



APPENDIX **B**

Troubleshooting the Cisco PVM Installation

This appendix describes errors you might receive during a Cisco PVM installation. It lists probable causes and troubleshooting you can use to resolve them.



Note

For more information on specific Cisco PVM error messages and general troubleshooting, see the *Cisco Performance Visibility Manager Troubleshooting Guide*.

Installation Errors

If you encounter errors during the installation process, any of the following situations might have occurred:

- Your system has not met all of the prerequisites for installation. If errors occur, you should first determine whether your system configuration meets the conditions described in Chapter 2, “Installation Requirements”.
- Your system does not have 32-bit architecture.
- Your system does not have enough RAM.
- Your system has a previous installation of PVM running.
- You do not have proper write permissions for all of the installation directories.
- Your system does not have enough disk space allocated to the installation directory.
- Your system does not have enough disk space allocated to the data directory.

[Table B-1](#) describes the causes and solutions for installation errors.

Table B-1 Cisco PVM Installation Error Messages

| Error | Reason | Solution |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Application server configuration [file location] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Cisco PVM application processes and/or Cisco PVM IPC resources detected | Cisco PVM processes are found to be running or the memory is still in use. | Shut down Cisco PVM, ensure that all processes are shut down, and try again. |
| Cisco PVM database processes detected | Cisco PVM database processes are found to be running during installation. | Shutdown all Cisco PVM processes and re-try the installation. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Component [component name] failed, package file [file] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Conflicting system environment variable detected for applets | Unable to complete set-up of Java applets due to a conflict with the system environment variables | A conflicting system environment variable, JAVA_HOME (\$JAVA_HOME) was detected. Unset this variable and try again. |
| Conflicting system environment variable detected for SOA | Unable to complete set-up of JBOSS SOA due to a conflict with the system environment variables. | A conflicting system environment variable, JBOSS_HOME (\$JBOSS_HOME) was detected. Unset this variable and try again. |
| Conflicting system environment variable detected for the database | Unable to complete set-up of the Oracle database due to a conflict with the system variables. | A conflicting system environment variable, ORACLE_HOME (\$ORACLE_HOME) was detected. Unset the variable and try again. |
| Could not locate kernel parameters | Could not locate /proc/cmdline on system. | Verify the OS installation and try again. |
| Could not locate memory usage information | Unable to locate /proc/meminfo on system. | Verify the OS installation and try again. |
| Database environment file [directory] /DBenv not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Database environment file [list file] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to configure report server script | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to configure the management console | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to create directory | Unable to create needed directories. | Check the file system configuration and the path and try again. |
| Failed to create directory [directory] | Cisco PVM supports two special characters in specified directory names: "-" and "_". All other special characters normally supported by Linux Naming Conventions are not supported. | Confirm that the specified directory name is valid, check that the file system configuration is correct, and try again. |
| Failed to extract report package(s) under [directory] /Actuate | Cisco PVM install errors were encountered. | Verify directory access permission/space and try again. Refer to the installation log for details. |
| Failed to extract the report package [package] | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to extract the report package; [list package] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to get a valid host/domain name in both short and FQDN formats | An invalid host or domain name was detected. | Configure a valid host/domain name and re-try the installation. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Failed to install report active portal components | Cisco PVM install errors were encountered | Refer to the installation log for details. |
| Failed to install report integration and/or report server components | Cisco PVM install errors were encountered | Refer to the installation log for details. |
| Failed to install report server | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to install report server as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify that the pvmadm user configuration and group assignment are correct and try again. |
| Failed to install report server components | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failed to run database installation as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify that the pvmadm user configuration and group assignment are correct and try again. |
| Failed to set [permission] permission | File access permissions or file system configuration is incorrect. | Check that the file system access permissions (write access) are correct and try again. |
| Failed to set database listener password as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify that the pvmadm user configuration and group assignment are correct and try again. |
| Failed to set directory [directory] ownership | Specified installation directory is invalid or configured improperly. | Check that the file system configuration is correct and try again. |
| Failed to set directory ownership | Unable to establish directory ownership due to invalid or incorrect permissions. | Check the file system configuration and the file system access permissions, then try again. |
| Failed to verify a consistent host name with /proc/sys/kernel/hostname | An invalid host or domain name was detected. | Configure a valid host/domain name and re-try the installation. |
