

Citrix® administrator guide

For:

Nuance®
Dragon® Professional
Group

Nuance®
Dragon® Legal
Group

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Dragon®
Law Enforcement

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About this guide

Who should read this guide

This guide is written for any administrator in an organization who manages either the Citrix server or the supporting software on client computers that allows them to connect to the server.

Dragon products included here

This guide is for customers who purchase either Dragon Professional Group or Dragon Legal Group. Because deploying Dragon with Citrix is the same for both of these Dragon products, for simplicity, this guide uses the terms "Dragon Group" and "Dragon" to reference any of the Dragon group products.

Information covered in this guide

Inside this guide are details about hardware, software, and network requirements for deploying Dragon Group within a network made up of client computers that connect to a Citrix server to access published applications or published desktops.

For those who need information on administering the features available in the Dragon software, please see the product's administrator guide.

Choosing a Citrix deployment solution for Dragon Group

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

Option	Usage	Limitations
Install Dragon Group as a published application on Citrix XenApp server	Publish Dragon and use it to dictate into other published applications that are located on the same XenApp server.	In this implementation, users can't use Dragon to dictate into applications installed on a published desktop or any installed locally on the client machine.
Install Dragon Group on a Citrix XenDesktop server	Install Dragon on a virtual desktop published with XenDesktop and use it to dictate into applications that are installed on the same published desktop. NOTE: If you choose this deployment option, you will need to install a software utility on each of your client computers, so be sure to coordinate with your Desktop Administrator.	In this implementation, users can't use Dragon to dictate into applications installed on a separate published desktop or published individually with XenApp. They also can't dictate into any applications installed locally on the client machine.

Additional considerations when deploying Dragon Group on a Citrix server

Using Dragon Group in a Citrix environment has an impact on your network resources. Consider the following before proceeding with this type of deployment.

Higher loads on your Citrix server	Moving the dictation processing to your server will increase CPU usage and processor demand.
Higher bandwidth use	Users with analog microphones need to transfer high-resolution audio data to the server. In addition, anytime a user has an analog microphone turned on, they use 1.3 Mbps of network bandwidth. Bandwidth limitations can make Dragon difficult to use.

	(Note that USB microphones use less than 1.3 Mbps of network bandwidth.)
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Overview of dictation flows with XenDesktop and XenApp

When Dragon is installed on a Citrix server, it appears to function as if it were installed on the client machine, but behind the scenes, there's more happening.

A user initiates the process by launching Dragon remotely from a client computer, and then launching a destination application, which is the application he or she wants to dictate into. There are some important requirements for where both applications must be located:

When Dragon is published in XenApp, the destination application must be installed on the same XenApp server.

When Dragon is installed on a published desktop in XenDesktop, the destination application must be installed on the same published desktop.

Once 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. The steps for configuring the microphone depend on whether you're using XenApp or XenDesktop, and are detailed later in this guide.

Dragon receives the audio and transcribes the dictation into text, which it transmits to the destination application.

The text displayed on the client machine reflects all changes.

Installing Dragon Group on a Citrix server

To install Dragon Group on a Citrix server, complete the following tasks:

Verify that your Citrix server meets the following requirements:

Dragon's standard system requirements, described in *Dragon Group system requirements* on page 26.

A single (non-hyper-threaded) core processor for each active speaker.

Speech model of BestMatch IV only.

1.1GB RAM for the Dragon (natspeak.exe) process.

Ensure your Dragon installation will be compatible with your Citrix settings, based on how you plan to deliver Dragon and other user applications. For more information, *Configuring your Citrix server for Dragon Group* on page 11.

Install Dragon on the Citrix server. For instructions, see the Dragon Group Administrator Guide. Note that if you are installing Dragon on a XenDesktop server, the installation is similar to installing Dragon on a non-virtual desktop machine.

If you installed Dragon Group on a XenDesktop server, publish the desktop; if you installed Dragon Group on a XenApp server, publish Dragon. For details, see *Publishing Dragon Group from a Citrix server* on page 13.

After you have installed and published Dragon Group on the server, you need to configure client computers to ensure they can access and use Dragon. For more information, *Configuring clients to use Dragon on the Citrix server* on page 18.

Configuring your Citrix server for Dragon Group

Before installing Dragon Group on your Citrix server, you need to make sure the server settings are configured appropriately, based on how you plan to deliver Dragon.

