



**INSTALLATION GUIDE**

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# Installing Dragon Medical 360 | Direct

Welcome to the installation guide.

DM360 Direct is delivered as a ClickOnce package and a stand-alone package.

## Prerequisites

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- DM360 Direct requires access to the Nuance Management Server (nms.nuancehdp.com) via port 8010 and to the Nuance 360 | SpeechAnywhere Services Server (nsa.nuancehdp.com) via port 443; make sure your firewall does not block this port.
- Microsoft Internet Explorer 8 or higher
- Microsoft .NET Framework 3.5 SP1

## DM360 Direct ClickOnce package

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The ClickOnce application package is designed to be hosted on a web server. The application is configured by a configuration file that is hosted on the web server. The location of the configuration file to use is passed to the application in the HTTP query string of the download link.

Usually you will provide an HTML page on your web server that enables users to download the application (for an example, see the publish.htm page provided in the application package). The URL must be formatted as *<OneClick application package URL>?config<application configuration file>*

For example:

```
http://your.webserver.com/DM360/Dragon Medical 360 Direct-Installer.application  
?config=http://your.webserver.com/DM360/DM360.exe.configuration
```

**Note:** If you want to provide a set of differently configured applications, (for example, download links for different user interface language versions) you can create one configuration file per configuration and provide different links using different query strings.

Proceed as follows:

1. Copy the **ClickOnce** folder to your web server (for example, C:\inetpub\wwwroot\DM360).
2. Customize the SoD.exe.configuration file template to configure the DM360 Direct application.
3. Make sure that the configuration file can be reached over http.  
For IIS, add MIME type for .configuration files (text/xml).
4. Make sure that the web server has ASP support enabled.

## ClickOnce and Mozilla Firefox or Google Chrome

To enable users to install ClickOnce packages using the Firefox browser, they need to install an add-on. For example, the *Microsoft .NET Framework Assistant* add-on: <https://addons.mozilla.org/en-US/firefox/addon/microsoft-net-framework-assist/>.

To enable users to install ClickOnce packages using the Chrome browser, they need to install an extension. For example, the *ClickOnce for Google Chrome* extension: <https://chrome.google.com/webstore/detail/eeifaoomkminpbeebjdmdojbhmagrncl>.

## Deploying DM360 Direct in a Citrix environment

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If you want to publish DM360 Direct in a Citrix environment use the stand-alone package. Proceed as follows:

1. Copy the **Standalone** folder to your Citrix server and publish the application.
2. Customize the SoD.exe.config file template to configure the DM360 Direct application.

**Note:** When an upgrade package is available make sure to replace the old package on your Citrix server.

# Specifications

DM360 Direct supports the following hardware and software.

Please be aware that not all configurations have been tested. For more information, contact our support.

## Operating systems

- 32-bit: Microsoft Windows XP, Microsoft Windows 7, Microsoft Windows 8 and Microsoft Windows 8.1. Make sure that the latest service pack is always applied.
- 64-bit: Microsoft Windows 7, Microsoft Windows 8 and Microsoft Windows 8.1. Make sure that the latest service pack is always applied.

**Note:** In Microsoft Windows 8 and 8.1, you can only use DM360 Direct in the desktop environment, the Microsoft design language-based user interface (Start screen) is not supported.

## Processor speed

- Minimum: 1.7 Ghz
- Recommended: 2.8 Ghz

## RAM

- Minimum: 512 MB
- Recommended: 2 GB

## Text editors

- TX Text Control 12 to 16, .NET
- Microsoft Word 2003, 2007, 2010
- Microsoft Rich Text controls (including .NET Forms)
- Ter32 and Ter13 - Ter17
- DM360 Direct Dictation Box

## Microphones

Any microphone that can record audio data in 16 kHz, 16 bit mono format is supported.

## Desktop virtualization

### Citrix

- XenApp 6.5
- Citrix ICA Client 12 and Citrix Receiver

### VMware

- VMware View 5.1
- VMware Workstation 8.x

### WTS

- Windows Terminal Server 2003 and Windows Terminal Server 2008

# Configuring DM360 Direct

## Configuring the organization token

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To set the organization token for DM360 Direct, do the following:

1. Open the application configuration file (for example, SoD.exe.configuration on your web server or SoD.exe.config for the stand-alone package).
2. In the **SoD.Settings**, **OrganizationToken** setting, specify the organization token.



