

# Encore Server Prep for Windows 2019

Encore Workforce Optimization Solution  
Version 7.1 or later

September 25, 2019

The logo for Encore, featuring the word "encore" in a bold, lowercase sans-serif font. The letter "o" is replaced by a circular icon with a colorful, multi-segmented design.

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# Pre-Operating System Configuration and Considerations

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The VM or physical server used for an Encore system must meet or exceed the minimum specifications. Refer to the **Encore Specifications** document for server requirements.

## Assign the Administrator Account Password

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When prompted by the Windows Server 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

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In this section, the hard drives are partitioned, and the drive letters and volume labels are assigned.

1. From the **Start** menu, select **Disk Management**.
2. When **Disk Management** opens you may see a couple scenarios. Follow the steps as appropriate.
  - If Disk 1 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

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Windows Server sets the network profiles for all NICs to Public. 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 **Start** menu, select **Administrative Tools**.
2. Select **Local Security Policy**.
3. Select **Network List Manager Policies**.
4. Right-click **Unidentified Networks** and select **Properties**.
5. Set the **Location type** to **Private**.
6. Select **OK**.
7. Set the **Location type** to **Private** for the **Identifying Networks** as well.

## Configure Windows Server

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### Set Required Local Group Policies

1. From the **Start** menu, select **Run**.
2. In the **Run** box, type **gpedit.msc** and click **OK**.
3. Navigate to **Computer Configuration | Windows Settings | Security Settings | Local Policies | Security Options**.
4. Change the following policy settings:
  - a. **User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode** change **Security Setting** to **Elevate without prompting**.
  - b. **User Account Control: Run all administrators in Admin Approval Mode** change **Security Setting** to **Disabled**. You may see a notification that says the computer must be restarted for the new settings to take effect. Ignore that for now; we will restart the computer in a later step.
5. Navigate to **Computer Configuration | Administrative Templates | System**.
6. Change the following policy setting:
  - a. **Display Shutdown Event Tracker** change **Security Setting** to **Disabled**.
7. Navigate to **Computer Configuration | Administrative Templates | Windows Components | Windows Error Reporting**.

8. Change the following policy setting:
  - a. **Prevent display of the user interface for critical errors** change **Security Setting** to **Enabled**.
9. Navigate to **User Configuration | Administrative Templates | Windows Components | Attachment Manager**.
10. Change the following policy setting:
  - a. **Do not preserve zone information in file attachments** change **Security Setting** to **Enabled**.

## Set Required Registry Setting

1. From the **Start** menu, select **Run**.
2. In the **Run** box, type **regedit** and click **OK**.
3. Navigate to **HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\Windows Error Reporting**.
4. Edit the registry value **DontShowUI** and set it to **1**. If you need to add the value, the type should be **DWORD**.
5. Navigate to **HKEY\_CURRENT\_USER\Software\Microsoft\Windows\Windows Error Reporting**.
6. Edit the registry value **DontShowUI** and set it to **1**. If you need to add the value, the type should be **DWORD**.

## Set up Local Users for Windows Server

1. From the **Start** menu, select **Computer Management**.
2. Navigate to **System Tools | Local Users and Groups | Users**.
3. Verify the **Administrator** property **Password never expires** is checked.
4. Right-click the **Users** folder and select **New User**.
5. Add a new 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
6. Navigate to **System Tools | Local Users and Groups | Groups**.
7. Add **encoreserver** to the **Administrators** group and **Check Names** to verify.

## Turn off DEP (Data Execution Prevention)

1. Click the **Search** icon and start typing **Command**. When **Command Prompt** is displayed, right-click and **run as administrator**.
2. In the command prompt, enter:

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

3. To verify that the change took place, just run **BCDEDIT** without parameters. In the section where **identifier** is set to **{current}**, check that the **nx** parameter is set to **AlwaysOff**.

