

Deploying 1E Client on Windows



Summary

Guidance for deploying 1E Client onto **Windows** computers, including installation and uninstallation.

If you are upgrading Tachyon Agent or other 1E client agents to 1E Client then please consult [Upgrading to 1E Client](#).

If you are reconfiguring 1E Client then please refer to [Reconfiguring 1E Client](#).

Requirements

Please review [Design Considerations](#) and [Requirements](#) pages. After installation please review the [Verifying](#) page.

For details of supported OS platforms please refer to [Supported Platforms](#) reference page.

Guidance below is for deployment on Windows devices. Please refer to [Deploying 1E Client on macOS](#), [Deploying 1E Client on Linux](#) and [Deploying 1E Client on Solaris](#).



Please contact 1E if guidance is required for installation on other non-Windows OS and for Android.



1E Client does not have a license key. Even so, you must adhere to the terms of your license agreement.

Deployment choices

You must decide how you will configure the 1E Client and deploy to devices. For more information about configuring the 1E Client properties during and after installation, please refer to [1E Client configuration settings and installer properties](#).

Deploying 1E Client is normally achieved using your existing software deployment tool, for example Microsoft System Center Configuration Manager. Some organizations may require the 1E Client to be packaged. The [1E Client Deployment Assistant 1.5 \(CDA\)](#) is designed to help install Windows versions of 1E Client and other 1E agents using Configuration Manager. It includes template transform files for each combination of client/agent for 32-bit and 64-bit platforms, and automatically creates collections and deployments in Configuration Manager, so that you only need to populate the collections.



If you have Configuration Manager then [1E Client Deployment Assistant 1.5 \(CDA\)](#) is the recommended method of deploying a new installation or upgrade of the 1E Client on Windows.

Windows installation account

The 1E Client installer installs a service as local system, therefore the installation account for Windows clients must be capable of being elevated in order to run the installer. The simplest way of achieving this is for the account to have full local administrator rights (as a member of the localgroup administrators, either directly or indirectly).

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Preparation

1E Client installation files are available for download from the [1E Support Portal](#).

The 1E Client should be installed on all Windows clients. You must use the correct installer according to the Windows architecture of the device:

- **1E.Client-x64.msi** is for 64-bit architectures
- **1E.Client-x86.msi** is for 32-bit architectures

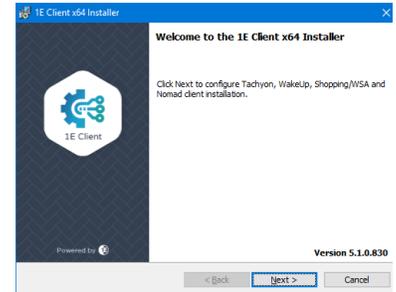
Installing the 1E Client interactively

When running the MSI directly or using a command line, please ensure the installation account has the required permissions as described in [151425984](#).

The following panels describes each screen of the 1E Client installer.

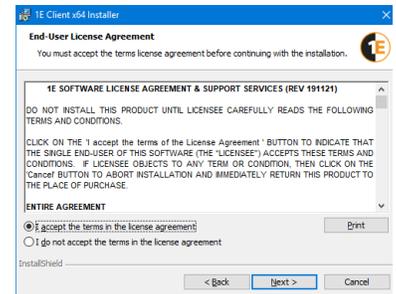
Welcome

The welcome screen, just click **Next** to continue.



End-User License Agreement

You must read and then accept this license information by clicking the I accept the terms in the license agreement option before you can continue with the installation. Once this is done click Next.



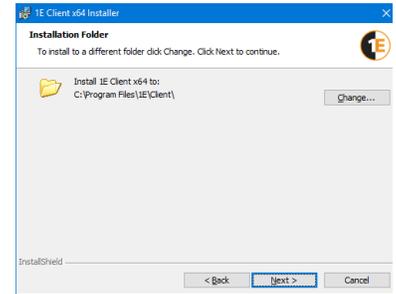
Installation Folder

The next screen lets you to choose the folder where the 1E Client will be installed:

By default this is set to:

```
%programfiles%\1E\Client\
```

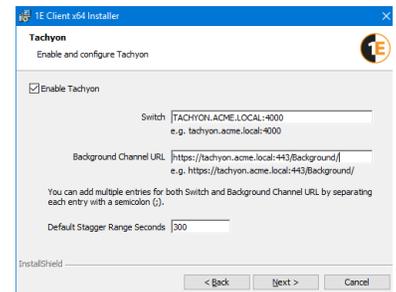
But you can browse to a new folder using the **Change...** button. Once the desired folder has been set you click the **Next** button to continue to the next screen.



Tachyon

On this screen you configure how the 1E Client connects with the Tachyon platform. If you are installing the 1E Client only to support Nomad, Shopping or WakeUp and do not have the Tachyon platform installed, uncheck the **Enable Tachyon** checkbox and click **Next**.

Setting	Description
Enable Tachyon	Check this box to enable Tachyon.



Switch

Sets the name and port of the server where the Tachyon Switch is located. The default port is 4000.

If Tachyon client features are not required then the connection to Tachyon Platform is not required, and both **Switch** and **BackgroundChannelUri** settings must be set to **no** when doing a non-interactive (silent/quiet) install using installer properties on a command-line or in a MST transform file. When doing an interactive install then you must uncheck the **Enable Tachyon** checkbox.

Tachyon client features are not required if the 1E Client is being installed only to support Nomad, Shopping, or WakeUp.

To connect to the Tachyon platform then **Switch** will have one or more entries in the format:

```
Switch=<SwitchName>:<SwitchPort>
```

<SwitchName> is the DNS Name FQDN for one or more Switches. This is the same as the following except in a custom configuration where the Switch is installed on its own:

- the HTTPS Host Header specified on the *Website Configuration* screen of the Tachyon Server installer, which is the HTTPS binding for the Tachyon Web Site
- the same as [<BackgroundChannelServer>](#)
- the DNS Name specified in the Tachyon Server's Web Certificate.

<SwitchPort> is the Port number, which has default value of 4000. Any other port number is used only in a complex configuration if advised by 1E.