## LDAP authentication

LDAP authentication sends the user credentials to the Nuance Management Server (NMS) to authenticate the user against an LDAP server and grant or deny access to DM360 Direct.

### Prerequisites

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- 360 | SpeechAnywhere Services (SAS) must be installed and running properly.
- NMS must be installed and running properly.
- The SAS Service must not run under an administrator account; make sure the SAS Service user account fulfills the requirements but is not an administrator account.
- In the domain controller:
  - A valid user account must be set up (this is the user account configured in NMS and used to log on to DM360 Direct).
  - The guest account must be disabled.
- Make sure you have the following information to hand:
  - SAS URL
  - Nuance Management Console (NMC) URL
  - Active Directory connection string
  - Domain name

### NMC

---

You must configure the site, domain and user account in NMC to authenticate the user in the Active Directory.

To configure the site, do the following:

1. On the **Manage Organization** tab, right-click **Default Site** and select **Details**.
2. Open the **DM360 Network Edition** tab and expand **Miscellaneous**.
3. From the **LDAP authentication** list, select **Single Domain** or **Multi Domains**.
4. Click **Save**.

To configure a domain, do the following:

1. Search for the organization, right-click it and select **Organization details**.
2. Open the **Domains** tab and click **Add**.
3. Enter the domain name and the Active Directory connection string.
4. Click **Save**.

To configure a user account, do the following:

1. Search for the user account, right-click it and select **User account details**.
2. Open the **Credentials** tab.
3. On the **NTLM** tab, click **Add**; the **User Name** and **Organization Name** already filled out.
4. From the **Domain** list, select the user's domain.

5. In the **Login** field, enter the LDAP logon credentials in the following format: DOMAIN\user name
6. Click **OK**.

## DM360 Direct configuration file

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To use LDAP authentication, do the following:

1. Open the application configuration file (for example, SoD.exe.configuration on your web server or SoD.exe.config for the stand-alone package).
2. In the **SoD.Settings, Authentication** setting, specify LDAP: <value>ldap</value>.

## Result

---

When a user logs on to DM360 Direct they must enter their Windows user name and password.

## Starting DM360 Direct from the command line

You can configure the stand-alone DM360 Direct package to ensure that your users do not need to log on separately to the application. By starting DM360 Direct with the parameters specified, the logon dialog box will not be shown and any logged on user will be automatically logged off.

### Parameters

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SoD.exe [-user "username" [-lang "language"] [-topic "topic"] [-mic "microphone"] [-password "password"] [-nologo]]

user

The speech recognition user profile name.

This parameter is mandatory; you must specify the user parameter before any of the other parameters are applied.

lang

The speech recognition language to use. The speech recognition language must be specified as an IETF language code; for example, "en-US", "en-GB", "de-AT".

topic

The 360 | SpeechAnywhere Services (SAS) topic name (medical specialty) to use. For a list of available topic names, see the *SAS Administration Guide* or contact your administrator.

mic

The microphone identifier. If you do not know the microphone identifier to specify a certain brand of microphone, start DM360 Direct and note down the identifier reported by the GUI.

password

The user's password.

nologo

Disables the splash screen.

**Note:** If any of the logon values are not defined in the command line, the logon dialog box is opened; the user can select from all possible values.

### Example

---

Dr. Chris Smith speaks with an American English accent, works in the field of general medicine and records using a SpeechMike III.

```
SoD.exe -user "chrissmith" -lang "en-US" -topic "General Medicine" -mic "SpeechMike III"
```

When Chris Smith logs on to a PC, DM360 Direct is available, in the notification area, with their preferred settings applied.

# Nuance Management Console

The Nuance Management Console (NMC) is the central administration component for DM360 Direct.

**Note:** NMS requires HTTP/HTTPS access to ports 80, 8051, 808 and 8731; make sure your firewall does not block these ports. These ports must be accessible from the 360 | SpeechAnywhere Services Server and the administration consoles (the PCs used for configuring NMS).