## System Properties

1. From the **Start** menu, select **Control Panel**.
2. Select **System**.
3. Click the **Remote settings** link on the left.
4. 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**.
5. Click **Apply**.
6. Select the **Advanced** tab.
7. Under **Startup and Recovery**, click **Settings**.
8. Under **System** startup, enable both **Time to display** options and set to **5** seconds.
9. Change the **Write debugging information** option to **Small memory dump (256KB)**.
10. Click **OK**.
11. Click the **Computer Name** tab and click the **Change** button.
12. 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.
13. Click **OK**, then click **OK** again and click **Close**. Restart the machine when prompted.

**CAUTION** Do not proceed to next section until the machine has been restarted.

## Configure the server roles and required features

1. After the restart, login as **Administrator** again. From the **Start** menu, select **Server Manager**.
2. Select **Local Server**.
3. In the **Properties** section, edit the **IE Enhanced Security Configuration**. Set the Administrators setting to **Off** and click **OK**.
4. In the **Roles and Features** section, select the **Tasks** drop-down and then **Add Roles and Features**.
5. The **Add Roles and Features Wizard** opens. Click **Next**.
6. Select the **Role-based or feature-based installation** radio button. Click **Next**.
7. Click the **Select a server from the server pool** radio button. Make sure your local server is selected and click **Next**.

8. 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**.
9. Click **Next**.
10. 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 4.7 Features**
    - **.NET Framework 4.7**
    - **ASP.NET 4.7**
    - **WCF Services**
      - **HTTP Activation**
      - **TCP Port Sharing**
  - **SNMP Service**
11. Click **Next**.
12. On the **Web Server Role (IIS)** window click **Next**.
13. On the **Select Role Services** window, make sure the following are checked:

**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 4.7**
  - **ASP.NET 3.5**
  - **ASP.NET 4.7**
  - **ISAPI Extensions**
  - **ISAPI Filters**
- **Management Tools**
  - **IIS Management Console**

14. Click **Next** to confirm the changes.



15. 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. Click **Install** to proceed with the changes.

## Configure Windows Update Server

1. Right-click the **Start** menu and select **Run**.
2. In the **Run** box, type **gpedit.msc** and click **OK**.
3. Navigate to **Computer Configuration | Administrative Templates | Windows Components | Windows Update**.
4. Select **Configure Automatic Updates** and select **Disabled**.
5. Select **Apply** then **OK**.

## Install Important Updates

1. Click the **Start** menu and select **Settings**.
2. Select **Update & Security**. **Windows Update** is selected.

If any updates are available, click **Install** to install them. 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 restart, do so.

After the system restarts or after the updates are installed and no restart is prompted, return to the **Windows Update** screen and select the **Check for updates** link. Continue to apply all updates until no updates are presented.

## Configure encoreserver User Settings

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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**.

## Customize the Desktop

1. From the **Start** menu, select **Settings**.
2. Select **Personalization | Themes | Desktop icon settings**.
3. 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. From the **Start** menu, select **Control Panel**.
2. Open the **File Explorer Options**. If you don't see it, switch to **Small icons** view.
3. On the **View** tab:
  - a. 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**
  - b. Verify the following items are not selected:
    - **Hide empty drives**
    - **Hide extensions for known file types**
    - **Hide folder merge conflicts**
    - **Use Sharing Wizard**
  - c. Click **Apply**.
4. On the **Search** tab, enable the **Always search file names and contents (this might take several minutes)** option, click **OK**.
5. Open a **Windows Explorer** window.
6. Right-click the blank space on the left panel of the **Windows Explorer** window and select **Show All Folders**.

## Windows Error Reporting

1. Right-click the **Start** menu and select **Run**. Type **regedit** and click **OK**.
2. Navigate to **HKEY\_CURRENT\_USER\SOFTWARE\Microsoft\Windows\Windows Error Reporting**.
3. Add the registry value **Disabled** and set it to **1**.

## Configure Internet Options

1. If you closed the **Control Panel** in the last section, open it again for this section.
2. Select **Internet Options**.
3. Select the **Security** tab.
4. With the **Internet zone** selected, click **Custom level**.

5. 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**.

The Server is now ready for Encore software to be installed.