In systems where there are multiple DNS Names, there will be multiple entries using a semi-colon (;) as the delimiter between entries. For example:

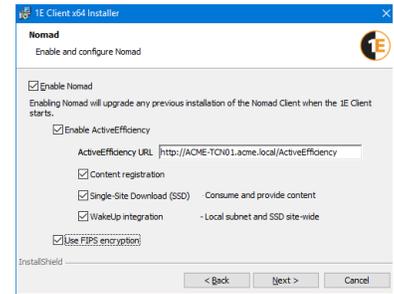
```
Switch=tachyon.acme.local:4000;tachyon.acme.com:4000
```

Background Channel URL	<p>Sets the fully qualified URL that the 1E Client will use to connect to the Tachyon background channel used to transfer large content. If the Tachyon server has been installed to use a custom port for the background channel, the port number must be specified in the URL, for example <code>https://tachyon.acme.local:8443/Background</code>.</p> <p>If Tachyon client features are not required then the connection to Tachyon Platform is not required, and both Switch and BackgroundChannelUrl settings must be set to no when doing a non-interactive (silent/quiet) install using installer properties on a command-line or in a MST transform file. When doing an interactive install then you must uncheck the Enable Tachyon checkbox.</p> <p>Tachyon client features are not required if the 1E Client is being installed only to support Nomad, Shopping, or WakeUp.</p> <p>To connect to the Tachyon platform then BackgroundChannelUrl will have one or more entries in the format:</p> <pre>BackgroundChannelUrl=https://<BackgroundChannelServer>: <BackgroundChannelPort>/Background/</pre> <p><BackgroundChannelServer> is the DNS Name FQDN of the server, which is the same as:</p> <ul style="list-style-type: none"> the HTTPS Host Header specified on the <i>Website Configuration</i> screen of Tachyon Setup, which is the HTTPS binding for the Tachyon website the same as <SwitchName> the DNS Name specified in the Tachyon Server's Web Certificate <p><BackgroundChannelPort> is the Port number, which is the same as:</p> <ul style="list-style-type: none"> the HTTPS Port specified on the <i>Website Configuration</i> screen of Tachyon Setup, which is the HTTPS binding for the Tachyon website if using the default HTTPS port 443, the port can be omitted from the URL <p>In systems with multiple server and multiple DNS Names, there will be multiple entries on one line using a semi-colon (;) as the delimiter between entries. For example:</p> <pre>BackgroundChannelUrl=https://tachyon.acme.local:443 /Background/;https://tachyon.acme.com:443/Background/</pre>
Default Stagger Range Seconds	<p>Sets the scope for the random delay used by the 1E Client to prevent overburdening the Tachyon Background Channel.</p> <p>Some operations (including HTTPS downloads from the BackgroundChannel) are randomly time-staggered across Tachyon clients. This property dictates the upper-limit on the default randomization period in seconds.</p> <p>Range is 0 to 3600. Default is 300.</p> <p>Use 0 to instruct Tachyon client not stagger operations by default.</p> <div data-bbox="284 1428 1047 1522" style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">  Do not change this value unless advised by 1E. Only use 0 or a low value in systems that support less than 500 clients. </div> <div data-bbox="284 1543 1047 1648" style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">  This setting is not used for HTTPS downloads from the BackgroundChannel if NomadContentDownloadEnabled is true, because Nomad does the bandwidth management. </div>

Nomad

If you are using Nomad 7.0 with Configuration Manager you must enable Nomad on Configuration Manager clients and Distribution Points. The 1E Client Nomad module replaces the NomadBranch client from previous versions of Nomad. You can also use the Nomad client with Tachyon to improve the efficiency of content downloads.

Setting	Description										
Enable Nomad	<p>Check this box to enable Nomad.</p> <p>Nomad is used to support efficient content download for Configuration Manager and Tachyon. For Tachyon, its Nomad content download feature is enabled by default but only used if Nomad is enabled.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  If Nomad is enabled, when the 1E Client starts it will upgrade any previous installation of the NomadBranch client. </div>										
Enable ActiveEfficiency	<p>Check this box to allow enhanced Nomad features to be enabled, such as Single-Site Download (SSD) and WakeUp integration.</p> <p>To support these features you need to configure the connection between Nomad and ActiveEfficiency and then select the following options:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Option</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>ActiveEfficiency URL</td> <td>Enter https://<server_FQDN>/ActiveEfficiency or http://<server_FQDN>/ActiveEfficiency depending on the protocol you are using, where <server_FQDN> is the FQDN of the server or its DNS alias.</td> </tr> <tr> <td>Content Registration</td> <td>This configures Nomad to provide details of the content it downloads to ActiveEfficiency and enable Nomad to act as a content provider across subnets using Single Site Download.</td> </tr> <tr> <td>Single-Site Download (SSD)</td> <td> <p>If you check both Single-Site Download and Content Registration then Nomad will make its own content available to other Nomad peers.</p> <p>If you check Single-Site Download but not Content Registration then Nomad will be able to fetch downloads from registered peers on other subnets but will not make its own content available.</p> </td> </tr> <tr> <td>WakeUp integration</td> <td>If you check WakeUp integration but not Single Site Download, any attempt to wake-up peers with particular content will only be on the local subnet. If Single Site Download is also checked, Nomad will try to wake peers with particular content in neighboring subnets on the site if peers on the local subnet do not wake.</td> </tr> </tbody> </table>	Option	Description	ActiveEfficiency URL	Enter https://<server_FQDN>/ActiveEfficiency or http://<server_FQDN>/ActiveEfficiency depending on the protocol you are using, where <server_FQDN> is the FQDN of the server or its DNS alias.	Content Registration	This configures Nomad to provide details of the content it downloads to ActiveEfficiency and enable Nomad to act as a content provider across subnets using Single Site Download .	Single-Site Download (SSD)	<p>If you check both Single-Site Download and Content Registration then Nomad will make its own content available to other Nomad peers.</p> <p>If you check Single-Site Download but not Content Registration then Nomad will be able to fetch downloads from registered peers on other subnets but will not make its own content available.</p>	WakeUp integration	If you check WakeUp integration but not Single Site Download , any attempt to wake-up peers with particular content will only be on the local subnet. If Single Site Download is also checked, Nomad will try to wake peers with particular content in neighboring subnets on the site if peers on the local subnet do not wake.
Option	Description										
ActiveEfficiency URL	Enter https://<server_FQDN>/ActiveEfficiency or http://<server_FQDN>/ActiveEfficiency depending on the protocol you are using, where <server_FQDN> is the FQDN of the server or its DNS alias.										
Content Registration	This configures Nomad to provide details of the content it downloads to ActiveEfficiency and enable Nomad to act as a content provider across subnets using Single Site Download .										
Single-Site Download (SSD)	<p>If you check both Single-Site Download and Content Registration then Nomad will make its own content available to other Nomad peers.</p> <p>If you check Single-Site Download but not Content Registration then Nomad will be able to fetch downloads from registered peers on other subnets but will not make its own content available.</p>										
WakeUp integration	If you check WakeUp integration but not Single Site Download , any attempt to wake-up peers with particular content will only be on the local subnet. If Single Site Download is also checked, Nomad will try to wake peers with particular content in neighboring subnets on the site if peers on the local subnet do not wake.										
Use FIPS encryption	<p>Checking Use FIPS Encryption configures the Nomad module to use FIPS encrypted communications.</p> <p>You must ensure that Nomad is configured with the same FIPS encryption setting on all your 1E Clients.</p>										