## Prerequisites for running NMC

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- Microsoft Internet Explorer (32-bit)
- Microsoft .NET Framework 4
- Full trust privileges: Open the **Control Panel, Internet Options, Security** tab and in the **Trusted Sites** dialog box configure the NMC website as a trusted site. In the **Security Settings - Trusted Sites Zone** dialog box, make sure that the **XAML browser applications** option is enabled.

## Launching NMC

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1. To access NMC, browse for *http://nms.nuancehdp.com/nmc/client.xbap*.
2. To log on for the first time use the credentials in your welcome kit.

**Note:** To change your password, click and select **Change password**.

## Licensing

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To monitor licenses, open the **Licensing** ribbon, click **View Licenses** and search for the license type. You can see a summary of license information.

If you need to free licenses, select a row, click **Revoke** and select user accounts.

## Groups

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When you first log on to NMC the following groups are available:

- **NMC Administration:** For users performing administration tasks in NMC.
- **Speech Anywhere:** For users accessing 360 | SpeechAnywhere Services (SAS) speech recognition.

**Note:** The **Speech Anywhere** group does not exist until the first end user connects via a DM360 Direct client; the group is then automatically created.

Groups are useful for the following:

- Groups can be used to assign the rights to create auto-texts and custom commands to specific users.
- Groups can be used to make certain auto-texts and custom commands available to specific users. To assign an auto-text or custom command to a group make sure that the **Group** level is selected when you [create an auto-text](#) or create a custom command.

## Working with groups

To group users of auto-texts/custom commands, do the following:

1. Log on to NMC with your administration credentials.
2. Open the **Groups** ribbon and click **Add**.
3. Base the new group on the existing **Speech Anywhere** group.
4. Enter a **Group Name** and select a **Site**.
5. In the **Role** field, select **Speech Anywhere**.
6. Open the **Members** tab, click **Add/Remove** and populate the group with user accounts.
7. Click **Save**.

To group users who have rights to create auto-texts/custom commands, do the following:

1. Log on to NMC with your administration credentials.
2. Open the **Groups** tab and click **Add**.
3. Base the new group on the existing **Speech Anywhere** group.
4. Enter a **Group Name** and select a **Site**.
5. In the **Role** field, select **NMC Administrator**.
6. In the **Security Rights** field, select the following options:
  - Speech Recognition - Manage Auto-texts**
  - Speech Recognition - Manage Speech Command**
7. Open the **Members** tab, click **Add/Remove** and populate the group with user accounts.
8. Click **Save**.

## Remarks

You do not need to modify the **Access** tab.

## Logging

DM360 Direct creates log files that can help Nuance to analyze issues reported by end users or administrators. Log files are uploaded to the Nuance 360 | SpeechAnywhere Services (SAS) Server and a limited amount of information is written to the local file system of the client PC. The information written to the local file system does not contain any sensitive data; the amount of data kept on the local PC can be configured and usually spans data for the last few days.

### Log file location

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#### SAS Server

SAS Server log file: \\<server\_name>\<share>\Logs\<year\_month>\<day>\

SAS client log file: \\<server\_name>\<share>\Logs\<year\_month>\<day>\

#### Local PC

Local log file (does not contain sensitive data):

DM360 Direct ClickOnce directory (C:\Users\<User\_Name>\AppData\Local\Apps\...)

or

DM360 Direct stand-alone directory

### Setting the logging level

---

The log level is set in the log4net section of the configuration file (SoD.exe.configuration on your web server or SoD.exe.config for the stand-alone package). The log level should be set for both logger names specified in the configuration section:

```
<logger name="Nuance.SoD.Generic">
```

```
<logger name="Nuance.SoD.Text">
```

The default log level is **ERROR** which creates the least amount of data. You can change the logging level to one of the following (amount of data collected in descending order):

DEBUG

INFO

WARN

ERROR

## Auto-texts

The auto-text feature enables you to define standard blocks of text (often consisting of one or more paragraphs, also called 'normals' or 'canned text') that DM360 Direct users can insert into their document with a short voice command. Using auto-texts reduces the time the user needs to dictate and improves the consistency of documentation. Auto-texts are displayed to end users on the **What You Can Say** page. You define auto-texts in the Nuance Management Console (NMC).

