Installing the 1E NightWatchman Agent for Windows

(i) In previous releases, the NightWatchman agent and WakeUp agent were part of the 1E Agent installer. From this release:

- **1E NightWatchman Agent** installer replaces the old 1E Agent installer and includes only the NightWatchman agent
- **WakeUp Server** installer no longer includes WakeUp Agent and includes only the WakeUp server
- **1E Client** (previously **Tachyon Agent**) installer replaces the old 1E Agent installer and includes a WakeUp client module, for installation on clients and WakeUp servers.

This page concerns the installation of the 1E NightWatchman Agent.

There are installers for both x86 (`1ENightWatchmanAgent.msi`) and x64 (`1ENightWatchmanAgent-x64.msi`) so ensure you choose the correct one for your operating system.

The 1E NightWatchman Agent will install on these client operating systems:

- Windows 10 CB 21H1
- Windows 10 CB 20H2
- Windows 10 CB 2004
- Windows 10 CB 1909
- Windows 10 CB 1903
- Windows 10 CB 1809
- Windows 10 CB 1803

Please refer to Preparation: Accounts needed to install the 1E agents because updates to the Windows registry are necessary during installation or configuration.

Please refer to Preparation: Networking for details of firewall port requirements and other network considerations.

Installing the 1E NightWatchman agent using CDA

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.

Installing the 1E NightWatchman agent with the wizard

To install the agent with the wizard:

1. On the Welcome screen, click Next.
2. On the License Agreement screen, accept the terms of the agreement and click Next.
3. On the License Wizard screen, if you do not have a license key for NightWatchman, you are subject to a 30-day evaluation.
4. On the NightWatchman Management Center Configuration screen, choose the communication protocols.
   - Enable HTTP
   - Enable HTTPS – the NightWatchman Management Center website must already have been configured for HTTPS. You can opt to use client certificates from the local certificate store. You can search for these by certificate issuer or the certificate subject depending on which of the Match Certificate Issuer or Match Certificate Subject radio buttons is selected.
   - NMC Web Service – enter the fully qualified domain name of the server hosting the NightWatchman Management Center web service. For example, `MYNWMSERVER.DOMAIN.COM`
   Checking Use FIPS Encryption configures the NightWatchman Management Center to use FIPS encrypted communications. Ensure that the same setting is is made for all NightWatchman Management Center, WakeUp Server and 1E NightWatchman Agent components.
5. On the Destination Folder screen, click Next to accept the default location (`C:\Program Files\1E\NightWatchman\`) or Browse to choose a new location.
6. On the Ready to Install screen, click Next.

To verify the installation, go to Windows Programs and Features (Apps and features on Windows 10).

1E NightWatchman service

Post-installation you will see the following services running:

Display Name	Service Name	Description	Executable	Startup Type	Log On	Recovery	Dependencies
1E NightWatchman	NightWatchman	Provides services which enable PC power management	NwmSvc.exe	Automatic	Local System	Defaults	None

Default file locations

- The default for installation folder for both 32 and 64-bit platforms is: `C:\Program Files\1E\NightWatchman`
- NightWatchman component files are copied to the respective sub-folders during installation:

```
C:\Program Files\1E\NightWatchman
```

To run the NightWatchman executable to set additional configuration options you will either need to add this directory to your Windows PATH environment variable, or change to that directory.
- These logfiles are created when the services start, depending on the components installed:

```
%ALLUSERSPROFILE%\1E\Agent\NightWatchman.log
```

Note: if the 1E Endpoint Agent Installer is used, the logfiles location is %ALLUSERSPROFILE%\1E\Agent\NightWatchman.log

- These folders are created during installation, depending on the components installed:

```
%ALLUSERSPROFILE%\1E\Reporting\NightWatchman
```

Windows registry

The 1E NightWatchman Agent stores its registry information in:

- `HKLM\SOFTWARE\1E\Common`
- `HKLM\SOFTWARE\1E\NightWatchman`

The `HKCU\SOFTWARE\1E\NightWatchman` registry key is created after first logon.

Default NightWatchman configuration

On a default installation, the NightWatchman component is configured as follows:

- System tray applet is visible – notification icon is visible with the Keep Active option enabled
- Logoff mode is active – you are prompted prior to a shutdown
- Shutdown action is normal – if power management is enabled on the machine, NightWatchman shuts down or restarts as appropriate
- No shutdowns initially scheduled – until a shutdown is scheduled, you can only initiate a shutdown from the system tray
- Advanced sleepless detection is on – by default, processes keeping the machine out of sleep mode are automatically detected
- Reporting is on – by default, reporting information is sent by the 1E NightWatchman Agent and as long as the NightWatchman Management Center configuration is in place

Installing the NightWatchman Agent in unattended mode

To deploy the 1E NightWatchman Agent to a large number of machines in unattended mode, use the `/qn` switch together with other installer properties on the command-line.

For example, to install NightWatchman with the `log-off=ACTIVE`, run `C:\1E_DOWNLOAD>msiexec /i 1ENightWatchmanAgent.msi LOGOFFACTION=ACTIVE PIDKEY=ABCD-1234-5678-8765-4321 REPORTINGSERVER=<NWMCWSrv>/qn` where `ABCD-1234-5678-8765-4321` is your license key and `<NWMCWSrv>` is the FQDN or NetBIOS name of the server NightWatchman Management Centre Web service is installed. If the license key is not on the command-line, you are subject to a 30-day evaluation.

Licensing the 1E NightWatchman Agent

If you do not have a valid licence when you install the 1E NightWatchman Agent, you will be subject to a 30-day evaluation. If you need to run it beyond the evaluation period, contact Sales for a new key.

