

Pearl Echo Installation Checklist

Use this checklist to enter critical installation and setup information that will be required to install Pearl Echo in your network. For detailed deployment instructions for networks of all sizes and traffic loads, refer to the *Pearl Echo User's Guide*. The system requirements given here are for small to medium size network installations (< 250 users) or for evaluation environments with a single Administration Console.

Overview and Recommended System Specifications

Pearl Echo utilizes an independent Agent-Server architecture that integrates with Microsoft Windows operating systems. Pearl Echo is not a proxy server. Users can have access to the Internet through any means - a direct connection, proxy connection, shared connection, etc. The Pearl Echo Administration Server runs independently and is the point at which you define Internet access privileges as well as perform user Internet access analysis and reporting.

Make sure that the machine on which you install the Pearl Echo Server Software, as well as the workstations you intend to manage, meet or exceed the following system requirements:

Administration Machine

The Administration Console can be installed on a Windows server or workstation platform with the following requirements:

- Hardware Recommendations (Administration Machine)
 - A Windows server or workstation with an IP address or Fully Qualified Domain Name (FQDN) that can be directly or indirectly (NAT) accessed by the workstations you intend to monitor.
 - Minimal hardware specifications for optimal performance include:
 - Pentium 4, 2.4 GHz processor or greater (32 or 64 bit)
 - 1 GB RAM
 - At least 1 GB of free disk space
- Operating Systems Compatibility
 - Windows Server 2008, 2008 R2
 - Windows Server 2003, including SP1
 - Windows 7, Windows Vista¹
 - Windows XP Professional SP1
 - Windows 2000 SP4 (Professional or Server)
 - Windows NT 4 SP6a² (Workstation or Server)
 - Microsoft SQL Server (Optional)

¹ Installing *and* running server software on Windows 7 or Vista should be done with elevated privileges, especially when running for the first time.

² Requires Active Directory Client Extension; See Microsoft KB Article ID : 288358

End-user Workstations

Pearl Echo enables administrators to bond Internet usage policy and monitoring to the Windows networking components of any workstation meeting these minimal operating requirements:

- Agent Workstation Hardware Requirements
 - 32 or 64 bit processor and Memory as specified by minimum Operating System requirements.
 - At least 5 MB of available disk space.
- Agent Workstation Operating System Compatibility
 - Windows 2008, 2008 R2
 - Windows 2003
 - Citrix Server, Microsoft Terminal Server
 - Windows 7, Vista, XP, 2000 SP4, NT 4.0 SP6a

Administration Machine Information

Identify the Pearl Echo Administrative Machine in your network by recording the appropriate information below. You must install Pearl Echo on the Administrative Machine with a logon account that has system administrator privileges.

Machine name	
IP address or FQDN ¹	
Public IP address or FQDN ²	
Port ³	58000

1. The Administrative Machine's IP address must be fixed. It cannot be assigned via DHCP.
2. If the end-user machines you will be monitoring will roam outside of your local network, you will need to know the Public IP or FQDN of the Echo Administrative Machine. Refer to the Advanced Installation chapter of the *Pearl Echo User's Guide* for detailed guidelines.
3. Pearl Echo utilizes port 58000 as its default; we recommend that you do not change this unless you have another application utilizing ports 58000 through 58003.

Recommended Network Specifications

- Anti-Virus & Spyware Removal Application Settings

When you install Pearl Echo in your network, you will need to turn off your antivirus and spyware removal applications until you have finished the installation. You will need to configure these applications to exclude the Pearl Echo program directory folder that will be created during installation (e.g. C:\Program Files\Pearl Echo) from antivirus scanning. You will also need to configure antispysware to not disturb the Pearl Echo Workstation Agent or its components. Refer to the *Pearl Echo User's Guide* Appendix for detailed guidelines.
- Internet access

The administrative machine must have Internet access to download the evaluation software from Pearl Software's website. Your download link was sent to you in your Installation Instructions email.

Installing Pearl Echo

Step 1: Download the Pearl Echo Software

Using the machine that you selected to act as your Administrative Machine, visit the link sent to you in your Installation Instructions email to begin downloading the evaluation version of Pearl Echo.

1. Save this download file to your desktop. The size of this download file is approximately 112 Megabytes and is provided as a self-extracting zipped file (displayed as ec10xx.exe).
2. Once the file transfer has completed, run the self-extracting file (ec10xx.exe) to create the program installation folder (Pearl Echo 10 CD Folder) on your local machine.