### Defining an auto-text in NMC

---

#### Scenario

- Your users are radiologists who frequently read chest x-rays. Most of these are normal and the doctors frequently say **PA and lateral views of the chest revealed a normal-sized heart. The lungs are clear of any active infiltrations.**
- You define an auto-text called 'normal chest' that contains this information.
- A doctor says the voice command **insert normal chest** to insert the information.

#### Procedure

1. Open the **Speech Recognition** tab on the ribbon.
2. In the **Auto-text** group, click **Manage**.
3. Select your **Organization**.
4. In the **Auto-texts** tree view, select the level you want to create the auto-text for (site, group or user).
5. In the **Auto-text** group on the ribbon, click **Add**.
6. Enter a **Name** (*Normal chest*), a **Description** (optional) and select a **Language**.
7. Optional: change the **Spoken Phrase** and enter a **Display String**.
8. In the contents section, enter *PA and lateral views of the chest revealed a normal-sized heart. The lungs are clear of any active infiltrations.*
9. Click **Save**.

#### Remarks

- To make the auto-text available for all users, make sure to select the corresponding site or group in the tree view.
- A keyword is what the user says to tell the system that an auto-text is to be processed and displayed.
- The **Name** field contains the title of the auto-text (this is generally what users must say to insert the auto-text); make sure it is unambiguous and easy to pronounce. It is strongly recommended that you give the auto-text a distinctive name that cannot be misinterpreted as speech to be recognized. This helps to ensure that it is correctly inserted.
- By default the **Spoken Phrase** is the same as the **Name**. If how the auto-text name is written and how it is pronounced are very different, change the **Spoken Phrase** (how it is pronounced) and define a **Display String** (how it is written on the **What You Can Say** page). You can only use alphabetic characters in spoken phrases; special characters are not allowed. For acronyms that are spelled out use capital letters, separated by spaces.

For spoken phrases do not use:


- Very short phrases (such as one syllable only)
- Capital letters (except for acronyms, for example, C I A)

#### Abbreviations

Digits (use 'twelve' and not '12')

Punctuation marks (for example, ", !, ?, etc.)

Symbols (for example, +, -, &, \$, etc.)

- If you want to give your users more than one way to insert an auto-text, click  and enter a **Spoken Phrase** and a **Display String**.
- Activate **Display all levels** to list the auto-texts for the level selected in the tree view and its higher levels.
- Auto-texts can contain fields. A field enables the user to enter specific text to the standard block of text. To add a field to an auto-text, add [...] in the relevant places of the auto-text's contents. End users can navigate to the fields in auto-texts via voice commands such as **next field** and **go to previous field**.
- For more information on how to insert auto-texts, see the 360 | SpeechAnywhere Services end user documentation.

## Configuring the auto-text filter

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A system with many auto-texts can be complex for users; they might have difficulty remembering all the names and which ones are relevant for them. They might mistakenly use an auto-text that is not relevant for them.

Filtering is set up in the SoD.exe.config file and then set in NMC.

In the configuration file, enter the filter key/value pairs you need. For example:

```
<filterSettings>
  <filter>
    <add key="department" value="radiology" />
    <add key="modality" value="X-ray|CT|MRI" />
  </filter>
</filterSettings>
```

### Remarks

- You can configure as many key/value filter pairs as you want.
- Use the | character to separate multiple values for a key.

## Setting an auto-text filter in NMC

---

You can filter specific auto-texts to be active for specific forms.

### Scenario

- DM360 Direct supports an auto-text filter with the key 'modality' and values 'X-ray', 'CT' and 'MRI' and it will set this filter for all radiology reports.
- You want to set the 'normal chest' auto-text to be active for x-rays only.

