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# VSee Client Installation and Options Guide

## **Disclaimer**

This document describes the VSee service, software, and architecture as of the time of writing. The internal design, external behavior, and network implementation are subject to change without prior notice. Please consult <http://vsee.com> or email [support@vsee.com](mailto:support@vsee.com) for updates. VSee Lab makes no representations about the suitability of this documentation for any purpose. It is provided "as is" without expressed or implied warranty.

## 1 VSee client system requirements

- Windows XP or later
- 2GHz single-core CPU for up to 3-way calls; dual-core CPU for larger meetings
- Sound card, speakers/headset, microphone
- Webcam
- Firewall rules (minimum): Allow outbound access to UDP port 6000 (preferred) or TCP port 80 on the directory servers and relay servers that will be used, including return traffic.
- Firewall rules (optimal): Allow outbound UDP access to all hosts on all ports, and return traffic. This allows the highest performance and scalability. For greater security, VSee clients can be configured to originate all traffic from UDP port 6000 – outbound rules can then be based on this source port.

## 2 To install

### 2.1 To install with default settings using native installer

1. Obtain the native installer, e.g. vsee.exe.
2. Run vsee.exe.
3. Run the VSee shortcut on the Desktop.
4. Log in using your VSee ID and password, or create a new account.

### 2.2 To install with default settings using MSI installer

1. Obtain the MSI installer, e.g. vsee.msi.
2. Run this command: `msiexec /i vsee.msi`
3. Run the VSee shortcut on the Desktop.

**Note:** Auto-update is currently not supported for MSI-installed clients.

### 2.3 To install with custom settings using MSI installer

1. Obtain the MSI installer, e.g. vsee.msi.
2. Run this command in terminal: `msiexec /i vsee.msi <parameters>`
3. Run the VSee shortcut on the Desktop.

**Note:** The MSI parameters are documented in section 3.

## 2.4 To set up secure USB device sharing

1. Obtain the client and server MSI installers for version 4.3 of the USB-over-Network component. Other versions are not supported.
2. Run the client and server installers.
3. Create a shortcut to start vsee.exe with the “-usb” parameter.

**Note:** Secure USB device sharing is currently only supported on 32-bit versions of Windows, including Windows 7.

## 2.5 To install the VSee Sametime plug-in

1. Launch the Sametime Connect client and log in.
2. Go to *Tools -> Plug-ins -> Install Plug-ins*.
3. Click “Search for new features to install”.
4. Click “Add Remote Location”. Enter “VSee Plug-in” for Name. For URL, use the URL of the plug-in install site, e.g. <http://vsee.com/sametime/ST8.01>.
5. Click “Finish”, and step through the plug-in install wizard.

To upgrade or re-install the plugin, first uninstall it using *Tools -> Plug-ins -> Manage Plug-ins*, then follow the steps above to install the new plug-in.

## 2.6 Installation tips

- Ensure that the Windows default audio recording and playback devices are set to the ones that VSee should use.
- For optimal acoustic echo cancellation (AEC) performance on Windows XP, ensure that the audio recording and playback devices are on the same sound card. This is less of a concern for Windows Vista.

## 3 VSee client MSI Parameters

Sample install syntax:

```
msiexec /i vsee.msi INSTALLDIR="C:\VSeeClient" <other parameters>
```

MSI parameters should be surrounded by quotes.

Sample uninstall syntax (alternatively, use the Windows Control Panel or the Uninstaller link in the “VSee” Start menu folder):

```
msiexec /x vsee.msi
```