| Failed to verify report package installation | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Failure to set system access permissions | Write access permissions were not set for the system. | Check the file system configuration and the file system access permissions and try again. |
| Inconsistent host name | Operation failed to verify a consistent host name with /proc/sys/kernel/hostname. | Configure a valid host name and try again. |
| Incorrect or default host name | The configured host name is invalid or set to the default (localhost.localdomain) value. | Configure a valid host name and try again. |
| Incorrect OS Version | An attempt to install Cisco PVM on an unsupported OS or OS version. | Install Cisco PVM on a server that is running Red Hat Linux Enterprise Version 3 (update 8 or higher) up to Red Hat Linux Enterprise Version 4 (inclusive). |
| Installation archive directory [directory] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Installation archive directory [list directory] not found | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Installation cannot proceed due to existing artifacts | Existing Cisco PVM artifacts on the system are preventing the installation from continuing. | Uninstall/clean-up the existing installation and try again. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Installation log file [log location] not found | Cisco PVM install errors were encountered. | Consider reinstalling PVM |
| Insufficient memory | Cisco PVM requires at least 2 GB of system memory for installation. | Upgrade the memory capacity and try again. |
| Invalid data storage directory | An invalid Cisco PVM data storage directory was specified. | Use the default /opt/CSCOpvm/oradata directory or enter the correct directory path at the data storage directory prompt. |
| Invalid default shell | Application user and/or database user should have bash/ksh/sh as its default shell. | Configure the user's default shell and try again. |
| Invalid host name [host name] | An invalid host or domain name was detected. | Configure a valid host/domain name and re-try the installation. |
| Invalid host/domain name | The operation failed to get a valid host/domain name in both short and FQDN formats. | Configure a valid host/domain name and try again. |
| Invalid installation directory | An invalid Cisco PVM installation directory (such as a directory on the DVD or on the network with no write permission) was specified. | Use the default /opt/CSCOpvm or /opt/CSCOpvm/oracle directory or enter the correct directory path at the installation directory prompt. |
| Invalid installation directory (symbolic link) | The installation directory [list directory name] is a symbolic link that refers to a nonexistent directory/file. | Specify a valid directory/link by correcting the installation target and try again. |
| Invalid installation directory [directory] | Specified installation directory is invalid. Directory names may include alphanumeric characters, underscores, and dashes. Spaces and other special characters are considered invalid. | Ensure that the installation target is correct and re-try the installation. |
| Invalid OS | An attempt to install Cisco PVM on an unsupported system architecture. | Ensure that the server is installed with the 32-bit version of the Linux operating system and try again. |
| Invalid path name and/or invalid directory path name | Path naming schema [installation path name]and/or directory path name [installation path name] is invalid for installation. | Verify that the path name is an absolute path and that the path name has no trailing slashes and try again. |
| Invalid path naming [referenced directory path] that the symbolic link [directory path] refers for installation | Specified installation directory is an invalid path. | Verify that the installation path is correct and try again. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Invalid symbolic link [directory path] refers to another symbolic link [referenced directory path] | Specified installation directory is an invalid path. | Verify that the installation path is correct and try again. The installer supports one level of symbolic links in the directory specifications. For example, installing in /opt/CSCOpvm where /opt/CSCOpvm links to /net/pvm and /net/pvm links to /mount/san1/pvm is not allowed. However, linking to /net/pvm where /net/pvm is an actual directory is allowed. |
| Java 2 SDK keytool not found | The installer could not find the SSL keytool. | Check the system configuration and install the necessary packages. |
| Linux rpm tool is not installed | The Linux rpm tool is not installed on the system. | Install the required OS packages and try again. |
| More than one Cisco PVM installation/uninstallation process [process name] exists | Cisco PVM processes are found to be running or memory is still in use. | Ensure that all installation/uninstallation processes are completed or terminated and try again. |
| Not enough free disk space | Insufficient disk space in the Cisco PVM installation directory. | Free up 4 GB in the PVM installation directory, 4 GB in the Oracle installation directory, 70 GB in the Oracle data installation directory, and 1 GB in the /tmp directory and repeat the installation process. |
| OLAP Database installation failed. | The installer encountered database installation errors. | Refer to the installation log for details. |
| OLTP installation failed. | The installer encountered database installation errors. | Refer to the installation log for details. |
| Other RPM packages (ciscopvm-*) detected | Existing Cisco PVM RPM packages were found by the installer. | Uninstall the existing RPM packages and re-try the installation. |
| Path name length is invalid | The path name exceeds the 128 character maximum. | Verify that the path name consists of 128 characters or less and try again. |
| Report server has not started | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| System boot switches not detected | The \“noexec=off”\ and \“apic”\ boot switches were not detected in /proc/cmdline. | Configure the boot switches, reboot, and try again. |
| The following Cisco PVM application processes are still running | Cisco PVM application processes are found to be running. | Shut down all processes and re-try the installation. |
