

# Encore Server Prep for Windows 2012 R2

Encore Workforce Optimization Solution  
Version 7.1 or later

October 9, 2019

**encore**

**For Dealer  
and Customer  
Use Only**

DVSAnalytics, Inc.  
17255 N. 82nd Street, Suite 120, Scottsdale, AZ 85255  
Phone: (480) 538-2020 • Fax: (480) 538-2021  
Email: [info@DVSAnalytics.com](mailto:info@DVSAnalytics.com)  
Web: [www.DVSAnalytics.com](http://www.DVSAnalytics.com)

**PROPRIETARY NOTICE**

This document is prepared for DVSAnalytics dealer and customer use only. Information contained herein is proprietary and confidential, and may not be disclosed, distributed, or reproduced without the express written permission of DVSAnalytics. 2018 DVSAnalytics Inc. All rights reserved.

# TABLE OF CONTENTS

- Pre-Operating System Configuration and Considerations .....3**
- Assign the Administrator Account Password .....3**
- Disk Management.....3**
- Set Network Profile .....6**
- Configure Windows Server 2012 .....6**
  - Set Required System and User Profiles .....6
  - Set Up Local Users .....7
  - Turn Off DEP (Data Execution Prevention).....9
  - System Properties .....9
  - Configure the Server Roles and Required Features (Server 2012 R2) .....11
  - Install .NET Framework 4.7.2 .....13
  - Configure Windows Update .....14
  - Install Important Updates .....14
- Log In as encoreserver User .....14**
- Configure User Settings.....15**
  - Customize the Desktop .....15
  - Set Up the Folder View.....15
  - Configure Action Center .....16
  - Configure Internet Options .....17
- Reboot the Server .....17**

# Pre-Operating System Configuration and Considerations

---

The Encore Server, when built on a physical server, includes four physical drives, in two mirrored sets. A Small Business Server has only three physical drives, one standalone drive and two in a mirrored set. **Prior to or during the operating system load, configure the disks and partition them in following manner for optimal performance:**

- Physical drive/container 1 includes these partitions:
  - Drive C: for the OS (100GB)
  - Drive F: for database backups only (all remaining space) – Volume label: **SQL-Backup**
- Physical drive/container 2 includes these partitions:
  - Drive D: for EncData (Full-drive capacity minus 20GB) – Volume label: **EncData**
  - Drive E: for MSSQL databases (20GB) – Volume label: **SQL**
  - Assign the optical drive to G:

## Assign the Administrator Account Password

---

When prompted by the Windows Server 2012 R2 Operating System installation, set the password for the Administrator account to: **P@ssword**

If you are building this system for use in your enterprise, select a password that meets your corporate standards.

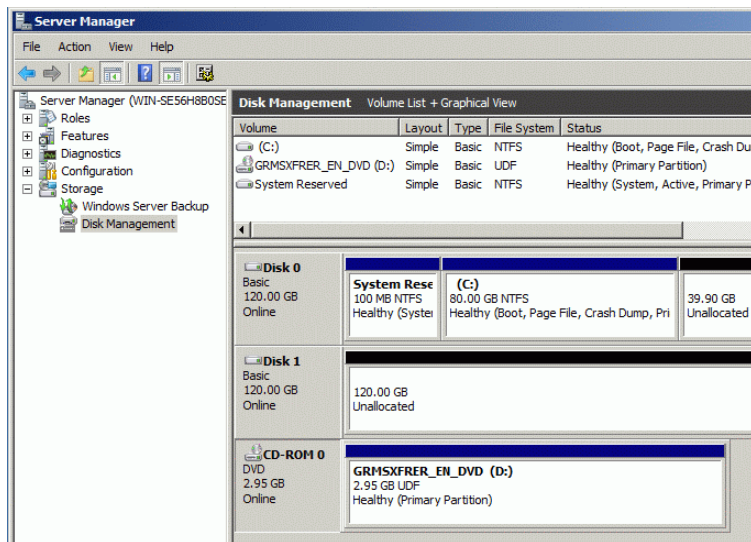
## Disk Management

---

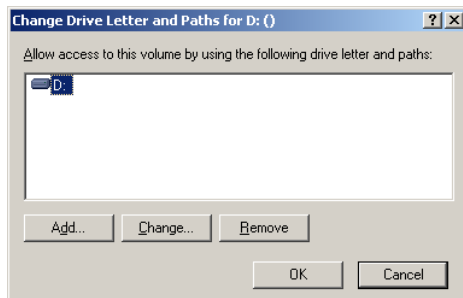
In this section, the hard drives are partitioned, and the drive letters and volume labels are assigned. At the end of this section, the following items should be configured:

- C: Boot Drive – This drive was established at the time the OS was installed and should be 100GB.
- F: SQL Backup – This drive uses the remaining free space on the standalone physical disk. The volume label should be **SQL-Backup**.
- D: This is most of the mirrored drive set. When determining the size of the D: partition, take the total sum of the available space less 20 GB that will be used for the E: drive. The volume label should be **EncData**.

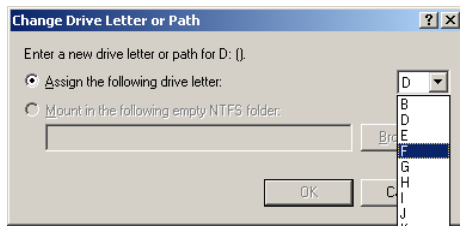
- E: This is the remainder of the mirrored drive set. Drive space should be approximately 20 GB. The volume label should be **SQL**.
- G: CD/DVD Drive



1. Right-click the **Start Menu** and then select **Disk Management**.
2. When **Disk Management** opens you may be presented with a couple scenarios. Follow the steps as appropriate.
  - If Disk1 was not configured during the operating system installation, you are prompted to initialize Disk 1. Generally, you will want to select the MBR option. If Disk 1 is 2TB or larger then you need to select the GPT option. The rest of these steps assume the MBR option was selected.
  - If Disk 1 shows as Offline, right-click Disk 1 and select Online. Then right-click again and select **Initialize Disk**. You are prompted to initialize Disk 1. Generally, you will want to select the MBR option. If Disk 1 is 2TB or larger then you need to select the GPT option. The rest of these steps assume the MBR option was selected.
3. Change the DVD drive letter to **G** by right-clicking it and selecting the **Change Drive Letter and Paths** option.



4. Click **Change**.



5. Select **G** and click **OK**.
6. If the warning, “Some programs that rely on drive letters might not run correctly. Do you want to continue?” message opens click **Yes**.
7. Right-click the unallocated section of **Disk 0** and select **New Simple Volume**.
8. When the **Welcome** window opens, click **Next**.
9. On the **Specify Volume Size** window, accept the default of the maximum disk space and click **Next**.
10. On the **Assign a Drive Letter or Path** window, select drive letter **F** and click **Next**.
11. On the **Format Partition** window, choose **Format this partition with the following settings** option and select:
  - **File system** – NTFS
  - **Allocation unit size** – Default
  - **Volume label** – SQL-Backup
12. Select the **Perform a quick format** option and then click **Next**.
13. Click **Finish**.
14. In the **Action** drop-down menu, select **Refresh**.
15. Right-click the unallocated section of **Disk 1** and select **New Simple Volume**.
16. When the **Welcome** window opens, click **Next**.
17. On the **Specify Volume Size** window, take the value in **Maximum disk space in MB** and subtract 20,480. Enter this number in the **Simple volume size in MB** field. This is the size of the D drive. Click **Next**.
18. On the **Assign a Drive Letter or Path** window, select **D** in the **Assign the following drive letter** field and click **Next**.
19. On the **Format Partition** window, choose **Format this partition with the following settings** option and select:
  - **File system** – NTFS
  - **Allocation unit size** – Default
  - **Volume label** – EncData
20. Select the **Perform a quick format** option and then click **Next**.
21. Click **Finish** to create the D drive.
22. Right-click the remaining **Unallocated space** on **Disk 1** and select **New Simple Volume**.
23. Click **Next**.
24. On the **Specify Volume Size** window, accept the defaults to create the E drive in the remaining free space. Click **Next**.

