



# Installation Guide

NMS On-Premise and NMS in the Cloud

2.3



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2014 Dragon Medical 360 | Network Edition, 2.3.

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# Contents

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Disclaimer .....	ii
Notice .....	ii
<b>Document Versions .....</b>	<b>xii</b>
<b>Introduction to installing Dragon Medical 360   Network Edition .....</b>	<b>1</b>
<b>What's new in Dragon Medical 360   Network Edition .....</b>	<b>2</b>
What's new in Dragon Medical 360   Network Edition, 2.3 .....	2
<b>Installing or Upgrading an On-Premise Installation vs a Cloud Based Installation .....</b>	<b>3</b>
Installing an On-Premise System .....	3
Upgrading an On-Premise System .....	3
Installing a Cloud Based System .....	3
Upgrading a Cloud Based System .....	3
<b>Chapter 1: Preparing to install Dragon Medical 360   Network Edition 5</b>	
<b>System Requirements for Dragon Medical 360   Network Edition .....</b>	<b>7</b>
Hardware Recommendations .....	7
Software Requirements .....	7
Supported Virtual Desktop Infrastructure Applications and Terminal Emulators .....	9
Supported non-EHR Applications .....	10
<b>Accessing the Nuance Management Console .....</b>	<b>11</b>
Pre-requisites for accessing the Nuance Management Console .....	11
Steps for accessing the Nuance Management Console .....	11
Adding the Nuance Management Console URL as a trusted site .....	12
<b>Windows Presentation Framework controls .....</b>	<b>14</b>
On Windows XP or Windows Server - In the Dragon client .....	14
On Windows XP or Windows Server - In the Control Panel .....	14
<b>Configuring support for Windows Presentation Framework controls .....</b>	<b>15</b>
Disable support for WPF controls in local and published applications .....	15
Disable support for WPF controls only in an application published from a Citrix server ...	16
Enable support for WPF controls in local and published applications .....	16
Enable support for WPF controls only in an application published from a Citrix server ...	16
<b>Creating Accounts .....</b>	<b>18</b>
<b>Creating/selecting user account to install all services .....</b>	<b>18</b>
<b>Installing Dragon Medical 360   Network Edition .....</b>	<b>19</b>
<b>Assigning access to servers, clients, and master user profile locations .....</b>	<b>20</b>

Assigning permissions to NMS and Profile Optimizer component files, clients, and master user profiles .....	22
Privacy of patient data .....	22
<b>Ensuring appropriate ports are open .....</b>	<b>22</b>
Ports you must open on the network .....	22
Summary: Ports to be opened on Clients, Servers, and hardware firewalls .....	23
<b>Turning off Automatic Updates .....</b>	<b>23</b>
<b>Anti-Virus recommendations .....</b>	<b>23</b>
On NMS Servers, Profile Optimization Server, and SQL Database Server .....	24
<b>Recommended virtual memory settings .....</b>	<b>24</b>
Server Virtual Memory: .....	24
Dragon Medical Client Workstation Virtual Memory: .....	24
<b>Allocating disk space for logs .....</b>	<b>25</b>
<b>Checklists for installing the Nuance Management Server and other servers .....</b>	<b>26</b>
Installing Operating System software .....	26
Decide to work in Active Directory .....	26
Creating required account .....	26
Installing database software .....	26
Installing NMS Server, Console, and Database .....	27
Installing Profile Optimizer Server, Speech Nodes, and Database .....	28
<b>Checklists for Setting up Active Directory Services .....</b>	<b>31</b>
Installing SQL Server 2008 .....	31
Creating NMC Administrator Account for Active Directory Administrator .....	31
Enabling Active Directory and setting connection string .....	32
Logging Out and logging back in .....	32
Creating Active Directory Single Sign-On user accounts (optional) .....	32
Continue to Configure NMS Server as Active Directory Administrator .....	32
<b>Checklists for Starting the Nuance Management and other servers .....</b>	<b>33</b>
Verifying server services are running .....	33
If you are planning to use Active Directory Services .....	33
<b>Checklists for Setting up a file server for master user profiles .....</b>	<b>34</b>
<b>Checklists — Setting up web server to host master user profiles .....</b>	<b>35</b>
<b>Checklist for upgrading roaming user profiles .....</b>	<b>36</b>
Before you upgrade .....	36
Upgrading .....	36
Associating user accounts with newly upgraded master user profiles .....	37
<b>Checklists — Converting local users .....</b>	<b>37</b>
Before you convert .....	37
(If applicable) Combine multiple Dragon Medical Client 2.3 profiles for a single provider, keep-	37

