Citrix®
administrator guide

For:

Nuance®
Dragon® Professional
Group

Nuance®
Dragon® Legal
Group

Nuance®
Dragon®
Law Enforcement
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Chapter 1: About this guide

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Guide overview

The Citrix Administrator Guide provides information about the hardware, software, and network requirements for deploying Dragon Professional Group, Dragon Legal Group, or Dragon Law Enforcement with XenApp or XenDesktop.

This guide uses the term "Dragon" to refer to all Dragon Group products.

Audience

This guide is intended for administrators who manage the Citrix server or the Citrix Receiver on client computers.
### Additional resources

The following resources are available in addition to this guide to help you manage your Dragon installation.

#### Documentation

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dragon Release Notes</td>
<td>New Dragon features, system requirements, client upgrade instructions, and known issues.</td>
<td>Dragon client Help. Do the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. When Dragon is open, click the Help icon on the DragonBar, and then select Help Topics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Click Get started.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Click Dragon release notes.</td>
</tr>
<tr>
<td>Dragon Client Installation Guide</td>
<td>Instructions for installing and configuring Dragon clients.</td>
<td>Dragon Support web site</td>
</tr>
<tr>
<td>Dragon client Help</td>
<td>Commands and instructions for dictating, correcting, and more with the Dragon client.</td>
<td>When Dragon is open, click the Help icon on the DragonBar, and then select Help Topics.</td>
</tr>
<tr>
<td>Nuance Management Center Server Installation and Configuration Guide</td>
<td>Instructions for installing and configuring the Nuance Management Center (NMC) server, database, and console, and instructions for configuring single sign-on authentication.</td>
<td>Dragon Support web site</td>
</tr>
<tr>
<td>Nuance Management Center Administrator Guide</td>
<td>Information on creating and maintaining objects and managing Dragon clients from the Nuance</td>
<td>Dragon Support web site</td>
</tr>
<tr>
<td>Document</td>
<td>Description</td>
<td>Location</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Management Center (NMC) console.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuance Management Center Help</td>
<td>Online Help specific to the Nuance Management Center (NMC) console interface.</td>
<td>When the NMC console is open, click the NMC Help button (?).</td>
</tr>
</tbody>
</table>

**Training**

Nuance provides several Dragon training offerings, like webinars, demos, and Nuance University online training courses. For more information, see the Dragon Support web site.

**Support**

The Dragon Support web site provides many resources to assist you with your Dragon installation, like forums and a searchable knowledgebase. For more information on Support offerings, see the Dragon Support web site at:

Chapter 2: Introduction

About dictation with XenDesktop and XenApp ................................. 6
About dictation with XenDesktop and XenApp

Users initiate the dictation process by launching Dragon remotely from a client computer, then launching a target application in which to dictate. Your Citrix deployment must be configured correctly to allow Dragon to communicate with the target application.

When both applications are running, the user dictates into a microphone connected to the client computer that has been pre-configured to route audio into Dragon on the Citrix server. Dragon receives the audio and transcribes the dictation into text, which it transmits to the destination application.

For more information on configuring audio settings, see “Configure audio settings for Citrix clients” on page 18.
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Before you begin

Review the following before you install and configure your Citrix server.

Installation and configuration checklist

<table>
<thead>
<tr>
<th>Task</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Verify that your Citrix server meets the system requirements.</td>
<td>See System requirements section below.</td>
</tr>
<tr>
<td>☐ Select a Citrix deployment option and configure your server.</td>
<td>“Citrix deployment options” on page 11</td>
</tr>
<tr>
<td>☐ Install Dragon on the Citrix server.</td>
<td>Dragon Client Installation Guide</td>
</tr>
<tr>
<td>☐ Publish the Dragon app, or the desktop where you installed Dragon.</td>
<td>“Publishing Dragon from a Citrix server” on page 13</td>
</tr>
<tr>
<td>☐ Configure your Citrix server as needed to allow Dragon to work with user microphones.</td>
<td>“Configuring your server” on page 16</td>
</tr>
<tr>
<td>☐ Configure client computers to ensure they can access and use Dragon.</td>
<td>“Configuring clients to use Dragon on the Citrix server” on page 18</td>
</tr>
</tbody>
</table>

