Beginning the Install Execution Phase.
      * Filesets:       21
      * Files:          813
      * Kbytes:         63405
      * Installing bundle "NNMEngHP10full,r=B.04.11.00" .
      * Installing bundle "NNMEngHP10man,r=B.04.11.00" .
```

```
    * Installing bundle "OVLicenseSvrHP10,r=B.04.11.00" .
    * Running "preinstall" script for fileset "OVLicense.OVLICENSE".
NOTE:   OV - Killing ovlmd using signal 15, pid = 888
    * Installing fileset "OVLicense.OVLICENSE,r=B.04.11.00" (1 of
      21).
    * Running "postinstall" script for fileset
      "OVLicense.OVLICENSE".
    * Running "preinstall" script for product "OVLicenseMan".
    * Installing fileset "OVLicenseMan.OVLICENSE-MAN,r=B.04.11.00"
      (2 of 21).
    * Running "preinstall" script for fileset "OVSNMPAgent.MASTER".
NOTE:   OV - Killing snmpdm using signal 15, pid = 759
      Removing old fileset /etc/filesets/AGENT-RUN ... done
    * Installing fileset "OVSNMPAgent.MASTER,r=B.04.11.00" (3 of
      21).
    * Running "postinstall" script for fileset "OVSNMPAgent.MASTER".
    * Running "preinstall" script for fileset
      "OVSNMPAgent.SUBAGT-HPUNIX".
    * Installing fileset "OVSNMPAgent.SUBAGT-HPUNIX,r=B.04.11.00" (4
      of 21).
    * Running "postinstall" script for fileset
      "OVSNMPAgent.SUBAGT-HPUNIX".
    * Running "preinstall" script for fileset
      "OVSNMPAgent.SUBAGT-MIB2".
    * Installing fileset "OVSNMPAgent.SUBAGT-MIB2,r=B.04.11.00" (5
      of 21).
    * Running "postinstall" script for fileset
      "OVSNMPAgent.SUBAGT-MIB2".
    * Running "preinstall" script for product "OVPlatform".
      Removing old fileset /etc/filesets/NNM-RUN-MAN ... done
      Removing old fileset /etc/filesets/NNMGR ... done
      Removing old fileset /etc/filesets/OVEVENT-MIN ... done
      Removing old fileset /etc/filesets/OVEVENT-MIN ... done
      Removing old fileset /etc/filesets/OVEVENTMIN-MAN ... done
      Removing old fileset /etc/filesets/OVIC ... done
      Removing old fileset /etc/filesets/OVIPMAP ... done
      Removing old fileset /etc/filesets/OVIPMAP-MAN ... done
      Removing old fileset /etc/filesets/OVMIB-CISCO ... done
      Removing old fileset /etc/filesets/OVMIB-CONTRIB ... done
      Removing old fileset /etc/filesets/OVMIB-HPUX ... done
      Removing old fileset /etc/filesets/OVMIB-HPUX-MAN ... done
      Removing old fileset /etc/filesets/OVMIB-IP ... done
      Removing old fileset /etc/filesets/OVMIB-IP-MAN ... done
      Removing old fileset /etc/filesets/OVMIB-LANTERN ... done
      Removing old fileset /etc/filesets/OVMIB-MIBDEFNS ... done
      Removing old fileset /etc/filesets/OVMIN ... done
      Removing old fileset /etc/filesets/OVMIN-LICENSE ... done
      Removing old fileset /etc/filesets/OVMIN-MAN ... done
      Removing old fileset /etc/filesets/OVNNM-RUN ... done
      Removing old fileset /etc/filesets/OVNNM-RUN-MAN ... done
      Removing old fileset /etc/filesets/OVNNMGR-JPN ... done
      Removing old fileset /etc/filesets/OVNNMHELP-JPN ... done
      Removing old fileset /etc/filesets/OVSNMP-AB ... done
      Removing old fileset /etc/filesets/OVSNMP-APP-MAN ... done
      Removing old fileset /etc/filesets/OVSNMP-DC ... done
      Removing old fileset /etc/filesets/OVSNMP-DC-MAN ... done
```