ing only one .....	
Exporting local user profiles .....	37
Enabling roaming feature on workstation .....	38
Associating user accounts with newly converted master user profiles .....	38
Migrating roaming users to Dragon Medical 360   Network Edition .....	39
<b>Checklist for installing Dragon Medical Clients .....</b>	<b>39</b>
Before removing earlier version of Dragon Medical .....	39
Before beginning any client installation to a workstation .....	39
Downloading Dragon Medical Client MSI installer through the Nuance Management Console .....	40
Installing Dragon client manually .....	40
Pushing Dragon MSI installation to multiple workstations: administrative installation .....	40
Pushing Dragon MSI installation to multiple workstations: using SCCM .....	40
Pushing Dragon MSI installation to multiple workstations: creating custom installer for Active Directory .....	41
Installing multiple clients with same default options using MSI .....	41
<b>Chapter 2: Installing the Nuance Management Server and components .....</b>	<b>43</b>
<b>Prerequisites for installing the Nuance Management Server and Console .....</b>	<b>44</b>
Creating an account to run all services .....	44
Information requirements for installing the NMS server and console .....	45
<b>Installing prerequisite software for the Nuance Management Server .....</b>	<b>46</b>
Installing Windows Server and .NET Framework .....	46
Installing Internet Information Services (IIS) in Windows Server 2008 .....	46
Installing PowerShell in Windows Server 2008 .....	49
<b>Installing SQL Server 2008 .....</b>	<b>49</b>
Before you begin database software installation .....	49
Installing SQL Server .....	50
<b>Ensuring all required ports are open .....</b>	<b>56</b>
<b>Installing the Nuance Management Server and Console .....</b>	<b>57</b>
Creating an account to run all services .....	57
Installing the NMS—Server, Console, and Database .....	58
<b>Anti-virus recommendations and requirements .....</b>	<b>64</b>
On NMS Servers, Profile Optimizer Server, SQL Database Server: .....	65
<b>Configuring the network traffic switch to ping NMS Servers for load balancing .....</b>	<b>66</b>
Ensuring clients can contact an NMS Server with a load balancing traffic switch in the network .....	66
Accessing Nuance Management Console when load balancing traffic switch chooses among multiple NMS Servers on your network .....	67
<b>Verifying all necessary ports are open .....</b>	<b>67</b>
Test access to NMS ports from a site client machine .....	67
<b>Chapter 3: Installing Profile Optimizer components .....</b>	<b>69</b>

<b>Prerequisites for Installing Profile Optimizer components</b> .....	<b>70</b>
Creating account to run all services .....	70
Gathering information you need .....	70
Installing software to support Profile Optimizer Speech Nodes installation .....	71
<b>Installing Profile Optimizer Server prerequisite software</b> .....	<b>71</b>
Installing Windows Server and .NET Framework .....	72
<b>Installing prerequisite software for speech nodes</b> .....	<b>73</b>
Installing Windows Installer 3.1 or higher for Speech Nodes not on Windows Server 2008 .....	73
Installing Dragon Medical SDK Client Edition .....	74
<b>Installing the Profile Optimizer Server and speech nodes</b> .....	<b>75</b>
<b>Revising or Repairing the Profile Optimizer Installation</b> .....	<b>83</b>
Halting Profile Optimizer Speech Nodes .....	83
Revising or repairing the Profile Optimizer or Speech Node installation .....	83
<b>Installing Profile Optimizer Speech Nodes on independent or virtual machines</b> .....	<b>84</b>
Installing Profile Optimizer Speech Nodes .....	84
<b>Anti-virus recommendations and requirements</b> .....	<b>89</b>
On NMS Servers, Profile Optimizer Server, SQL Database Server: .....	89
<b>Open ports on the Profile Optimizer Server</b> .....	<b>89</b>
<b>Chapter 4: Starting servers and logging in to the Nuance Management Console</b> .....	<b>91</b>
<b>Installing Nuance software certificates</b> .....	<b>92</b>
Installing Nuance Security Software Certificates .....	92
<b>Logging in to the Nuance Management Server through the Nuance Management Console</b> .....	<b>95</b>
Accessing Nuance Management Console when load balancing traffic switch chooses among multiple NMS Servers on your network .....	96
<b>Starting the Nuance Management Server and Profile Optimizer Server</b> .....	<b>97</b>
Changing the account running NMS Server .....	97
Starting NMS Server service .....	97
Starting Profile Optimizer services .....	98
<b>Starting Profile Optimizer Speech Nodes</b> .....	<b>98</b>
Running Profile Optimizer Speech Node service .....	98
Giving yourself rights to start the service .....	99
<b>Anti-virus recommendations and requirements</b> .....	<b>101</b>
On NMS Servers, Profile Optimizer Server, SQL Database Server: .....	101
<b>Chapter 5: Setting up the Master User Profiles machine</b> .....	<b>103</b>
<b>Choosing a master user profiles location for a site</b> .....	<b>104</b>
Information required for setting up Web Server .....	105
<b>Setting up a computer to host master user profiles</b> .....	<b>106</b>