System requirements

<table>
<thead>
<tr>
<th>RAM</th>
<th>Minimum: 4 GB for all operating systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Note:</strong> If your computer has less than the recommended amount of RAM, Dragon installs but displays a message recommending that you install additional RAM for optimum performance.</td>
</tr>
<tr>
<td>CPU</td>
<td>Minimum: 2.2 GHz Intel® dual core or equivalent AMD processor. Faster processors yield faster performance.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Streaming SIMD Extensions (SSE) are not supported.</td>
</tr>
<tr>
<td>Free hard disk space</td>
<td>• 4GB for DVD installations</td>
</tr>
<tr>
<td>Supported operating systems</td>
<td>• Windows 7, 8.1, and 10, 32-bit and 64-bit</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2008 R2</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2012</td>
</tr>
<tr>
<td></td>
<td>• Windows Server 2016</td>
</tr>
<tr>
<td>Citrix server requirements</td>
<td>• Citrix XenApp or XenDesktop versions 7.6 through 7.11</td>
</tr>
<tr>
<td></td>
<td>• A single (non-hyper-threaded) core processor for each active speaker</td>
</tr>
<tr>
<td></td>
<td>• Recommended: 2 MB L2 processor cache</td>
</tr>
</tbody>
</table>
Other

- Internet Explorer 11 or the current version of Firefox, Chrome, or Edge for online Help
- Microsoft .NET Framework version 4.5.2 or later
  Generally, the .NET Framework is pre-installed on Windows 7, 8.1, and 10 computers. If you do not have it installed, you are prompted to install it during Dragon’s installation.
  Nuance does not provide the .NET Framework with your installation; you must download the installation file from microsoft.com.
- A DVD-ROM drive if installing from disk
- An audio input device capable of 16-bit recording for dictation
  For a list of recommended devices, see http://support.nuance.com/compatibility/.
- An internet connection

Additional considerations

Usage

<table>
<thead>
<tr>
<th>Risk</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher loads on your Citrix server</td>
<td>Moving the dictation processing to your server increases CPU usage and processor demand.</td>
</tr>
<tr>
<td>Higher bandwidth use</td>
<td>Users with analog microphones need to transfer high-resolution audio data to the server. When turned on, each analog microphone uses 1.3 Mbps of network bandwidth. Bandwidth limitations can make Dragon difficult to use. Note that USB microphones require less bandwidth than analog microphones.</td>
</tr>
</tbody>
</table>

Communication

To allow users to dictate into a target application, such as Microsoft Word, publish both applications so they run in a single Citrix client session on the same server cluster. Otherwise, Dragon may not work properly with other published applications.

Load balancing

If you use the Citrix server’s Load Balancing feature, check the configuration of the Load Manager to make sure Dragon runs on the same server as any target applications. To prevent errors, consider disabling automatic load balancing in a multi-server farm.

Sessions

Citrix starts published applications in separate sessions if:
- You publish the applications with different settings
- You publish one application as a Desktop.
- The Citrix client does not start the application in Seamless mode.
• A user launches one application, changes **Application Set** settings, and then launches another application.
### Citrix deployment options

You can deploy Dragon with Citrix in one of the following ways.

<table>
<thead>
<tr>
<th>Install Dragon…</th>
<th>Users can dictate into…</th>
<th>Users cannot dictate into…</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a published application on Citrix XenApp server.</td>
<td>Applications located on the same XenApp server as Dragon.</td>
<td>Applications on a published desktop.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applications installed locally on the client computer.</td>
</tr>
<tr>
<td>On a Citrix XenDesktop server.</td>
<td>Applications installed on the same published desktop as Dragon.</td>
<td>Applications on a separate published desktop.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applications published with XenApp.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applications installed locally on the client computer.</td>
</tr>
</tbody>
</table>
Chapter 4: Publishing Dragon

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Publishing Dragon from a Citrix server

You must publish Dragon to allow the Citrix Receiver to see and display Dragon on your client machines.

Deploying Dragon with XenDesktop

If you are deploying Dragon with XenDesktop, do the following:

1. Publish the desktop as you normally would.
   For more detailed information, see your Citrix documentation.
2. Configure the Audio Plug N Play option:
   a. In the main Citrix Studio window, click the Policy tab.
   b. Set the Audio Plug N Play option to Allowed.
   c. Click Apply.
   d. Restart your server or release all client connections.