```
        Removing old fileset /etc/filesets/OVSNMP-EVCONF ... done
        Removing old fileset /etc/filesets/OVSNMP-MIN ... done
        Removing old fileset /etc/filesets/OVSNMP-MIN-MAN ... done
        Removing old fileset /etc/filesets/OVSNMP-RUN ... done
        Removing old fileset /etc/filesets/OVSNMP-RUN-MAN ... done
        Removing old fileset /etc/filesets/OVSNMPGRPHDEMO ... done
        Removing old fileset /etc/filesets/OVWIN ... done
        Removing old fileset /etc/filesets/OVWIN-BGROUND ... done
        Removing old fileset /etc/filesets/OVWIN-BITMAPS ... done
        Removing old fileset /etc/filesets/OVWIN-MAN ... done
        Removing old fileset /etc/filesets/OV_WIN ... done
      * Running "preinstall" script for fileset "OVPlatform.OVMIN".
      * Installing fileset "OVPlatform.OVMIN,r=B.04.11.00" (6 of 21).
      * Running "postinstall" script for fileset "OVPlatform.OVMIN".
      * Running "preinstall" script for fileset "OVPlatform.OVWIN".
      * Installing fileset "OVPlatform.OVWIN,r=B.04.11.00" (7 of 21).
      * Running "postinstall" script for fileset "OVPlatform.OVWIN".
NOTE:   OV - Newer version of /usr/dt/bin/dthelp_ctag1 in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelp_ctag1
NOTE:   OV - Newer version of /usr/dt/bin/dthelp_htag1 in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelp_htag1
NOTE:   OV - Newer version of /usr/dt/bin/dthelp_htag2 in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelp_htag2
NOTE:   OV - Newer version of /usr/dt/bin/dthelpprint in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelpprint
NOTE:   OV - Newer version of /usr/dt/bin/dthelpprint.sh in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelpprint.sh
NOTE:   OV - Newer version of /usr/dt/bin/dthelptag in /opt/OV/newconfig/OVWIN/usr/dt/bin/dthelptag
NOTE:   OV - Newer version of /usr/dt/bin/dthelpview in
/opt/OV/newconfig/OVWIN/usr/dt/bin/dthelpview
NOTE:   OV - Newer version of /usr/dt/config/svc/HP-UX.lcx in
/opt/OV/newconfig/OVWIN/usr/dt/config/svc/HP-UX.lcx
libDtHelp.sl is CDE 1.0 or greater, no need to replace.
Linking /usr/dt/lib/libDtHelp.sl to /opt/OV/lib.
NOTE:   OV - Newer version of /usr/dt/man/man1/dthelp_ctag1.1 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man1/dthelp_ctag1.1
NOTE:   OV - Newer version of /usr/dt/man/man1/dthelp_htag1.1 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man1/dthelp_htag1.1
NOTE:   OV - Newer version of /usr/dt/man/man1/dthelp_htag2.1 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man1/dthelp_htag2.1
NOTE:   OV - Newer version of /usr/dt/man/man1/dthelptag.1 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man1/dthelptag.1
NOTE:   OV - Newer version of /usr/dt/man/man1/dthelpview.1 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man1/dthelpview.1
NOTE:   OV - Newer version of /usr/dt/man/man5/dthelpaction.5 in
/opt/OV/newconfig/OVWIN/usr/dt/man/C/man5/dthelpaction.5
NOTE:   OV - Newer version of /usr/dt/app-defaults/C/Dt in /opt/OV/newconfig/OVWIN/usr/dt/app-
defaults/C/Dt
NOTE:   OV - Newer version of /usr/dt/app-defaults/C/Dthelpprint in
/opt/OV/newconfig/OVWIN/usr/dt/app-defaults/C/Dthelpprint
NOTE:   OV - Newer version of /usr/dt/app-defaults/C/Dthelpview in
/opt/OV/newconfig/OVWIN/usr/dt/app-defaults/C/Dthelpview
NOTE:   OV - Newer version of /usr/dt/appconfig/help/C/Help4Help.sdl in
/opt/OV/newconfig/OVWIN/usr/dt/appconfig/help/C/Help4Help.sdl
NOTE:  /usr/dt/appconfig/help/C/graphics already exists.
    If you do not have CDE installed, you may wish to install
```