Creating the master user profile directory .....	106
Mapping the disk drive on the client workstation .....	106
Setting up access to the master user profile directory .....	107
<b>Installing software for storing master user profiles on a web server .....</b>	<b>108</b>
<b>Installing Microsoft Internet Information Services 6.0 web server .....</b>	<b>109</b>
Installing IIS Server and WebDAV component on physical server .....	109
Customizing web server settings for Dragon Medical .....	111
Entering settings under Virtual Directory or Home Directory tab .....	114
Configuring HTTP or SSL settings in Nuance Management Console .....	118
Installing SSL certificates for IIS 6.0 .....	119
<b>Setting HTTP connection settings for web server .....</b>	<b>121</b>
Making selections on HTTP Settings tab .....	121
<b>Setting SSL connection settings for secure web server .....</b>	<b>124</b>
Settings on SSL Settings tab .....	124
Recommended settings for SSL web servers .....	125
<b>Assigning access to folders and master user profiles across the network .....</b>	<b>126</b>
<b>Turning off Automatic Updates .....</b>	<b>126</b>
<b>Chapter 6: Upgrading roaming and local User Profiles .....</b>	<b>127</b>
<b>Preparing to upgrade non-network edition Dragon Medical Clients .....</b>	<b>128</b>
Before you upgrade Dragon Medical non-network edition .....	128
Overview of migrating local users from Dragon Medical Practice Edition .....	128
After you install the Dragon Medical client, perform the following steps .....	130
<b>Creating user accounts for healthcare providers .....</b>	<b>131</b>
<b>Migrating Non-Network Dragon User Profiles to the Nuance Management Server .....</b>	<b>132</b>
Before migrating Dragon local user profiles .....	132
Migration Paths .....	133
Overview of migrating local user profiles .....	133
Step 1: Back up local user profiles .....	134
Step 2: Combine multiple Dragon Medical profiles for a single provider (DMEE only) .....	134
Step 3: Export user profiles to the default user profile directory .....	136
Step 4: Set Up a Directory for the User Profiles via the Nuance Management Console .....	137
Step 5: Copy the User Profile Export Tool to a network location .....	137
Step 6: Install and Run the User Profile Export Tool .....	137
Step 7: Create user accounts for the migrated profiles on the NMS .....	138
Step 8: Associate the new user accounts with the profiles you migrated in Step 6 .....	138
Step 9: Upgrade the User Profiles .....	138
Step 10: Install/Upgrade the Dragon Client on the workstations .....	138
Step 11: Log in .....	138

<b>Upgrading User Profiles from DM360 Network Edition Version 10.x to Version 2.0 or Higher</b> .....	<b>139</b>
Before upgrading Dragon user profiles .....	139
Upgrade the User Profiles .....	140
<b>Configuring the location of user profiles</b> .....	<b>142</b>
Setting the location of profiles for Dragon .....	142
Setting the location of profiles for the Profile Optimizer .....	142
<b>Upgrading a user profile to DM360 Network Edition Version 2.3</b> .....	<b>144</b>
Before upgrading Dragon user profiles .....	144
<b>Associating new user accounts with upgraded user profiles</b> .....	<b>146</b>
Installing the Profile Association Tool .....	146
Associating user accounts with upgraded Dragon roaming user profiles .....	146
<b>Chapter 7: Installing the Dragon Medical Client</b> .....	<b>149</b>
<b>Overview of installing the Dragon Medical Client</b> .....	<b>150</b>
Opening ports to access user profiles on web server or secure web server .....	150
Approaches to installing the Dragon Medical Client .....	150
<b>Pushing the Dragon MSI installation to workstations</b> .....	<b>151</b>
Options for pushing MSI installation of Dragon to one or more workstations on a network .....	152
Support for the Windows System Center Configuration Manager .....	152
Support for the Windows System Management Server .....	152
Support for Windows Server with Active Directory Services .....	153
<b>Installing Dragon and documentation through the Nuance Management Console</b> .....	<b>154</b>
<b>Installing Dragon manually outside of the Nuance Management Console</b> .....	<b>155</b>
<b>Associating Dragon with the Nuance Management Server or Call Forwarder</b> .....	<b>158</b>
Associating Dragon with an NMS Server or Call Forwarder .....	158
Ensuring clients can contact an NMS Server with a load balancing traffic switch in the network .....	159
<b>Pushing the Dragon MSI installation to workstations</b> .....	<b>160</b>
Options for pushing MSI installation of Dragon to one or more workstations on a network .....	161
Support for the Windows System Center Configuration Manager .....	161
Support for the Windows System Management Server .....	161
Support for Windows Server with Active Directory Services .....	162
<b>Understanding Dragon MSI command line options</b> .....	<b>163</b>
Modifying the admininstall.bat file .....	163
<b>Creating a custom installer for the client in Active Directory</b> .....	<b>167</b>
Installing the Microsoft Custom Installation Wizard .....	167
Modifying setup Properties for Custom Installation .....	168
<b>MSI Installation of multiple clients with the same default options</b> .....	<b>174</b>
Setting Dragon options on the command line before installing Dragon .....	174
Installing Dragon Medical Client using pre-defined options in nsdefaults.ini .....	176



Summary: Additional MSI options for use with nsdefaults.ini file .....	176
<b>Starting Dragon Medical Clients from Command Line .....</b>	<b>178</b>
<b>Creating Organization Tokens .....</b>	<b>180</b>
<b>Creating Single Sign-On user accounts .....</b>	<b>180</b>
Implementing Active Directory Single Sign-On .....	180
Implementing EHR Single Sign-On .....	181
<b>Closing the Dragon Medical client from a command line .....</b>	<b>185</b>
<b>Summary: natspeak options in Dragon Medical Client .....</b>	<b>186</b>
natspeak switches .....	186
natspeak command line options .....	187
<b>Ensuring Dragon Medical Client anti-virus recommendations are met .....</b>	<b>188</b>
<b>Assigning access to folders and master user profiles across the network .....</b>	<b>189</b>
<b>Turning off Automatic Updates .....</b>	<b>189</b>
<b>Chapter 8: Upgrading to DM360 Network Edition or changing server and database installations .....</b>	<b>191</b>
<b>Upgrading an On-Premise Installation .....</b>	<b>192</b>
Step One: Upgrade the Server-Side Components .....	192
Step Two: Upgrade Your User Profiles (Upgrades from DM 360   Network Edition 10.x to 2.3 Only) .....	192
Step Three: Upgrade Your Client Software .....	192
Step Four: (Optional) Migrate from the Data Distribution Tool to Command Sets .....	193
Step Five: (Optional) Migrate from the Data Distribution Tool to Word Sharing .....	193
<b>Upgrading the Nuance Management Server .....</b>	<b>193</b>
Before you upgrade .....	193
Upgrade the NMS .....	193
<b>Upgrading the Profile Optimizer Server, Speech Nodes, and Dragon SDK .....</b>	<b>195</b>
Before you upgrade .....	195
Step 1: Uninstall the old and install the new Dragon SDK Client .....	195
Step 2: Upgrade the Profile Optimizer Server (Installations with Profile Optimizer Speech Nodes on independent or virtual machines only.) .....	195
Step 3: Install the new version of the Profile Optimizer Server and/or the Speech Nodes .....	196
<b>Chapter 9: Migrating from the Data Distribution Tool to Command Sets and Command Sharing .....</b>	<b>197</b>
<b>Migrating from Data Distribution Tool to Command Sets .....</b>	<b>198</b>
About Command Sets .....	198
Choosing a Migration Strategy .....	198
<b>Migrating Custom Words from Data Distribution Tool to Word Sharing .....</b>	<b>201</b>
<b>Chapter 10: Revising or Repairing Profile Optimizer Server and Speech Nodes .....</b>	<b>202</b>

