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# Encore Server Prep for Windows Server 2016

Encore Workforce Optimization Solution
Version 9.1 or later

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![encore logo]

**For Dealer and Customer Use Only**

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# 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.

# Assign the Administrator Account Password

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 or a member of the local Administrators group.  Once software is installed and configured, the server will not need access to the local 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** icon 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 MBR 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 MBR was selected.
3. If present, change the DVD drive letter to **G** by right-clicking it and selecting the **Change Drive Letter and Paths** option and Click **Change**.
4. Select **G** and click **OK** and **Yes** to any warnings.
5. Right-click the unallocated section of **Disk 1** and select **New Simple Volume**.
6. When the **Welcome** window opens, click **Next**.
7. On the **Specify Volume Size** window, allocate the entire volume and click **Next**.
8. On the **Assign a Drive Letter or Path** window, select **D** in the **Assign the following drive letter** field and click **Next**.
9. 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**
10. Select the **Perform a quick format** option and then click **Next**.
11. Click **Finish** to create the D drive.
12. Exit the **Disk Management** window.

# 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** icon and select **Control Panel** and 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

## Set up Domain User for Windows

Create a user that can be used by Encore. This can be a local user or a domain user, if the Encore system is domain joined.

Add the user to the local **Administrators** group.

## System Properties

1. Right-click the **Start** icon 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. Click the **Computer Name** tab and click the **Change** button.

8. Select a name that meets your corporate standards, but keep the name to 15 characters or less. 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.

9. 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** and then click **Next**.
8. On the **Select features** window, select the following features and sub features (if prompted, add required features and roles as necessary):
    - **.NET Framework 4.6 Features**
        - **.NET Framework 4.6**
        - **ASP.NET 4.6**
        - **WCF Services**
            - **HTTP Activation**
            - **TCP Port Sharing**
9. Click **Next**.
10. On the **Web Server Role (IIS)** window click **Next**.
11. 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 4.6**
    - **ASP.NET 4.6**
    - **ISAPI Extensions**
    - **ISAPI Filters**
- **Management Tools**
    - **IIS Management Console**

12. Click **Next** to confirm the changes.
13. 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.
14. 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.

# Windows Updates

Be sure that Windows updates are current for this server prior to the installation of the Encore software.

DVSAnalytics strongly recommends that Automatic Windows Updates be disabled on the Encore server and that monthly patching be performed on a manual and scheduled basis. If disabling Automatic Windows Updates, follow these steps.

1. Right-click the **Start** icon 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**.

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

# Configure Windows for AudioCodes Systems

When a physical server is built for recording with AudioCodes cards, the Encore system will need to remain logged into the Windows desktop.  In addition to the guidance above, follow these steps to accommodate an AudioCodes system.

## Set up a Local Administrator for Windows

1. Right-click the **Start** icon and select **Computer Management**.
2. Navigate to **System Tools** |**Local Users and Groups** | **Users**.
3. Right-click the **Users** folder and select **New User**.
4. Add a new user:

   - **User name** = **Encoreserver**
   - **Password** = <Secure password> - Be sure to provide this password to your Installation Tech
   - Remove the check from the **User must change password at next logon** option
   - Check the **Password never expires** box

5. Navigate to **System Tools** |**Local Users and Groups** | **Groups**.
6. Add **Encoreserver** to the **Administrators** group and **Check Names** to verify.

## Set Required Local Group Policies

1. Right-click the **Start** icon and 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:

   - **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:

   - **Prevent display of the user interface for critical errors** change **Security Setting** to **Enabled**.

## Set Required Registry Setting

1.  Right-click the **Start** icon 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**.

## 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
```

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**.