Citrix Load Balancing

If you use the Citrix server's Load Balancing feature, make sure you run Dragon on the same server as any application that users need to dictate into with Dragon. Otherwise, Dragon may not work properly with those applications.

You can check the configuration of the Load Manager for this. You may want to disable automatic load balancing in a multi-server farm.

Application Isolation Environments in XenApp

If you are installing Dragon as a published application on XenApp and you use Citrix's Application Isolation Environments feature, you should launch both Dragon and the published application you want to use it with from the same application isolation environment. Otherwise, Dragon may not communicate correctly with the other application.

Communication between Dragon and other applications on the Citrix server

To allow users to run Dragon from a Citrix server with another application available on that server, you must publish both applications so they run in a single Citrix client session, on the same server cluster.

Use the following guidelines to make sure all published applications work together.

Guidelines for configuring Dragon on a Citrix server

In Citrix, use one of the following configurations to provide users with access to applications:

- Xendesktop: Publish the Desktop and let users start applications from the published desktop.
- XenApp: Publish all your user applications, including Dragon, making sure to enter identical settings for each.

If the settings are not identical, Dragon may not operate correctly with other published applications. For example, if the settings you use to publish Microsoft Word are different from the settings you use to publish Dragon, the microphone hotkey will not work when Microsoft Word is the active application, and the Dragon user cannot dictate text into Microsoft Word.

Guidelines for client machines when Dragon is installed on a XenApp server

If you publish your user applications separately via XenApp and do not publish a Desktop, you may need to ensure compliance with the following guidelines for client computers:

- Users should not change **Application Set** settings when they run a published application.
- When you enable the Citrix feature, **Smooth Roaming**, with published applications that are on multiple computers, users should do one of the following:
 - Close all published applications before moving to a new location.
 - Start published applications in the same order on all the computers that he or she uses. For example, if you run a published Microsoft Word application on a computer, to work in the same session when moving to a new computer, a user should start Microsoft Word on the new computer before starting another published application like Dragon. This allows the published Dragon application to run in the same session as the published Microsoft Word.

More about multiple sessions

Citrix will start published applications in separate sessions when:

- The applications are published with different settings (**Colors, Enable Legacy Audio, Encryption, Allow Only Configured Users**). Citrix places applications into separate Windows sessions if the color settings are different. Using different settings may cause problems with dictation.
- You publish even one application as a Desktop.
- The Citrix client does not start the application in **Seamless** mode.
- A Citrix client launches one application, changes **Application Set** settings, and then launches another application.
- A user starts different applications from different computers. If a user starts the same application from a different computer, it connects to the same Citrix client session and disconnects the previous session, as in the **Smooth Roaming** feature.

Next steps

After you have configured your Citrix server, can install Dragon Group and publish it.

Publishing Dragon Group from a Citrix server

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

If you are deploying Dragon with XenDesktop

If you are deploying Dragon with XenDesktop, you publish the desktop as you normally would. Those steps don't vary in any way when Dragon is included on the published desktop. For details on publishing a desktop, see your Citrix documentation.