<b>Revising or Repairing the Profile Optimizer Installation</b> .....	<b>203</b>
Halting Profile Optimizer Speech Nodes .....	203
Revising or repairing the Profile Optimizer or Speech Node installation .....	203
<b>Chapter 11: Backing up server systems</b> .....	<b>205</b>
<b>NMS SQL Server backup system</b> .....	<b>206</b>
Scheduled NMS transaction log and database backups .....	206
Disabling scheduled backups of the NMS database .....	206
File names of database backups .....	207
<b>Profile Optimizer SQL Server backup system</b> .....	<b>208</b>
Automatic Profile Optimizer transaction log and database backups .....	208
File names of database backups .....	208
<b>Master user profiles backups</b> .....	<b>209</b>
<b>Removing a master user profile folder for a deleted user account</b> .....	<b>209</b>
<b>Servers and Dragon client logs</b> .....	<b>210</b>
Dragon and Profile Optimizer Speech Node logs .....	210
NMS Server logs .....	211
<b>View log files for a variety of products and product components</b> .....	<b>213</b>
<b>Nuance Management Console logs</b> .....	<b>214</b>
Upload the Nuance Management Console log file to the NMS .....	214
<b>Chapter 12: Moving Databases</b> .....	<b>215</b>
<b>Moving NMS Server SQL database</b> .....	<b>216</b>
Moving the database to a new location .....	216
Removing the old database from the original location .....	216
<b>Moving the Profile Optimizer Server database</b> .....	<b>217</b>
Moving the database to a new location .....	217
Removing the old database from the original location .....	217
.....	218
<b>Chapter 13: Setting up Active Directory Services</b> .....	<b>219</b>
<b>Setting up the Nuance Management Server to run Active Directory Services</b> .....	<b>220</b>
Enabling Active Directory Services .....	220
Creating an NMC Administrator account for Active Directory .....	220
Set the Active Directory Connection String .....	221
Restarting the Nuance Management Service .....	223
<b>Creating an NMS user account for Active Directory</b> .....	<b>223</b>
<b>Chapter 14: Managing the Nuance Management Server</b> .....	<b>227</b>
<b>Managing multiple Nuance Management Servers</b> .....	<b>228</b>
<b>Using and configuring the FileStore location for multiple NMS servers</b> .....	<b>229</b>
<b>Use a network traffic switch to balance the load on the Nuance Management Server</b>	<b>230</b>

---

<b>Chapter 15: Overview of NMS in the cloud</b> .....	<b>231</b>
<b>Overview of NMS in the cloud</b> .....	<b>232</b>
What will be different when you migrate to NMS in the cloud? .....	233
Upgrading and moving data to the cloud .....	234
Managing user logins .....	235
Upgrading from Dragon Enterprise Edition to DM360 Network Edition using the Profile Association Tool .....	235
Authentication .....	236
Profile importing, exporting, and deleting .....	236
<b>Installing and Configuring NMS in the Cloud</b> .....	<b>237</b>
Overview of Installing and Configuring NMS in the Cloud .....	237
Before You Begin .....	237
Install the Profile Optimizer and Speech Nodes .....	237
Install the NMS Call Forwarder (Optional) .....	237
Install and Configure Dragon Medical 360   Network Edition Clients .....	241
<b>Upgrade to NMS in the cloud</b> .....	<b>242</b>
Create an organization in the NMS cloud .....	242
Move data from the on-premise NMS server to the cloud NMS server .....	243
Upgrade the Profile Optimizer Server to the cloud .....	244
Install the NMS Call Forwarder (Optional) .....	244
Upgrade Dragon clients .....	248
Configure Dragon clients to communicate with NMS in the cloud .....	249
Configure Dragon clients to communicate with the new Call Forwarder server .....	249
Uninstall the on-premise NMS server .....	249
<b>Setting the NMS download location</b> .....	<b>250</b>
<b>Move data from an existing on-premise NMS server to the cloud NMS server</b> .....	<b>251</b>
Migrating Dragon settings to the cloud NMS .....	251
Migrating identical objects to the cloud NMS .....	252
Steps for upgrading data to the cloud NMS server .....	252
<b>Logging existing and new users into NMS in the cloud</b> .....	<b>258</b>
<b>Index</b> .....	<b>259</b>

# Document Versions

Version Number	Date
Initial version for DM 360   Network Edition 2.3	9/26/2014

# Introduction to installing Dragon Medical 360 | Network Edition

For information about installing or upgrading to Dragon Medical 360 | Network Edition, 2.3, please see chapter 1.