25. On the **Assign a Drive Letter or Path** window, select **E** in the **Assign the following drive letter** field and click **Next**.
26. On the **Format Partition** window, choose **Format this partition with the following settings** option and select:
  - **File System** – NTFS
  - **Allocation unit size** – Default
  - **Volume label** – SQL
27. Select the **Perform a quick format** option and then click **Next**.
28. Click **Finish** to create the logical drive E.
29. Exit the **Disk Management** window.
30. You may see pop up messages regarding the need to format the D, E and F drives. Click **Cancel** since we have already formatted these drives.

## Set Network Profile

---

Windows Server 2012 R2 sets the network profiles for all NICs to Public. In order to avoid problems with firewall exception assignments later, perform the following steps to change the profile to **Private** or ensure domain attached NICs are set to **Domain** by the customer's IT department.

1. From the Task Bar, click the **PowerShell** icon to open the PowerShell.
2. At the PowerShell prompt, type the following command followed by `[Enter]`

```
Get-NetConnectionProfile | Set-NetConnectionProfile -NetworkCategory Private
```
3. When the command completes, run `Get-NetConnectionProfile` and verify that the **NetworkCategory** is now set to **Private** for all NICs. Close the PowerShell window.

## Configure Windows Server 2012

---

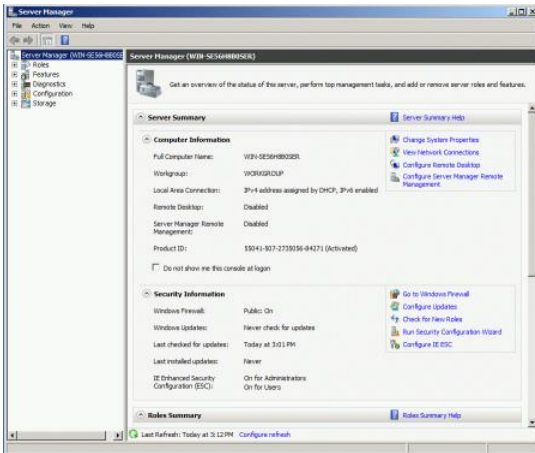
### Set Required System and User Profiles

1. Right-click the **Start** menu and then **Run**.
2. In the **Run** box, type `gpedit.msc` and click **OK**.
3. In the **Local Group Policy Editor**, navigate to **Computer Configuration | Windows Settings | Security Settings | Local Policies | Security Options**.
4. In the list on the right find the policy called **User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode**.
5. Right-click the policy and select **Properties**.
6. Select **Elevate** without prompting from the drop-down list and click **OK**.

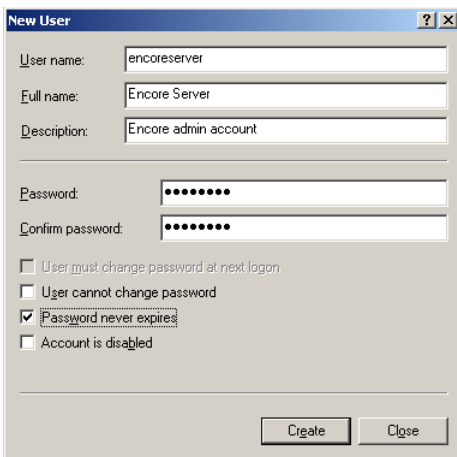
7. In the same list, find the policy called **User Account Control: Run all administrators in Admin Approval Mode**.
8. Right-click the policy and select **Properties**.
9. Change the policy to **Disabled** and click **OK**.
10. You may see a notification that says the computer must be rebooted for the new settings to take effect. Ignore that for now, we will reboot the computer in a later step.
11. Navigate to **Computer Configuration | Administrative Templates | System**.
12. In the pane on the right, select the **Display Shutdown Event Tracker** setting.
13. Right-click the setting and select **Edit**.
14. Choose the **Disabled** radio button and click **OK**.
15. Navigate to **Computer Configuration | Administrative Templates | Windows Components | Windows Error Reporting**.
16. In the pane on the right, select the **Prevent display of the user interface for critical errors** setting.
17. Right-click the setting and select **Edit**.
18. Choose the **Enabled** radio button and click **OK**.
19. Navigate to **User Configuration | Administrative Templates | Windows Components | Attachment Manager**.
20. In the pane on the right, select the **Do not preserve zone information in file attachments** setting.
21. Right-click the setting and select **Edit**.
22. Choose the **Enabled** radio button and click **OK**.
23. Close the **Local Group Policy Editor** window.
24. Right-click the **Start** menu and then **Run**. In the **Run** box, type **regedit** and click **OK**.
25. Navigate to **HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\Windows Error Reporting**.
26. On the right, edit or add, if it doesn't exist, the key **DontShowUI** and set it to **1**. If you need to add the key, the type should be **REG\_DWORD**.
27. Next navigate to **HKEY\_CURRENT\_USER\Software\Microsoft\Windows\Windows Error Reporting**.
28. On the right, edit or add, if it doesn't exist, the key **DontShowUI** and set it to **1**. If you need to add the key, the type should be **REG\_DWORD**.