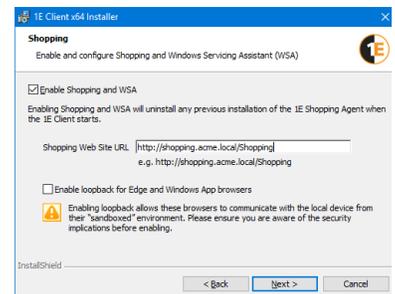
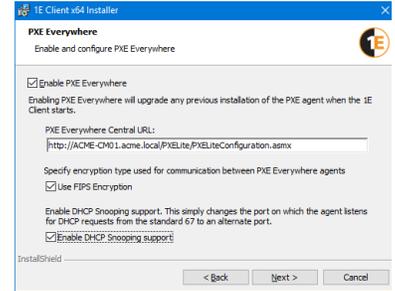


If you are licensed to use Nomad, you should enable Nomad if you have enabled Tachyon so that Tachyon can take advantage of Nomad's content download features which intelligently manage bandwidth and use its peers when downloading content from Tachyon Background Channel and other HTTP/S sources. You do not require Configuration Manager in order for Tachyon to use Nomad. For more information on this feature, please refer to [Design Considerations: Downloading Tachyon client resources and Nomad integration](#).

PXE Everywhere

If you are using PXE Everywhere 4.0 or later you must enable PXE Everywhere. The PXE Everywhere Agent client module of the 1E Client replaces the PXE Everywhere Agent from previous versions of PXE Everywhere.

Setting	Description
Enable PXE Everywhere	<p>Check this box to enable PXE Everywhere Agent client module.</p> <div style="border: 1px solid yellow; padding: 5px; margin: 10px 0;">  If enabled, when the 1E Client starts it will attempt to automatically remove any previous installations of PXE Everywhere Agent. </div> <p>Other fields are only enabled if this checkbox is checked.</p>
PXE Everywhere Central URL	<p>URL for the PXE Everywhere Central web service in the format: http://SERVER/PXELite/PXELiteConfiguration.aspx</p> <p>where <SERVER> is the name of the server (or FQDN) where the PXE Everywhere Central web service is installed.</p> <div style="border: 1px solid yellow; padding: 5px; margin: 10px 0;"> <p>The http prefix to the URL is case-sensitive and must be entered in all lower case letters.</p> <p>The URL is not verified by the installer, so you will need to ensure that the correct URL is entered.</p> </div>
Use FIPS Encryption	<p>Checking Use FIPS Encryption configures the PXE Everywhere Agent module to use FIPS encrypted communications.</p> <p>You must ensure that PXE Everywhere is configured with the same FIPS encryption setting on all your 1E Clients.</p>
Enable DHCP Snooping support	<p>Enable this option if your network uses DHCP Snooping. You will also need to implement one or more PXE Everywhere Responders as described in PXE Everywhere 4.0 - Preparation.</p>



Shopping

If you are using Shopping 5.5 or later you must enable Shopping. The 1E Client Shopping module replaces the Shopping Agent from previous versions of Shopping.

Setting	Description
Enable Shopping and WSA	<p>Check this box to enable Shopping Integration and the Windows Servicing Assistant.</p> <p>Shopping must be enabled so that users of a computer can use the 1E Shopping self-service portal, the Windows Servicing Assistant, and the 1E Virtual Assistant.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> If enabled, when the 1E Client starts it will attempt to automatically remove any previous installations of the 1E Shopping Agent.</div>
Shopping Web Site URL	<p>This field is only enabled if the Enable Shopping and WSA checkbox is checked.</p> <p>Example: <code>https://shopping.acme.local/Shopping</code></p> <p>This is the URL of the Shopping Central website, comprising:</p> <ul style="list-style-type: none">• scheme - either http or https• host header - DNS Name FQDN - this is the host header configured for the Shopping website, which is normally a DNS Name FQDN• port number - you do not have to provide this if using default port 80 or 443• path - this is always /Shopping. <p>The URL is not verified by the installer, so you will need to ensure that the correct URL is entered.</p>
Enable loopback for Edge and Windows App browsers	<p>Enable this option if users will connect to the Shopping web site using Edge or other Metro-style browsers.</p> <p>When users connect to the Shopping Portal, the website needs to get the latest details about the local computer. Shopping may already have details from the Configuration Manager database via ActiveEfficiency, but these need to be confirmed and updated. Browser standards only allow websites to get limited information about the user and computer, therefore the website needs to make loopback calls to the local computer via the Shopping client. The following browsers permit loopback calls by default:</p> <ul style="list-style-type: none">• All versions of Chrome• All versions of Firefox• Non-Metro UI based Internet Explorer browsers (including legacy Internet Explorer) <p>If your Shopping users are using Edge and Metro Internet Explorer browsers you must enable a Loopback Exemption to allow these browsers to make loopback calls. Exemption affects the browser as a whole and is not just restricted to the Shopping website. Before enabling this option, check your corporate security policy and be aware of the implications of allowing access between browsers and the local machine. By enabling loopback, you are only setting the Edge/Metro Internet Explorer browsers to the same level of security as other browsers which allow this setting already.</p> <p>If you are running an unattended install, you can use MODULE.SHOPPING.LOOPBACKEXEMPTIONENABLED for all OS but it only works on Windows 8, 8.1, 10 and Windows Server 2012 R2 and later.</p> <p>Shopping client only allows inbound connections to localhost (127.0.0.1) which prevents remote access.</p>

WakeUp

If you are using version 7.2.500 or later of NightWatchman Management Center or WakeUp Server you must install the 1E Client with this option enabled on client devices and on WakeUp Server. The 1E Client WakeUp module replaces the WakeUp Agent from previous versions of the 1E Agent. You may optionally use WakeUp with Nomad if you are using Nomad's single-site-download feature (which requires an ActiveEfficiency server).

