Citrix®
administrator guide

For:

Nuance®
Dragon® Professional
Group

Nuance®
Dragon® Legal
Group

Nuance®
**Dragon®
Law Enforcement**

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End-of-life: Third-party environments

Support for third-party environments is only valid as long as they are supported by the corresponding vendor and might be subject to other restrictions. Contact Nuance Technical Support for details. For more information, see the documentation delivered with the third-party product and supporting Nuance documentation.

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Notice

Nuance Communications, Inc. is strongly committed to creating high quality voice and data management products that, when used in conjunction with your own company's security policies and practices, deliver an efficient and secure means of managing confidential information.

Nuance believes that data security is best maintained by limiting access to various types of information to authorized users only. Although no software product can completely guarantee against security failure, Dragon Group software contains configurable password features that, when used properly, provide a high degree of protection.

We strongly urge current owners of Nuance products that include optional system password features to verify that these features are enabled. You can call our support line if you need assistance in setting up passwords correctly or in verifying your existing security settings.

Contents

Chapter 1: About this guide

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 Virtual App (formerly XenApp) or Virtual Desktop (formerly 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 Workspace (formerly 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

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

Document	Description	Location
	Management Center (NMC) console.	
Nuance Management Center Help	Online Help specific to the Nuance Management Center (NMC) console interface.	When the NMC console is open, click the NMC Help button ().

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:

https://www.nuance.com/dragon/support/dragon-naturallyspeaking.html

Chapter 2: Introduction

About dictation with Virtual Desktop (formerly XenDesktop) and Virtual App (formerly XenApp)

Users initiate the dictation process by launching Dragon remotely from a client computer, and 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 .

Chapter 3: Getting started

Before you begin

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

Installation and configuration checklists

Choose the checklist appropriate for your installation type.

Installing Dragon before installing the Citrix Workspace (formerly Citrix Receiver)

Choose this checklist if you are installing Dragon first, then the Citrix Workspace (formerly Citrix Receiver).

	Task	Reference
☐	Verify that your Citrix server meets the system requirements.	See System requirements section below.
☐	Select a Citrix deployment option and configure your server.	"Citrix deployment options" on page 12
☐	Install Dragon on the Citrix server.	*Dragon Client Installation Guide*
☐	Publish the Dragon app, or the desktop where you installed Dragon.	"Publishing Dragon from a Citrix server" on page 14
☐	Configure your Citrix server as needed and allow Dragon to work with user microphones.	"Configuring your server" on page 17
☐	Configure client computers to ensure they can access and use Dragon.	"Configuring clients to use Dragon on the Citrix server" on page 19

Installing the Citrix Workspace (formerly Citrix Receiver) before installing Dragon

Choose this checklist if you are installing the Citrix Workspace (formerly Citrix Receiver) first, then Dragon.

	Task	Reference
☐	Verify that your Citrix server meets the system requirements.	See System requirements section below.
☐	Select a Citrix deployment option and configure your server.	"Citrix deployment options" on page 12
☐	Configure client computers to ensure they can access and use Dragon.	"Configuring clients to use Dragon on the Citrix server" on page 19
☐	Install the PowerMic Citrix Client Extension on all clients.	"Configuring clients to use Dragon on the Citrix server" on page 19
☐	Install the Dragon Client Update for Citrix utility on all clients.	"Configuring clients to use Dragon on the Citrix server" on page 19
☐	Use `setup.exe` to install Dragon on the Citrix server.	*Dragon Client Installation Guide*

	Task	Reference
☐	Publish the Dragon app, or the desktop where you installed Dragon.	"Publishing Dragon from a Citrix server" on page 14