### Procedure

1. Search for the 'Normal chest' auto-text.
2. Open the **Meta Data** tab.



3. In the **Name** field enter *modality* and in the **Value** field enter *X-ray*.
4. Click **OK** and then **Save**.

### Remarks

- By default, auto-texts are always active. Be aware that:
  - If no auto-text filter has been set for a document or form, all auto-texts that have been defined in the system will be active.
  - All auto-texts that you do not define meta data entries for will always be active.
  - If an auto-text filter with a specific name has been set for a document or form but no corresponding meta data entry with this name has been applied to an auto-text, then this auto-text will always be active.
- An auto-text is deactivated (filtered out) for a specific document or form only if:
  - The application has defined an auto-text filter with a specific name and value for the document or form.
  - You have set a meta data entry for the auto-text with this name but with a different value.

## Voice commands

Voice commands enable DM360 Direct users to say a word or phrase that initiates an action and control the application without using the mouse or the keyboard. This reduces the time the user needs to complete their work.

The custom command feature in DM360 Direct was extended to enable users to create more feature-rich commands and are now called step-by-step commands. Users define step-by-step commands in the **Manage Commands** dialog box and they are displayed on the **What You Can Say** page; for more information, see the end user help.

Existing user-level custom commands created in the Nuance Management Console will be automatically migrated to step-by-step commands.

**Nuance Management Server Deprecated Functionality:** Custom commands will no longer be supported after 4.1. New systems should not use functionality that will be removed from future versions of NMC. From DM360 Direct1.5 step-by-step commands can be created/modified directly in the DM360 Direct application. For SAS-based applications contact your vendor.

## Managing the Vocabulary

Managing the vocabulary your users are using enables you to improve speech recognition by explicitly tailoring the system to your requirements. This might be necessary if words or phrases are repeatedly misrecognized.

In the Nuance Management Console (NMC), you can add words and phrases to the vocabulary and delete words from it.

### Adding a word in NMC

---

#### Scenario

Your users frequently prescribe the drug *Xanax* and recognition has been problematic.

#### Procedure

1. Open the **Speech Recognition** tab on the ribbon.
2. In the **Word** group, click **Manage**.
3. In the **Words** tree view, select the level you want to associate the word with (site, group or user).
4. In the **Word** group on the ribbon, click **Add**.
5. Enter a **Written form** (*Xanax*) and, if necessary, a **Spoken form** (*zanacks*).
6. Select the **Language** you want to associate the word with.
7. Click **Save**.

#### Remarks

- To make the word available for all DM360 Direct users, make sure to select the corresponding site or group in the tree view.
- The spoken form is optional. If how the word is written and how it is pronounced are very different, enter a spoken form (how it is pronounced) and define a **Written form** (how it is inserted into the document). You can only use alphabetic characters in spoken form; special characters are not allowed. For acronyms that are spelled out use capital letters, separated by spaces.

For spoken phrases do not use:

- Very short phrases (such as one syllable only)
- Capital letters (except for acronyms, for example, C I A)
- Abbreviations
- Digits (use 'twelve' and not '12')
- Punctuation marks (for example, ", !, ?, etc.)
- Symbols (for example, +, -, &, \$, etc.)

- Activate **Display all levels** to list the words that have been added for the level selected in the tree view and its higher levels.

# Deploying Dragon Medical 360 | Direct in a virtual desktop/application environment

DM360 Direct is a lightweight cloud-based solution that provides secure medical frontend speech recognition in real-time. The speech recognition is performed in secure Nuance data centers; therefore DM360 Direct provides a number of options for deploying real-time speech recognition in a virtual desktop/application environment.

## Supported virtual environments

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- Citrix:
  - XenApp 6.5
  - XenDesktop 5
  - Citrix ICA Client 12 and Citrix Receiver
- VMware:
  - VMware View 5.1
  - VMware Workstation 8.x and 9.x
- Microsoft Windows:
  - Windows Terminal Server 2003 and 2008

## Deployment requirements

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### Edit control visibility

To be able to write recognized text directly in the target application DM360 Direct must be able to directly access the edit control. This 'dictate at the cursor' feature provides the best user experience. Applications or desktops that are hosted in a virtual environment are displayed as a bit map image via a receiver or remote terminal application. This means that DM360 Direct cannot directly access the edit control and the recognized text is written in the Dictation Box.