## Set Up Local Users

1. Right-click the **Start** menu and select **Computer Management**. The following window opens:



2. Go to **Local Users and Groups found under System Tools**.
3. Click the **Users** folder and double-click the **Administrator** account to bring up its properties.
4. Verify that the **Password never expires** box is the only box selected. If it's not selected, select it.
5. Click **OK** to save the changes.
6. Right-click the **Users** folder and select **New User**.



7. Enter the following information for the **encoreserver** user:
  - **User name** = encoreserver
  - **Password** = P@ssword (this is case sensitive; use a capital P)
  - Remove the check from the **User must change password at next logon** option
  - Check the **Password never expires** box
8. Click **Create** to save the user and then **Close**.
9. Click the **Groups** folder. On the right side of the window, double-click the **Administrators** group.
10. Click **Add**.
11. Enter **encoreserver** in the object names box and click the **Check Names** button.
12. Click **OK**.
13. Click **Apply**.
14. Close the Server Manager application.



## Turn Off DEP (Data Execution Prevention)

1. Right-click the **Start** menu and then **Command Prompt (Admin)**.
2. Verify that the command prompt's window title says **Administrator: Command Prompt**.
3. In the command prompt, enter:

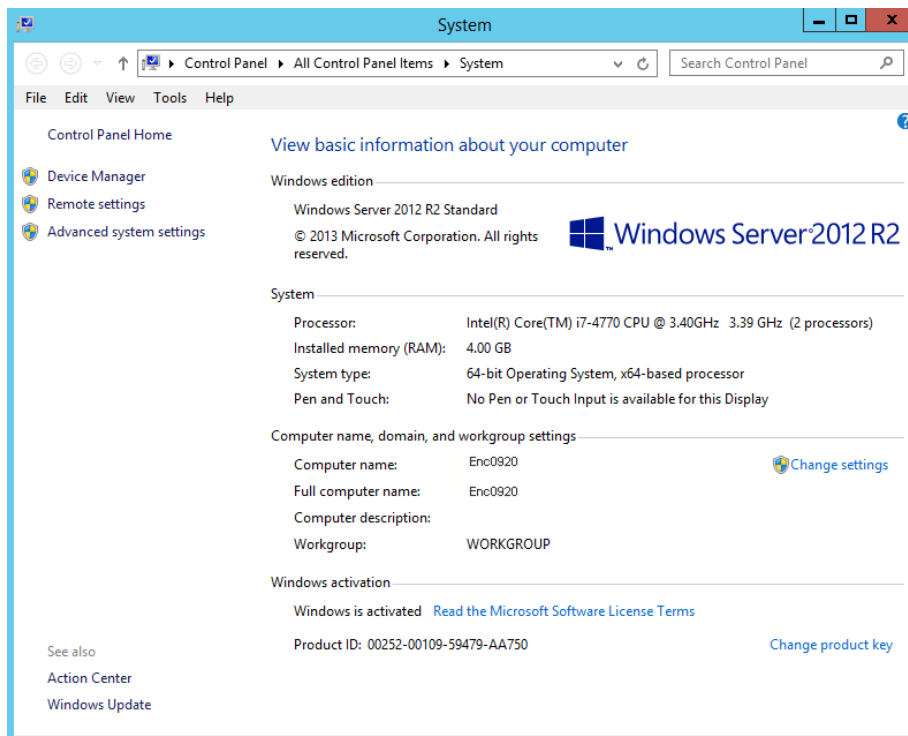
```
bcdedit.exe /set {current} nx AlwaysOff
```