System requirements

Component	Requirement
RAM	Minimum: 4 GB for all operating systems. **Note**: If your workstation or server has less than the recommended amount of RAM, Dragon installs but displays a message recommending that you install additional RAM for optimum performance.
CPU	Minimum: 2.2 GHz Intel® dual core or equivalent AMD processor. Faster processors yield faster performance. **Note**: Streaming SIMD Extensions (SSE) are not supported.
Free hard disk space	• 4GB for DVD installations
Supported operating systems—Workstation	• Windows 7, 8.1, and 10, 32-bit and 64-bit
Supported operating systems—Server	• Windows Server 2008 R2 • Windows Server 2012 • Windows Server 2016 • Windows Server 2019
Citrix server requirements	• Citrix Virtual Apps and Desktops – Current Release (1808, 1811) • Citrix XenApp and XenDesktop v7.x – LTSR (7.6, 7.15), or Current Release (7.16, 7.17, 7.18) • Citrix XenApp v6.x – LTSR (6.5 with latest SP) • A single (non-hyper-threaded) core processor for each active speaker • Recommended: 2 MB L2 processor cache
Citrix client requirements	• Citrix Workspace: Current Release (1808 and higher), • Citrix Receiver: LTSR (Receiver 4.9), Current Release (4.10.1 and higher)

Component	Requirement
Citrix Workspace (formerly Citrix Receiver)	• Citrix Workspace 1808 (or last current release), or Citrix Receiver 4.9 or higher (DMPE US only)
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

Component	Consideration	
Usage	**Risk**	**Cause**
	Higher loads on your Citrix server	Moving the dictation processing to your server increases CPU usage and processor demand.
	Higher bandwidth use	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.
Communication	To allow users to dictate into a target application, such as Microsoft Word, publish both applications	

Component	Consideration
	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.

Install Dragon…	Users can dictate into…	Users cannot dictate into…
• As a published application on Citrix Virtual App (formerly XenApp) server.	• Applications located on the same Virtual App (formerly XenApp) server as Dragon.	• Applications on a published desktop. • Applications installed locally on the client computer.
• On a Citrix Virtual Desktop (formerly XenDesktop) server.	• Applications installed on the same published desktop as Dragon.	• Applications on a separate published desktop. • Applications published with Virtual App (formerly XenApp). • Applications installed locally on the client computer.

Chapter 4: Publishing Dragon

Publishing Dragon from a Citrix server

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

Deploying Dragon with Virtual Desktop (formerly XenDesktop)

If you are deploying Dragon with Virtual Desktop (formerly 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 19.

Deploying Dragon with Virtual App (formerly 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 Virtual App (formerly 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 Virtual App (formerly 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 Virtual App (formerly 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 19.

Chapter 5: Post-installation tasks

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 Dragoninstallation directory, navigate to **Citrix Extension>Citrix Server & Virtual Desktop Extension**.

2. Double-click to run `PowerMic Citrix Server & Virtual Desktop Extension.exe`.

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 20.

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>Virtual App 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>Virtual App><*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**.

6. Under **Group Policy**, select **Administrative Templates>Citrix Components>Citrix Virtual App Plugin for Hosted Apps>User Experience>Client audio settings**.

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 Workspace (formerly Citrix Receiver) software on all clients

Whether you are deploying Dragon with Virtual Desktop (formerly XenDesktop) or Virtual App (formerly XenApp), you must install Citrix Workspace (formerly 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:

- "Virtual App (formerly XenApp) deployments: Install Dragon Client Update for Citrix" on page 19
- "Virtual Desktop (formerly XenDesktop) deployments: Configure audio devices on the client" on page 19

> **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 17.

Virtual App (formerly XenApp) deployments: Install Dragon Client Update for Citrix

Before users can dictate with Dragon on a Virtual App (formerly 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 Virtual App (formerly XenApp) client.

Virtual Desktop (formerly 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 Workspace (Formerly Citrix Receiver) opens.

7. If the Citrix Workspace– Security Warning dialog box appears, click **Permit Use**.

8. Click the Virtual Desktop toolbar at the top of the virtual machine display.

9. Click the **Preferences** icon.

    The Citrix Workspace – 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 Workspace – Preferences window.

14. In the Virtual Desktop 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 17.

- 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 20.

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.