```
    the new graphics from /opt/OV/newconfig/OVWIN/C_cdegraphics.tar.Z.
    * Running "preinstall" script for fileset
      "OVPlatform.OVEVENT-MIN".
    * Installing fileset "OVPlatform.OVEVENT-MIN,r=B.04.11.00" (8 of
      21).
    * Running "postinstall" script for fileset
      "OVPlatform.OVEVENT-MIN".
    * Running "preinstall" script for fileset
      "OVPlatform.OVSNMP-MIN".
    * Installing fileset "OVPlatform.OVSNMP-MIN,r=B.04.11.00" (9 of
      21).
    * Running "postinstall" script for fileset
      "OVPlatform.OVSNMP-MIN".
    * Running "preinstall" script for fileset
      "OVPlatform.OVPMD-MIN".
    * Installing fileset "OVPlatform.OVPMD-MIN,r=B.04.11.00" (10 of
      21).
    * Running "postinstall" script for fileset
      "OVPlatform.OVPMD-MIN".
    * Installing fileset "OVPlatform.OVWIN-BGROUND,r=B.04.11.00" (11
      of 21).
    * Running "postinstall" script for fileset
      "OVPlatform.OVWIN-BGROUND".
    * Running "preinstall" script for fileset
      "OVPlatform.OVWIN-BITMAPS".
    * Installing fileset "OVPlatform.OVWIN-BITMAPS,r=B.04.11.00" (12
      of 21).
    * Running "preinstall" script for fileset "OVNNMgr.OVNNM-RUN".
    * Installing fileset "OVNNMgr.OVNNM-RUN,r=B.04.11.00" (13 of
      21).
    * Running "postinstall" script for fileset "OVNNMgr.OVNNM-RUN".
NOTE:   OV - Please read /opt/OV/ReleaseNotes/* for release information
    * Running "preinstall" script for fileset
      "OVNNMgr.OVMIB-CONTRIB".
    * Installing fileset "OVNNMgr.OVMIB-CONTRIB,r=B.04.11.00" (14 of
      21).
    * Running "preinstall" script for product "OVNNMgrMan".
    * Running "preinstall" script for fileset
      "OVNNMgrMan.OVNNM-RUN-MAN".
    * Installing fileset "OVNNMgrMan.OVNNM-RUN-MAN,r=B.04.11.00" (15
      of 21).
    * Running "preinstall" script for product "OVPlatformMan".
    * Running "preinstall" script for fileset
      "OVPlatformMan.OVEVENTMIN-MAN".
    * Installing fileset "OVPlatformMan.OVEVENTMIN-MAN,r=B.04.11.00"
      (16 of 21).
    * Installing fileset "OVPlatformMan.OVMIN-MAN,r=B.04.11.00" (17
      of 21).
    * Running "preinstall" script for fileset
      "OVPlatformMan.OVPMD-MIN-MAN".
    * Installing fileset "OVPlatformMan.OVPMD-MIN-MAN,r=B.04.11.00"
      (18 of 21).
    * Running "preinstall" script for fileset
      "OVPlatformMan.OVSNMP-MIN-MAN".
    * Installing fileset "OVPlatformMan.OVSNMP-MIN-MAN,r=B.04.11.00"
      (19 of 21).
```

```
      * Running "preinstall" script for fileset
        "OVPlatformMan.OVWIN-MAN".
      * Installing fileset "OVPlatformMan.OVWIN-MAN,r=B.04.11.00" (20
        of 21).
      * Running "preinstall" script for product "OVSNMPAgentMan".
      * Running "preinstall" script for fileset
        "OVSNMPAgentMan.AGENT-MAN".
        Removing old fileset /etc/filesets/AGENT-MAN ... done
      * Installing fileset "OVSNMPAgentMan.AGENT-MAN,r=B.04.11.00" (21
        of 21).
      * Running "postinstall" script for fileset
        "OVSNMPAgentMan.AGENT-MAN".
      * Running install clean command /usr/lbin/sw/install_clean.
NOTE:   tlinstall is searching filesystem - please be patient
NOTE:   Successfully completed

      * Beginning the Configure Execution Phase.
      * Running "configure" script for fileset "OVLicense.OVLICENSE".
NOTE:   OV - Starting up the HP OpenView Licensing Daemon
            /opt/OV/bin/ovlmd
      * Running "configure" script for fileset "OVSNMPAgent.MASTER".
NOTE:   OV - Newer version of //etc/SnmpAgent.d/snmpd.conf in
//opt/OV/newconfig/MASTER/snmpd.conf
NOTE:   OV -
            Removing critical SNMP agent files from the SD Installed Products
            Database for this fileset to create the illusion that the files
            were delivered with the operating system.  The files will not be
            removed when this fileset is  swremoved.  They will be removed only
            when the OS supplied Networking.SnmpAgent.MASTER is removed.

NOTE:   OV - Starting /usr/sbin/snmpd on mildread
Start SNMP  Master Network Management daemon
Start SNMP HP-UNIX Network Management subAgent
Start SNMP MIB-2   Network Management subAgent
      * Running "configure" script for fileset
        "OVSNMPAgent.SUBAGT-HPUNIX".
NOTE:   OV -
    Removing critical SNMP agent files from the SD Installed Products
    Database for this fileset to create the illusion that the files
    were delivered with the operating system.  The files will not be
    removed when this fileset is swremoved.  They will be removed only
    when the OS supplied Networking.SnmpAgent.SUBAGT-HPUNIX is removed.

        expected and received connect event, subagent loaded.
      * Running "configure" script for fileset
        "OVSNMPAgent.SUBAGT-MIB2".
NOTE:   OV -
    Removing critical SNMP agent files from the SD Installed Products
    Database for this fileset to create the illusion that the files
    were delivered with the operating system.  The files will not be
    removed when this fileset is swremoved.  They will be removed only
    when the OS supplied Networking.SnmpAgent.SUBAGT-MIB2 is removed.