Setting	Description
Enable WakeUp	<p>Check this box to enable WakeUp integration. WakeUp integration is required to enable 1E WakeUp capabilities on this device.</p> <div style="border: 1px solid orange; padding: 5px; margin-top: 10px;">  If WakeUp Integration is enabled, when the 1E Client starts it will attempt to automatically remove any previous installation of the 1E WakeUp Agent. The 1E NightWatchman Agent is not affected. </div>
Use FIPS encryption	<p>Checking Use FIPS Encryption configures the WakeUp module to use FIPS encrypted communications.</p> <p>You must ensure that the NightWatchman Management Center, WakeUp Server and 1E NightWatchman Agent components are all set to the same option.</p>
Enable HTTP reporting	<p>Check this box if the NightWatchman Management Center Web Service is configured to use HTTP and you want communications from the WakeUp module to use HTTP. Do not use this option when installing on a WakeUp Server.</p> <p>When checked you must set the DNS Name FQDN for the server hosting the NightWatchman Management Center Web Service in the edit field provided.</p>
Enable HTTPS reporting	<p>Check this box if the NightWatchman Management Center Web Service is configured to use HTTPS and you want communications from the WakeUp module to use HTTPS. Do not use this option when installing on a WakeUp Server.</p> <p>When checked you must set the DNS Name FQDN for the server hosting the NightWatchman Management Center Web Service in the edit field provided.</p>
Use client certificate (from local certificate store) for HTTPS reporting	<p>This checkbox is only enabled when the Enable HTTPS reporting checkbox is checked. You will need to check this option if the NightWatchman Management Center Web Service has been configured to request a client certificate.</p> <p>The certificate is retrieved from the local certificate store and is found by providing a certificate issuer or certificate subject search text. The first certificate found that matches the text will be used to authenticate the client with the NightWatchman Management Center Web Service.</p>
Match Certificate Issuer	<p>This option is only enabled when the Use client certificate for HTTPS reporting checkbox is checked.</p> <p>When selected this option sets the search in the local certificate store to match against the certificate issuer field of the certificate.</p>
Match Certificate Subject	<p>This option is only enabled when the Use client certificate for HTTPS reporting checkbox is checked.</p> <p>When selected this option sets the search in the local certificate store to match against the certificate subject field of the certificate.</p>
Search Text	<p>This option is only enabled when the Use client certificate for HTTPS reporting checkbox is checked.</p> <p>When enabled this edit field should be set to the search text used to locate and retrieve the client certificate from the local certificate store. This will be matched against either the certificate issuer or the certificate subject, depending on which option has been selected above.</p>



When installing on client devices, enable HTTP or HTTPS reporting in order for NightWatchman Management Center to track which subnet the client device is on when it powers down. The WakeUp module reports back subnet changes more frequently than the NightWatchman Agent.

WakeUp Server must be installed before installation of the WakeUp client. If WakeUp client is installed first the WakeUp Server installer only provides the WakeUp Administration console installation option.

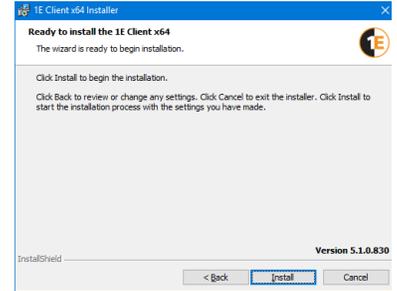
When installing on a WakeUp Server, do **not** enable HTTP or HTTPS reporting. This prevents the server appearing as a client in the NightWatchman Management Center Admin Console. This will only disable Agent reporting whilst the WakeUp Server should have reporting enabled for reporting statistics.



Enter the DNS Name FQDN for the server hosting the NightWatchman Management Center Web Service, do not enter the full URL.

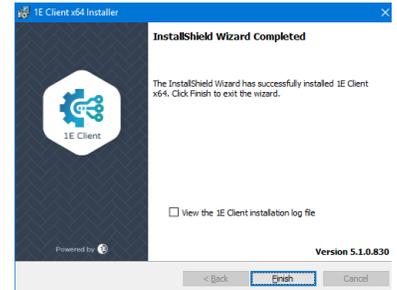
Ready to Install the 1E Client

Once you have finished entering all the settings, you can begin the installation by clicking on the **Install** button on this screen.



InstallShield Wizard Completed

After the attempted installation the **InstallShield Wizard Completed** screen will display the results and give you the option to **View the 1E Client installation log file**. To exit the installer click the **Finish** button.



Installing the 1E Client by command-line

In most cases the 1E Client will be installed in quiet mode from the command-line using a software deployment tool such as Configuration Manager.

Because the expected length of the 1E Client installer command-line is likely to exceed the limit imposed by Configuration Manager you will need to use MST transform file(s) for this to work. Please contact your packaging team if you need help to create transform files.

The [1E Client Deployment Assistant 1.5 \(CDA\)](#) is designed to help install Windows versions of 1E Client and other 1E agents using Configuration Manager. It includes template transform files for each combination of client/agent for 32 and 64-bit platforms, and automatically creates collections and deployments in Configuration Manager, so that you only need to populate the collections.

The installer properties listed on this page are for the options visible in the interactive installer above:

- [1E Client - common settings](#)
- [Tachyon client](#)
- [Nomad client](#)
- [PXE Everywhere Agent](#)
- [Shopping client](#)
- [WakeUp client](#)

Additional installer properties are available for:

- [Tachyon client settings](#)
- [Nomad client settings](#)
- [PXE Everywhere Agent settings](#)
- [Shopping client settings](#)
- [WakeUp client settings](#)

Some [command-line examples](#) are also provided below.