then press [Enter].

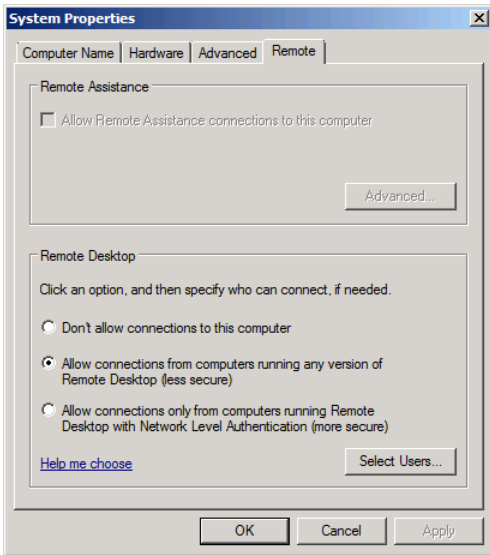
4. To verify that the change took place, just run **BCDEDIT** without parameters and under the {current} identifier check that the **nx** parameter is now set to **AlwaysOff**.
5. Enter **Exit** to close the command prompt.

## System Properties

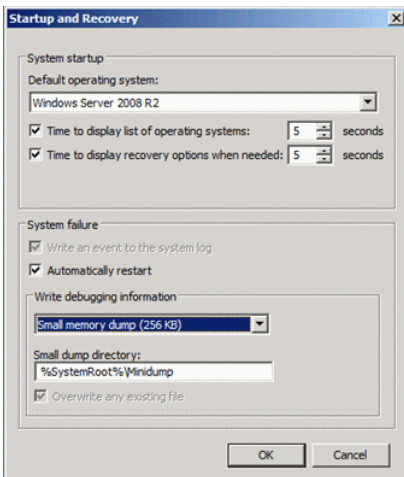
1. Right-click the **Start** menu and select **System**.



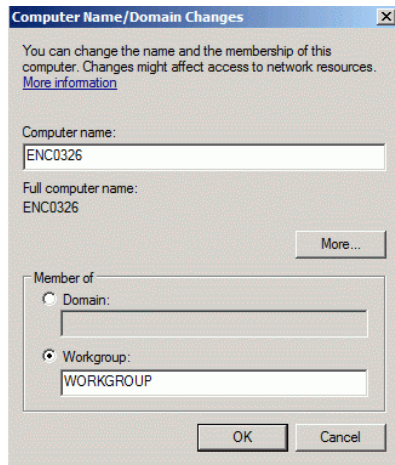
2. Click the **Remote settings** link on the left.



3. The **System Properties** window opens to the **Remote** tab. Under **Remote Desktop**, select the **Allow remote connections to this computer** option. A window opens informing you that a Windows Firewall exception has been made. Click **OK**.
4. Click **Apply**.
5. Select the **Advanced** tab.
6. Under **Startup and Recovery**, click **Settings**.