        expected and received connect event, subagent loaded.
      * Running "configure" script for product "OVPlatform".
      * Running "configure" script for fileset "OVPlatform.OVMIN".
```

```
NOTE:    OpenView subsystems CONFIGURED into nettl and netfmt:
         OVS, OVEXTERNAL
       * Running "configure" script for fileset "OVPlatform.OVWIN".
NOTE:    OV - Configuring ovwdb.
NOTE:    OV - Temporarily starting ovwdb.
NOTE:    OV - loading ovwdb fields.
NOTE:    OV - shutting down ovwdb.
NOTE:    OV - Created default /etc/opt/OV/share/conf/ovwdb.auth file.
NOTE:    OV - Created default /etc/opt/OV/share/conf/ovw.auth file.
       * Running "configure" script for fileset
         "OVPlatform.OVEVENT-MIN".
       * Running "configure" script for fileset
         "OVPlatform.OVSNMP-MIN".
NOTE:    OV - Installing OV SNMP Configuration Database
       * Running "configure" script for fileset "OVPlatform.OVPMD-MIN".
       * Running "configure" script for fileset
         "OVPlatform.OVWIN-BITMAPS".
NOTE:    OV - The bitmap files from OpenView Windows Release 3.X have
         been installed in a compressed tar file format in the file
         /opt/OV/newconfig/OVWIN-BITMAPS/old-bitmaps.tar.Z.
         These bitmaps are no longer required for the operation of
         OpenView Windows, but you may have some third party products
         that depend upon them.  If this is the case, you can restore
         the old bitmap files by running the following command:
            zcat /opt/OV/newconfig/OVWIN-BITMAPS/old-bitmaps.tar.Z |
              ( cd /etc/opt/OV/share/bitmaps/C ; tar -xf - )
         If you know you will not need these files, you may remove
         /opt/OV/newconfig/OVWIN-BITMAPS/old-bitmaps.tar.Z.
       * Running "configure" script for fileset "OVNNMgr.OVNNM-RUN".
NOTE:    OV - Installing full license
NOTE:    OV - Temporarily starting ovwdb.
NOTE:    OV - loading ovwdb fields.
NOTE:    OV - Shutting down ovwdb.
       * Running "configure" script for fileset
         "OVNNMgr.OVMIB-CONTRIB".
NOTE:    OV - See /opt/OV/contrib/NNM/README for contributed applications

       * Beginning the Batch Swmodify Phase
       * Ending the Batch Swmodify Phase


       * Summary of Execution Phase:
           Configured    NNMEngHP10full,r=B.04.11.00
           Configured    NNMEngHP10man,r=B.04.11.00
           Configured    OVLicenseSvrHP10,r=B.04.11.00
           Configured    OVLicense.OVLICENSE,r=B.04.11.00
           Configured    OVLicenseMan.OVLICENSE-MAN,r=B.04.11.00
           Configured    OVSNMPAgent.MASTER,r=B.04.11.00
           Configured    OVSNMPAgent.SUBAGT-HPUNIX,r=B.04.11.00
           Configured    OVSNMPAgent.SUBAGT-MIB2,r=B.04.11.00
           Configured    OVPlatform.OVMIN,r=B.04.11.00
           Configured    OVPlatform.OVWIN,r=B.04.11.00
           Configured    OVPlatform.OVEVENT-MIN,r=B.04.11.00
           Configured    OVPlatform.OVSNMP-MIN,r=B.04.11.00
           Configured    OVPlatform.OVPMD-MIN,r=B.04.11.00
           Configured    OVPlatform.OVWIN-BGROUND,r=B.04.11.00
```

```
        Configured    OVPlatform.OVWIN-BITMAPS,r=B.04.11.00
        Configured    OVNNMgr.OVNNM-RUN,r=B.04.11.00
        Configured    OVNNMgr.OVMIB-CONTRIB,r=B.04.11.00
        Configured    OVNNMgrMan.OVNNM-RUN-MAN,r=B.04.11.00
        Configured    OVPlatformMan.OVEVENTMIN-MAN,r=B.04.11.00
        Configured    OVPlatformMan.OVMIN-MAN,r=B.04.11.00
        Configured    OVPlatformMan.OVPMD-MIN-MAN,r=B.04.11.00
        Configured    OVPlatformMan.OVSNMP-MIN-MAN,r=B.04.11.00
        Configured    OVPlatformMan.OVWIN-MAN,r=B.04.11.00
        Configured    OVSNMPAgentMan.AGENT-MAN,r=B.04.11.00
    * The Execution Phase succeeded.

    * Removing product information used for analysis.

======= 12/30/97 15:20:55 PST  END install AGENT SESSION (pid=1488)
      (jobid=setup-0001)
```

SWAGENT.LOG File – Example #2 Patch Update

This is an example of the swagent.log file that shows a successful update installation. The swagent.log file resides in the /var/adm/sw directory.