After you have published a desktop with Dragon installed, you must set up your client machines before running Dragon. For more information, “Configuring clients to use Dragon on the Citrix server” on page 18.

Deploying Dragon with XenApp

Caution: You must use identical settings to publish Dragon and any target applications users use for dictation, such as Microsoft Word. Otherwise, Citrix may start the applications in separate sessions, causing errors. For example, if Microsoft Word and Dragon run in different sessions, the microphone hot key does not work when Microsoft Word is the active application, and the Dragon user cannot dictate text into Microsoft Word.

Do the following to publish Dragon as a standalone application on a XenApp server:

1. Note the server location of the Dragon installation directory.
2. Start Citrix Studio.
3. In the left-hand navigation panel, right-click Machine Catalogs, and then select Create Machine Catalog.
4. Select the server where Dragon is installed.
   The Machine Catalog Setup dialog box appears.
5. Click Next.
   The Operating System screen appears.
6. Select Windows Server OS, and then click Next.
   The Machine Management screen appears.
7. In the This Machine Catalog will use section, select Machines that are power managed.
8. In the Deploy machines using section, select Citrix Machine Creation Services (MCS).
9. Complete the wizard with the settings required for your XenApp deployment.
10. Return to the main Citrix Studio window and click **Delivery Groups** in the left-hand navigation panel.

11. Right-click the **Delivery Group** that contains the machine where Dragon is installed, and then select **Add Applications**.
    
The Create Application dialog box appears.

12. Click **Next**.
    
The Applications screen appears.

13. In the Applications list, select your Dragon application, and then click **Next**.
    
The Summary screen appears.

14. Click **Finish**.

After you have published Dragon from your XenApp server, you must set up your client machines before running Dragon. For more information, “Configuring clients to use Dragon on the Citrix server” on page 18.
Chapter 5: Post-installation tasks

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Configuring your server

Install the PowerMic Citrix Server & Virtual Desktop Extension

To enable the PowerMic, install the PowerMic Citrix Server & Virtual Desktop Extension on the Citrix server.

1. In the Dragon installation directory, navigate to Citrix Extension>Citrix Server & Virtual Desktop Extension.
3. Follow the prompts to install the PowerMic Citrix Server & Virtual Desktop Extension.

Note: You must also install the PowerMic Citrix Client Extension on each client computer where users dictate with a PowerMic. For more information, see “Install the PowerMic Citrix Client Extension on each client computer” on page 19.

Allow users with analog microphones to launch Dragon

If you have users who dictate with an analog microphone, grant them permission to customize audio quality and set the quality to high.

To grant users permission to customize audio quality for the web interface:

1. Open the Citrix Access Management Console.
2. In the left pane, select Citrix Web Interface>XenApp Web Sites><Site name>.
3. In the XenApp–Edit Settings window, click Session Settings.
4. In the Remote Connection section, select Connection Performance.
5. Select Allow users to customize sound.
6. Click OK.

To set the audio quality to high:

1. Open the Citrix AppCenter.
2. In the left pane, navigate to Citrix Resources>XenApp><Citrix farm>>Policies.
3. In the lower part of the screen, click the Settings tab.
4. In the Settings area, next to Audio quality, click Add.

The Add Setting screen appears.
5. From the Value drop-down list, select High – high definition audio.
7. Change group policy setting from Not Configured to Enabled, and then click Apply.
8. Select Enable audio.
9. In the Sound quality drop-down list, select High.
10. Click Apply.
11. Click OK.
12. From a command prompt, run the `gpupdate /force` command to ensure that the policy is correctly applied.
Configuring clients to use Dragon on the Citrix server

Do the following to prepare your client computers to use Dragon on a Citrix server.

**Install the Citrix Receiver software on all clients**

Whether you are deploying Dragon with XenDesktop or XenApp, you must install Citrix Receiver on all clients that need access to the Citrix server.

You can download this software and its documentation from the Citrix web site.