*Dragon Medical 360 | Network Edition* provides a central server (the *Nuance Management Server*) along with multiple local or remote speech recognition client machines where healthcare providers dictate. DM360 Network Edition takes advantage of distributed processing across servers and workstations for greater efficiency.

The *Installation Guide* takes you through the process of installing the various server and client components of DM360 Network Edition, connecting them to a database that stores your organization's data, and installing/setting up Dragon Medical Clients that work with both the *NMS Server* and the other servers and components of the network.

Before you use this manual to install Dragon Medical Client 2.3, you should determine your network needs and be sure you have the required software by reading the *Planning and Deployment Guide*. That guide takes you through the process of planning deployment of a Dragon Medical 360 | Network Edition network, showing you how to determine the number of servers and other equipment you will need and how to prepare that equipment for installation of *Dragon Medical Enterprise*.

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## Note:

Some product features might have changed since this manual was printed. A current version of this book is always available on Nuance's documentation portal, in PDF format. Contact your Nuance representative about accessing that portal to retrieve the latest copy.

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# What's new in Dragon Medical 360 | Network Edition

## What's new in Dragon Medical 360 | Network Edition, 2.3

Dragon Medical 360 | Network Edition, 2.3 includes the features, enhancements, and bug fixes from all previous service packs and hot fixes, plus new features.

For details about what's new in Dragon Medical 360 | Network Edition, 2.3 for administrators, see the following topics in the DM 360 | Administrator Guide:

- What's new in Nuance Management Server - All products
- What's new in Nuance Management Server - DM360 Network Edition

Data objects are stored in (Nuance Management Server) NMS in the cloud (in the Nuance data center) instead of an on-premise NMS. These objects include:

- User accounts
- Text and Graphics/auto-texts
- Custom words
- Custom command sets

To learn more about NMS in the cloud, see the 'Introducing NMS in the cloud' section in the DM 360 | Administrator Guide or the Dragon Medical 360 | Network Edition, 2.3 release notes.

# Installing or Upgrading an On-Premise Installation vs a Cloud Based Installation

## Installing an On-Premise System

Use the instructions in the Dragon Medical 360 | Network Edition Installation Guide, starting with *Preparing to install Dragon Medical 360 | Network Edition* on page 5 and continuing to the end of the guide. Skip any sections or chapters about installing or upgrading the cloud based system.

## Upgrading an On-Premise System

Use the instructions in *Upgrading an On-Premise Installation* on page 192. Skip any sections or chapters about installing or upgrading the cloud based system

## Installing a Cloud Based System

Use the instructions in the Dragon Medical 360 | Network Edition Installation Guide, starting with *Overview of NMS in the cloud* on page 231 of Dragon Medical 360 | Network Edition and continuing to *Installing and Configuring NMS in the Cloud* on page 237. Skip any sections or chapters that do not mention the cloud based system.

## Upgrading a Cloud Based System

Use the instructions in the Dragon Medical 360 | Network Edition Installation Guide, *Upgrade to NMS in the cloud* on page 242 and continuing to the end of the cloud upgrade section. Skip any sections or chapters that do not mention the cloud based system.





# ***Chapter 1: Preparing to install Dragon Medical 360 | Network Edition***

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System Requirements for Dragon Medical 360   Network Edition .....	7
Accessing the Nuance Management Console .....	11
Windows Presentation Framework controls .....	14
Configuring support for Windows Presentation Framework controls .....	15
Creating Accounts .....	18
Creating/selecting user account to install all services .....	18
Installing Dragon Medical 360   Network Edition .....	19
Assigning access to servers, clients, and master user profile locations .....	20
Ensuring appropriate ports are open .....	22
Turning off Automatic Updates .....	23
Anti-Virus recommendations .....	23
Recommended virtual memory settings .....	24
Allocating disk space for logs .....	25
Checklists for installing the Nuance Management Server and other servers .....	26
Checklists for Setting up Active Directory Services .....	31
Checklists for Starting the Nuance Management and other servers .....	33
Checklists for Setting up a file server for master user profiles .....	34
Checklists — Setting up web server to host master user profiles .....	35

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Checklist for upgrading roaming user profiles .....	36
Checklists — Converting local users .....	37
Checklist for installing Dragon Medical Clients .....	39

# System Requirements for Dragon Medical 360 | Network Edition

## Hardware Recommendations

See the *Dragon Medical 360 | Network Edition Planning Guide* for additional information on hardware and sizing.

### Dragon Client Hardware Recommendations

**CPU:** 2.4 GHz Intel Dual Core or equivalent AMD processor. (IMPORTANT: SSE2 instruction set required) **Processor Cache:** 2 MB

**DVD-ROM:** drive required for installation

**Sound Card:** Creative® Labs Sound Blaster® 16 or equivalent sound card supporting 16-bit recording.

**Free hard disk space:** 5 GB required, 8 GB recommended

#### RAM:

- 2 GB RAM for Microsoft® Windows XP®\*.
- 4 GB for Microsoft® Windows Vista® 32-bit and 64-bit, Microsoft® Windows® 7 32-bit and 64-bit, Microsoft® Windows® 8 and 8.1 32-bit and 64-bit, Windows Server 2008 64-bit, Windows Server 2012 64-bit, and Windows Server 2012 64-bit R2.