```
=======  12/30/97 15:33:21 PST  BEGIN install AGENT SESSION (pid=4761)
       (jobid=mildread-0020)

     * Agent session started for user "root@mildread". (pid=4761)

     * Beginning Analysis Phase.
     * Source:          mildread:/temp/FWMap.depot
     * Target:          mildread:/
     * Target logfile:   mildread:/var/adm/sw/swagent.log
     * Reading source for product information.
     * Reading source for file information.
NOTE:    The fileset "FWMap.FWMAP-RUN,r=1.0" will be reinstalled
       because the "reinstall" option is set to "true".
     * Executing preDSA command.
NOTE:    The used disk space on filesystem "/" is estimated to increase
       by 19 Kbytes.
       This will leave 35332 Kbytes of available user disk space
       after the installation.
NOTE:    The used disk space on filesystem "/opt" is estimated to
       increase by 151 Kbytes.
       This will leave 27659 Kbytes of available user disk space
       after the installation.
NOTE:    The used disk space on filesystem "/var" is estimated to
       decrease by 1 Kbytes.
       This will leave 5890 Kbytes of available user disk space after
       the installation.

     * Summary of Analysis Phase:
     * 1 of 1 filesets had no Errors or Warnings.
     * The Analysis Phase succeeded.


     * Beginning the Install Execution Phase.
     * Filesets:        1
     * Files:          28
     * Kbytes:         173
     * Installing fileset "FWMap.FWMAP-RUN,r=1.0" (1 of 1).
     * Running install clean command /usr/lbin/sw/install_clean.
NOTE:    tlinstall is searching filesystem - please be patient
NOTE:    Successfully completed