**Configure audio settings for Citrix clients**

To allow users to dictate from a client computer, you must configure the audio input by doing one of the following:

- “XenApp deployments: Install Dragon Client Update for Citrix” on page 18
- “XenDesktop deployments: Configure audio devices on the client” on page 18

**Note:** To enable the PowerMic as a dictation source, you must also install the Citrix Extensions. For more information, see “Install the PowerMic Citrix Server & Virtual Desktop Extension” on page 16.

**XenApp deployments: Install Dragon Client Update for Citrix**

Before users can dictate with Dragon on a XenApp server, you must install the **Dragon Client Update for Citrix** utility on each client machine. This utility enables Dragon to receive audio from devices connected to a local client machine.

You need administrator rights to install this utility.

1. If there is an older version of the **Dragon Client Update for Citrix** utility installed on the computer, uninstall it first.
2. In the Dragon installation directory, open the Citrix Extension folder.
3. Launch vddnspatch2.exe or vddnspatch2.msi.
   The InstallShield Wizard opens.
4. Follow the prompts to install the software for use with the default application set in the XenApp client.

**XenDesktop deployments: Configure audio devices on the client**

To allow Dragon to receive audio from devices connected to local client machines, do the following on each client computer:

1. Plug the microphone into the client computer.
2. Right-click the speaker icon in the Notifications area of the computer, and then select **Recording devices**.
   The Sound dialog box appears with the Recording tab open.
3. Verify that the microphone you want to use appears in the list of recording devices and is set as the default recording device.
To change the default recording device, select a microphone from the list and click the Set Default button.

4. Click OK to exit the Sound dialog box.
5. Launch an internet browser and log in to the Citrix server.
6. In the Desktops view, select the desktop where Dragon is installed.
   
   Citrix Receiver opens.
7. If the Citrix Receiver – Security Warning dialog box appears, click Permit Use.
8. Click the XenDesktop toolbar at the top of the virtual machine display.
9. Click the Preferences icon.
   
   The Citrix Receiver – Preferences window appears.
10. **PowerMic users only:**
   
   1. In the Devices tab, find **Nuance PowerMic II-NS** (for PowerMic III) or **Dictaphone Corporation** (for PowerMic II) in the devices list.
   
   2. In the Virtual Channel column, click **Switch to generic**.
11. Click the Connections tab.
12. Under **Session Settings**, select **Connect automatically**.
13. Click OK to close the Citrix Receiver – Preferences window.
14. In the XenDesktop toolbar, click the Devices icon and verify that your microphone is listed.

**Troubleshooting**

- If the audio quality on the Citrix server where Dragon is installed is set to low but the sound on the client running Dragon is set to high, the client might not receive an audio quality warning. Be sure to set the audio quality on the server to high. For more information, see “Allow users with analog microphones to launch Dragon” on page 16.

- Each client computer must have a sound system. If, for example, USB audio is disabled on the client computer, a user can’t create a user profile when using that computer. In this case, you should enable USB audio on the client computer and re-connect to the Citrix server.

**Install the PowerMic Citrix Client Extension on each client computer**

To enable PowerMic with a Citrix deployment of Dragon, you must install the PowerMic Citrix Client Extension on each client computer.

1. In the Dragoninstallation directory, navigate to **Citrix Extension>Citrix Client Extension**.
2. Double click PowerMic Citrix Client Extension.msi.
3. Follow the prompts to install the PowerMic Citrix Client Extension.

**Note:** You must also install the PowerMic Citrix Server & Virtual Desktop Extension on the Citrix server. For more information, see “Install the PowerMic Citrix Client Extension on each client computer” on page 19.

**Managing Citrix logging on the client (optional)**

When you start a Citrix session, the software loads the module.ini file from the root folder of the client machine, which contains a list of the parameters used to select and configure the
communications stack modules, including the Dragon Client Update for Citrix utility.

To avoid running out of space on the Citrix client, you can disable or redirect Citrix logging.

1. Open the module.ini file in a text editor. By default, the module.ini file is located in the Citrix client directory:

   C:\Program Files (x86)\Citrix\ICA Client

2. Find the [VDDNS] section and modify the settings:
   - To disable logging: Change the LogLevel to 0.
   - Or
   - To redirect logging to another location or device: Change LogFileName to a different path.

3. Save and exit the module.ini file.