



**Juniper Networks Secure Access**

## **Client-Side Changes Guide**

*Release 6.3*

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# Client-Side Changes Guide

This guide lists the package file names used by the IVE to install client-side components, files the packages install and uninstall, and registry changes they make to the user's system. It also describes the rights that are required in order to install and run various Instant Virtual Network (IVE) client-side components. Topics in this section include:

- “Client-Side changes made by IVE applications” on page 1
- “Required rights to run and install applications” on page 31

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## Client-Side changes made by IVE applications

This section describes the components that the IVE uses to install and run its client-side applications. The following descriptions include the components' names, installer locations, and log directories, as well as registry changes that the components make during installation:

- “Juniper Installer Service” on page 2
- “Juniper Setup” on page 4
- “Host Checker” on page 7
- “Secure Virtual Workspace” on page 11
- “Cache Cleaner” on page 11
- “Secure Meeting” on page 13
- “Windows Secure Application Manager (WSAM)” on page 15
- “Java Secure Application Manager (JSAM)” on page 21
- “Network Connect and GINA” on page 23
- “Windows Terminal Services” on page 28
- “Citrix Terminal Services” on page 29

Environment variables are used throughout this document. The environment variable definitions are as follows:

- %ProgramFiles% =%SystemDrive%\Program Files

For Windows 2000 and Windows XP:

- %USERPROFILE% =%SystemDrive%\Documents and Settings\%USERNAME%
- %ALLUSERSPROFILE% =%SystemDrive%\Documents and Settings\All User
- %APPDATA% =%USERPROFILE%\Application Data
- %TEMP% =%USERPROFILE%\Local Settings\Temp

For Windows Vista:

- %USERPROFILE% =%SystemDrive%\Users\%USERNAME%
- %APPDATA% =%USERPROFILE%\AppData\Roaming

For low medium/high integrity processes:

- %TEMP% =%USERPROFILE%\AppData\Local\Temp

For low integrity processes:

- %TEMP% =%USERPROFILE%\AppData\Local\Temp\low

## ***Juniper Installer Service***

When installing a Windows-based IVE client application on a user's Windows system, the Juniper Installer Service deploys two files on the client machine:

- JuniperSetup.ocx
- AccessServiceComponent.exe (The IVE auto-starts this service on installation, then stops and removes it on uninstall.)

### **Package file and file location**

The IVE loads the installer service files in the following locations:

- C:\Program files\Juniper Networks\Installer Service\AccessServiceComponent.exe
- C:\WINNT\Downloaded Program Files\JuniperSetupSP1Control.ocx (Windows NT and 2000)
- C:\Windows\Downloaded Program Files\JuniperSetupSP1Control.ocx (Windows XP)

### **Additional files installed by package and file locations**

#### ***Windows NT and Windows 2000***

The Juniper Installer Service installs the following files in C:\WINNT\Downloaded Program Files:

- string\_de.properties

- string\_en.properties
- string\_es.properties
- string\_fr.properties
- string\_ja.properties
- string\_ko.properties
- string\_zh.properties
- string\_zh\_cn.properties

### **Windows XP and Windows Vista**

The Juniper Installer Service installs the following files in C:\Windows\Downloaded Program Files:

- string\_de.properties
- string\_en.properties
- string\_es.properties
- string\_fr.properties
- string\_ja.properties
- string\_ko.properties
- string\_zh.properties
- string\_zh\_cn.properties

### **Files remaining after uninstall**

When the ActiveX control is deleted from within Internet Explorer, it leaves the following files behind:

- C:\Documents and Settings\\Application Data\Juniper Networks\Setup\JuniperSetupCtl.log
- C:\Program Files\Juniper Networks\Installer Service\NeoterisSetupService.log

### **Registry modifications**

The installer package creates a registry key under HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\Neoteris Setup Service

### **Log file location**

C:\Program Files\Juniper Networks\Installer Service

## ***Juniper Setup***

When a Windows user signs in to the IVE, the IVE attempts to install an ActiveX control (Juniper Setup) on the user's system. If the IVE successfully installs Juniper Setup, Juniper Setup manages the installation of Windows-based IVE client applications.

### **Package files**

The IVE loads the following installer files.

- Windows XP and Windows 2000
  - JuniperSetupSP1.cab
  - JuniperSetup.exe.cab
- Windows Vista
  - JuniperSetupClient.cab
  - JuniperSetupClientInstaller.exe

### **Additional files installed by package and file locations**

#### ***Windows XP and Windows 2000***

The Juniper Setup installs the following files in C:\Documents and Settings\\Application Data\Juniper Networks\Setup:

- dsmmf.exe
- dsmmfres\_de.dll
- dsmmfres\_es.dll
- dsmmfres\_fr.dll
- dsmmfres\_ja.dll
- dsmmfres\_ko.dll
- dsmmfres\_zh.dll
- dsmmfres\_zh\_cn.dll
- JuniperSetupApp.exe
- JuniperSetupCtrl.log
- JuniperSetupDLL.dll
- JuniperSetupDLL.log
- NeoterisSetup.ocx
- setupResource\_de.dll

- setupResource\_en.dll
- setupResource\_es.dll
- setupResource\_fr.dll
- setupResource\_ja.dll
- setupResource\_ko.dll
- setupResource\_zh.dll
- setupResource\_zh\_cn.dll
- string\_de.properties
- string\_en.properties
- string\_es.properties
- string\_fr.properties
- string\_ja.properties
- string\_ko.properties
- string\_zh.properties
- string\_zh\_cn.properties
- uninstall.exe
- versionInfo.ini

### **Windows Vista**

The Juniper Setup installs the following files in  
C:\Users\\AppData\Roaming\Juniper Networks\Setup Client:

- dsmmfs.exe
- dsmmfres\_de.dll
- dsmmfres\_es.dll
- dsmmfres\_fr.dll
- dsmmfres\_ja.dll
- dsmmfres\_ko.dll
- dsmmfres\_zh.dll
- dsmmfres\_zh\_cn.dll
- JuniperSetupClient.exe
- JuniperSetupClient.ini
- JuniperSetupClientOCX.exe