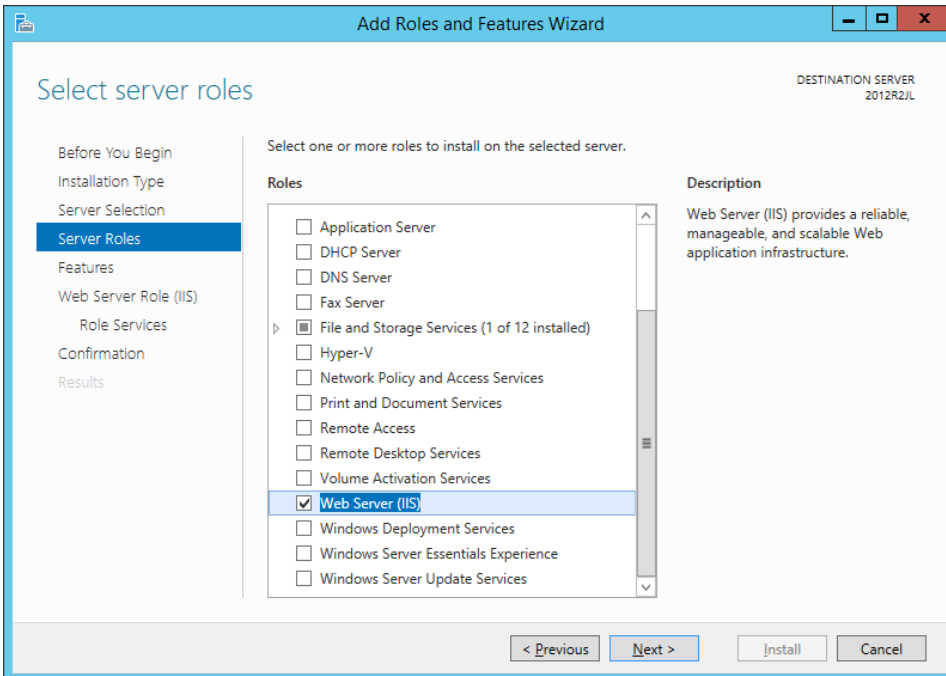
7. Under **System startup**, enable and change both **Time to display** options to **5** seconds.
8. Change the **Write debugging information** option to **Small memory dump (256KB)**.
9. Click **OK**.
10. Click the **Computer Name** tab and click the **Change** button.



11. Update the computer name to follow this formatting convention: **ENCXXXX** (with XXXX being the month and day, such as **0709** for July 9). If you are building this system for use in your enterprise, select a name that meets your corporate standards.  
Encore server machine names must be 15 characters or less due to a limitation in NetBIOS. Since UNC paths are used to access Encore files across the network and internally, a machine name longer than 15 characters cannot be accessed via the UNC path.
12. Click **OK**, then click **OK** again and click **Close**. Reboot the machine when prompted.

## Configure the Server Roles and Required Features (Server 2012 R2)

1. After the reboot, login as **Administrator** again and open the **Server Manager** if it doesn't open automatically.
2. Click **Local Server** on the left to display the Server Manager overview page in the right-hand pane.
3. In the **Properties** section, find **IE Enhanced Security Configuration** and click the **On** link on the right.
4. In the **Internet Explorer Enhanced Security Configuration** window, set it to **Off** for the Administrators and click **OK**.
5. In the **Roles and Features** section, select the **Tasks** drop-down and then **Add Roles and Features**.
6. The **Add Roles and Features Wizard** opens. Click **Next**.
7. Select the **Role-based or feature-based installation** radio button. Click **Next**.
8. Select the **Select a server from the server pool** radio button. Make sure your local server is selected and click **Next**.



9. On the Select server roles window, select Web Server (IIS). A prompt opens to Add feature that are required for Web Server (IIS). Click Add Features.
10. Click Next.
11. On the Select features window, select the following features and sub features (if prompted, add required features and roles as necessary):
  - .NET Framework 3.5 Features
    - .NET Framework 3.5 (includes .NET 2.0 and 3.0)
    - HTTP Activation
  - .NET Framework 4.5 Features
    - .NET Framework 4.5
    - ASP.NET 4.5
    - WCF Services
      - HTTP Activation
      - TCP Port Sharing
  - SNMP Service
12. Click **Next**.
13. On the **Web Server Role (IIS)** window click **Next**.
14. On the **Select Role Services** window, make sure the following are selected:

**NOTE** When selecting roles and features, you may be prompted to add another server role, follow the on-screen prompts and accept the defaults.

