

Verifying



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Summary

Basic verification tests for PXE Everywhere.

Log files

PXE Everywhere component	Folder	Log file
1E Client	C:\ProgramData\1E\Client	1E.Client.log
PXE Everywhere Central	C:\ProgramData\1E\PXELite	WebService.log
PXE Everywhere Responder	C:\ProgramData\1E\PXEEverywhere	PXEEverywhereResponder.log
PXE Everywhere Agent	C:\ProgramData\1E\PXEEverywhere	PXEEverywhere.log

Please also refer to [Upgrading PXE Everywhere: Name changes introduced in PXE Everywhere 4.0](#).

If the issue is related to PXELite boot media creation/updating using CreateBootImage.exe then please provide:

```
C:\Program Files (x86)\Microsoft Configuration Manager\AdminConsole\AdminUILog\CreateTsMedia.log
```

If the issue is related to the deployment of PXELite boot image into the TFTP folder of PXELite agent then please provide:

```
C:\ProgramData\1E\PXELite\CreateBCD.log
```

PXE Everywhere Central

If you get unexpected errors when using PXE Everywhere the following simple checks can be performed to confirm that the installation has been successful and that the appropriate permissions are present for the network service account:

Checks	Notes
PXE Everywhere installation directory	<p>PXE Everywhere Central is a 32-bit application, and is only supported on the 64-bit server OS listed in Requirements. By default will install its files to the following location on 64-bit systems:</p> <pre>C:\Program Files (x86)\1E\PXEEverywhere</pre>

Web Application and Application pool

Under **Default Web Site**, check that there is a web application named **PXELite**.

- Its physical path is the PXE Everywhere **WebService** directory in the PXE Everywhere installation directory.
- Its application pool is also called **PXELite** and uses the **NetworkService** identity.

Edit Application

Site name: Default Web Site
Path: /

Alias: PXELite Application pool: PXELite Select...

Example: sales

Physical path: C:\Program Files (x86)\1E\PXEEverywhere\WebService\ ...

Pass-through authentication
Connect as... Test Settings...

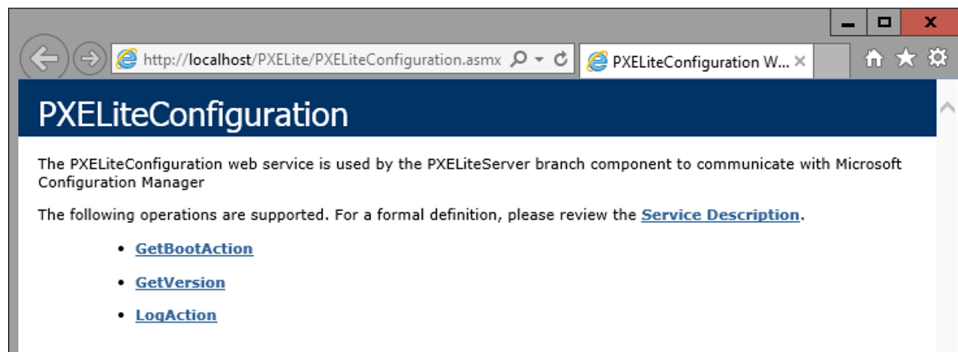
Enable Preload

OK Cancel

Web service

You can use the PXE Everywhere configuration web service to check for correct installation. To do this run the following steps on the server where the PXE Everywhere website is installed:

1. Browse to <http://localhost/PXELite/PXELiteConfiguration.aspx>. You should see a **PXE Everywhere configuration** web page.
2. Click **GetVersion** and select **Invoke**. You should see a new browser window with the result of the version query listed - note the version number and reference this when contacting 1E support.



The above test can also be performed using the following PowerShell commands:


```
$pxcentral = "localhost";  
$pxeLite = New-WebServiceProxy -uri "http://$pxcentral/pxelite/PXELiteConfiguration.aspx?wsdl";  
$pxeLite.GetVersion();
```

web.config

The web.config file is located in the following directory:

```
C:\Program Files (x86)\1E\PXEEverywhere\WebService
```

The web.config file <connectionStrings> section specifies the location of the Configuration Manager database. Ensure that this is correctly set.