- JuniperSetupDll.dll
- JuniperSetupOCX.exe
- setupResource\_de.dll
- setupResource\_en.dll
- setupResource\_es.dll
- setupResource\_fr.dll
- setupResource\_ja.dll
- setupResource\_ko.dll
- setupResource\_zh.dll
- setupResource\_zh\_cn.dll
- string\_de.properties
- string\_en.properties
- string\_es.properties
- string\_fr.properties
- string\_ja.properties
- string\_ko.properties
- string\_zh.properties
- string\_zh\_cn.properties
- uninstall.exe
- uninstallOCX.exe

### Registry modifications

For Windows Vista, the Juniper Setup creates the following registry keys in HKEY\_CURRENT\_USER\SOFTWARE\Microsoft\Internet Explorer\Low Rights\ElevationPolicy\{3E8944DC-79B5-4650-9C2E-83885548A119}:

- String: AppName. Set to “JuniperSetupClient.exe.”
- String AppPath. Set to “\$OUTDIR”
- String Policy. Set to “3”

Additionally, the Juniper Setup creates the following registry keys in HKEY\_CURRENT\_USER\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\\${NEO\_FULL\_NAME}:

- String DisplayName. Set to “\${NEO\_COMPANY\_NAME} \${NEO\_DISPLAY\_NAME}”
- String UninstallString. Set to “\$INSTDIR\uninstall.exe”

- String `StartupApp`. Set to “`$INSTDIR\JuniperSetupClient.exe`”
- String `StopApp`. Set to “`$INSTDIR\JuniperSetupClient.exe -stop`”
- String `DisplayVersion`. Set to “`$NEO_SETUP_CLIENT_VERSION`”
- String `Publisher`. Set to “`{NEO_COMPANY_NAME}`”
- String `URLInfoAbout`. Set to “`http://www.juniper.net`”

### Log file location

#### **Windows XP and Windows 2000**

- `C:\Documents and Settings\All Users\Application Data\Juniper Networks\Logging\debuglog.log`
- `C:\Documents and Settings\\Application Data\Juniper Networks\Setup\JuniperSetupControlXP!log` (ActiveX logs)

#### **Windows Vista**

- `C:\Users\\AppData\Roaming\Juniper Networks\Logging\debuglog.log`
- `C:\Users\\AppData\Local\Temp\Low\JuniperSetupClientControl.log` (for ActiveX logs)

For low-integrity processes, such as Internet Explorer 7, the ActiveX installer installs the following log files in `C:\Users\\AppData\Local\Temp\Low`:

- `JuniperSetupClientCtrl.log`
- `JuniperSetupDll.log`

## Host Checker

### Windows clients

To run Host Checker, the IVE downloads the `HttpNarSetup.exe.cab` package to the user’s client. This package is responsible for downloading additional files to the user’s system in order to run Host Checker. Host Checker deletes the `HttpNarSetup.exe.cab` package after installation is complete.

#### **Package file and file location**

`%TEMP%\HttpNarSetup.exe.cab`

**Additional files installed by package and file locations**

Host Checker installs the following additional files on the client in C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker:

- CertAuthIMC.dll
- dsHostChecker.exe
- dsHostCheckerProxy.exe
- dsHostCheckerResource\_de.dll
- dsHostCheckerResource\_en.dll
- dsHostCheckerResource\_es.dll
- dsHostCheckerResource\_fr.dll
- dsHostCheckerResource\_ja.dll
- dsHostCheckerResource\_ko.dll
- dsHostCheckerResource\_zh.dll
- dsHostCheckerResource\_zh\_cn.dll
- dsnsisdll.dll
- dsWinClient.dll
- dsWinClientResource\_DE.dll
- dsWinClientResource\_EN.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll
- dsWinClientResource\_ZH\_CN.dll
- EPCheck.dll
- hcimc.dll
- install.log
- JSystemIMC.dll
- msvcp60.dll
- restore\_win2k.txt
- restore\_win98.txt

- ShavlikIMC.dll
- tnc\_config
- uninstall.exe
- versionInfo.ini

Host Checker installs the additional files in: C:\Documents and Settings\\Application Data\Juniper Networks\HostChecker.

In addition, if you implement policies that download or check for third-party software, Host Checker may install additional DLLs in sub-folders of: C:\Documents and Settings\\Application Data\Juniper Networks\HostChecker.

For example, if you implement Advanced Endpoint Defense Malware Protection policies, Host Checker creates a sub-folder called `policy_x` in this directory and installs Whole Security DLLs in this folder.

### **Files remaining after uninstall**

jnprvamgr.sys.

### **Registry modifications**

Host Checker sets the following registry values:

- Strings: `LogFile` and `level` are set in `HKEY_CURRENT_USER\SOFTWARE\Juniper Networks\Host Checker\Debug\dsHostChecker`
- Strings: `Language` and `InstallPath` are set in `HKEY_CURRENT_USER\SOFTWARE\Juniper Networks\Host Checker`

Additionally, Host Checker sets the following values in `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Uninstall\Neoteris_Host_Checker`:

- String: `DisplayName`. Set to "Juniper Networks Host Checker"
- String: `DisplayVersion`. Set to current product version number.
- String: `Publisher`. Set to "Juniper Networks"
- String: `QuietUninstallString`. Set to "C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker <version number>\uninstall.exe" /S"
- String: `StartupApp`. Set to "C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker\dsHostChecker.exe"
- String: `StopApp`. Set to "C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker\dsHostChecker.exe" -stop".
- String: `UninstallString`. Set to "C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker\uninstall.exe"

- String: URLInfoAbout. Set to "http://www.juniper.net"

### **Log file locations**

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console.

When you enable logging, Host Checker adds log files to the following locations:

- C:\Documents and Settings\All Users\Application Data\Juniper Networks\Logging\debuglog.log (Windows XP)
- C:\users\\AppData\Roaming\Juniper Networks\Logging\debuglog.log (Windows Vista)
- C:\Users\Public\Juniper Networks\Logging\debuglog.log (Windows Vista)

### **Linux clients**

#### **Application and additional files installed by Host Checker**

Host Checker installs \$HOME/.juniper\_networks/hostchecker.jar on the Linux client:

#### **Files remaining after uninstall**

The following files remain on the Linux client after uninstall:

- \$HOME/.juniper\_networks/dsHCLauncher\_linux1.log
- \$HOME/.juniper\_networks/dsHostChecker\_linux1.log

#### **Log files installed by Host Checker**

Host Checker installs the following log files on Linux systems.