- Common HTTP Features

- Default Document
  - Directory Browsing
  - HTTP Errors
  - Static Content
  - HTTP Redirection
  - Health and Diagnostics
    - HTTP Logging
    - Logging Tools
  - Performance
    - Static Content Compression
  - Security
    - Request Filtering
  - Application Development
    - .NET Extensibility 3.5
    - .NET Extensibility 4.5
    - ASP.NET 3.5
    - ASP.NET 4.5
    - ISAPI Extensions
    - ISAPI Filters
  - Management Tools
    - IIS Management Console
15. Click **Next** to confirm the changes.
  16. On the **Confirm installation selections** window, you may be prompted to specify an alternate source path. If no change is made, the installation will attempt to pull the needed files from Windows Update. This is the preferred method, but if no Internet connection is available, you can specify a local source before proceeding. Follow the instructions provided in the **Specify an alternate source path** link.
  17. Click **Install** to proceed with the changes.
  18. Click **Close** when the wizard completes the installation
  19. Close the **Server Manager**.

## Install .NET Framework 4.7.2

1. Navigate to <https://dotnet.microsoft.com/download/dotnet-framework/net472> and click on the “Download .NET Framework 4.7.2 Runtime” link to download the software installation executable.
2. Once downloaded, run NDP472-KB4054531-Web.exe to install the software.
3. You will be prompted to reboot. If you don’t want to reboot immediately, make sure you reboot before the “Install Important Updates” section.

## Configure Windows Update

1. Open the **Windows Update Control Panel** by right-clicking the **Start** menu and selecting **Control Panel**.
2. Change the **View** by to **Small Icons**.
3. Click **Windows Update**.
4. On the **Windows Update** window, click the **Change settings** link on the left.
5. Under **Important updates**, select **Never check for Updates (not recommended)** from the drop-down list.
6. Under **Recommended updates**, make sure **Give me recommended updates the same way I receive important updates** is **not selected**.
7. Under **Microsoft Update**, make sure the **Give me updates for other Microsoft products when I update Windows** is **selected**.
8. Click **OK**.
9. On the **Windows Update** window, click **Check for Updates**.

## Install Important Updates

On the **Windows Update** window, if any important updates are available click the link for the important updates, verify that only important updates are selected and then click **Install**. You may be prompted to install the **Windows Malicious Software Removal Tool x64**, if so, select **I accept the license terms** and click **Finish**. After the updates are installed, if prompted to reboot, do so.

After the system reboots or after the updates are installed and no reboot is prompted, return to the **Windows Update** window and select the **Check for updates** link. Continue to apply all important updates until only optional updates are presented. Select the optional updates link and select any updates related to Microsoft Silverlight and click **OK**. On the **Windows Update** window, select **Install Updates**. Accept the license terms if prompted. After any update, always check for important updates and apply them. Once all important or optional Silverlight updates have been applied, reboot the server and continue.

## Log In as encoreserver User

---

Complete the following steps to standardize the Encore desktop.

1. Log on using **encoreserver**.
2. The **Server Manager** opens automatically. In Server Manager's toolbar, select **Manage** and then **Server Manager Properties**.
3. Select the **Do not start Server Manager automatically at logon** option and then click **OK**.
4. Close the **Server Manager** window.