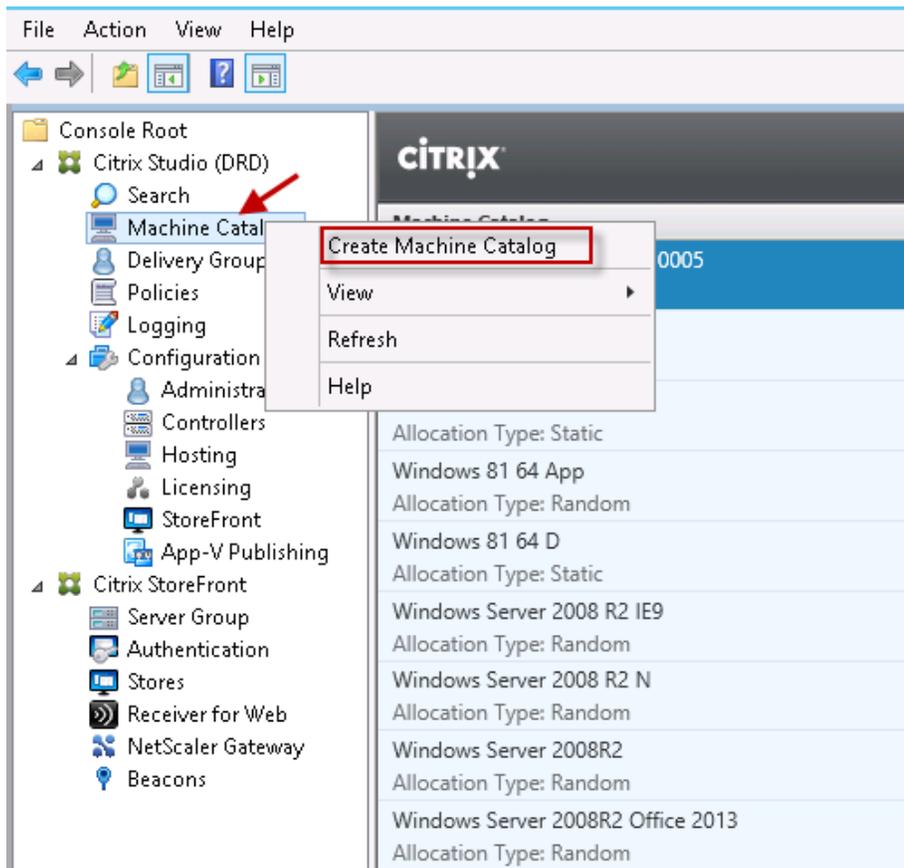
After you have published a desktop with Dragon installed, you need to set up your client machines before running Dragon. For more information, See "Configuring clients to use Dragon on the Citrix server" on page .

If you are deploying Dragon with XenApp

To publish Dragon Group as a standalone application on a XenApp server, do the following:

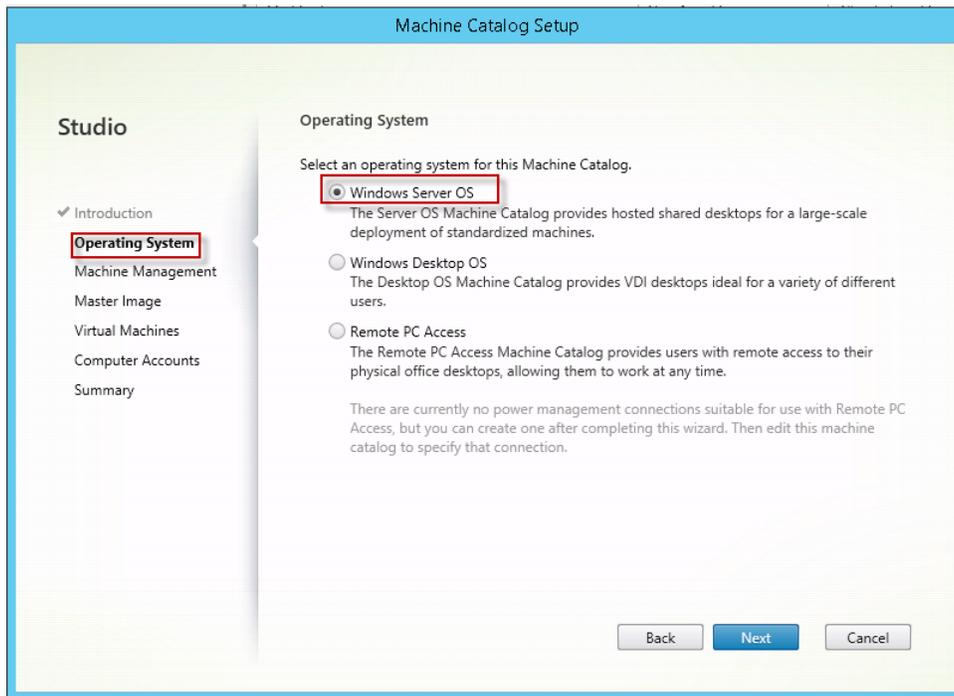
1. Make note of the server location of the Dragon Group installation directory.
2. Start Citrix Studio.
3. In the left-navigation panel, right-click **Machine Catalogs** and select **Create Machine Catalog**.