- \$HOME/.juniper\_networks/dsHCLauncher\_linux1.log
- \$HOME/.juniper\_networks/dsHostChecker\_linux1.log

### **Macintosh clients**

#### **Application and additional files installed by Host Checker**

Host Checker installs the following files on the Macintosh client:

- ~/Library/Application Support/Juniper Networks/hostchecker.jar
- ~/Library/Application Support/Juniper Networks/hcport.txt
- ~/Library/Application Support/Juniper Networks/ preauthCookie.txt

#### **Files remaining after uninstall**

There is no Host Checker uninstall on the Macintosh client.

**Log files installed by Host Checker**

Host Checker stores the log files in the following location on the Macintosh client:  
~/Library/Logs/Juniper Networks.

**Secure Virtual Workspace**

If you implement Secure Virtual Workspace (SVW), Host Checker downloads neoSVWData.zip and neoSVWDlls.zip. Then, Host Checker unzips the following files onto the client computer under C:\Documents and Settings\\Application Data\Juniper Networks\Host Checker\policy\_<number>:

- wallpaper.bmp
- dsjvd.dll
- dsjvdsvc.dll
- dsmonitor.dll
- dsVdeskPackage.dll

neoSVWData.zip and neoSVWDlls.zip are removed after unzipping the files.

**Registry modifications**

SVW creates the key HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\VDesk.

**Files remaining after uninstall**

None. Host Checker uninstalls SVW as part of the Host Checker uninstallation process.

**Cache Cleaner**

To execute Cache Cleaner, the IVE downloads the neoCacheCleanerSetup.exe.cab package to the user's client. This package is responsible for downloading additional files to the user's system in order to execute Cache Cleaner.

**Package file and file location**

%TEMP%\neoCacheCleanerSetup.exe.cab

This file is removed once the installation is complete.

**Additional files installed by package and file locations**

Cache Cleaner installs the following additional files on the client in %APPDATA%\Juniper Networks\CacheCleaner <version number>:

- dsCacheCleaner.exe
- uninstall.exe
- versionInfo.ini
- dsWinClientResource\_DE.dll

- dsWinClientResource\_EN.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll
- dsWinClientResource\_ZH\_CN.dll

For Vista, Cache Cleaner is installed in  
C:\Users\\AppData\Roaming\Juniper Networks\Cache Cleaner <version number>.

### Files remaining after uninstall

None

### Registry modifications

Cache Cleaner sets the following string registry values in  
HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Uninstall\Juniper\_Networks\_Cache\_Cleaner <version number>:

- String: DisplayName. Set to “Juniper Networks Cache Cleaner <version>”
- String: DisplayVersion. Set to the current software version
- String: Publisher. Set to “Juniper Networks”
- String: QuietUninstallString. Set to “%APPDATA%\Juniper Networks\Cache Cleaner <version number>\uninstall.exe /S”
- String: StartupApp. Set to “%APPDATA%\Juniper Networks\Cache Cleaner<version number>\dsCacheCleaner.exe”
- String: StopApp. Set to “%APPDATA%\Juniper Networks\Cache Cleaner<version number>\dsCacheCleaner.exe” -action stop -nodelete 1”
- String: UninstallString. Set to “%APPDATA%\Juniper Networks\Cache Cleaner<version number>\uninstall.exe”
- String: URLInfoAbout. Set to “http://www.juniper.net”

### Log file location

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console. For Windows 2000 and Windows XP when you enable logging, Cache Cleaner adds log files to  
%ALLUSERSPROFILE%\Application Data\Juniper Networks\Logging\debuglog.log.

For Vista, Cache Cleaner adds log files to %APPDATA%\Juniper Networks\Logging\debuglog.log

## Secure Meeting

### Windows clients

To execute the Windows version of Secure Meeting, the IVE downloads the neoCBoxSetup.exe.cab package to the user's client. This package is responsible for downloading additional files to the user's system in order to execute Secure Meeting.

#### Package file and file location

C:\Documents and Settings\\Local Settings\Temp\neoCBoxSetup.exe.cab

#### Additional files installed by package and file locations

With an Active-X based install, Secure Meeting installs additional files in: C:\Documents and Settings\\Application Data\Juniper Networks\Secure Meeting <version number>. (See directory for a complete list of files.)

#### Files remaining after uninstall

After Secure Meeting uninstalls, the cbox\_cfg.ini and cbox\_cfg.txt (for the Java client) files remain on the client:

#### Registry modifications

Secure Meeting sets the following registry values:

- String: Language is set in HKEY\_CURRENT\_USER\Software\Juniper Networks\Secure Meeting <version number>
- String: level is set in HKLM\Software\Juniper Networks\Logging\Level

#### Log file locations

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console.



**NOTE:** The maximum file size for each of the Secure Meeting log files is 10 MB.

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When you enable logging, Secure Meeting adds log files to the following locations for Windows XP:

- C:\Documents and Settings\All Users\Application Data\Juniper Networks\Logging\debuglog.log
- C:\Documents and Settings\\Application Data\Juniper Networks\Logging\debuglog.log
- C:\Documents and Settings\\Application Data\Juniper Networks\Secure Meeting <version number>\SecureMeetingOutlook.log -and- SecureMeetingOutlook.log.old

- C:\Documents and Settings\\Application Data\Juniper Networks\Secure Meeting <version number>\SecureMeetingOutlookApp.log -and- SecureMeetingOutlookApp.log.old

When you enable logging, Secure Meeting adds log files to the following locations for Windows Vista:

- C:\Users\Public\Juniper Networks\Logging\debuglog.log
- C:\Users\\AppData\Roaming\Juniper Networks\Logging\debuglog.log
- C:\Users\\AppData\Roaming\Juniper Networks\Secure Meeting <version number>\SecureMeetingOutlook.log -and- SecureMeetingOutlook.log.old
- C:\Users\\AppData\Roaming\Juniper Networks\Secure Meeting <version number>\SecureMeetingOutlookApp.log -and- SecureMeetingOutlookApp.log.old

## Macintosh clients

### ***Application and additional files installed by Secure Meeting***

Secure Meeting installs the following files on the Macintosh client:

- ~/Library/Application Support/Juniper Networks/meetingAppMac.jar
- ~/Library/Application Support/Juniper Networks/cbox\_cfg.txt
- ~/Library/Application Support/Juniper Networks/meeting.icns

### ***Files remaining after uninstall***

There is no Secure Meeting uninstall on the Macintosh client.