To relicense the 1E NightWatchman Agent:

1. On the command-line, run

```
nwmsvc.exe –relicense=ABCD-1234-5678-8765-4321
```

where `ABCD-1234-5678-8765-4321` is your new license key.
2. Start the service with:

```
nwmsvc.exe -start
```

When a license expires (evaluation or otherwise), the next time the system runs the NightWatchman component service a log entry records that the license is expired. At this point, no NightWatchman behavior is available, NightWatchman shutdown is not supported and information is not logged with NightWatchman Management Center Reporting. If you using a valid commercial license and see this notice, contact our Support team.

There are some configuration differences between an evaluation system and a production system. These differences exist because we expect the evaluation to be run on small test environments where the settings are optimal – they are not suitable for a production environment.

Settings	Purchased license	Evaluation license
minmessagesperbatch	25	5
maxbatchsendintervalsecs	14400	300
pollintervalmins	1500	15
pollretryintervalmins	30	5

If you upgrade from an evaluation license to a commercial license, update these settings using the command-line on the NightWatchman component or from the NightWatchman Management Center console with a policy.

Using Microsoft System Center Configuration Manager to install the 1E NightWatchman Agent

If you use Configuration Manager to install the 1E NightWatchman Agent, the installer sets ALLUSERS=1 by default so that it is installed on a per-machine basis which also makes is easier to uninstall from Configuration Manager. For example, to install NightWatchman with log-off active, a license key, reporting enabled and WakeUp in multi-agent mode, run this on the command-line:

```
msiexec /i 1ENightWatchmanAgent-x64.msi LOGOFFACTION=ACTIVE PIDKEY=ABCD-1234-5678-8765-4321 REPORTING=ON
REPORTINGSERVER=<NWMCSrv> ALLUSERS=1 /qn
```

In our example, we have included ALLUSERS=1 but it is not strictly necessary as the installer includes that by default.

The 1E NightWatchman Agent, Sysprep and disk imaging

If you want to install the 1E NightWatchman Agent on a computer you want to image for subsequent inclusion in base OS configurations, complete the installation described above first.

When deploying a disk image that includes a NightWatchman installation, it is very important to reset some of the registry information and delete some log files from disk before the image is taken. Do not use a disk image with NightWatchman installed without first making the changes outlined below. Once these registry keys and files have been deleted, it is safe to create the gold disk image.

There are three areas of the registry that need to be addressed. The licensing keys contain information specific to the computer name and therefore must be reset otherwise NightWatchman will fail to start as it will appear to have the wrong license information.

1. NightWatchman creates a GUID when it starts for the first time that uniquely identifies a computer. So if the computer is renamed for whatever reason, its power usage is preserved as its recorded in the NightWatchman database with the new name. This GUID is held in the registry and must be purged otherwise each new computer that uses the disk image will cause the database record of the original machine to be renamed – and this will happen multiple times for each newly imaged computer.
2. It is good practice to remove the hardware inventory records so that a new hardware inventory is taken. This eliminates the possibility of previous hardware inventory information being reported for the new computer as it forces a complete hardware inventory to be taken the first time NightWatchman runs on the newly imaged machine.
3. Install the NightWatchman agent with the necessary configuration and then stop its service. Set the service type to manual – this must be changed back to automatic on the newly imaged clients as part of the automated deployment but only after the machine has joined the domain and rebooted. This ensures that all of the information about the computer is correct before the 1E NightWatchman Agents start for the first time.

In order to prepare the registry for sys prep, take the following action for the respective registry keys:

Registry key	Value	Type	Action
HKLM\Software\1E\Common	HardwareId	REG_SZ	Delete
	UniqueIdentifier	REG_SZ	Delete
	PreviousSubnets	REG_SZ	Delete
HKLM\Software\1E\NightWatchman\HardwareInventoryHistory	LastSendTime	REG_SZ	Delete
	LastSentInfo	REG_BINARY	Delete
HKLM\Software\1E\NightWatchman\LicData	Licdata	REG_SZ	Delete
	Licdata2	REG_BINARY	Delete
	MSIPIDKEY	REG_SZ	Set

`HKLM\Software\1E\NightWatchman\PowerPolicy`	`LastPolicyCheckTimeStamp`	`REG_SZ`	Blank
`HKLM\Software\1E\NightWatchman\PowerStateHistory`	`LastReportedUtcTimestamp`	`REG_SZ`	Blank
`HKLM\Software\1E\NightWatchman\PowerSchemeHistory`	`LastSentInfo`	`REG_BINARY`	Blank
`HKLM\Software\1E\WakeUpAgt\Hardware`	`LastHwInfoSentTimeStamp`	`REG_SZ`	Blank
	`HardwareInfoEntries`	`REG_BINARY`	`Blank`
	`LastInfoEntries`	`REG_BINARY`	Blank
	`NetAdapterEntries`	`REG_BINARY`	Blank

So that you can be sure you are looking at the correct log files and not old logging from the gold image when you troubleshoot, delete these log files and clear out reporting data:

Agent	Location	Files	Include sub-directory

NightWatchman	`C:\ProgramData\1E\Agent\`
	`C:\ProgramData\1E\Reporting\NightWatchman`
		`NightWatchman.log`
		
		`*.afr`
			No
			No

Uninstalling or repairing the 1E NightWatchman Agent

To uninstall the 1E NightWatchman Agent:

1. Go to Program and Features.
2. Select the 1E NightWatchman Agent.
3. Click Uninstall.

To repair the 1E NightWatchman Agent:

1. Run the installer.
2. Choose the 1E NightWatchman Agent.
3. Click Repair.