4. Select the machine where Dragon Group is installed.

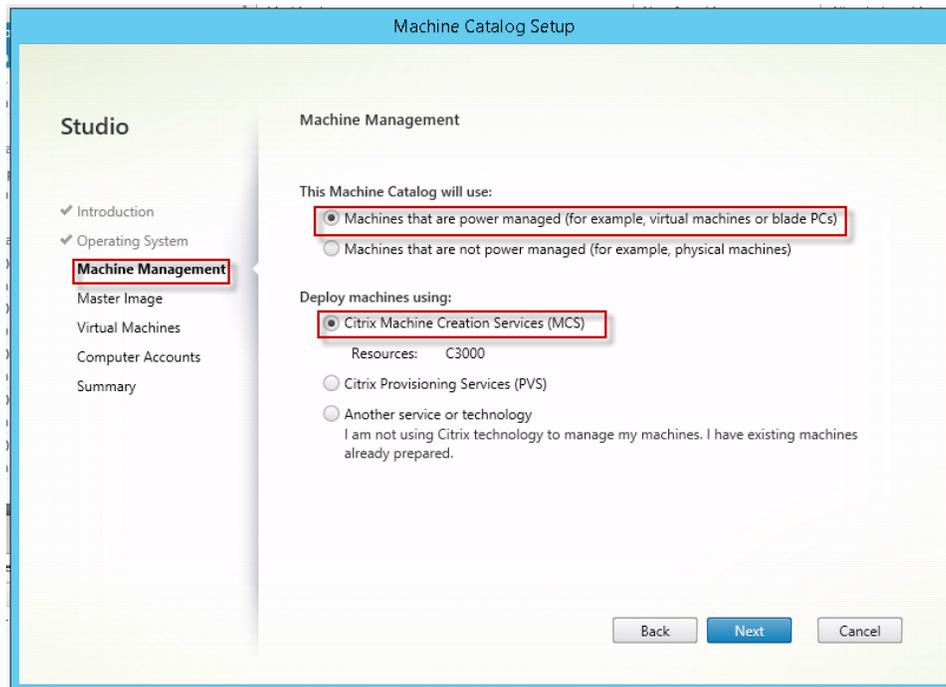


5. On the **Machine Catalog Setup** screen, click **Next**.

6. In the **Operating System** section, select **Windows Server OS**.

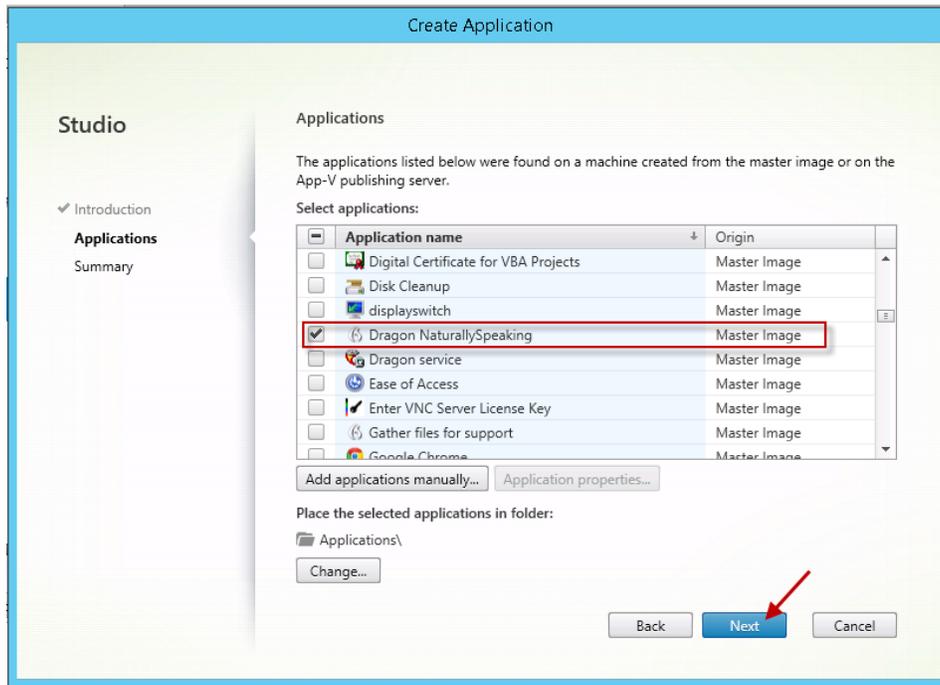


7. Click **Next**.
8. In the **This Machine Catalog will use** section, select **Machines that are power managed**.
9. In the **Deploy machines using** section, select **Citrix Machine Creation Services (MCS)**.