| The following Cisco PVM database processes are still running | Cisco PVM database processes are found to be running. | Shut down all processes and re-try the installation. |
| The following Cisco PVM message queues are still in use by the user pvmadm | Cisco PVM processes are found to be running or the memory is still in use. | Shut down all processes and re-try the installation. |
| The following Cisco PVM semaphore arrays are still in use by user pvmadm | Cisco PVM processes are found to be running or memory is still in use. | Shut down all processes and re-try the installation. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The following shared memory segments are still in use by pvmadm | Cisco PVM processes are found to be running or memory is still in use. | Shut down all processes and re-try the installation. |
| The kernel version is not supported | Cisco PVM supports kernel versions 2.4.21-20 and higher. | Ensure that kernel versions 2.4.21-20 or higher are on the system and try again. |
| The specified installation locations for the Cisco PVM application and its database server and/or database data overlap or conflict | The specified installation directory is an invalid path. | Correct the installation target and try again. Cisco PVM supports two special characters in specified directory names: “-” and “_”. All other special characters normally supported by Linux Naming Conventions are not supported. |
| The UDP and TCP ports are closed | Cisco PVM requires that UDP ports 161 and 162, and TCP ports 1521, 800, 8100, 8443, 8700, and 8900 are available and open for proper application function. | Verify that UDP ports 161 and 162 and TCP ports 1521, 8000, 8100, 8443, 8700, and 8900 are available and open and try again. |
| Unable to create user | Unable to create OS user . | Be sure to create the user first, then try again. |
| Unable to install report server as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify that the pvmadm user configuration and group assignment are correct and try again. |
| Unable to install the report packages | Cisco PVM install errors were encountered. | Refer to the installation log for details. |
| Unable to locate database query tool | Unable to locate the administrative database query tool (getent). | Install the requires OS packages and try again. |
| Unable to locate file archive program | Operation unable to locate the file archiving program (tar). | Install the required OS packages and try again. |
| Unable to locate Korn shell | Operation failed to locate the Korn (ksh) shell environment on the system. | Install the required OS packages and try again. |
| Unable to perform uninstall under login | Only “root” user can perform a Cisco PVM uninstall/install. | Login as root and try again. |
| Unable to run database installation as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify that the pvmadm user configuration and group assignment are correct and try again. |
| Unable to ser database listener password as user pvmadm | OS user configuration for the pvmadm user may be incorrect. | Verify taht the pvmadm user configuration and group assignment are correct and try again. |
| Unable to set /tmp directory permissions and/or the /tmp directory is missing | Operation was unable to set permissions on the /tmp directory or was unable to locate the /tmp directory. | Configure the /tmp directory permissions or verify that the /tmp directory is configured properly and try again. |
| WARNING: [home directory location] does not exist for creating pvmadm’s home directory | The default home directory location does not exist. | Create pvmadm’s directory manually. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| WARNING: Existing Oracle database client and/or server installation detected | An existing Oracle installation was detected on the target PVM server. Cisco PVM will install an embedded Oracle database server that might conflict with the existing Oracle installation and fail to function properly. | Consider remove the existing Oracle installation and re-trying the installation. |
| WARNING: Failed to add Cisco PVM system runlevel configuration for applications | Unable to add runlevel configuration for Cisco PVM. | Check your system configuration and try again. |
| WARNING: Failed to verify report server installation | Deployed PVM RPM packages could not be verified. | Check the report installation logs [directory] /logs for details and consider reinstalling PVM. |
| WARNING: Failed to add Cisco PVM system runlevel configuration for Oracle database server and/or applications | Install script was unable to configure autostart properties. | Consider reinstalling PVM. |
| WARNING: Failed to add Cisco PVM system runlevel configuration for the Oracle database server | Unable to add runlevel configuration for Oracle. | Check your system configuration and try again. |
| WARNING: Failed to create pvmdm's home directory at [home directory/pvmdm] | Unable to create the pvmdm user's home directory. This will not affect Cisco PVM installation and product functions, but will need to be configured post-installation. | Create pvmdm's home directory manually after the installation. |
| WARNING: Failed to generate the default security key and certificate | Install script was unable to generate SSL certificate. | Consider generating the key manually or reinstalling PVM. |
| WARNING: Failed to remove cron jobs | Install script was unable to remove scheduled PVM cron jobs. | Consider removing the jobs manually. |
| WARNING: Failed to remove runlevel configuration /etc/init.d/pvmd and/or /etc/init.d/dbora | Install script was unable to deconfigure autostart properties. | Consider removing the configuration manually. |
| WARNING: Failed to remove the old installation registry file [installation status file] | Unable to update PVM's RPM installation. | Check the file system configuration and RPM database. |
| WARNING: Failed to set ownership of pvmdm's home directory at [home directory/pvmdm] | Unable to set the ownership for the pvmdm user's home directory. This will not affect Cisco PVM installation and product functions, but will need to be configured post-installation. | Configure pvmdm's home directory manually after the installation. |
| WARNING: Failed to verify report integration components | Deployed PVM RPM packages could not be verified. | Check the report installation logs [directory] /logs for details and consider reinstalling PVM. |