**Microphone:** Nuance-approved microphone (included in purchase)

For details on Bluetooth microphones, recorders, Tablet PCs, and other hardware, please go to <http://support.nuance.com/compatibility/>.

You can also use an iOS or Android device as a microphone using the [Dragon Remote Microphone app](#).

**Bluetooth (Optional):** For Bluetooth wireless microphone support, visit <http://support.nuance.com/compatibility/>

**Web Connection:** A web connection is required for activation during installation.

## Software Requirements

### Software Requirements for the Dragon Client

The Dragon Client installer checks your system for minimum requirements. If the minimum requirements are not met, the installer will not install the client.

#### Operating system:

- Microsoft® Windows® 8.1 32 bit and 64 bit
- Microsoft® Windows® 8 (including Professional and Enterprise), 32 bit and 64 bit

- Microsoft® Windows® 7, 32-bit and 64-bit
- Microsoft® Windows Vista® Service Pack 2, 32-bit and 64-bit
- Microsoft® Windows XP® Service Pack 3, 32-bit only\*
- Microsoft® Windows Server 2008, Service Pack 1, Service Pack 2
- Microsoft® Windows Server 2008 R2, 32-bit and 64-bit
- Microsoft® Windows Server 2008 R2 64 bit Service Pack 2
- Microsoft® Windows Server 2012
- Microsoft® Windows Server 2012 R2

## **Software Requirements for the Nuance Management Server (NMS) Server**

### **Operating system:**

Choose one of the following:

- Microsoft® Windows Server 2008, Service Pack 1, Service Pack 2
- Microsoft® Windows Server 2008 R2, 32-bit and 64-bit
- Microsoft® Windows Server 2008 R2 64 bit Service Pack 2
- Microsoft® Windows Server 2012
- Microsoft® Windows Server 2012 R2 (64 bit)

Whichever operating system you choose, you should have all service packs installed, up to the most current one.

**Microsoft PowerShell:** Install the PowerShell feature along with Windows Server.

### **Microsoft .NET:**

Install both versions and any updates:

- Microsoft .NET Framework 3.5 SP1
- Microsoft .NET Framework 4.0 Extended Version

### **Web Server**

- Internet Information Services (IIS). Version 6.0, 7.0, or 7.5.

**Internet Browser:** Microsoft Internet Explorer 8, 9, 10, and 11 (free download at [www.microsoft.com](http://www.microsoft.com))

## **Software Requirements for the Profile Optimizer (PO) Server**

### **Operating system:**

Choose one of the following:

- Microsoft® Windows Server 2008, Service Pack 1, Service Pack 2
- Microsoft® Windows Server 2008 R2, 32-bit and 64-bit

- Microsoft® Windows Server 2008 R2 64 bit Service Pack 2
- Microsoft® Windows Server 2012

Whichever operating system you choose, you should have all service packs installed, up to the most current one.

**Microsoft .NET:**

- Microsoft .NET Framework 3.5 SP1
- Microsoft .NET Framework 4.0 Extended Version

**Software Requirements for the Profile Optimizer Nodes**

**Operating system:**

Choose one of the following:

- Microsoft® Windows XP SP3
- Microsoft® Windows 7
- Microsoft® Windows Server 2008, Service Pack 1, Service Pack 2
- Microsoft® Windows Server 2008 R2, 32-bit and 64-bit
- Microsoft® Windows Server 2012

Whichever operating system you choose, you should have all service packs installed, up to the most current one.

**Microsoft .NET:**

- Microsoft .NET Framework 4.0

**SQL Server**

Choose one of the following:

- SQL Server 2008
- SQL Server 2012

**Windows Installer 3.1** If you are installing a *Speech Node* on a machine with any supported operating system other than Windows Server 2008, the installer requires that the machine have Windows Installer 3.1 or greater on it. (Windows Server 2008 automatically installs a later version of Windows Installer.) For information on operating systems that support *Speech Nodes* refer to *Dragon Medical Enterprise Planning and Deployment Guide*.

**Dragon Medical SDK Client** You must install the latest version of the Dragon Medical SDK Client software on workstations where you plan to install *Speech Nodes*. This software is included on the *Nuance Management Server Software and Documentation DVD*.

**Supported Virtual Desktop Infrastructure Applications and Terminal Emulators**

- XenDesktop 7.1
- Wyse terminals

## **Supported non-EHR Applications**

Once you have installed Dragon Medical, you can use it to control the following applications using your voice:

- WordPad
- NotePad
- Microsoft® Word 2007, 2010 (32 & 64 bit), 2013 (32 & 64 bit)
- Microsoft® Outlook® 2007, 2010, 2013
- Microsoft® Excel® 2007, 2010, 2013
- WordPerfect® x5, x6
- Apache OpenOffice Writer 3.4
- Open Office Writer v3.1, 3.2
- Internet Explorer 8, 9, 10, 11 (11 supported when Enhanced Protective Mode is disabled)
- Rich Internet Application IE8, IE9, IE10, IE11
- Mozilla® Firefox® 8+
- Rich Internet Application Firefox® 12+
- Rich Internet Application Google Chrome 16+
- Windows Live Mail v15 & v16
- Mozilla® Thunderbird™ x3 and up
- Lotus Notes 8.5

\* The 2.x versions of DM360 Network Edition will be the last versions of the product to support Windows XP. DM360 Network Edition 2.3 continues to support Windows XP.