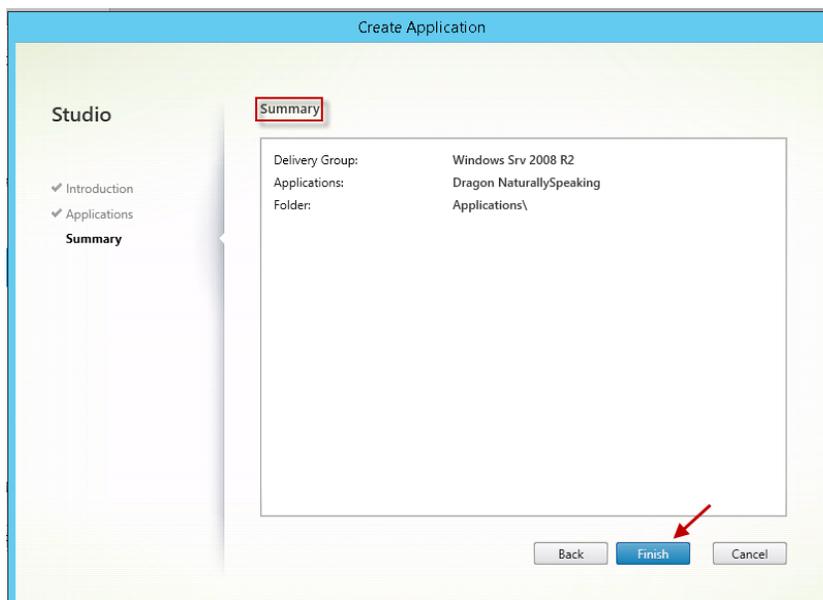


10. In the left-navigation panel, click **Delivery Groups**.

11. Right-click the **Delivery Groups** that contain the machine where Dragon Group is installed, and select **Add Applications**.
12. On the **Create Application** screen, click **Next**.
13. In **Select Applications**, select your Dragon Group application, and click **Next**.



14. On the **Summary** screen, click **Finish**.



After you have published Dragon from your XenApp server, you need to set up your client machines before running Dragon. For more information, See "Configuring clients to use Dragon on the Citrix server" on page .

Configuring clients to use Dragon on the Citrix server

To prepare your client computers to use Dragon on a Citrix server, review the following tasks and complete those that apply to your setup.

Install the Citrix Receiver software on all clients

Regardless of whether you are deploying Dragon Group with XenDesktop or XenApp, you need to make sure the Citrix Receiver software is installed on all clients that need access to the Citrix server. You can download this software and its documentation from the Citrix website.

Install Dragon Client Update for Citrix (XenApp deployment only)

This section only applies to you if your organization is deploying Dragon Group with XenApp. If you are deploying Dragon Group with XenDesktop, you do not need to install the Dragon Client Update for Citrix utility; instead, see the section about configuring audio devices that follows.

When you deploy Dragon with XenApp, you need to install the **Dragon Client Update for Citrix** utility on each client machine before launching Dragon from that client for the first time. This utility enables Dragon to receive audio from devices connected to a local client machine.

You need administrator rights to install this utility.

If there is an older version of the **Dragon Client Update for Citrix** utility installed on the computer, uninstall it first. You can do this from the Windows Control Panel.

You can find the installation file for Dragon Client Update for Citrix in the Citrix Extension folder of the Dragon Group installation directory. It is available as both an executable and as an MSI installer, under the file names *vddnspatch2.exe* and *vddnspatch2.msi*.

Launch *vddnspatch2.exe* or *vddnspatch2.msi*, and install the software for use with the default application set in the XenApp client. Note that there are no options for *vddnspatch2.msi*.