1E Client

The following are common settings for the 1E Client.

Installer property	Description
INSTALLDIR	<p>Sets the installation folder.</p> <p>This value is not stored in the 1E Client configuration file.</p> <p>This value is stored as InstallationDirectory in the Windows registry under HKLM\SOFTWARE\1E\Client\ and must not be changed.</p> <p>Some client modules that run on Windows store their registry settings under their own keys in HKLM\SOFTWARE\1E.</p> <div style="border: 1px solid #ffc107; padding: 5px; margin-top: 10px;"> This installer property is for Windows only.</div>

Tachyon client

When installing the full 1E Client (to be used with the Tachyon platform), the following are typical installer properties to use. Additional installer properties are described on the [Tachyon client settings](#) page.

As with other Windows installers, uninstallation will leave behind any files, folders and registry entries that were created after installation.

Installer property	Description
BACKGRO UNDCHAN NELURL	<p>If Tachyon client features are not required then the connection to Tachyon Platform is not required, and both Switch and BackgroundChannelUrl settings must be set to none when doing a non-interactive (silent/quiet) install using installer properties on a command-line or in a MST transform file. When doing an interactive install then you must uncheck the Enable Tachyon checkbox.</p> <p>Tachyon client features are not required if the 1E Client is being installed only to support Nomad, Shopping, or WakeUp.</p> <p>To connect to the Tachyon platform then BackgroundChannelUrl will have one or more entries in the format:</p> <pre data-bbox="316 604 1459 667">BackgroundChannelUrl=https://<BackgroundChannelServer>:<BackgroundChannelPort>/Background/</pre> <p><BackgroundChannelServer> is the DNS Name FQDN of the server, which is the same as:</p> <ul data-bbox="332 741 1430 835" style="list-style-type: none">• the HTTPS Host Header specified on the <i>Website Configuration</i> screen of Tachyon Setup, which is the HTTPS binding for the Tachyon website• the same as <SwitchName>• the DNS Name specified in the Tachyon Server's Web Certificate <p><BackgroundChannelPort> is the Port number, which is the same as:</p> <ul data-bbox="332 905 1386 972" style="list-style-type: none">• the HTTPS Port specified on the <i>Website Configuration</i> screen of Tachyon Setup, which is the HTTPS binding for the Tachyon website• if using the default HTTPS port 443, the port can be omitted from the URL <p>In systems with multiple server and multiple DNS Names, there will be multiple entries on one line using a semi-colon (;) as the delimiter between entries. For example:</p> <pre data-bbox="316 1073 1459 1136">BackgroundChannelUrl=https://tachyon.acme.local:443/Background/;https://tachyon.acme.com:443/Background/</pre>
SWITCH	<p>If Tachyon client features are not required then the connection to Tachyon Platform is not required, and both Switch and BackgroundChannelUrl settings must be set to none when doing a non-interactive (silent/quiet) install using installer properties on a command-line or in a MST transform file. When doing an interactive install then you must uncheck the Enable Tachyon checkbox.</p> <p>Tachyon client features are not required if the 1E Client is being installed only to support Nomad, Shopping, or WakeUp.</p> <p>To connect to the Tachyon platform then Switch will have one or more entries in the format:</p> <pre data-bbox="316 1409 1459 1472">Switch=<SwitchName>:<SwitchPort></pre> <p><SwitchName> is the DNS Name FQDN for one or more Switches. This is the same as the following except in a custom configuration where the Switch is installed on its own:</p> <ul data-bbox="332 1570 1446 1665" style="list-style-type: none">• the HTTPS Host Header specified on the <i>Website Configuration</i> screen of the Tachyon Server installer, which is the HTTPS binding for the Tachyon Web Site• the same as <BackgroundChannelServer>• the DNS Name specified in the Tachyon Server's Web Certificate. <p><SwitchPort> is the Port number, which has default value of 4000. Any other port number is used only in a complex configuration if advised by 1E.</p> <p>In systems where there are multiple DNS Names, there will be multiple entries using a semi-colon (;) as the delimiter between entries. For example:</p> <pre data-bbox="316 1822 1459 1885">Switch=tachyon.acme.local:4000;tachyon.acme.com:4000</pre>

DEFAULTS TAGGERR ANGESEC ONDS	<p>Some operations (including HTTPS downloads from the BackgroundChannel) are randomly time-staggered across Tachyon clients. This property dictates the upper-limit on the default randomization period in seconds.</p> <p>Range is 0 to 3600. Default is 300.</p> <p>Use 0 to instruct Tachyon client not stagger operations by default.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Do not change this value unless advised by 1E. Only use 0 or a low value in systems that support less than 500 clients. </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  This setting is not used for HTTPS downloads from the BackgroundChannel if NomadContentDownloadEnabled is true, because Nomad does the bandwidth management. </div>
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 The BACKGROUNDCHANNELURL and SWITCH properties are mandatory. If you want to install the 1E Client with the 1E Client modules for Shopping or WakeUp enabled, and the full Tachyon Platform infrastructure has not been installed, you should set both of these properties to **none**.

However, note that during an upgrade of **Tachyon Agent**, you must enable the connection to the Tachyon Platform, therefore you must define the BACKGROUNDCHANNELURL and SWITCH properties.

Disabling the connection to the Tachyon Platform is presently only possible for new installations of the 1E Client. If you wish to disable the connection following an upgrade, you must reconfigure the 1E Client once the upgrade has completed. For more detail please refer to [Reconfiguring the 1E Client after installation](#) below.

Nomad client

When installing the 1E Client to support Nomad 7.0 or later, the following installer properties are available. Additional installer properties are described on the [Nomad client settings](#) page.

As with other Windows installers, uninstallation will leave behind any files, folders and registry entries that were created after installation.