     * Beginning the Configure Execution Phase.
/etc/opt/OV/share/fields/C/ovw_fields: Verified Enumeration field "vendor"
  Verified enumeration value "Unset" (0)
  Verified enumeration value "Hewlett-Packard" (1)
```

Verified enumeration value "HP/Apollo" (2)
Verified enumeration value "3Com" (3)
Verified enumeration value "ACC" (4)
Verified enumeration value "Allied Telesyn" (5)
Verified enumeration value "Axon Networks" (6)
Verified enumeration value "Cayman" (7)
Verified enumeration value "cisco Systems" (8)
Verified enumeration value "CMC" (9)
Verified enumeration value "Data General" (10)
Verified enumeration value "DEC" (11)
Verified enumeration value "Emulex" (12)
Verified enumeration value "Fibronics" (13)
Verified enumeration value "Hughes" (14)
Verified enumeration value "IBM" (15)
Verified enumeration value "Interactive/Lachman" (16)
Verified enumeration value "Micro Technology" (17)
Verified enumeration value "MIPS" (18)
Verified enumeration value "Mitsubishi Electric" (19)
Verified enumeration value "NCR" (20)
Verified enumeration value "NetWare" (21)
Verified enumeration value "Novell" (22)
Verified enumeration value "NRC" (23)
Verified enumeration value "SGI" (24)
Verified enumeration value "Sun" (25)
Verified enumeration value "SynOptics" (26)
Verified enumeration value "Ungermann-Bass" (27)
Verified enumeration value "Wellfleet" (28)
Verified enumeration value "XLNT" (29)
Verified enumeration value "Xyplex" (30)
/etc/opt/OV/share/fields/C/ovw_fields: Verified String field "Selection Name"
/etc/opt/OV/share/fields/C/ovw_fields: Verified String field "IP Hostname"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isLocation"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isNetwork"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isInternet"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isBusSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isStarSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isTokenRingSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isFDDIRingSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isSerialSegment"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isNode"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isDevice"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isComputer"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isConnector"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isBridge"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isRouter"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isHub"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isRepeater"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isPC"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isWorkstation"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isMini"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isMainFrame"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isPrinter"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isAnalyzer"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isConnection"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isCard"

/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isInterface"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isStarInterface"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isThinInterface"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isThickInterface"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isSerialInterface"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isClient"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isServer"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isSoftware"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Integer field "OVW Maps Exists"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Integer field "OVW Maps Managed"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "OVW isMetaConn"
/etc/opt/OV/share/fields/C/ovw_fields: Verified Boolean field "isIP"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IP Address"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IP Subnet Mask"
/etc/opt/OV/share/fields/C/ip_fields: Verified Enumeration field "IP Status"
  Verified enumeration value "Unset" (0)
  Verified enumeration value "Unknown" (1)
  Verified enumeration value "Normal" (2)
  Verified enumeration value "Marginal" (3)
  Verified enumeration value "Critical" (4)
  Verified enumeration value "Unmanaged" (5)
  Verified enumeration value "Warning" (6)
  Verified enumeration value "Major" (7)
  Verified enumeration value "Restricted" (8)
  Verified enumeration value "Testing" (9)
  Verified enumeration value "Disabled" (10)
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IP Network Name"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IP Segment Name"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "isIPRouter"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "IPMap Enabled"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "Fast Lines"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "Status On"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "Status to Lines"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "Node IP Status"
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "IPMap App Config IV Switch"
/etc/opt/OV/share/fields/C/ip_fields: Verified Integer field "IPMap Map Close Time"
/etc/opt/OV/share/fields/C/ip_fields: Verified Enumeration field "IPMap Demand Level"
  Verified enumeration value "All Levels" (1)
  Verified enumeration value "Segment Level and Higher" (2)
  Verified enumeration value "Network Level and Higher" (3)
  Verified enumeration value "Internet Level" (4)
/etc/opt/OV/share/fields/C/ip_fields: Verified Boolean field "IPMap Apply Filters"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Map Filter 1"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Map Filter 2"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Map Filter 3"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Map Filter 4"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Map Filter 5"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Persistence Filter 1"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Persistence Filter 2"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Persistence Filter 3"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Persistence Filter 4"
/etc/opt/OV/share/fields/C/ip_fields: Verified String field "IPMap Persistence Filter 5"
/etc/opt/OV/share/fields/C/ip_fields: Verified Integer field "IPMap Version"
/etc/opt/OV/share/fields/C/snmp_fields: Verified Boolean field "isSNMPSupported"
/etc/opt/OV/share/fields/C/snmp_fields: Verified Boolean field "isSNMPProxied"
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP sysDescr"

/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP sysLocation"
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP sysContact"
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP sysObjectID"
/etc/opt/OV/share/fields/C/snmp_fields: Verified Enumeration field "SNMPAgent"
Verified enumeration value "Unset" (0)
Verified enumeration value "HP 3000/XL" (1)
Verified enumeration value "HP 386" (2)
Verified enumeration value "HP 700/[R]X X-Terminal" (3)
Verified enumeration value "HP 9000/HP-UX" (4)
Verified enumeration value "HP Bridge" (5)
Verified enumeration value "HP DTC" (6)
Verified enumeration value "HP Hub" (7)
Verified enumeration value "HP LanProbe" (8)
Verified enumeration value "HP LanProbe I" (9)
Verified enumeration value "HP LanProbe II" (10)
Verified enumeration value "HP LanProbe II+" (11)