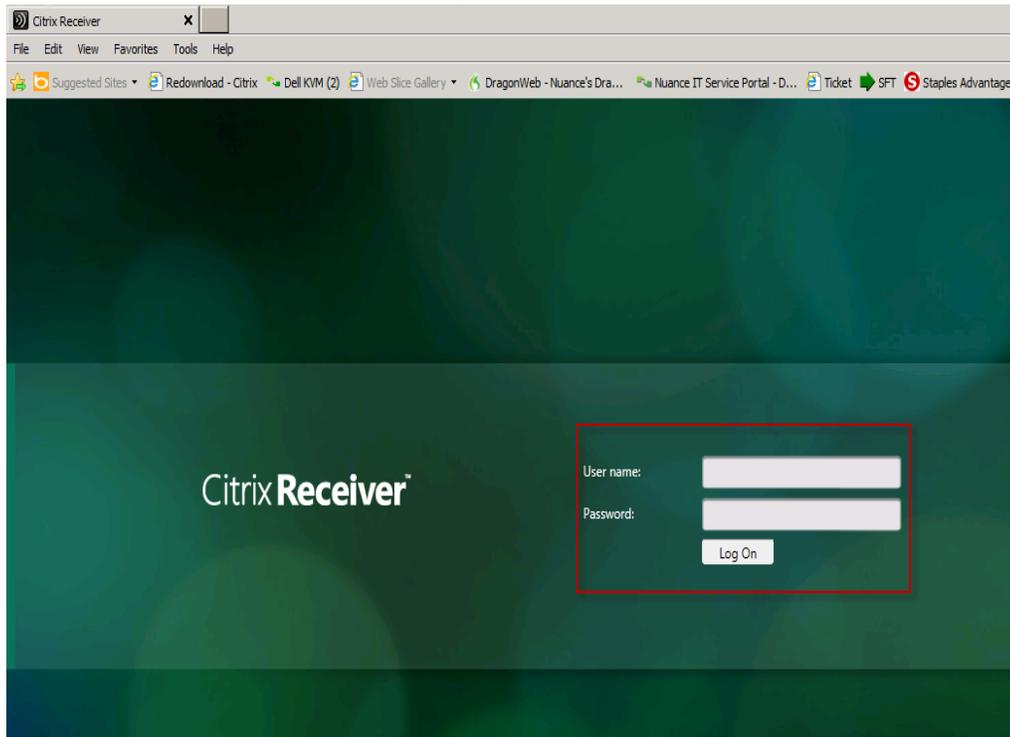
Configure audio devices on the client (XenDesktop deployment only)

This section only applies to you if your organization is deploying Dragon Group with XenDesktop. If you are deploying Dragon Group with XenApp, your audio device setup is managed by the Dragon Client Update for Citrix, described in the preceding section.

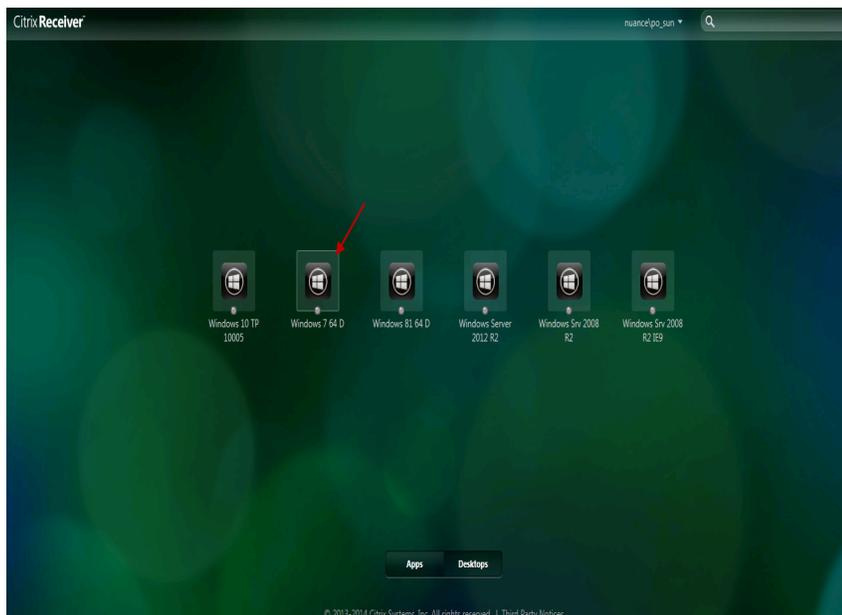
When you deploy Dragon with XenDesktop, you need to log into XenDesktop from each client machine and enter the necessary settings to enable Dragon to receive audio from devices connected to each local client machine.

Do the following:

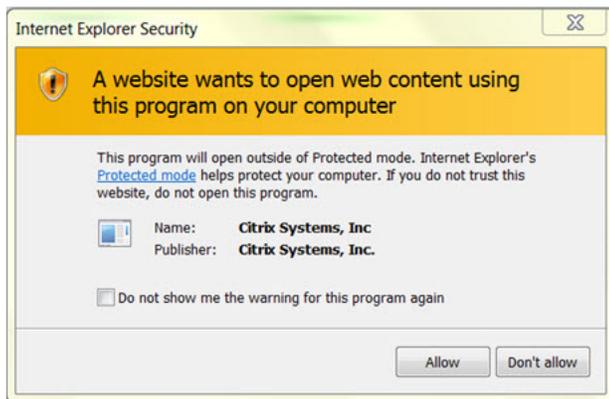
1. Launch an internet browser and log in to the Citrix server.