### ***Log files installed by Secure Meeting***

Secure Meeting installs log files in the following location on the Macintosh client:

- ~/Library/Logs/Juniper Networks/dsCboxLauncher\_mac<x>.log where <x> is 0 or 1
- ~/Library/Logs/Juniper Networks/dsCboxUI\_mac<x>.log where <x> is 0 or 1
- ~/Library/Logs/Juniper Networks/dsCboxUISummary\_mac<x>.log where <x> is 0 or 1
- ~/Library/Logs/Juniper Networks/MacPresenter.log

## Linux clients

### ***Application and additional files installed by Secure Meeting***

Secure Meeting installs the following files on the Linux client:

- ~/.juniper\_networks/meetingAppSun.jar

- ~/.juniper\_networks/libSMJNIXWinLinux.so

#### **Log files installed by Secure Meeting**

- ~/.juniper\_networks/LinuxPresenter<x>.log where <x> is 0 or 1
- ~/.juniper\_networks/dsCboxUISummary\_linux<x>.log where <x> is 0 or 1
- ~/.juniper\_networks/dsCboxUI\_linux<x>.log where <x> is 0 or 1
- ~/.juniper\_networks/dsCboxLauncher\_linux<x>.log where <x> is 0 or 1

## **Secure Meeting Plug-In**

### **File Location**

\Documents and Settings\<>user>\Application Data\Juniper Networks\Secure Meeting Outlook Plugin

### **Files remaining after uninstall**

SecureMeetingOutlook.log

### **Registry modifications**

String: Language is set in HKEY\_CURRENT\_USER\Juniper Networks\Secure Meeting Outlook Plugin

## **Windows Secure Application Manager (WSAM)**

To execute WSAM, the IVE downloads the `samsetup.exe.cab` or `samsetupnt.exe.cab` package to the user's client, depending on the user's platform. These packages are responsible for downloading additional files to the user's system in order to execute WSAM.

### **Package file and file location**

WSAM downloads its package files to the following locations:

- Windows 2000 and Windows XP:  
C:\Documents and Settings\<>username>\Local Settings\Temp\samsetupnt.exe.cab
- Windows Mobile 6.0 Pocket PC/6.0 Classic/6.0 Professional:  
\My Documents\WSAMInstARM.cab
- Windows Mobile 5.0 SmartPhone/6.0 Standard:  
\My Document\WSAMInstARMSPCab



**NOTE:** You may choose to use a WSAM stand-alone installer or scriptable installer instead of the standard Web installers mentioned above. If you do, the installers are located where you save them, which may not be the same directories listed above. The file names for these downloadable installers are:

- **WSAMInstNt.exe**—WSAM stand-alone installer for Windows 2000/XP systems
- **SamLauncher.exe**—Scriptable WSAM installer
- **WSAMInstARM.cab**—WSAM standalone installer for Windows Mobile 5.0 PocketPC/6.0 Classic/6.0 Professional
- **WSAMInstARMSPcab**—WSAM standalone installer for Windows Mobile 5.0 Smartphone/6.0 Standard

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### **Additional files installed by package and file locations**

For Windows XP/Vista, WSAM installs the following additional files on the client in C:\Program Files\Juniper Networks\Secure Application Manager:

- dsSamProxy.exe
- dsSamResource\_DE.dll
- dsSamResource\_EN.dll
- dsSamResource\_ES.dll
- dsSamResource\_FR.dll
- dsSamResource\_JA.dll
- dsSamResource\_KO.dll
- dsSamResource\_ZH.dll
- dsSamResource\_ZH\_CN.dll
- dsSamUI.exe
- dsWinClient.dll
- dsWinClientResource\_DE.dll
- dsWinClientResource\_EN.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll
- dsWinClientResource\_ZH\_CN.dll

- gaptbar.dll
- install.log
- samclean.exe
- samdiagEx.dll (Windows 2000/XP/Vista only)
- SAMNB.dll (Windows 2000/XP/Vista only)
- samnsp.dll (Windows 2000/XP/Vista only)
- UninstallSAM.exe
- versionInfo.ini

On Windows 2000/XP/Vista systems, WSAM also installs a TDI driver (neofltr\_<release number>\_<build number>.sys) in `$SystemRoot\system32\drivers`. (For example, for release 5.2.0.9300, WSAM installs `NEOFLTR_520_9300.sys` in `C:\WINDOWS\System32\drivers\`)

For Windows Mobile, WSAM installs the following additional files on the client in `\Program Files\Juniper Networks\WSAM`:

- dsSamProxy.exe
- SamResource\_DE.dll
- SamResource\_EN.dll
- SamResource\_ES.dll
- SamResource\_FR.dll
- SamResource\_JA.dll
- SamResource\_KO.dll
- SamResource\_ZH.dll
- SamResource\_ZH\_CN.dll
- SamUI.exe

### **Files remaining after uninstall**

After WSAM uninstalls, the following files remain on the client:

- Windows 2000/XP
  - samnsp.dll
  - samclean.exe

## Registry modifications

WSAM sets the following registry values:

### Installation values

For Windows XP/Vista, WSAM sets the following installation values in HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\Secure Application Manager:

- String: InstallPath. Set to: C:\Program Files\Juniper Networks\Secure Application Manager
- String: Language. Set to: EN (or appropriate language value)

For Windows Mobile, WSAM sets the following installation values:

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\WSAM:
  - String: AutoStart. Set to: 0 or 1
  - String: ProductVersion. Set to: <version number><build number>
  - String: ProductName. Set to: WSAM
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\WSAM\Config
  - String: Url1. Set to ???
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\WSAM\Log:
  - String: LoggingApps. Set to: iexplore.exe; tmail.exe
  - String: LogLevel. Set to: 3
  - String: ProductLocation. Set to: \Program Files\Juniper Networks\WSAM
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\WSAM
  - String: EnableLogSvr. Set to: 0 or 1 (depending upon server side log setting)
- HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\WSAM
  - String: UpgradeFlag. Set to: 2 or 3 (depending upon auto profile generation requirement)

### Uninstallation values

WSAM sets the following uninstall values in HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Netis\_Secure\_Application\_Manager\Commands:

Windows 2000/XP/Vista:

- String: RegisterLSP. Set to: C:\Program Files\Juniper Networks\Secure Application Manager\samnspl.dll",DllRegisterServer