TIP

We recommend extracting this file to an installation folder that is a network share that will be visible to you during both server & workstation installation of the Echo software.

The Pearl Echo 10 CD folder that you downloaded contains the following elements to help guide you through the installation and configuration process:

- Detailed User Guides & Installation Instructions
- Training Videos Demonstrating Echo Installation and Usage
- Echo Server Installation Software
- Echo Workstation Installation Software

Step 2: Echo Server Software Installation

The Echo Server Software must be installed and running prior to installing the Echo Workstation Agent components. To complete this installation, you will need the information that you entered into the Installation Checklist above and you will need to be logged on to the computer that you selected to act as the Administrative Machine. The Echo Server Software includes the Echo Administration Console and the Echo Monitoring Service.

Follow these steps to install the Echo Administration Console and Monitoring Service:

1. Turn off Anti-virus & Spyware Removal applications prior to beginning installation.
2. Run setup.exe from the program installation folder or from the installation CD.
3. On the Startup screen, select the Server Setup Button.
4. The InstallShield Wizard will walk you through the initial installation procedures and prompt you to confirm the default installation settings.

TIP

Please note the destination location for your installation as you will need to exempt this folder from your antivirus & spyware removal applications.

5. Configure your antivirus and spyware removal applications to exclude from scanning the Pearl Echo program file directory folder that you created in step 4 (e.g. c:\Program Files\Pearl Echo).
6. Launch the Pearl Echo Administration Console from the Programs section of the Windows Start button. **If using Windows 7 and Vista, launch with elevated privileges by right clicking on the Pearl Echo icon and selecting "Run as administrator"**. This is necessary even if you are an administrative user.

7. Using the information from your Installation Checklist, complete the following setup wizards:
 - a. Enter your company's name.
 - b. Select the **Demo** button to **generate a trial activation code**.
 - c. Enter trial activation code into the first "Serial Number:" field and click the "Next>" button.



8. Confirm or Enter your IP settings:
 - a. When prompted, confirm or enter the fixed IP address of the Administration Machine (the Administrative Machine IP cannot be assigned via DHCP).
 - b. We recommend that you use the default Port number 58000.
 - c. Enter the Public IP or FQDN of the Echo Administration Machine if any of the managed end-user machines will roam outside of your local network. To manage users while they roam outside of your local network, you will need to configure your firewall to allow the roaming Pearl Echo Workstation agent to make a connection back to the Pearl Echo Administration Machine on four ports (58000-58003 by default). Please refer to the *Pearl Echo User's Guide* Advanced Installation instructions for additional information on managing your remote users.
9. Enter a password to use when connecting to the Echo Administration Console.
10. Confirm that you wish to turn Pearl Echo Internet Management on Now. This setting must be ON to begin the Echo Workstation Installation.
11. Follow the remaining prompts to customize and complete the Pearl Echo Server Software installation.



Step 3: Echo Workstation Installation

The Echo Server Software must be **installed and running** prior to installing the Echo Workstation Agent components. To complete this installation, you will need the Echo Administration Machine IP address or FQDN, port and, if appropriate, a public Echo Administration Machine IP or FQDN. After completing the Workstation agent installation, there will be no indication to a user that the Echo Workstation Agent components are resident and running.

The initial recommended Echo Workstation installation uses a manual process and assumes that you will begin your evaluation on a small number of workstations. You can automate the Echo Workstation deployment using the Windows Installer Service files provided in the

Echo installation folder that you downloaded. Please refer to the *Pearl Echo User's Guide* Advanced Installation section to automate the workstation installation process when distributing the evaluation software to a larger number of workstations.

Follow these steps to manually install the Pearl Echo Workstation Agent:

1. Login to the workstation using an account with Administrator privileges.
2. Turn Off all antivirus, spyware removal and disk utility applications before beginning workstation installation.
3. Run setup.exe from the program installation folder or from the installation CD.
4. Select Workstation Setup from the startup screen.
5. Enter the Pearl Echo Administration Machine FQDN or IP address entered in step 8a of the Echo Server Software Installation above.
6. Enter the Port number that you specified during the Echo Server Software Installation in Step 8b above.
7. If the workstation will roam outside of your private network, enter the Public IP or FQDN of your Echo Administration Machine entered in Step 8c above. To manage users while they roam outside of your private network, you will need to configure your firewall to allow the roaming Pearl Echo Workstation agent to make a connection back to the Pearl Echo Administration Machine on four ports (58000-58003 by default). Please refer to the *Pearl Echo User's Guide* Advanced Installation instructions.
8. Select a Tamper Security level. The Medium setting is recommended during evaluation.