Table 1 - Client MSI parameters

MSI Parameter	Description	Default
ACCEPTEULA	“Y” to suppress display of the EULA, “N” to display EULA	N
AUTORUN	“Y” to launch the VSee client automatically at boot, “N” to not	Y
DIRECTORYSERVER	Directory hostname and UDP port. Up to 4 directories can be specified. Format is “host1:port1;host2:port2;...”	dir1.vsee.com:6000, dir2.vsee.com:6000
FILETRANSFERPATH	Staging location for received files	Windows temporary directory
INSTALLDIR	Location of VSee client program files	C:\Program Files\VSee
LOGPATH	Location of VSee client log files	“VSee” folder within per-user application data folder
NORUN	Set to any value to avoid launching the VSee client when the MSI installer completes	N/A
NOSHORTCUT	Set to any value to prevent VSee client shortcuts from being created in the Windows Start menu	N/A
NOSSO	“Y” to disable single sign-on	N/A
RECORDINGPATH	Location of session A/V and chat recordings	Location specified by the user at recording time
RELAYSERVER	Relay hostname and UDP port. Up to 4 relays can be specified. Format is “host1:port1;host2:port2;...”	rel1.vsee.com:6000, rel2.vsee.com:6000
SECUREGUI	“Y” to enable Secure GUI mode, “N” to disable	N
URLHELP	URL to display when user clicks Help	http://vsee.com/help
USERSETTINGSPATH	Location of VSee client per-user settings	“VSee” folder within per-user application data folder
VSEEARGS	Parameters that will be passed to the VSee client when the MSI installer launches it	None

## 4 Description of installed files

Table 2 - Description of installed files

File	Description
1.wav	Sound effect file
cryptopp.dll	FIPS 140-2 certified Crypto++ encryption library
dbghelp.dll	Library used in the creation of VSee crash reports
gdiplus.dll	Library used for GUI rendering
ring.wav	Sound effect file
vsee.exe	VSee client executable
vseeCryptoppEnc.dll	VSee wrapper for FIPS 140-2 certified Crypto++ library
Vseesip.exe	Helper executable for PSTN-calling feature (preview feature)
vseeUninstall.exe	VSee uninstaller (non-MSI clients only)
vseeUpdate.exe	VSee updater (non-MSI clients only)
vseeUpload.exe	VSee crash report uploader
Wldap32.dll	Library used for LDAP lookup

## 5 VSee client executable parameters (for advanced users)

Table 3 - vsee.exe parameters

Parameter	Description	Default
-bw number	Specify the maximum bandwidth vsee should use, in Kbps. e.g. -bw 128 to limit the max vsee bandwidth used to 128 Kbps.	Bandwidth measured
-dir ip_addr	Specify the ip_address of your vsee directory. This parameter is designed for IT to force vsee to use a particular directory server.	dir1.vsee.com and dir2.vsee.com
-file filename	Use an AVI file as a fake camera input to vsee.	N/A
-force_server	Run multiple vsee clients login as different names on the same computer.	Off
-fps f	Specify camera output frames per second.	Dynamic
-hd	Enable experimental 720p resolution. Camera must support this resolution.	Off
-no_audio	Disable sending audio.	Audio enabled
-no_video	Disable sending video.	Video enabled
-p2p name	Preview support for ad-hoc mesh routing. VSee will discover other vsee clients on your network, and	Off

	build a listing of these nodes in your address book.	
<b>-portfwd</b>	Preview support for port forwarding. Currently exposed only through the VSee client API.	Off
<b>-res w h</b>	Specify camera output video width and height.	320x240
<b>-secure_gui</b>	Enables secure GUI mode.	Off
<b>-server_only</b>	This put vsee in broadcast mode where it will only send audio and video and automatically accept incoming calls.	Off
<b>-usb</b>	Enable encrypted USB device sharing.	Off

## 6 Connecting to a private VSee directory

By default, the VSee client connects to the global directory hosted by VSee. There are three methods to configure it to connect to a private directory instead:

1. Set the MSI installer's DIRECTORYSERVER parameter, as described above.
2. Set either of the following Windows registry string (REG\_SZ) values to the IP address of the private directory, or the IP addresses of a pair of clustered directories:  
HKEY\_LOCAL\_MACHINE\Software\VSee\Client\Directory (32-bit)  
HKEY\_LOCAL\_MACHINE\Software\Wow6432Node\VSee\Client\Directory (64-bit)