Installer property	Description
MODULE. NOMAD. ENABLED	<p>Nomad is used to support efficient content download for Configuration Manager and Tachyon. For Tachyon, the Nomad content download feature is enabled by default.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  If Nomad is enabled, when the 1E Client starts it will upgrade any previous installation of the NomadBranch client. </div>
MODULE. NOMAD. PLATFORMURL	<p>Specify the URL of the ActiveEfficiency Server in the form https://<server_FQDN>/ActiveEfficiency or http://<server_FQDN>/ActiveEfficiency depending on the protocol you are using, where <server_FQDN> is the FQDN of the server or its DNS alias.</p> <p>Although not a requirement for generally using Nomad, ActiveEfficiency Server must be installed and available before you can use certain Nomad features.</p> <p>The following Nomad features require ActiveEfficiency:</p> <ul style="list-style-type: none"> • Single-site download (SSD) • Single-site Peer Backup Assistant (SSPBA) • High Availability Peer Backup Assistant (HAPBA) • Get migration settings task sequence action used to manage computer associations • Nomad Pre-caching • Nomad Dashboard • WakeUp integration (also requires NightWatchman Management Center server, WakeUp Servers installed on Configuration Manager sites, and Single-site download) • Nomad Download Pause (also requires Tachyon infrastructure) <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Hotfix requirement <p>If you will be using any of these features with Nomad 7.0 you must install ActiveEfficiency 1.10 with the latest accumulated hotfix available on the 1E Support Portal (https://1eportal.force.com/s/article/LatestHotfixes).</p> </div>

MODULE. NOMAD. CONTENTREGI STRATION	Set to 1 to enable the Nomad client to act as a content provider across subnets when using Single Site Download .
MODULE. NOMAD. SSDENABLED	Set to 1 to enable Single-site download , which requires an ActiveEfficiency Server. If you enable both Single-Site Download and Content Registration then Nomad will make its own content available to other Nomad peers. If you enable Single-Site Download but not Content Registration then Nomad will be able to fetch downloads from registered peers on other subnets but will not make its own content available.
MODULE. NOMAD. WAKEUPENABL ED	Set to 1 to enable WakeUp integration , which requires an ActiveEfficiency Server. If you enable WakeUp integration but not Single Site Download , any attempt to wake-up peers with particular content will only be on the local subnet. If Single Site Download is also checked, Nomad will try to wake peers with particular content in neighboring subnets on the site if peers on the local subnet do not wake.
MODULE. NOMAD. USEFIPS	Set to 1 to configure the Nomad module to use FIPS encrypted communications. You must ensure that Nomad is configured with the same FIPS encryption setting on all your 1E Clients.



Previous versions of Nomad required a license key (installer property PIDKEY). 1E Client and the Nomad client module do not require a license key. Even so, you must adhere to the terms of your license agreement.

PXE Everywhere Agent

When installing the 1E Client to support PXE Everywhere v4.0 or later, the following installer properties are available.

Installer property	Description
MODULE. PXEEVERYWHE RE.ENABLED	Set this property to true to enable the PXE Everywhere Agent client module. The default value is false.  If enabled, when the 1E Client starts it will attempt to automatically remove any previous installations of PXE Everywhere Agent.
MODULE. PXEEVERYWHE RE. CONFIGSERVE RURL	URL for the PXE Everywhere Central web service in the format: http://SERVER/PXELite/PXELiteConfiguration.aspx where <SERVER> is the name of the server (or FQDN) where the PXE Everywhere Central web service is installed. <div style="border: 1px solid #ccc; padding: 5px;"> <p>The http prefix to the URL is case-sensitive and must be entered in all lower case letters.</p> <p>The URL is not verified by the installer, so you will need to ensure that the correct URL is entered.</p> </div>
MODULE. PXEEVERYWHE RE.USEFIPS	You must use the same FIPS encryption setting on all PXE Everywhere Agents. Use of FIPS compliant encryption for communications. <ul style="list-style-type: none"> • 0 – use default encryption • 1 – use FIPS encryption

<p>MODULE.PXEEVERYWHERE.DHCPPORT</p>	<p>This installer property is set to 2067 if Enable DHCP Snooping support is checked during an interactive installation of the 1E Client installer.</p> <p>This is the UDP port on which the PXE Everywhere Agent will listen for PXE requests.</p> <p>If DHCP Snooping is not being used, then this port must be 67 (default), and you do not need to install Responders.</p> <p>When manually installing the PXE Everywhere Agent, if the DHCP Snooping option is enabled in the installer UI, the default port is changed from 67 (43 hex) to 2067 (813 hex). If the MODULE.PXEEVERYWHERE.DHCPPORT installer property is used to specify a port other than 67, the installer UI assumes the DHCP Snooping option is enabled.</p> <p>If DHCP Snooping is being used, then DhcpPort on Agents must be the same value as AltPxeServerPort on Responders. The default value of AltPxeServerPort is 2067. If a value other than 2067 is specified as a custom port number on Agents, you will also need to manually create the AltPxeServerPort (and AltPxeClientPort) registry values on Responders.</p>
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Shopping client

When installing the 1E Client to support Shopping v5.5 or later, the following installer properties are available.

Installer property	Description
<p>MODULE.SHOPPING.ENABLED</p>	<p>Shopping must be enabled so that users of a computer can use the 1E Shopping self-service portal, the Windows Servicing Assistant, and the 1E Virtual Assistant.</p> <div data-bbox="474 760 1464 850" style="border: 1px solid #ffc107; padding: 5px;">  If enabled, when the 1E Client starts it will attempt to automatically remove any previous installations of the 1E Shopping Agent. </div>
<p>MODULE.SHOPPING.SHOPPINGCENTRALURL</p>	<p>Example: <code>https://shopping.acme.local/Shopping</code></p> <p>This is the URL of the Shopping Central website, comprising:</p> <ul style="list-style-type: none"> • scheme - either http or https • host header - DNS Name FQDN - this is the host header configured for the Shopping website, which is normally a DNS Name FQDN • port number - you do not have to provide this if using default port 80 or 443 • path - this is always /Shopping.
<p>MODULE.SHOPPING.LOOPBACKEXEMPTIONENABLED</p>	<p>Optional. Default value is false. Set this value to true if users are likely to use Microsoft Edge or other Metro browsers to access the Shopping website.</p> <p>The Shopping client requests this value from the Shopping Central website (admin console setting: Loopback exemption enabled). If the request is successful the website value takes precedence, otherwise the local setting is used.</p>

WakeUp client

When installing the 1E Client to support the WakeUp component of NightWatchman Enterprise v7.2.500 or later, the following are typical installer properties to use. Additional installer properties are described on the [WakeUp client settings](#) page.