Verified enumeration value "HP TR LanProbe" (12)
Verified enumeration value "HP EASE Traffic Probe" (13)
Verified enumeration value "HP Modem" (14)
Verified enumeration value "HP Network Printer" (15)
Verified enumeration value "HP Network Plotter" (16)
Verified enumeration value "HP Packet Switch" (17)
Verified enumeration value "HP Router" (18)
Verified enumeration value "HP SunOS Sparc" (19)
Verified enumeration value "HP Solaris Sparc" (20)
Verified enumeration value "HP/Apollo Domain/OS" (21)
Verified enumeration value "3Com 10BTi" (22)
Verified enumeration value "3Com AB" (23)
Verified enumeration value "3Com CELLplex 7000" (24)
Verified enumeration value "3Com ECS" (25)
Verified enumeration value "3Com ECS-L-Bridge" (26)
Verified enumeration value "3Com ECS-R-Bridge" (27)
Verified enumeration value "3Com FDDI-Workgroup" (28)
Verified enumeration value "3Com FMS" (29)
Verified enumeration value "3Com FMS-Bridge" (30)
Verified enumeration value "3Com FMS-II" (31)
Verified enumeration value "3Com FMS-TP8i" (32)
Verified enumeration value "3Com LinkConverter" (33)
Verified enumeration value "3Com LinkSwitch" (34)
Verified enumeration value "3Com LinkSwitch 500" (35)
Verified enumeration value "3Com LinkSwitch1000" (36)
Verified enumeration value "3Com LinkSwitch 2700" (37)
Verified enumeration value "3Com MSH" (38)
Verified enumeration value "3Com MSH-4-Bridge" (39)
Verified enumeration value "3Com MSH-FDDI" (40)
Verified enumeration value "3Com MSH-LinkSwitch" (41)
Verified enumeration value "3Com MSH-TR-Bridge" (42)
Verified enumeration value "3Com NB" (43)
Verified enumeration value "ACC 4140 Bridge/Router" (44)
Verified enumeration value "ATI" (45)
Verified enumeration value "Cayman GatorSystem" (46)
Verified enumeration value "cisco Gateway Server" (47)
Verified enumeration value "cisco Terminal Server" (48)
Verified enumeration value "cisco T-Router" (49)
Verified enumeration value "cisco Protocol Translator" (50)
Verified enumeration value "CMC" (51)

Verified enumeration value "DECstation" (52)
Verified enumeration value "DG Aviion" (53)
Verified enumeration value "Emulex Performance 3000TL" (54)
Verified enumeration value "Fibronics FDDI-Ethernet Router" (55)
Verified enumeration value "FMS-TR-Advanced" (56)
Verified enumeration value "FMS-TR-RMON" (57)
Verified enumeration value "FOCUS-TR" (58)
Verified enumeration value "FOCUS-TR-ENET" (59)
Verified enumeration value "Hughes LAN Systems Bridge" (60)
Verified enumeration value "IBM RS/6000" (61)
Verified enumeration value "Interactive/Lachman System V/386" (62)
Verified enumeration value "LANplex2016" (63)
Verified enumeration value "LANplex2500" (64)
Verified enumeration value "LANplex5004" (65)
Verified enumeration value "LANplex5012" (66)
Verified enumeration value "LANplex6004r4" (67)
Verified enumeration value "LANplex6004r4" (67)
Verified enumeration value "LANplex6012r4" (68)
Verified enumeration value "LANplex6012r4" (68)
Verified enumeration value "LANServant Ethernet" (69)
Verified enumeration value "LANServant Token Ring" (70)
Verified enumeration value "LinkBuilder3GH" (71)
Verified enumeration value "LinkSwitch2200" (72)
Verified enumeration value "MELNET R2000" (73)
Verified enumeration value "MIPS" (74)
Verified enumeration value "MT LANCE/NMS agent" (75)
Verified enumeration value "NCR Tower" (76)
Verified enumeration value "Netware 386 TCP/IP" (77)
Verified enumeration value "Novell Lantern" (78)
Verified enumeration value "NRC Fusion Xenix agent" (79)
Verified enumeration value "Process Software Corp. VMS agent" (80)
Verified enumeration value "SGI Iris" (81)
Verified enumeration value "Sun Microsystems PC-NFS" (82)
Verified enumeration value "Sun Microsystems SunOS" (83)
Verified enumeration value "SynOptics Bridge/Hub" (84)
Verified enumeration value "TRi-I" (85)
Verified enumeration value "TRi-II" (86)
Verified enumeration value "UB Access/1 Hub" (87)
Verified enumeration value "Wellfleet IP Router" (88)
Verified enumeration value "Wellfleet Sun 3 agent" (89)
Verified enumeration value "Windows NT" (90)
Verified enumeration value "XLNT Generic" (91)
Verified enumeration value "XLNT QuickEther-8 switch" (92)
Verified enumeration value "XLNT QuickEther-16 switch" (93)
Verified enumeration value "XLNT QuickFDDI+ switch" (94)
Verified enumeration value "XLNT QuickFDDI+8 switch" (95)
Verified enumeration value "Xyplex Terminal Server" (96)
Verified enumeration value "Xyplex Remote Ethernet Bridge" (97)
Verified enumeration value "4BSD ISODE" (98)
/etc/opt/OV/share/fields/C/snmp_fields: Verified Enumeration field "SNMP ifType"
Verified enumeration value "Unset" (0)
Verified enumeration value "Other" (1)
Verified enumeration value "Regular 1822" (2)
Verified enumeration value "HDH 1822" (3)
Verified enumeration value "DDN X.25" (4)
Verified enumeration value "RFC 877 X.25" (5)

Verified enumeration value "Ethernet CSMACD" (6)
Verified enumeration value "IEEE 802.3 CSMACD" (7)
Verified enumeration value "IEEE 802.4 Token Bus" (8)
Verified enumeration value "IEEE 802.5 Token Ring" (9)
Verified enumeration value "ISO 88026 Man" (10)
Verified enumeration value "Star Lan" (11)
Verified enumeration value "Proteon 10 MBit" (12)
Verified enumeration value "Proteon 80 MBit" (13)
Verified enumeration value "Hyperchannel" (14)
Verified enumeration value "FDDI" (15)
Verified enumeration value "LAPB" (16)
Verified enumeration value "SDLC" (17)
Verified enumeration value "T-1 Carrier (ds1)" (18)
Verified enumeration value "CEPT (e1)" (19)
Verified enumeration value "Basic ISDN" (20)
Verified enumeration value "Primary ISDN" (21)
Verified enumeration value "Point to Point Serial" (22)
Verified enumeration value "Point to Point (ppp)" (23)
Verified enumeration value "Software Loopback" (24)
Verified enumeration value "EON (CLNP over IP)" (25)
Verified enumeration value "3 MBit Ethernet" (26)
Verified enumeration value "NSIP (XNS over IP)" (27)
Verified enumeration value "SLIP (Serial Line IP)" (28)
Verified enumeration value "Ultra" (29)
Verified enumeration value "T-3 Carrier (ds3)" (30)
Verified enumeration value "SIP (SMDS)" (31)
Verified enumeration value "Frame Relay" (32)
Verified enumeration value "RS-232" (33)
Verified enumeration value "Parallel Port" (34)
Verified enumeration value "ArcNet" (35)
Verified enumeration value "ArcNet Plus" (36)
Verified enumeration value "ATM" (37)
Verified enumeration value "MIOX25" (38)
Verified enumeration value "SONET" (39)
Verified enumeration value "X25PLE" (40)
Verified enumeration value "ISO 88022 LLC" (41)
Verified enumeration value "LocalTalk" (42)
Verified enumeration value "SMDS DXI" (43)
Verified enumeration value "Frame Relay Service" (44)
Verified enumeration value "V35" (45)
Verified enumeration value "HSSI" (46)
Verified enumeration value "HIPPI" (47)
Verified enumeration value "Modem" (48)
Verified enumeration value "AAL5" (49)
Verified enumeration value "Sonet Path" (50)
Verified enumeration value "Sonet VT" (51)
Verified enumeration value "SMDS ICIP" (52)
Verified enumeration value "Prop Virtual" (53)
Verified enumeration value "Prop Multiplexor" (54)
Verified enumeration value "100BaseVG" (55)
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP ifPhysAddr"
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP ifDescr"
/etc/opt/OV/share/fields/C/snmp_fields: Verified String field "SNMP ifName"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Station Count"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Network Count"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Segment Count"