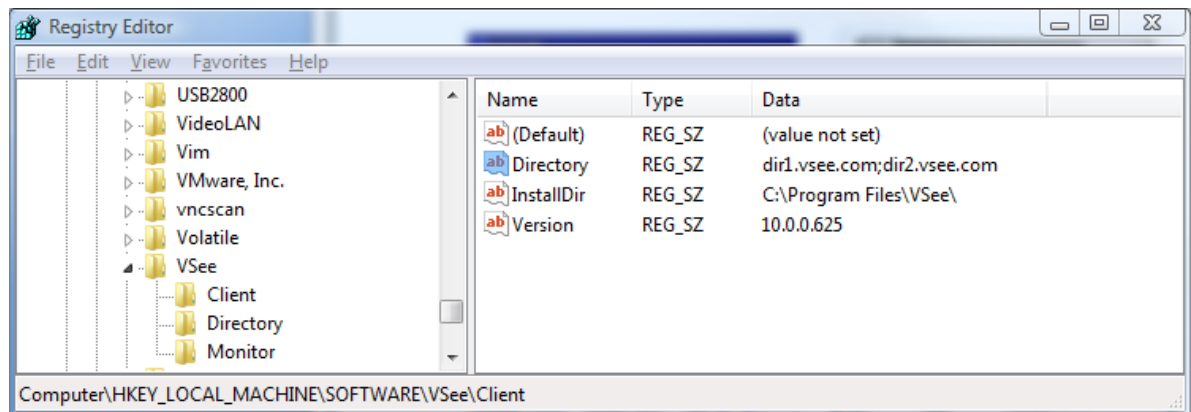


Figure 1 - HKEY\_LOCAL\_MACHINE\Software\VSee\Client\Directory

3. Start vsee.exe with the -dir parameter, as described above.

The first two methods persist across OS reboots.

## 7 Running multiple instances of VSee client on the same computer

On some networks, it is desired to run one instance of the VSee client for secure internal calls. This instance would connect to a private directory within the firewall. Another instance can be run to connect to an external directory for making external calls.

1. **Internal instance:** Make a shortcut on your desktop pointing to the VSee client, vsee.exe. Add `-force_server -dir server_ip_address` to the Target field. Use the IP address of your internal VSee directory server.
2. **External instance:** Make a shortcut on your desktop pointing to the VSee client, vsee.exe. Add `-force_server -dir dir1.vsee.com` to the Target field.

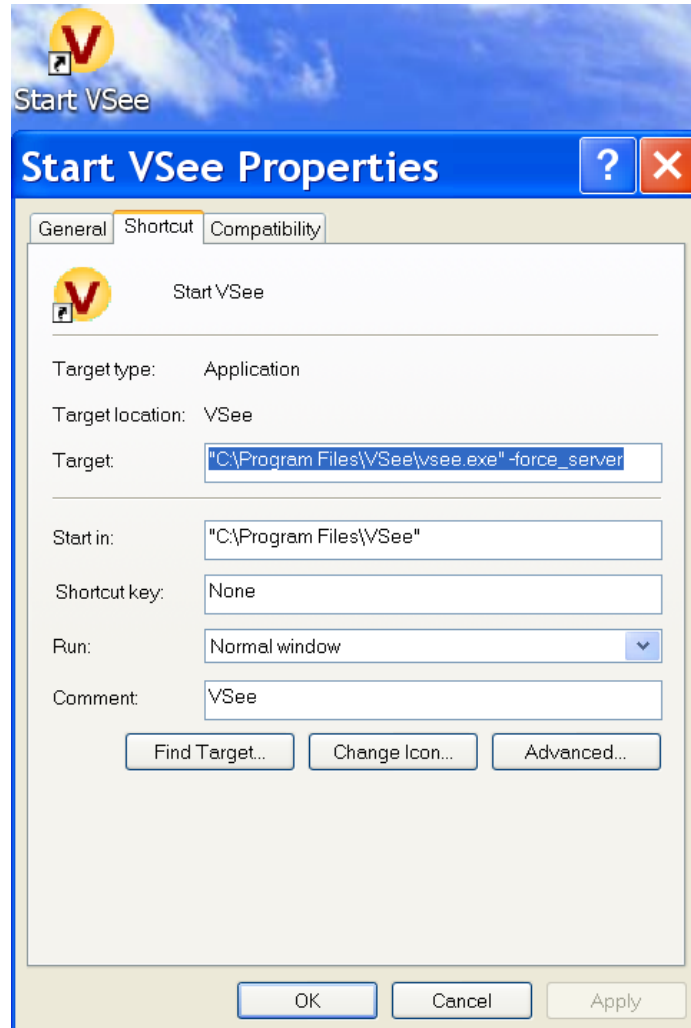


Figure 2 - Setting the VSee client shortcut's Target field to allow multiple client instances

**Note:** On the development roadmap is the federation of VSee directory servers, such that running multiple client instances will no longer be necessary.