Installer property	Description
<p>MODULE.WAKEUP.ENABLED</p>	<p>Set this property to true to enable the WakeUp client module. The default value is false.</p> <p>Enabling this will also cause any installation of the 1E Agent's WakeUp component to be uninstalled the first time the 1E Client is started, leaving the NightWatchman component if that was installed.</p> <div data-bbox="380 1701 1464 1812" style="border: 1px solid #ffc107; padding: 5px;">  When true then you must also specify either the name of the NightWatchman Management Center reporting server, or that reporting is turned off. For details of these and all other installer properties please refer to WakeUp client settings. </div>

<p>MODULE. WAKEUP. USEFIPS</p>	<p>Set to 1 to force the WakeUp agent to use a FIPS-compliant algorithm for:</p> <ul style="list-style-type: none"> WakeUp Reporting to the NightWatchman Management Center Web Service by setting UseFipsComplianceEncryption registry value to 1. Communication between WakeUp Agents and WakeUp Servers. It will override the MODULE.WAKEUP.ENCRYPTIONLEVEL installer property and set the EncryptionLevel registry value to 3. <p>If enabled, then all components in the NightWatchman and WakeUp system must have FIPS enabled.</p> <p>EncryptionLevel and FIPS settings used by WakeUp do not affect other 1E Client communications.</p>
<p>MODULE. WAKEUP. REPORTING</p>	<p>Enables WakeUp reporting. Sets whether the Agent sends reporting messages to the NightWatchman Management Center Web Service. May be set to one of the following values:</p> <ul style="list-style-type: none"> ON – reporting is enabled and messages are forwarded to the NightWatchman server. It is mandatory to specify one of the following: MODULE.WAKEUP.REPORTINGSERVER or MODULE.WAKEUP.SECUREREPORTINGSERVER OFF – no information is reported to the server. <div data-bbox="380 621 1463 735" style="border: 1px solid green; padding: 5px;"> <p> When installing the 1E Client on a WakeUp Server, set MODULE.WAKEUP.REPORTING=OFF so that the server does not appear as a client in the NightWatchman Management Center Admin Console. This will only disable Agent reporting whilst the WakeUp Server will have reporting enabled for reporting statistics.</p> </div>
<p>MODULE. WAKEUP. REPORTINGSERVER</p>	<p>Set this parameter to the FQDN (recommended) or NetBIOS name of the server hosting the NightWatchman Management Center Web Service.</p> <div data-bbox="380 867 1463 951" style="border: 1px solid red; padding: 5px;"> <p> Mandatory when WakeUp reporting is enabled (default) and using HTTP for communications.</p> </div> <div data-bbox="380 972 1463 1056" style="border: 1px solid green; padding: 5px;"> <p> If HTTP is not using standard port 80 then specify the port number as part of the server name: MODULE.WAKEUP.REPORTINGSERVER="ACMESERVER.ACME.COM:8080"</p> </div>
<p>MODULE. WAKEUP. SECUREREPORTINGSERVER</p>	<p>Set this parameter to the FQDN (<i>required</i>) or NetBIOS name of the server where the NightWatchman Management Center Web Service component secure site has been installed.</p> <div data-bbox="380 1192 1463 1276" style="border: 1px solid red; padding: 5px;"> <p> Mandatory when WakeUp reporting is enabled (default) and using HTTPS for communications.</p> </div> <div data-bbox="380 1297 1463 1381" style="border: 1px solid green; padding: 5px;"> <p> If HTTPS is not using standard port 443 then specify the port number as part of the server name: MODULE.WAKEUP.SECUREREPORTINGSERVER="ACMESERVER.ACME.COM:7433"</p> </div>
<p>MODULE. WAKEUP. CERTISSUER</p>	<p>Specify the text used to search for a client certificate in the client certificate store.</p> <p>Either MODULE.WAKEUP.CERTISSUER or MODULE.WAKEUP.CERTSUBJECT is mandatory when all the following are true:</p> <ul style="list-style-type: none"> HTTPS communications is being used MODULE.WAKEUP.SECUREREPORTINGSERVER is configured SSL Settings for the NightWatchman Management Center Web Service is configured to require a client certificate <p>If this property is used, it will use the first certificate it finds where the specified text matches the certificate's Issuer CN.</p>

MODULE.WAKEUP.CERTSUBJECT	<p>Specify the text used to search for a client certificate in the client certificate store.</p> <p>Either MODULE.WAKEUP.CERTISSUER or MODULE.WAKEUP.CERTSUBJECT is mandatory when all the following are true:</p> <ul style="list-style-type: none"> • HTTPS communications is being used • MODULE.WAKEUP.SECUREREPORTINGSERVER is configured • SSL Settings for the NightWatchman Management Center Web Service is configured to require a client certificate <p>If this property is used, it will use the first certificate it finds where the specified text matches the certificate's Subject CN.</p>
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Command-line examples

When installing 1E Client you should include `/l*vx` for verbose logging to a log file. The following examples also use `/qn` for a non-interactive (silent /quiet) installation.

Example command-line using a MST transform file

```
msiexec /i 1E.Client-x64.msi TRANSFORMS="1EClient.mst" /qn /l*vx C:\Windows\temp\1EClient-install.log
```

An MST typically only works with a specific version of an MSI therefore you should test before using an old MST file. An MST may work with both 32 and 64-bit versions of an MSI, provided the MST does not contain any transforms that are platform-specific. Please contact your packaging team if you need help creating transform files.

The [1E Client Deployment Assistant 1.5 \(CDA\)](#) is designed to help install Windows versions of 1E Client and other 1E agents using Configuration Manager. It includes template transform files for each combination of client/agent for 32 and 64-bit platforms, and automatically creates collections and deployments in Configuration Manager, so that you only need to populate the collections.