- String: SyncBypassList. Set to: C:\Program Files\Juniper Networks\Secure Application Manager\samnspl.dll",SyncBypassList
- HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\Secure Application Manager\ \SessionEstablishTasks
- HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\Secure Application Manager\ \SessionCleanupTasks
- String: EnableLogSvr. Set to 0 or 1, depending on server side log setting. HKEY\_CURRENT\_USER\SOFTWARE\Juniper networks\Secure Application Manager.
- HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\Secure Application Manager\SessionEstablishTasks
- HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\Secure Application Manager\ SessionCleanupTasks

#### **Current Version values**

WSAM sets the following uninstall and version information values in HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Netoris\_Secure\_Application\_Manager:

- String: DisplayName. Set to: "Juniper Networks Secure Application Manager"
- String: DisplayVersion. Set to: < version number > < build number >
- String: Publisher. Set to: Juniper Networks
- String: QuietUninstallString. Set to: C:\Program Files\Juniper Networks\Secure Application Manager\UninstallSAM.exe
- String: StartupApp. Set to: C:\Program Files\Juniper Networks\Secure Application Manager\dsSamProxy.exe
- String: UninstallString. Set to: C:\Program Files\Juniper Networks\Secure Application Manager\UninstallSAM.exe
- String: URLInfoAbout. Set to: <http://www.juniper.net/products/ssl>

In addition, WSAM sets the following version values:

- Location:  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\Zones\1  
  
Set: 1A00 to: 1
- Location:  
HKEY\_CURRENT\_USER\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\Zones\1  
  
Set: 1A00 to: 1

**TDI driver values (Windows 2000/XP/Vista only)**

WSAM sets the following values for the TDI driver on Windows 2000 and Windows XP systems in

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\NEOFLTR\_ < release number > \_ < build number > :

- String: DisplayName. Set to: Juniper Networks TDI Filter Driver (NEOFLTR\_ < release number > \_ < build number > )
- String: Imagepath. Set to: \C:\WINDOWS\System32\Drivers\NEOFLTR\_ < release number > \_ < build number > .SYS

WSAM sets the following values in

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\NEOFLTR\_ < release number > \_ < build number > \Enum:

- String: 0. Set to: Root\LEGACY\_NEOFLTR\_ < release number > \_ < build number > \0000
- DWord: Count. Set to: 0x00000001
- DWord: NextInstance. Set to: 0x00000001

WSAM sets the following value in

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\AFD\Parameters

- String: IrpStackSize. Set to: Applicable TDI Irp stack size, if required.

**Miscellaneous**

WSAM sets the following miscellaneous registry values:

- Location:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\WinSock2\Parameters\NameSpace\_Catalog5\Catalog\_Entries\0000000000X (where X is a number between 1 and 7). Description: WSAM creates these keys when it runs from an administrator account for the first time. These keys register the namespace provider (NSP) installed by WSAM.
- String: IntranetAuthOptions is set in HKEY\_LOCAL\_MACHINE\SOFTWARE\Neoteris\Secure Application Manager\Backup and HKEY\_CURRENT\_USER\SOFTWARE\Neoteris\Secure Application Manager\Backup.
- The list of LSPs ignored when running WSAM are in HKEY\_CURRENT\_USER\SOFTWARE\Juniper Networks\Secure Application Manager\AllowedLsps.

**Log file location**

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console. When you enable logging, WSAM adds log files to the following location:

For Windows 2000/XP:

- C:\Documents and Settings\All Users \Application Data\Juniper Networks\Secure Application Manager
- C:\Documents and Settings\All Users \Application Data\Juniper Networks\Logging

For Windows Vista:

- C:\Users\\AppData\Juniper Networks\Secure Application Manager
- C:\Users\\AppData \Juniper Networks\Logging.

WSAM also adds an installation log file to the C:\Program Files\Juniper Networks\Secure Application Manager directory.

For Windows Mobile 5 users, WSAM adds log files to the \Program Files\Juniper Networks\WSAM\Log directory.

## **Java Secure Application Manager (JSAM)**

To execute JSAM, the IVE launches an applet on the user's client. This applet handles downloading additional files to the user's system in order to execute JSAM.

In addition, JSAM modifies the *hosts* file if you choose **Automatic host-mapping** under **Users > User Roles > Role > SAM > Options > Java SAM Options**.

### **Windows clients**

#### **Location of additional files**

- Windows 2000/XP

JSAM installs additional files in the following location: C:\Documents and Settings\\Application Data\Juniper Networks\Java Secure Application Manager

- Windows Vista
  - If UAC is disabled, JSAM installs C:\Users\\AppData\Roaming\Juniper Networks\jsamtool.exe.
  - If UAC is enabled, JSAM installs C:\Users\\AppData\Local\Temp\Low\Juniper Networks\Java Secure Application Manager\jsamtool.exe.

#### **Files remaining after uninstall**

(Windows 2000/XP) After JSAM uninstalls, only the log files remain on the client, as described in "Log file locations" on page 22.

(Windows Vista) After JSAM uninstalls, files in C:\Users\\AppData\Local\Temp\Low\Juniper Networks\Java Secure Application Manager remain.

**Registry modifications**

JSAM sets the following registry values:

- If you configure a standard NetBIOS application through JSAM, or you configure a custom application on port 137, 138, or 139, JSAM makes the following registry key modification on Windows XP machines (Administrator privileges required): `SMBDeviceEnabled=dword:00000000` is set in the registry location: `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NetBT\Parameters`.
- If you enable Outlook 5.5, 2000, or 2002 (Administrator privileges required), JSAM adds `HKEY_LOCAL_MACHINE\Software\Microsoft\Exchange\Exchange Provider\Rpc_Binding_Order` to the registry. (The second entry for this registry key is changed to `ncacn_http`.)

The original value of this setting is:

`ncalrpc,ncacn_ip_tcp,ncacn_spx,ncacn_np,netbios,ncacn_vns_spp`

After JSAM is initially used, the value of this setting is:

`ncalrpc,ncacn_http,ncacn_ip_tcp,ncacn_spx,ncacn_np,netbios,ncacn_vns_spp`

- If you disable the **Skip Web Proxy Registry Check** option under `Users > User Roles > Role > SAM > Options > Java SAM Options` (User read access required), JSAM sets: `HKEY_CURRENT_USER\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\ProxyEnable`

**Log file locations**

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console.