Another way to state this requirement is that DM360 Direct must be co-installed with the target applications that are to receive the recognized text. In virtual environments, this has the following implications:

- If you are using a virtual desktop solution, where all target applications are installed and run locally in the virtual desktop, DM360 Direct should be installed in the virtual desktop image.
- If you are virtualizing applications, which in turn are accessed by a viewer or remote desktop application on a local workstation, DM360 Direct should be installed on the same server that is serving the virtualized applications.

### Audio channel

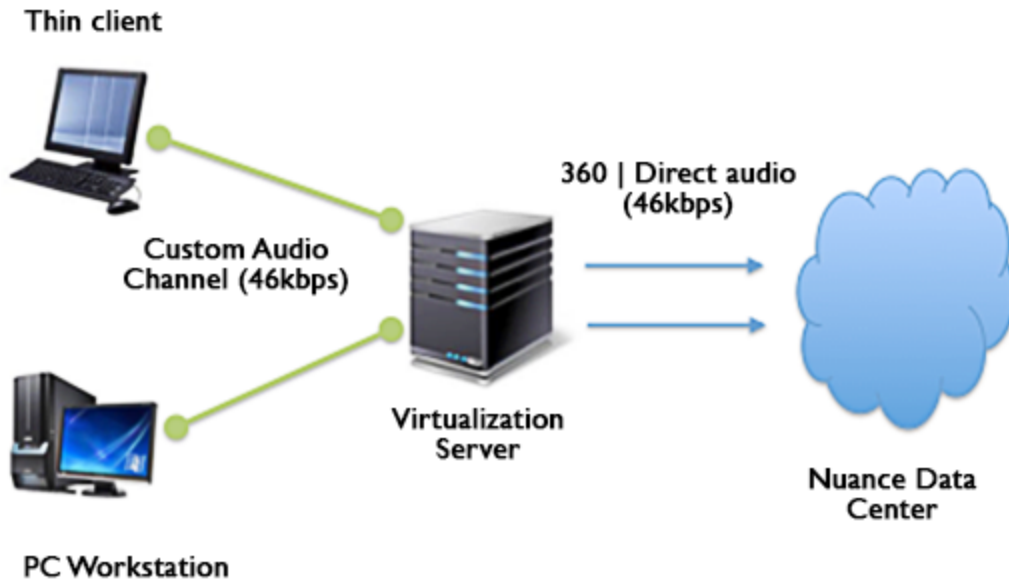
High quality audio is required for accurate speech recognition. Regardless of the virtualization technology and architecture, you must be able to deliver audio from the client workstation/terminal to the DM360 Direct application in the virtual environment.

Most modern virtualization environments support an audio channel that allows audio from a USB device such as a headset or microphone to be routed from the local PC or thin client workstation to the virtual desktop and/or hosted application.

## Nuance custom audio channel

To further optimize the deployment of DM360 Direct, Nuance provides a custom audio channel which can dramatically reduce the audio bandwidth requirements between the client end point and the hosted application. The custom audio channel requires 46 kbit/s for each user while they are dictating (native audio channels often require over 1 Mbit/s for dictated audio).

In order to utilize this custom audio channel, it must be deployed on both the client end point as well as the virtual server where the application is hosted:



In order to utilize the custom audio channel in a thin client environment, the end point must be installed on the client terminal. This table lists the thin client terminals that are supported.

Model/manufactureur	Operating system/firmware requirements
Various	Microsoft Windows XP SP3 embedded
Various	Microsoft Windows 7 embedded
IGEL UD2	LX 4.07.100, 4.10.100
Fujitsu Futro S400	eLux RL 2.12.2
Fujitsu Futro S450	eLux RL 2.12.2
Fujitsu Futro S700	UniCon eLux RL: version 3.8.0 Philips Speech Drivers: version 4.5.83-99 or higher SpeechMagic Citrix Extension client: version 7.39.0 or higher

## Server runtime requirements

The cloud-based architecture of DM360 Direct results in a very small resource footprint which in turn allows the application to be deployed at scale in virtual environments.

## Network access

As a cloud-based solution, DM360 Direct needs to be able to access the Nuance data center for streaming speech services. DM360 Direct uses ports 80 and 443 for core recognition services. The program also uses additional ports for administration and maintenance.