Example which enables only Tachyon client

Example Windows 1E Client installer command-line with only the **Tachyon client** features enabled, other client modules are not enabled.

```
msiexec /i 1E.Client-x64.msi SWITCH="tachyon.acme.local:4000" BACKGROUNDCHANNELURL="https://tachyon.acme.local:443/Background/" /qn /l*vx C:\Windows\temp\1EClient-install.log
```

Example which enables only Nomad client

Example Windows 1E Client installer command-line with only **Nomad client** module enabled, and Tachyon features disabled (by setting SWITCH and BACKGROUNDCHANNELURL to none).

```
msiexec /i 1E.Client-x64.msi SWITCH=none BACKGROUNDCHANNELURL=none MODULE.NOMAD.ENABLED=true MODULE.NOMAD.PLATFORMURL="https://aeserver.acme.local/ActiveEfficiency" MODULE.NOMAD.CONTENTREGISTRATION=1 MODULE.NOMAD.SSDENABLED=1 /qn /l*vx C:\Windows\temp\1EClient-install.log
```

Example which enables only PXE Everywhere Agent

Example Windows 1E Client installer command-line with only **PXE Everywhere Agent** client module enabled, and Tachyon features disabled (by setting SWITCH and BACKGROUNDCHANNELURL to none).

```
msiexec /i 1E.Client-x64.msi SWITCH=none BACKGROUNDCHANNELURL=none MODULE.PXEEVERYWHERE.ENABLED=true MODULE.PXEEVERYWHERE.CONFIGSERVERURL="http://pxecentral.acme.local/PXELite/PXELiteConfiguration.aspx" /qn /l*vx C:\Windows\temp\1EClient-install.log
```

Example which enables only Shopping client

Example Windows 1E Client installer command-line with only **Shopping client** module enabled, and Tachyon features disabled (by setting SWITCH and BACKGROUNDCHANNELURL to none).

```
msiexec /i 1E.Client-x64.msi SWITCH=none BACKGROUNDCHANNELURL=none MODULE.SHOPPING.ENABLED=true MODULE.SHOPPING.SHOPPINGCENTRALURL="http://appstore.acme.local/shopping" MODULE.SHOPPING.LOOPBACKEXEMPTIONENABLED=true /qn /l*vx C:\Windows\temp\1EClient-install.log
```

Example which enables only WakeUp client

Example Windows 1E Client installer command-line with only **WakeUp client** module enabled, and Tachyon features disabled (by setting SWITCH and BACKGROUNDCHANNELURL to none).

```
msiexec /i 1E.Client-x64.msi SWITCH=none BACKGROUNDCHANNELURL=none MODULE.WAKEUP.ENABLED=true MODULE.WAKEUP.REPORTINGSERVER="nwmsserver.acme.local" /qn /l*v C:\Windows\temp\1EClient-install.log
```

Sysprep and OS images

The following steps are required if the 1E Client will be included in an OS image.

1. Stop the 1E Client service.
2. Stop the NomadBranch service (if Nomad is enabled).
3. Delete the logs folder and its contents. Default is **%ALLUSERSPROFILE%\1EClient**
4. Delete the registry key and its contents **HKLM\SOFTWARE\1E\Client**
5. Delete the registry key and its contents **HKLM\SOFTWARE\1E\Common**
6. Other registry keys for clients may exist. Please refer to their product documentation for details of sysprepping them.
 - HKLM\SOFTWARE\1E\NightWatchman
 - HKLM\SOFTWARE\1E\NomadBranch
 - HKLM\SOFTWARE\1E\PXEEverywhere
 - HKLM\SOFTWARE\1E\WakeUpAgt
 - HKLM\SOFTWARE\1E\WSA

You can disable the services during image preparation and re-enable it as an OS Deployment step. The folder and registry keys will be automatically re-created when the services are restarted after the OS is deployed.

By default, the OS resolves %ALLUSERSPROFILE% to **C:\ProgramData**

If you have 1E WakeUp client module enabled, or 1E NightWatchman Agent installed, then please refer to [Installing the 1E NightWatchman Agent for Windows: The 1E NightWatchman Agent, Sysprep and diskimaging](#).

Uninstalling 1E Client

Manual uninstallation

1E Client can be uninstalled manually by using Windows Apps and Features (appwiz.cpl). A reboot is not normally required.

Disabling a feature or client module

Please refer to [Reconfiguring 1E Client](#) for examples of how to use the **-reconfigure** command-line to reconfigure the 1E Client.

Uninstallation using the Windows Installer

1E Client can be uninstalled automatically by using a Windows Installer command-line, where the {product code} is dependent on the version of the 1E Client. The example below also includes switches that prevents prompting and restarts, and creates a log file.

```
msiexec /x {BF6F5FA9-64C8-4B72-A6B6-14A582BF96B8} /qn /norestart /l*v C:\Windows\temp\1EClient-uninstall.log
```

Tidy up after uninstallation

After uninstallation of 1E Client, the following is left behind. As with other Windows installers, uninstallation will leave behind any files, folders and registry entries that were created after installation.

Location	Artifacts	Recommendation
Installation folder	None.	
Logs folder	Log files remain. Please refer to Log files for log file locations of 1E Client and its client modules.	The log files can be deleted or renamed. If not deleted, then a new installation that uses the same logs folder will continue to use the old log file.

	Client\Persist folder remains.	<p>Leave this folder which contains status information about current instructions.</p> <p>The Persist folder should be deleted only if you do not intend re-installing the 1E Client with Tachyon enabled, or when preparing OS images.</p>
Tachyon client registry	HKLM\SOFTWARE\1E\Client\Persist	<p>This registry exists if the Tachyon client feature of the 1E Client is enabled.</p> <p>It is used to keep a record of hash values for its persistent storage files, which includes status information about current instructions.</p> <p>This registry key should be deleted only if you do not intend re-installing the 1E Client with Tachyon enabled, or when preparing OS images.</p>
Nomad Cache	%ALLUSERSPROFILE%\1E\NomadBranch	<p>The folder should be deleted only if you do not intend re-installing the 1E Client with Nomad enabled.</p> <p>Downloaded content is retained so that if Nomad client is re-enabled it will be scanned and re-registered, to make available for peer sharing with other Nomad clients.</p>



HKLM\SOFTWARE\1E\Common and HKLM\SOFTWARE\1E\NightWatchman are used by the 1E NightWatchman Agent, previously part of the 1E Agent.