**Note:** A single camera cannot be simultaneously used by two VSee client instances.

## 8 Setting auto-answer permissions

If auto-answer is enabled, by default calls from any user are automatically accepted. It is possible to specify the users from whom calls will be automatically accepted. When this is done, calls from

any other user will not be automatically answered, instead producing the normal “accept/decline” prompt.

To use this feature:

1. Create a file `acceptlist.txt` in the VSee client installation directory.
2. Populate the file with the usernames of users from whom calls should be automatically accepted; one per line.
3. Restart the VSee client.

Note that the file is ignored if auto-answer is not enabled.

## 9 Secure GUI mode

Secure GUI mode is designed to allow the user to tell, at a glance, whether the client is connected to a private directory server or to the VSee public directory server.

The following screenshots show how key GUI elements look in secure GUI mode when connected to a private directory server.

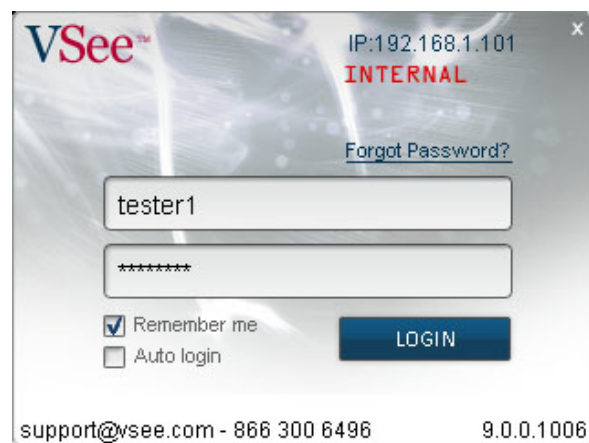


Figure 3 - Secure GUI mode: Login window



Figure 4 - Secure GUI mode: Local video window



Figure 5 - Secure GUI mode: Local and remote video windows when connected to private directory server

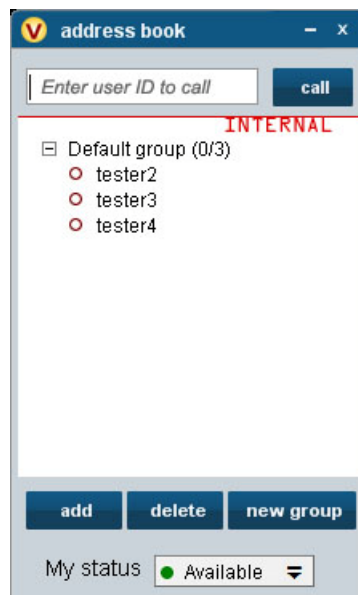


Figure 6 - Secure GUI mode: Address book

For purposes of comparison, the following screenshot shows how the local and remote video windows look when the user is connected to the VSee public directory. Note the absence of the “INTERNAL” label.

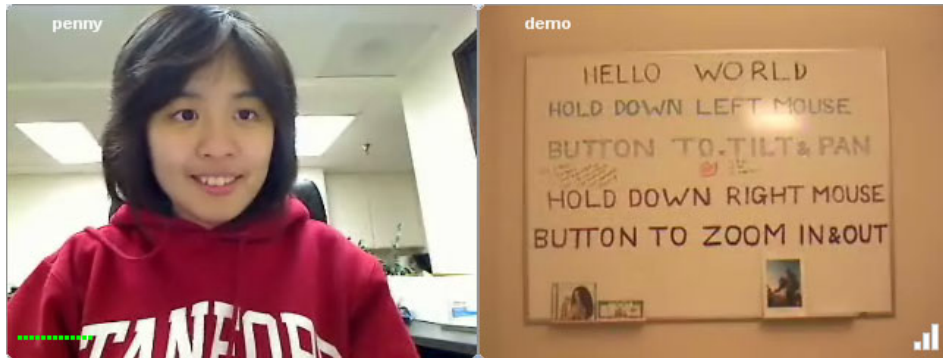


Figure 7 - Secure GUI mode: Local and remote video windows when connected to public directory server