TIP

You can configure your managed workstations to provide a Low, Medium or High level of tamper security and prevention. Set to Low, Pearl Echo will not prevent users from accessing the Internet if Pearl Echo components have been altered manually or by third party applications such as antispysware or antivirus software. This is useful in environments where security tools can not be configured to exempt Pearl Echo from removal or on workstations that have become unstable due to viruses, unauthorized applications or neglect. With Tamper Security set to Medium, Pearl Echo will prevent access to the Internet if Pearl Echo components have been altered. This is the default setting and is targeted to well-managed environments. When Tamper Security is set to High, Pearl Echo will prevent access to the Internet if Pearl Echo components have been altered or if access to the Pearl Echo Service is not available on your server. The Echo Service may be unavailable due to server maintenance, network problems, trial expiration, etc.

Please note, if you are running an evaluation version of Pearl Echo, the Echo service will not be available once your trial period has expired. After expiration, a workstation with Tamper Security set to High will have Internet access blocked.

9. The workstation will perform a test communication with the Pearl Echo Service and will display the results. If a link can be established, reboot your Echo workstation to complete the installation.

TIP

During your initial installation, if your workstation does not communicate with your Pearl Echo server, here are some common issues that may need to be addressed:

- **Firewall. Firewall. Firewall.** If a software firewall is on the Pearl Echo Server, allow the Pearl Echo process echoComm.exe. If a software firewall is on the managed Workstation, allow the Pearl Echo processes rnapp7.exe and updater7.exe. If a hardware firewall is installed between your Pearl Echo Server and managed Workstations, please be sure to make the firewall port assignments as detailed in Chapter 2 of the Pearl Echo User's Guide.
- Make sure you have correctly identified and set your Administration Machine's FIXED IP address in the Pearl Echo server software under the Options->Network Configuration menu.
- Make sure your Pearl Echo management is ON in the Pearl Echo Administration Console under the Security->Set Security Status menu.

10. Configure anti-virus and spyware applications to not disturb the Pearl Echo Workstation Agent or its components. Refer to the *Pearl Echo User's Guide* Appendix for detailed component guidelines.
11. Now that you have installed the Echo workstation monitoring agent, begin browsing the Internet from this workstation or, if applicable, send IM and/or email messages from this workstation to test your initial setup.
12. Return to your Administration Machine and launch the Pearl Echo Administration Console to view the monitored activity. You should see the workstation's Internet activity presented in the Pearl Echo Activity Log.
 - If you do not see the workstation activity, you might need to refresh your Pearl Echo activity log from the File menu or by hitting the F5 key.
13. Congratulations! You have successfully completed the initial installation of Pearl Echo.

TIP

Additional information on the following advanced installation topics is also available in Chapter 2 of the *Pearl Echo User's Guide*:

- Network Address Translation
- Firewall Settings
- Citrix & Terminal Server Setup
- Automated Workstation Setup
- Integration with Microsoft SQL Server

Uninstalling Pearl Echo

Pearl Echo provides a secure uninstaller for the Pearl Echo Workstation Agent. To reduce visibility, a Pearl Echo entry does not exist in the Workstation's Add Remove Programs window. The Pearl Echo Service is required to authenticate Pearl Echo Workstation uninstall requests. The Pearl Echo Service must be running to securely uninstall workstation components. To run the Pearl Echo Service, set the Internet Management State to "ON" in the Pearl Echo Administration Console.

To Uninstall Pearl Echo Workstation Software

1. From the workstation taskbar, click on Start and select Run.
2. Enter ec7unins.exe and select OK.
3. Enter your Pearl Echo password and follow the instructions as they appear on the screen.

Pearl Echo will log successful and unsuccessful attempts at uninstalling the Pearl Echo Workstation Software. Pearl Echo will also log when the Workstation's network configuration has been altered.

Important Note: Because the Pearl Echo Workstation Software is a secure installation, it cannot be removed with Group Policy Object. Removing the software can only be accomplished from the Workstation as above or automated with scripts provided by Pearl Software support.

To Uninstall Pearl Echo Server Software

1. Run the Pearl Echo Administration Console.
2. From the Security Menu, select Set Security Status.
3. Turn the Pearl Echo Management State "OFF" and exit Pearl Echo.
4. Select the Windows Control Panel.
5. Select Add/Remove Programs.
6. From the Install/Uninstall tab, click on Pearl Echo.
7. Select the Add/Remove button.