(Windows 2000/XP) When you enable logging, JSAM adds `C:\Documents and Settings\<username>\Application Data\Juniper Networks\Java Secure Application Manager\dsJSAM_win0.log` and `dsJSAM_win1.log`

(Windows Vista) When you enable logging, JSAM adds `C:\Users\<username>\AppData\Local\Temp\Low\Juniper Networks\Java Secure Application Manager\jsamtool.log` and `dsJSAM_win1.log`.

**Macintosh clients****Application and additional files installed by JSAM**

JSAM installs the following files on the Macintosh client:

- `~/Library/Application Support/Juniper Networks/NeoterisMac.jar`
- `~/Library/Java/Extensions/libJNPAuthKit.jnilib`
- `~/Library/Application Support/Juniper Networks/jsam.icns`
- `~/Library/Application Support/Juniper Networks/logo.gif`

**Files remaining after uninstall**

The following files remain on the Macintosh client after uninstall:

- ~/Library/Logs/Juniper Networks/Java Secure Application Manager

**Log files installed by JSAM**

JSAM installs log files in the following location on the Macintosh client:

- ~/Library/Logs/Juniper Networks/Java Secure Application Manager

**Linux clients****Application and additional files installed by JSAM**

JSAM does not install any application files on the Linux client.

**Files remaining after uninstall**

The only files that remain on the Linux client after uninstall are the log files (described below).

**Log files installed by JSAM**

JSAM adds log files to the ~/juniper\_networks directory.

**Network Connect and GINA****Windows clients**

To execute Network Connect and Graphical Identification and Authorization (GINA), the IVE downloads the NcSetup.exe.cab package to the user's client. This package is responsible for downloading additional files to the user's system in order to execute Network Connect and GINA.

**Package file and file location**

- C:\Documents and Settings\\Local Settings\Temp\neoNCsetup.exe.cab (Windows 2000/XP)
- C:\Users\\AppData\Local\Temp\neoNCSetup.exe (Windows Vista)

**Hosts file change**

A hosts file entry is added by Network Connect to support the following case:

- If, when Network Connect connects, split tunneling is disabled and the original externally resolved hostname (the hostname the user initially connected to prior to the NC launch) resolves to another IP address against the internal DNS, the browser will redirect to a *Server not found* page, because no route is defined within the client system.

- At a graceful termination (sign-out or timeout) of the Network Connect client connection, the hosts file is restored. If the hosts file was not restored in a prior case due to an ungraceful termination, the hosts file will be restored the next time the user launches Network Connect.

**Additional files installed by package and file locations**

On Windows 2000/XP/Vista, Network Connect installs the following additional files on the client in the following locations. The following files are installed in C:\Program Files\Juniper Networks\Network Connect <version number>:

- dsNcAdmin.dll
- dsNetworkConnect.exe
- dsNcDiag.dll
- versionInfo.ini
- dsNCCredProv.dll
- dsNcGina.dll
- dsNCGINACompatible.txt
- dsNCRResource\_EN.dll
- dsNCRResource\_DE.dll
- dsNCRResource\_ES.dll
- dsNCRResource\_FR.dll
- dsNCRResource\_JA.dll
- dsNCRResource\_KO.dll
- dsNCRResource\_ZH.dll
- dsNCRResource\_ZH\_CN.dll
- dsWinClientResource\_EN.dll
- dsWinClientResource\_DE.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll
- dsWinClientResource\_ZH\_CN.dll
- JuniperSetupClientOCX.exe
- JuniperSetupOCX.exe

- uninstall.exe
- nclauncher.exe
- setproxy.html

Network Connect also installs the following files:

- C:\Program Files\Juniper Networks\Common Files\dsNcService.exe
- C:\<WINDIR>\system32\drivers\dsNcAdpt.sys
- C:\<WINDIR>\system32\dsGinaLoader.dll (Windows 2000 and Windows XP)

### ***Files remaining after uninstall***

After Network Connect uninstalls, the following files remain on the client:

- dsGinaLoader.dll

If only one Network Connect installation is present on the client, this file is removed after you reboot. If there are multiple versions of Network Connect installed on the client, this file remains on the client.

- C:\Program Files\Juniper Networks\Common Files\Config.ini

### ***Registry modifications***

Additionally, if GINA is enabled in the Admin Web console, Network Connect sets following string registry value in HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon:

- String: GinaDLL. Set to "dsGinaLoader.dll"

Network Connect creates the following keys:

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Juniper Networks\Network Connect <version number>
- HKEY\_CURRENT\_USER\Software\Juniper Networks\Network Connect <version number>

### ***Log file location***

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console.

When you enable logging, Network Connect adds log files to the following location:

- For Windows 2000/XP:

C:\Documents and Settings\All Users\Application Data\Juniper Networks\Logging\debuglog.log

C:\Documents and Settings\<user>\Application Data\Juniper Networks\Network Connect <version number>\debuglog.log

- For Windows Vista:

C:\Users\<>username>\AppData\roaming\Juniper Networks\logging\debuglog.log  
and C:\Users\public\Juniper Networks\logging\debuglog.log

## Linux clients

### ***Application and additional files installed by Network Connect***

Network Connect installs the following files on the Linux client:

- ~/juniper\_networks/ncLinuxApp.jar
- ~/juniper\_networks/network\_connect/installNC.sh
- ~/juniper\_networks/network\_connect/libncui.so
- ~/juniper\_networks/network\_connect/missing.info
- ~/juniper\_networks/network\_connect/ncdiag
- ~/juniper\_networks/network\_connect/NC.jar
- ~/juniper\_networks/network\_connect/ncsvc
- ~/juniper\_networks/network\_connect/version.txt
- ~/juniper\_networks/network\_connect/xlaunchNC.sh

### ***Files remaining after uninstall***

No files remain on the Linux client after uninstall, but the ~/juniper\_networks/network\_connect/ directory does remain.