Table B-1 Cisco PVM Installation Error Messages (continued)

| Error | Reason | Solution |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| WARNING: Failed to verify report server active portal installation | Deployed PVM RPM packages could not be verified. | Check the report installation logs [directory] /logs for details and consider reinstalling PVM. |
| WARNING: Failed to verify runlevel configuration for pvmd | Unable to verify runlevel configuration. | Check your system configuration and try again. |
| WARNING: Failed to write Ciscp PVM registry file at [installation status file] | Unable to register PVM's RPM installation. | Check the file system configuration and RPM database. Consider reinstalling PVM. |
| WARNING: Report server or active portal startup timeout. | Install script was unable to start the report server to deploy report templates. | Consider reinstalling PVM. |
| WARNING: Some of Cisco PVM's processes are still running... | Indicates that Cisco PVM is still running (from a previous installation). | Stop Cisco PVM, stop the processes, and repeat the installation. |
| WARNING: Unable to kill [list process ids] - this may cause problems | Existing Cisco PVM processes were found running. | Manually stop these processes and re-try the installation. |
| Xvfb is not installed | The X -Window Virtual Frame Buffer (Xvfb) package is not installed on the system. | Install the required OS packages and try again. |

Table B-2 describes the progress/informational messages shown during installation.

Table B-2 Installation Progress Messages

| Message/Detail |
|--------------------------------------------------------------|
| ...no Cisco PVM installation found. |
| Check system information and configuration... |
| Cisco PVM installation log is available at [log location]. |
| Cisco PVM system sudoers updated. |
| Cisco PVM uninstallation log is available at [log location]. |
| Configuring Cisco PVM system runlevel information... |
| Configuring listener for Oracle database server... |
| Configuring OLAP jobs... |
| Installation of Cisco PVM aborted at [date]. |
| Installation of Cisco PVM completed at [date]. |
| Installation Report Active Portal... |
| Installing [component]... |
| Installing Ciscp PVM RPM packages... |
| Installing Management Console Configuration... |
| Installing OLAP database... |

Table B-2 *Installation Progress Messages*

| Message/Detail |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installing OLTP database... |
| Installing Report Encyclopedia... |
| Installing Report Integration Technology... |
| Installing Report IServer... |
| Installing Report Server... |
| Installing Report Templates and Configurations... |
| NOTE: \$PRODUCT registry file is relocated from /var/adm/PVM/install.info to XXX |
| NOTE: Cisco PVM is a time/time-zone sensitive application and all clients should be time synchronized with the Cisco PVM server. The network elements monitored should also be time synchronized with each other and with the Cisco PVM server. |
| NOTE: Please change the default password of the OS user(s) [user] created by the installation of Cisco PVM. |
| OLAP database creation completed. |
| OLTP database creation completed. |
| Please check cron job configuration and delete loadOLAP.sh and archiveStart.sh. |
| Please check the file system configuration and remove it. |
| Please check the installation logs at [log location] for more information. |
| Please check your firewall [iptables] filter configuration and ensure that port(s) [list ports] are not blocked. |
| Please check your firewall [iptables] filter configuration and ensure that port(s) [list ports] are opened. |
| Please configure the system runlevel properly under /etc/rc.d. |
| Please configure the system sudoers properly at /etc/sudoers. |
| Please shutdown all applications using ports [list ports]. |
| Please upgrade the system available disk space and try again. |
| Post-installation configuration... |
| Removing [files]... |
| Removing Cisco PVM system environments and configurations... |
| Removing Cisco PVM system runlevel information... |
| Security key and certificate generated and stored at [list location of keystore]. |
| System configuration not suitable for Cisco PVM installation. |
| The following Cisco shared memory segments should be removed. |
| The following Cisco PVM processes should be stopped. |
| The installation has completed successfully. |
| Uninstallation of Cisco PVM completed at [date]. |
| Uninstalling [component]... |
| Verifying [component]... |

Table B-2 *Installation Progress Messages*

| Message/Detail |
|-----------------------------------------|
| Verifying database installation... |
| Verifying report server installation... |