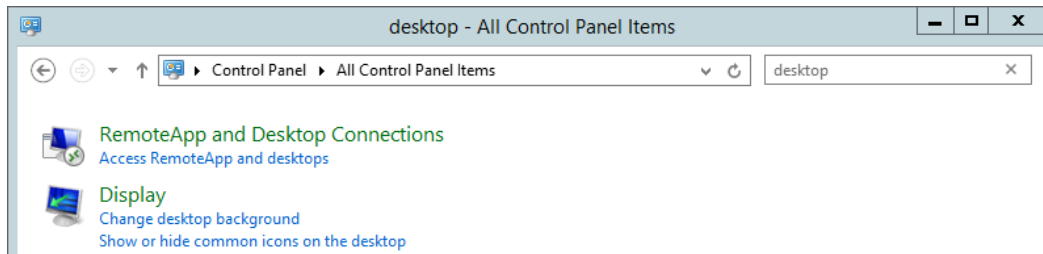
# Configure User Settings

---

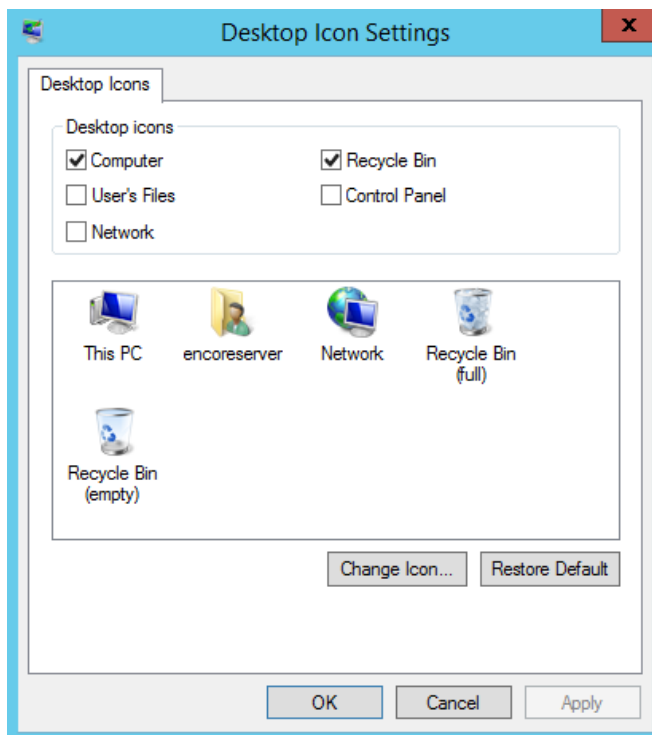
## Customize the Desktop

Complete the following steps to standardize the Encore desktop.

1. Click **Start** and then **Control Panel**.
2. In Control Panel's search box, enter `desktop`.



3. In the search results, click **Show or hide common icons on the desktop** found under the **Display** category.
4. Make sure **Computer** and **Recycle Bin** are selected and then click **OK**.



## Set Up the Folder View

Complete the following steps to standardize the folder views for the Encore system.

1. Click the back arrow in your search results to return to the **Control Panel**.
2. Change the **View by** drop-down to **Small icons**.
3. Open the **Folder Options**.
4. On the **General** tab, enable **Show all folders** in the **Navigation** pane section.
5. Click **Apply**.
6. Click the **View** tab.
7. Verify the following items are **selected**:
  - **Always show icons, never thumbnails**
  - **Always show menus**
  - **Display file icon on thumbnails**
  - **Display files size information in folder tips**
  - **Show hidden files and folders and drives**
  - **Hide protected operating systems files**
  - **Show drive letters**
8. Verify the following items are **not selected**:
  - **Hide empty drives**
  - **Hide extensions for known file types**
  - **Hide folder merge conflicts**
  - **Use Sharing Wizard**
9. Click **Apply**.
10. Click the **Search** tab.
11. Enable the **Always search file names and contents (this might take several minutes)** option.
12. Click **OK** to close the **Folder Options** window.

## Configure Action Center

1. Open the **Action Center**.
2. Expand the **Security** section.
3. Click the **Turn off messages about Windows SmartScreen** link.
4. Expand the **Maintenance** section.
5. Under **Check for solutions to problem reports**, click **Settings**.
6. Select **I don't want to participate, and Don't ask me again** and click **OK**.
7. Click the **Control Panel Home** link to return to the main **Control Panel** view.



## Configure Internet Options

1. Open **Internet Options**.
2. Select the **Security** tab.
3. With the **Internet zone** selected, click **Custom level**.
4. Scroll about halfway down to the **Downloads** section and **Enable** the **File download** option and click **OK**, answer **Yes** to the warning prompt and then **OK** to close the **Internet Options**.
5. Close the Control Panel.

## Reboot the Server

---

Reboot the server and verify that after the reboot, the **Encoreserver** user is automatically logged in.

If successful, the server is now ready for Encore to be installed.