Encore Server Prep for Windows 2016

Heighten Security

Encore Workforce Optimization Solution
Version 7.1 or later

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For Dealer and Customer Use Only

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TABLE OF CONTENTS

Pre-Operating System Configuration and Considerations **3**

Assign the Administrator Account Password **3**

Disk Management **3**

Set Network Profile **5**

Configure Windows Server **5**

Set Required Registry Setting 5
Set up Domain User for Windows Server 5
System Properties 6
Configure the server roles and required features 6
Install .NET Framework 4.7.2 8
Configure Windows Update Server 8
Install Important Updates 8

Configure Domain Account Settings **8**

Customize the Desktop 9
Set Up the Folder View 9
Disable Windows Error Reporting 9
Configure Internet Options 11

Pre-Operating System Configuration and Considerations

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.

CAUTION This server prep guide is only used for 7.0 systems that use VoIP Service as the only collection method.

Assign the Administrator Account Password

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. During software installation, DVSAnalytics installation technicians will need to log into the server using the local Administrator account. Once software is installed and configured, the server will need access to the administrator account until the next software upgrade.

Disk Management

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

1. Right-click the **Start Menu** and 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

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. Right-click the **Start** menu and select **Control Panel**.
2. Select **Administrative Tools**.
3. Select **Local Security Policy**.
4. Select **Network List Manager Policies**.
5. Right-click **Unidentified Networks** and select **Properties**.
6. Set the **Location type** to **Private**.
7. Select **OK**.
8. Set the **Location type** to **Private** for the **Identifying Networks** as well.

Configure Windows Server

Set Required Registry Setting

1. Right-click the **Start** menu and 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 Domain User for Windows Server

1. Right-click the **Start** menu and select **Computer Management**.
2. Navigate to **System Tools** | **Local Users and Groups** | **Groups**.
3. Add domain user to the **Administrators** group and **Check Names** to verify.

System Properties

1. Right-click the **Start** menu and 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 and open the **Server Manager** if it doesn't open automatically.
2. Select **Local Server.**
3. In the **Roles and Features** section, select the **Tasks** drop-down and then **Add Roles and Features**.
4. The **Add Roles and Features Wizard** opens. Click **Next**.
5. Select the **Role-based or feature-based installation** radio button. Click **Next**.
6. Click the **Select a server from the server pool** radio button. Make sure your local server is selected and click **Next**.

7. 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**.
8. Click **Next**.
9. 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 4.6 Features**
     - **.NET Framework 4.6**
     - **ASP.NET 4.6**
     - **WCF Services**
       - **HTTP Activation**
       - **TCP Port Sharing**
   - **SNMP Service**
10. Click **Next**.
11. On the **Web Server Role (IIS)** window click **Next**.
12. 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**
   - **Health and Diagnostics**
     - **HTTP Logging**
     - **Logging Tools**
   - **Performance**
     - **Static Content Compression**
   - **Security**
     - **Request Filtering**
   - **Application Development**
     - **.NET Extensibility 3.5**
     - **.NET Extensibility 4.6**
     - **ASP.NET 3.5**
     - **ASP.NET 4.6**
     - **ISAPI Extensions**
     - **ISAPI Filters**
   - **Management Tools**
     - **IIS Management Console**
13. Click **Next** to confirm the changes.

14. 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.
15. Click **Install** to proceed with the changes.

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 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. From the **Start** menu, 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 Domain Account Settings

1. Log on using domain account.
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. Right-click **Start** menu and 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**.

Disable 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. Set the registry value **Disabled** 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.