Nuance has developed a port test facility to verify network port access. This utility can determine if the necessary network ports are open: <http://nms.nuancehdp.com/nmc/portscan.html>

## Bandwidth

Audio transmission between DM360 Direct and the Nuance hosted data center is highly optimized and requires only 46 kbit/s per active user while dictating.

## Memory

When starting the application, the real memory footprint of the DM360 Direct executable (sod.exe) is approximately 80 MB. Memory usage will fluctuate/increase as the user dictates. For sizing and planning purposes, we estimate a maximum memory footprint of 120 MB.

## CPU

Due to the many factors that can have an impact on CPU usage, (processor speed, number of cores assigned to a given virtual instance, etc.), exact guidelines cannot be given. In general, the CPU requirements for the sod.exe executable that runs on the virtual server are very low. As DM360 Direct leverages Nuance's cloud-based speech recognition services, the local client performs very light-weight duties such as streaming speech and inserting recognition results.

With modern multi-core CPU architecture and that a given virtual session has been assigned at least one core, an administrator can expect DM360 Direct to consume between 1% - 3% of the available CPU per user session while the user is dictating.

## Peak concurrent usage

Another factor to consider when planning a large-scale virtual deployment of DM360 Direct is peak concurrent usage. Dictation patterns can vary widely from hospital to hospital and doctor to doctor both in terms of volume and frequency. From a capacity perspective, it is necessary to plan for peak utilization. In general, expect a peak concurrent usage of 10% - 15%.

## Documentation

DM360 Direct is delivered with documentation for system administrators and end users.

### System administrators

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The DM360 Direct Installation Guide describes the installation and system configuration procedures. This guide also covers information on the Nuance Management Console.

### End users

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End users access the end user help via a tab on the 360 | SpeechAnywhere Services **What You Can Say** page. The **What You Can Say** page is opened by selecting the help menu item on the **Application** menu or saying **show help**.

The DM360 Direct end user help describes how to use the application features (for example, anchoring the speech focus). It also provides a link to open the 360 | SpeechAnywhere Services end user help. The 360 | SpeechAnywhere Services end user help describes the speech recognition features and how to use them (for example, using automatic formatting and inserting auto-texts).

**Note:** The **What You Can Say** page also has a tab for displaying auto-texts and custom commands. This tab is opened by saying **what can I say**.

## Troubleshooting

- Error when accessing DM360 Direct (**Could Not Load Type 'System.ServiceModel.Activation.HttpModule'**):

To resolve this problem, you must use the ASP.NET IIS Registration Tool (Aspnet\_regiis.exe) to register the correct version of ASP.NET. This can be done when running aspnet\_regiis.exe by using the -iru parameters, as follows: aspnet\_regiis.exe -iru.

- If a client cache error is displayed after installing the ClickOnce package and the application won't run, delete the ClickOnce application cache in the users **AppData** directory (Windows 7: "C:\User-s\\AppData\Local\Apps\2.0").
- The automatic gain control (AGC) of the recording device or the device drivers/sound card drivers interferes with the DM360 Direct automatic audio adjustment feature. Solution: disable the interfering AGCs.
- If DM360 Direct crashes when the application is started:

Check the settings in the [configuration file](#) and the [log file](#) for configuration-related items.

Make sure that your system conforms to the requirements listed in the [Prerequisites](#) section of this guide.



## Supported speech recognition languages

Language	IETF language tag
Català	ca-ES
Dansk	da-DK
Deutsch	de-DE
English (Canada)	en-CA
English (UK)	en-GB
English (US)	en-US
Español (Europa)	es-ES
Español (Norteamérica & Centroamérica)	es-003
Español (Sudamérica)	es -005
français (France)	fr-FR
français (Canada)	fr-CA
Italiano	it-IT
Magyar	hu-HU
Nederlands	nl-NL
Norsk	nb-NO
Português (Brasil)	pt-BR
Português (Portugal)	pt-PT
Slovenščina	sl-SL
suomi	fi-FI
Svenska	sv-SE
Vlaams	nl-BE