Log file	<p>The web.config file stores information about the location of the log file, which is typically:</p> <pre>C:\ProgramData\1E\PXEEverywhere\WebService.log</pre> <p>Review the log file for errors.</p>																		
Configuration Manager Database	<p>During the installation of PXE Central, the following stored procedures are added to the Configuration Manager database:</p> <ul style="list-style-type: none"> • 1E_GetPXEAction • 1E_ProcessNBSMessage <p>To allow these stored procedures to be executed by the PXE Lite Application Pool running on the PXE Central Server, the installer also creates a new SQL login as a user of the Configuration Manager database. The name of the SQL login depends on where PXE Everywhere Central is installed in relation to the Configuration Manager database.</p> <ul style="list-style-type: none"> • NT AUTHORITY\NETWORK SERVICE - if PXE Everywhere Central is installed on the same sever as the Configuration Manager database • <DOMAIN>\<SERVER\$> - if installed on a different server, then DOMAIN\SERVER\$ is the name of the server on which PXE Everywhere Central is installed <p>This SQL Login is not assigned any roles on the ConfigMgr database, but is explicitly granted the following privileges on the 1E stored procedures and other objects in the database:</p> <table border="1" data-bbox="289 709 943 989"> <thead> <tr> <th>Type</th> <th>Name</th> <th>Permission(s)</th> </tr> </thead> <tbody> <tr> <td>Stored Procedure</td> <td>dbo.1E_GetPXEAction</td> <td>Execute</td> </tr> <tr> <td>Stored Procedure</td> <td>dbo.1E_ProcessNBSMessage</td> <td>Execute</td> </tr> <tr> <td>Stored Procedure</td> <td>dbo.spProcessNBSMessage</td> <td>Execute</td> </tr> <tr> <td>Table</td> <td>dbo.SetupInfo</td> <td>Select</td> </tr> <tr> <td>Table</td> <td>dbo.UnknownSystem_DISC</td> <td>Select</td> </tr> </tbody> </table> <div data-bbox="293 1014 1463 1213" style="border: 1px solid gray; padding: 5px;"> <p> When a PXE Everywhere Agent receives a PXE boot request from a peer, it will contact the PXE Everywhere Central web service, which in turn will execute the 1E_GetPXEAction stored procedure in the ConfigMgr database to determine if a Task Sequence has been advertised to the PXE-booting client, returning the results to the PXELite Local computer.</p> <p>1E_GetPXEAction is responsible for returning the ConfigMgr OfferID (AdvertID, DeploymentID), BootImageID and whether the offer is mandatory or not. 1E_ProcessNBSMessage is used to set the PXE flag for required deployments. This is so that if PXE is the first in the boot order, it will not go into a perpetual PXE reboot loop.</p> </div>	Type	Name	Permission(s)	Stored Procedure	dbo.1E_GetPXEAction	Execute	Stored Procedure	dbo.1E_ProcessNBSMessage	Execute	Stored Procedure	dbo.spProcessNBSMessage	Execute	Table	dbo.SetupInfo	Select	Table	dbo.UnknownSystem_DISC	Select
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Table	dbo.SetupInfo	Select																	
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PXE Everywhere Boot Action	<p>The following test confirms the connection between PXE Everywhere Central and Configuration Manager. First, you need to confirm the test workstation is a known client in ConfigMgr and read its properties to get its MAC Address.</p> <p>Run the following PowerShell command using the workstation MAC Address, to report whether it is targeted by a Task Sequence.</p> <p>Specify the IPv4 MAC Address in the format "A1-B2-C3-D4-E5-F6". If you are running the test on the PXE Everywhere Central server, then specify the server name as localhost, otherwise specify the FQDN of the server or its DNS Alias.</p> <pre>\$macAddress = "<macaddress>" \$pxecentral = "<PXE_Everywhere_Central_Servername_or_Alias>"; \$pxelite = New-WebServiceProxy -uri "http://\$pxecentral/pxelite/PXELiteConfiguration.asmx?wsdl"; \$pxelite.GetBootAction("", "\$macAddress", [ref]\$false)</pre> <p>If the workstation is not targeted, then a blank is returned.</p> <p>If the workstation is targeted, then the ConfigMgr package ID is returned for the boot image associated with the task sequence.</p>																		

PXE Everywhere Agents

Ensure that PXE Everywhere Central is operational, and any Responders if you are using them.

Verify the PXE Everywhere Agent functionality:

- Check the PXE Everywhere Agent logs, typically at %PROGRAMDATA%\1E\PXEEverywhere, and make sure there are no errors.
- PXE boot a few test machines to ensure that PXE Everywhere is working properly.

Verify that boot files (Microsoft ADK files and 1E PXE Everywhere boot images) have been correctly deployed to PXE Everywhere Agents.

File	Destination Location (relative to TFTPBOOT)
boot.sdi	\boot.sdi
abortpxe.com	\boot\x86\abortpxe.com
bootmgr.exe	\boot\x86\bootmgr.exe
pxeboot.com	\boot\x86\pxeboot.com
pxeboot.n12	\boot\x86\pxeboot.n12
bootmgfw.efi	\boot\x86\bootmgfw.efi
	\boot\x64\bootmgfw.efi
wgl4_boot.ttf (optional)	\boot\fonts\wgl4_boot.ttf

The 1E PXE Everywhere boot images should be found in an \Images folder relative to TFTPBOOT.

Finally, target a PXE Client with an OS deployment task sequence (for example bare-metal), and observe the OS installation process end-to-end.



When PXE booting a UEFI device in a non-mandatory deployment scenario, you may be presented with an option to **Press Enter to continue and Press F8 for Advanced boot menu**. However, the advanced boot menu options will not work for WinPE.