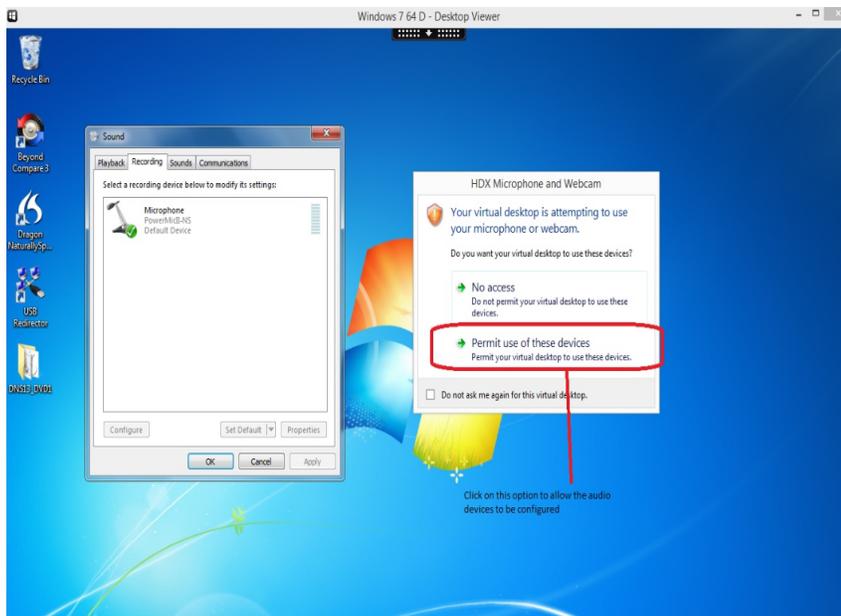
2. In the Desktops view, select the desktop where Dragon Group is installed.



3. If the browser displays a security dialog box like the one below, click **Allow**.



4. In the HDX Microphone and Webcam dialog-box, select **Permit use of these device**. This gives permission to the virtual desktop to use audio devices connected to the client machine.



5. At the top of the Desktops view, click the **Preferences** tab.
6. In the **Desktop Viewer Preferences** dialog box, click the **Connections Tab**, then locate the **Microphones and webcams** section and select **Connect automatically**.
7. Click **OK** and then verify that the audio devices are connected to the client machine by clicking **Devices** at the top of the Desktops view. You should see your devices, as in the example below.



Allow users with analog microphones to launch Dragon

This information applies to both XenDesktop and XenApp deployments.

If you have users who dictate with an analog microphone, you need to 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, do the following:

1. Open the Citrix Access Management Console.
2. From the **Start** menu, select **All Programs > Citrix > Management Consoles > Citrix Web interface management**.
3. In the left pane, select **Citrix Web Interface > XenApp Web Sites > Site name** (the name of your Citrix farm).
4. In the **XenApp - Edit Settings** window, click **Session Settings**.
5. In the **Remote Connection** section, select **Connection Performance**.
6. Select **Allow users to customize sound**.
7. Click **OK**.

To set the audio quality to high, do the following:

1. From the **Start** menu, select **Administrative Tools > Citrix > Management Consoles > Citrix AppCenter**.
2. In the left pane, under **XenApp**, go to the farm where Dragon is installed and select **Policies**.
3. In the lower part of the screen, click the **Settings** tab.
4. In the **Settings** area, beside **Audio quality**, click **Add**.
5. In the **Add Setting** screen, click the **Value** drop-down list and select **High – high definition audio**.
6. Under **Group Policy**, select **Administrative Templates > Citrix Components > Citrix XenApp Plugin for Hosted Apps > User Experience > Client audio settings**.
7. Change group policy setting from **Not Configured** to **Enabled**, and 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.

Enable sound quality on the client computer

This information applies to both XenDesktop and XenApp deployments.

After you have set up the audio devices for your client machines and before launching Dragon for the first time, you must enable sound on the client computer.