### ***Log files installed by Network Connect***

Network Connect installs the following log files on Linux systems:

- ~/juniper\_networks/network\_connect/installnc.log
- ~/juniper\_networks/network\_connect/ncsvc.log
- ~/juniper\_networks/network\_connect/ncuijava.log
- ~/juniper\_networks/network\_connect/ncui.log

## Macintosh clients

### ***Application and additional files installed by Network Connect***

Network Connect installs the following files on the Macintosh client:

- /Applications/Network Connect.app
- /usr/local/juniper/nc/<IVE\_version>/ncproxyd
- /usr/local/juniper/nc/<IVE\_version>/nctun[\_tiger].kext

- ~/Library/Application Support/Juniper Networks/
- NetworkConnectMac\_de.jar
- NetworkConnectMac\_en.jar
- NetworkConnectMac\_es.jar
- NetworkConnectMac\_fr.jar
- NetworkConnectMac\_ja.jar
- NetworkConnectMac\_ko.jar
- NetworkConnectMac\_zh.jar
- NetworkConnectMac\_zh-cn.jar
- ~/Library/Application Support/Juniper Networks/
- NetworkConnectMac\_ppc.jar (PowerPC-based Macintoshes)
- NetworkConnectMac\_i386.jar (Intel-based Macintoshes)
- ~/Library/Java/Extensions/libJNPRAuthKit.jnilib
- /usr/local/juniper/nc/install/NCJarVerify.jar
- /usr/local/juniper/nc/install/installer.common
- /usr/local/juniper/nc/install/ncinstallhelper
- /usr/local/juniper/nc/install/fwk\_reference\_tool
- /usr/local/juniper/nc/install/uninstall\_nc.sh
- /usr/local/juniper/nc/install/version

### ***Files remaining after uninstall***

The following files remain on the Macintosh client after uninstall:

- All files in ~/Library/Logs/Juniper Networks/Network Connect
- /usr/local/juniper/nc/install/NCJarVerify.jar
- /usr/local/juniper/nc/install/installer.common
- /usr/local/juniper/nc/install/ncinstallhelper
- /usr/local/juniper/nc/install/fwk\_reference\_tool
- /usr/local/juniper/nc/install/uninstall\_nc.sh

### ***Log files installed by Network Connect***

Network Connect stores the log files in the following location on the Macintosh client: ~/Library/Logs/Juniper Networks/Network Connect.

## Windows Terminal Services

To execute Windows Terminal Services, the IVE downloads the Neotermsetup.exe.cab package (or the NeotermsetupNT.exe.cab package for Windows 2000 and earlier) to the user's client. This package is responsible for downloading additional files to the user's system in order to execute Terminal Services.

### Package file and file location

The IVE downloads Neotermsetup.exe.cab (or the NeotermsetupNT.exe.cab package for Windows 2000 and earlier) to the user's %Temp% directory and deletes it once the installation is complete.

### Additional files installed by package and file locations

The Windows Terminal Services client installs additional Juniper proxy files in %APPDATA%\Juniper Networks\Juniper Terminal Services Client on the client:

The Windows Terminal Services client installs the following Juniper proxy files on the client:

- dsTermServ.exe
- dsTermServDt.dll
- dsTermServProxy.dll
- dsTermServResource\_DE.dll
- dsTermServResource\_en.dll
- dsTermServResource\_ES.dll
- dsTermServResource\_FR.dll
- dsTermServResource\_JA.dll
- dsTermServResource\_KO.dll
- dsTermServResource\_ZH.dll
- dsTermServResource\_ZH\_CN.dll
- dsWinClient.dll
- dsWinClientResource\_DE.dll
- dsWinClientResource\_EN.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll

- dsWinClientResource\_ZH\_CN.dll
- uninstall.exe
- versionInfo.ini

### Files remaining after uninstall

None

### Registry modifications

The Terminal Services client adds following registry values under registry key, HKEY\_CURRENT\_USER\Software\Juniper Networks\Juniper Terminal Services Client.

- InstallPath of type REG\_SZ to a value of %APPDATA%\Juniper Networks\Juniper Terminal Services Client
- Language of type REG\_SZ to a value of <user locale>. The default is en.

### Log file location

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console.

When you enable logging, the Terminal Services client adds the debuglog.log file to the following locations:

- **Windows 2000/XP:** %ALLUSERSPROFILE%\Application Data\Juniper Networks\Juniper Terminal Services Client
- **Windows Vista:** %APPDATA%\Juniper Networks\Juniper Terminal Services Client

## Citrix Terminal Services

To execute Citrix Terminal Services, the IVE downloads the neoCitrixServSetup.exe.cab package to the user's client. This package is responsible for downloading additional files to the user's system in order to execute Terminal Services.

### Package file and file location

The IVE downloads Neocitrixsrvsetup.exe.cab to the user's %Temp% directory and deletes it once the installation is complete.

### Additional files installed by package and file locations

The Citrix Terminal Services client installs the following Juniper proxy files on the client in %APPDATA%\Juniper Networks\Juniper Citrix Services Client.

For administrators, Citrix client files are also installed to %ProgramFiles%\Citrix.

- dsCitrixConnector.dll
- dsCitrixProxy.exe

- dsCitrixProxyResource\_DE.dll
- dsCitrixProxyResource\_en.dll
- dsCitrixProxyResource\_ES.dll
- dsCitrixProxyResource\_FR.dll
- dsCitrixProxyResource\_JA.dll
- dsCitrixProxyResource\_KO.dll
- dsCitrixProxyResource\_ZH.dll
- dsCitrixProxyResource\_ZH\_CN.dll
- dsWinClient.dll
- dsWinClientResource\_DE.dll
- dsWinClientResource\_EN.dll
- dsWinClientResource\_ES.dll
- dsWinClientResource\_FR.dll
- dsWinClientResource\_JA.dll
- dsWinClientResource\_KO.dll
- dsWinClientResource\_ZH.dll
- dsWinClientResource\_ZH\_CN.dll
- uninstall.exe
- versionInfo.ini

### Registry modifications

The Juniper Citrix Services client adds the following registry value under HKEY\_CURRENT\_USER\Software\Juniper Networks\Juniper Citrix Services Client

- Language of type REG\_SZ to a value of <user locale>. The default is en.