```
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Node Count"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Interface Count"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Gateway Count"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Network ID"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Segment ID"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Node ID"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Default Seg ID"
/etc/opt/OV/share/fields/C/topm_fields: Verified String field "TopM Interface List"
/etc/opt/OV/share/fields/C/topm_fields: Verified Boolean field "isMcClusterMember"
/etc/opt/OV/share/fields/C/topm_fields: Verified Boolean field "isCollectionStationNode"
/etc/opt/OV/share/fields/C/topm_fields: Verified String field "TopM Station Name"
/etc/opt/OV/share/fields/C/topm_fields: Verified Enumeration field "TopM Station Type"
  Verified enumeration value "Unset" (0)
  Verified enumeration value "OV Network Node Manager" (1)
  Verified enumeration value "OV Node Manager For Workgroups" (2)
/etc/opt/OV/share/fields/C/topm_fields: Verified String field "TopM Station Description"
/etc/opt/OV/share/fields/C/topm_fields: Verified Enumeration field "TopM Overlap Mode"
  Verified enumeration value "Allow Overlap" (1)
  Verified enumeration value "Delete Secondary" (2)
  Verified enumeration value "Unmanage Secondary" (3)
/etc/opt/OV/share/fields/C/topm_fields: Verified String field "TopM Status Interval"
/etc/opt/OV/share/fields/C/topm_fields: Verified Boolean field "isCollectionStation"
/etc/opt/OV/share/fields/C/topm_fields: Verified Boolean field "isLocalStation"
/etc/opt/OV/share/fields/C/topm_fields: Verified String field "TopM License Expiration"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Licensed Nodes"
/etc/opt/OV/share/fields/C/topm_fields: Verified Integer field "TopM Managed Nodes"
/etc/opt/OV/share/fields/C/checkpoint_fields: Verified Enumeration field "SNMPAgent"
  Verified enumeration value "Unset" (0)
  Verified enumeration value "FireWall-1" (99)
/etc/opt/OV/share/fields/C/checkpoint_fields: Verified Enumeration field "vendor"
  Verified enumeration value "Unset" (0)
  Verified enumeration value "Check Point" (31)
/etc/opt/OV/share/fields/C/firewall_fields: Verified Enumeration field "fwType"
  Verified enumeration value "None" (1)
  Verified enumeration value "Firewall" (2)
  Verified enumeration value "Manager" (3)
  Verified enumeration value "Managed FireWall" (4)
/etc/opt/OV/share/fields/C/firewall_fields: Verified Boolean field "isFirewall"
/etc/opt/OV/share/fields/C/firewall_fields: Verified Boolean field "isFwManager"
/etc/opt/OV/share/fields/C/firewall_fields: Verified String field "fwManager"
/etc/opt/OV/share/fields/C/firewall_fields: Verified String field "savedSymbol"
WARNING: No nodes found with sysObjectId = .1.3.6.1.4.1.2620.1.1

    * Beginning the Batch Swmodify Phase
    * Ending the Batch Swmodify Phase


    * Summary of Execution Phase:
    * 1 of 1 filesets had no Errors or Warnings.
    * The Execution Phase succeeded.


=======  12/30/97 15:34:06 PST  END install AGENT SESSION (pid=4761)
      (jobid=mildread-0020)
```