To enable sound quality for the Citrix Receiver client, do the following:

1. Right click the Citrix Icon and select **About > Advanced > Online Plug-In Settings> options > Session Options > Audio Quality**.
2. Select high sound quality.
3. Click **Save**.

Issues that may arise

- When 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.
- Each client computer must have a sound system. If, for example, USB audio is disabled on the client computer, a user won't be able to 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.

Managing Citrix logging on the client

When you start a Citrix session, 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. To do so, follow these steps:

1. Open the **module.ini** file. By default, the **module.ini** file is located in the Citrix client directory:
`-C:\Program Files (x86)\Citrix\ICA Client on Windows 7 or 8.`

-
2. To disable logging: Go to the **[VDDNS]** section and change the line **LogLevel=2** to **LogLevel=0**.
 3. To redirect logging to another location or device: Go to the **[VDDNS]** section and change the path in the line.
 4. Save and exit the **module.ini** file.

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Dragon Group system requirements

During the installation process, the software checks that your system meets the following requirements. If they are not met, Dragon will not be installed.

Processor

2.2 GHz Intel Dual Core or equivalent AMD processor. Faster processors produce faster performance.

Note: Streaming SIMD Extensions (SSE) are not supported.

Processor cache

Recommended: 2 MB L2

Operating systems and RAM

Operating system	32-bit	64-bit	RAM min
Windows 8, and 8.1 (Standard and Metro)	√	√	2 GB for 32-bit 4 GB for 64-bit
Windows 7, SP1 or higher	√	√	2 GB for 32-bit 4 GB for 64-bit
Windows Server 2008 R2 (SP2 or higher)	X	√	4 GB for 64-bit
Windows Server 2012 R2	X	√	4 GB for 64-bit

NOTE

If your computer has less than the recommended amount of RAM, Dragon will install but displays a message recommending that you install additional RAM for optimum performance.

Free hard disk space

4 GB minimum

Microphone

- Nuance-approved noise-canceling microphone. For a complete listing of Dragon-compatible audio input devices, including Bluetooth microphones, Tablet PCs, and other hardware, visit <http://support.nuance.com/compatibility> on the Dragon Support Web pages.
- The 16 kHz Plantronics Calisto II Bluetooth wireless microphone. See the Dragon Help for more details about using Bluetooth microphones with Dragon. Please consult your Plantronics Calisto Bluetooth user guide (posted on the Nuance User Documentation page) for setup and operational details for your device.

Sound card

Sound card capable of supporting 22 kHz 16-bit audio recording.

Citrix

Note: The Smooth Roaming feature is not supported on Windows Server 2008.

To download the latest patches and updates for the Citrix XenApp client and the Citrix Presentation Server, visit <http://www.citrix.com>.

Screen resolution

The following minimum screen resolutions are recommended for optimal display of Dragon on a Windows Desktop:

Computer class	Minimum resolution
Desktop	1024 x 768
Laptop	1024 x 768
Netbook	1024 x 600

For Windows 7, and Windows 8, the maximum recommended display magnification is 150 per cent.

Other requirements

- Microsoft® Internet Explorer 9 or higher or the current version of Chrome or Firefox.
Note: To use Web application support, Dragon requires Internet Explorer version 9 or 10 (32-bit mode only).
- USB or DVD-ROM drive if required for installation.
- An Internet connection.

Supported Applications

- NotePad
- Microsoft® Word 2010 (32 & 64 bit), 2013 (32 & 64 bit), 2016 (32 & 64 bit)
- Microsoft® Excel 2010 (32 & 64 bit), 2013 (32 & 64 bit), 2016 (32 & 64 bit)
- Microsoft® PowerPoint 2010 (32 & 64 bit), 2013 (32 & 64 bit), 2016 (32 & 64 bit)
- Microsoft® Outlook® 2007, 2010, 2013, 2016
- Internet Explorer 11
- Chrome and Firefox (latest versions)

Support for Dragon Group with Citrix clients and servers

Nuance supports the following configurations in which Dragon Group is installed on a Citrix XenApp server.

Citrix Receiver 4.3, Citrix XenApp 7.6, and Citrix XenDesktop 7.6 on

- Microsoft Windows 8.1, 32 and 64 bit
- Microsoft Windows 7, SP1 or higher, 32 and 64 bit

Citrix XenApp server 7.6 on:

- Microsoft Windows Server 2008 R2, 64 bit
- Microsoft Windows Server 2012 R2, 64 bit