# Accessing the Nuance Management Console

The Nuance Management Console (NMC) is a web-browser based application that is part of the overall Nuance Management Server (NMS) system. The NMC supports many functions for Nuance Healthcare applications, including reporting for iChart/DESS, and eScription.

When you install the NMS, a default user account, called the admin account, is created automatically. The admin account has a license type of 'NMC Administrator'. The admin account includes elevated access to NMS features and services, including DM360 Mobile Recorder configuration.

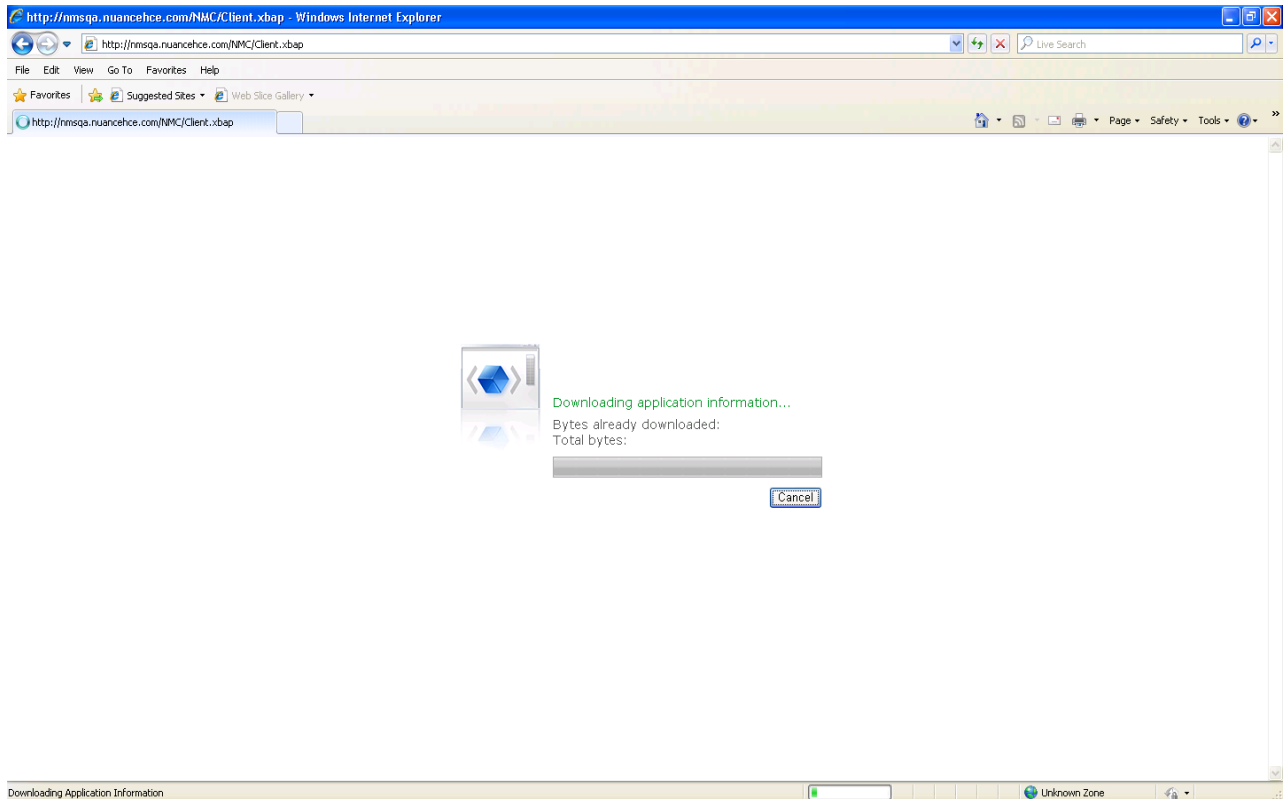
## Pre-requisites for accessing the Nuance Management Console

On the computer that will access the Nuance Management Console, make sure the following items are installed:

- Microsoft .NET framework. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported versions.
- Full trust privileges
- Intranet or Trusted Web Site
- Internet Explorer. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported versions.
- Nuance Software Certificate Installation

## Steps for accessing the Nuance Management Console

1. Open Internet Explorer and type in the following address in the address bar <http://nms.nuancehdp.com/NMC/Client.xbap> The following screen appears: "Downloading application information" as required files are downloaded to the local computer.