### Files remaining after uninstall

None

### Log file location

You can enable or disable client-side logs through the **System > Log/Monitoring > Client Logs > Settings** tab of the Web console. When you enable logging, the Terminal Services client adds the dsCitrixServ.log file to the following location:

- **Windows 2000/XP:** \Documents and Settings\<username>\Application Data\Juniper Networks\Juniper Citrix Services Client
- **Windows Vista:** \Users\<username>\AppData\Roaming\Juniper Networks\Juniper Citrix Services Client

## Required rights to run and install applications

The following tables outline the rights that are required to install and run the following IVE client-side components using the IVE's ActiveX, ActiveX installer service, and Java mechanisms:

- “Windows Secure Application Manager (WSAM)” on page 31
- “Java Secure Application Manager (JSAM)” on page 32
- “Network Connect” on page 32
- “Terminal Services Component” on page 32
- “Citrix Terminal Services Component” on page 33
- “Host Checker (includes Secure Virtual Workspace)” on page 33
- “Cache Cleaner” on page 33
- “Secure Meeting” on page 34

Where applicable, the tables contain links to topics that describe in further detail the components that the IVE uses to install and run its client-side applications.

**Table 1: Windows Secure Application Manager (WSAM)**

	ActiveX	ActiveX: Installer Service	Java	Java	
Client/Action	Windows	Windows	Windows	Mac/Linux	More Information
Install	Admin	Restricted, Power User, or Admin	Admin	Not Applicable	See “Windows Secure Application Manager (WSAM)” on page 15
Run	Power User or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Windows Secure Application Manager (WSAM)” on page 15

Notes:

- Restricted users can perform the initial installation of WSAM with the installer service only if they start the installation by clicking the WSAM link in the user's portal page.
- The ActiveX installer requires users to reboot their systems after an installation or upgrade.
- Users must have ActiveX components or Java enabled through their browsers to use the WSAM installers.

**Table 2: Java Secure Application Manager (JSAM)**

	ActiveX	ActiveX: Installer Service	Java	Java	
Client/Action	Windows	Windows	Windows	Mac/Linux	More Information
<b>JSAM</b>					
Run	Not Applicable	Not Applicable	Restricted, Power User, or Admin	User	See “Java Secure Application Manager (JSAM)” on page 21
<b>JSAM with Host File Modification</b>					
Run	Not Applicable	Not Applicable	Admin	Admin/Root	See “Java Secure Application Manager (JSAM)” on page 21
Notes				Client system asks for the administrator password when JSAM launches.	

**Table 3: Network Connect**

	ActiveX	ActiveX: Installer Service	Java	Java	
Action	Windows	Windows	Windows	Mac/Linux	More Information
Install	Admin	Restricted, Power User, or Admin	Admin	Admin <sup>a</sup>	See “Network Connect and GINA” on page 23
Run	Power User or Admin	Restricted, Power User, or Admin	Power User or Admin	Standard User	See “Network Connect and GINA” on page 23

Note:

- Restricted users can perform the initial installation of Network Connect with the installer service only if they start the installation by clicking the Network Connect link in the user’s portal page.

a. Linux also requires Admin rights to upgrade or downgrade Network Connect. Macintosh does not have this restriction.

**Table 4: Terminal Services Component**

	ActiveX	ActiveX: Installer Service	Java	Java	
Action	Windows	Windows	Windows	Mac/Linux	More Information
Install	Power User or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Windows Terminal Services” on page 28
Run	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Windows Terminal Services” on page 28

**Table 5: Citrix Terminal Services Component**

	<b>ActiveX</b>	<b>ActiveX: Installer Service</b>	<b>Java</b>	<b>Java</b>		
<b>Action</b>	<b>Windows</b>	<b>Windows</b>	<b>Windows</b>	<b>Mac/Linux</b>	<b>Citrix Client</b>	<b>More Information</b>
Install	Power User or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	Power User or Admin	See “Windows Terminal Services” on page 28
Run	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	See “Windows Terminal Services” on page 28

**Table 6: Host Checker (includes Secure Virtual Workspace)**

	<b>ActiveX</b>	<b>ActiveX: Installer Service</b>	<b>Java</b>	<b>Java</b>		
<b>Action</b>	<b>Windows</b>	<b>Windows</b>	<b>Windows</b>	<b>Mac/Linux</b>	<b>More Information</b>	
Install	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Host Checker” on page 7	
Run	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Host Checker” on page 7	

NOTE: If you implement SVW through Host Checker, note that restricted users, power users, and admins all have adequate rights to install and run SVW.



**NOTE:** If you enable the **Advanced Endpoint Defense Malware Detection** Host Checker option and enforce the policy to install the Whole Security Confidence Online software on users’ computers, be aware of the following:

- **Category 1 and Category 2 Signature Scans**—Restricted users, power users, and administrators can install and run the scanning feature in Confidence Online. The scanning feature is supported on Windows NT4, Windows 2000, and Windows XP systems.
- **Behavior Blocker**—Only administrators can install and run the behavior blocker feature in Confidence Online. The behavior blocker feature is supported on Windows 2000 and Windows XP systems.

**Table 7: Cache Cleaner**

	<b>ActiveX</b>	<b>ActiveX: Installer Service</b>	<b>Java</b>	<b>Java</b>		
<b>Action</b>	<b>Windows</b>	<b>Windows</b>	<b>Windows</b>	<b>Mac/Linux</b>	<b>More Information</b>	
Install	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Cache Cleaner” on page 11	

**Table 7: Cache Cleaner (Continued)**

	<b>ActiveX</b>	<b>ActiveX: Installer Service</b>	<b>Java</b>	<b>Java</b>	
<b>Action</b>	<b>Windows</b>	<b>Windows</b>	<b>Windows</b>	<b>Mac/Linux</b>	<b>More Information</b>
Run	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Restricted, Power User, or Admin	Not Applicable	See “Cache Cleaner” on page 11

**Table 8: Secure Meeting**

	<b>ActiveX</b>	<b>ActiveX: Installer Service</b>	<b>Java</b>	<b>Java</b>	
<b>Action</b>	<b>Windows</b>	<b>Windows</b>	<b>Windows</b>	<b>Mac/Linux</b>	<b>More Information</b>
<b>Secure Meeting: Win32</b>					
Install	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	Not Applicable	See “Secure Meeting” on page 13
Run	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	Not Applicable	See “Secure Meeting” on page 13
<b>Secure Meeting: Java</b>					
Install	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	User	See “Secure Meeting” on page 13
Run	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	User	See “Secure Meeting” on page 13
<b>Secure Meeting: Outlook Plug-in</b>					
Install	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	Not Applicable	See “Secure Meeting” on page 13
Run	Restricted, Power User, or Admin	Not Applicable	Restricted, Power User, or Admin	Not Applicable	See “Secure Meeting” on page 13