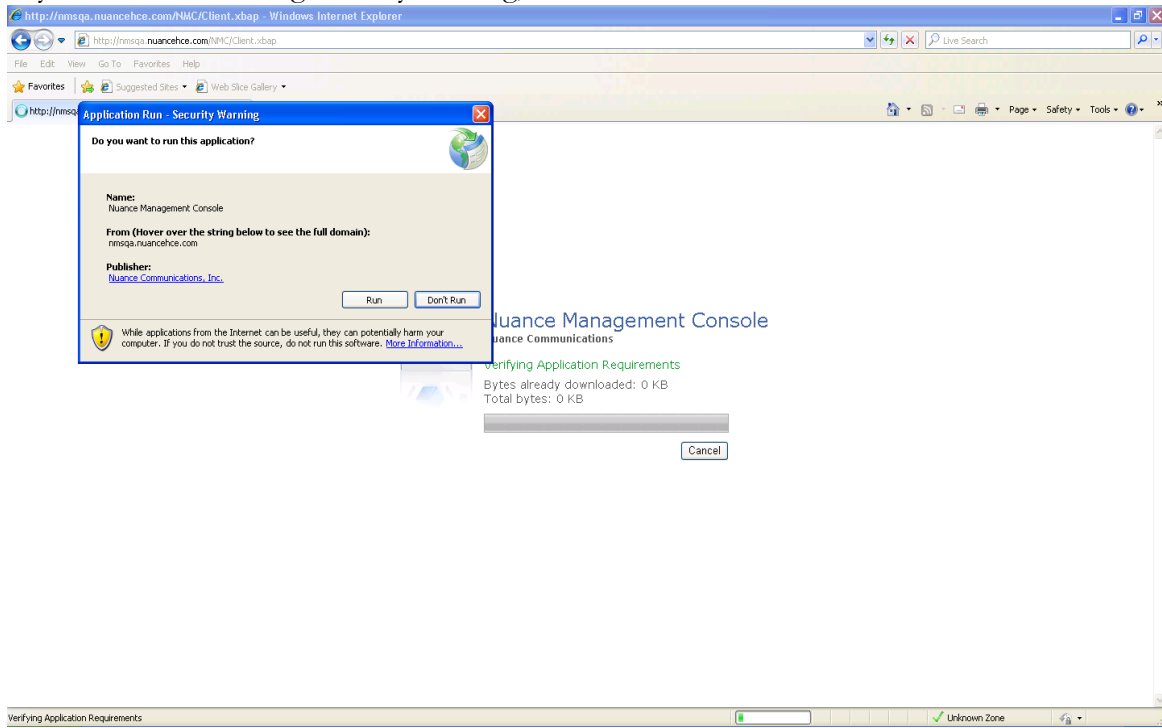
2. While files are downloading, if you see the message "Trust Not Granted", you must to either [add the NMC URL as a 'Trusted site'](#) or you need to install a digital certificate.

## Adding the Nuance Management Console URL as a trusted site

1. In Internet explorer, Select **Tools** -> **Internet options** -> **Security Tab** -> **Click on Trusted sites icon** -> **Sites**.
2. Enter the Nuance Management Console URL
3. Click **Add**.
4. Uncheck the checkbox **Require Server verification (https:) for all sites in this zone**.



5. If you see the following security warning, click **Run**.



6. When the file downloads are complete, you will see the login screen. Enter your **User Login** and **Password** and click **Log in**.

# Windows Presentation Framework controls

You can use Full Text Control in Windows Presentation Framework (WPF) edit controls in applications on the local client and in applications published from a Citrix server (and accessed through a vSync connection).

You can also use Full Text Control in WPF edit controls when both Dragon and an application run on the Citrix server.

**Note:** To enable support for WPF controls, you must first enable Windows advanced text services. By default, Windows advanced text services is enabled on Windows Vista and Windows 7.

If you are running Dragon on Windows XP or Windows Server (see *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported versions of Windows and Windows Server), perform both of the following actions to enable Windows advanced text services:

## On Windows XP or Windows Server - In the Dragon client

1. In Dragon, select **Tools > Options**.
2. Click the **Miscellaneous** tab.
3. Uncheck **Disable Windows Advanced Text Services**.
4. Press **OK**.

## On Windows XP or Windows Server - In the Control Panel

1. In the Control Panel, navigate to **Regional and Language > Languages > Details > Advanced**.
2. Uncheck **Turn off advanced text services**.
3. Press **OK**.

After you enable Windows advanced text services, you must enable Full Text Control support for WPF controls. For details about how to enable Full Text Control support for Windows Presentation Framework controls, in both local and Citrix published applications, see [Configuring support for Windows Presentation Framework controls](#). By default, Full Text Control support for WPF edit controls is not enabled.

# Configuring support for Windows Presentation Framework controls

In Dragon Medical 360 | Network Edition, you can enable Full text Control support for Windows Presentation Foundation (WPF) based edit controls in either local applications (running on the same computer as Dragon) or in applications published from a Citrix server (and accessed through vSync (minidragon)).

By default, the Dragon installer, the Patch Installer, and the vSync (minidragon) installer will install but will not register Dragon WPF support libraries; disabling support for WPF edit controls in local and Citrix published applications.

You can enable support for WPF edit controls in local applications, published applications, or both. When you enable WPF support, the setting applies to all users of a Dragon installation.

On a command prompt, when you run the Dragon installer or the Patch installer on a workstation, or run the minidragon installer on a Citrix XenApp server, pass the "TEXT\_SERVICE\_SUPPORT=1" flag.

The flag causes the installer to install and register the WPF support libraries. Full Text Control support for WPF controls is enabled. The installer adds the line "Allow Text Service Support=1" to the nsdefaults.ini file.

## Notes:

- If you manually change the nsdefaults.ini file (on the workstation) to include "Allow Text Service Support=0", support for Dragon native WPF support feature is disabled.
- If you enable WPF support in local applications, but disable WPF support in published applications, WPF support is only available in local applications.
- If you disable WPF support by installing, re-installing, or upgrading Dragon, and enable WPF support by upgrading vSync on the server, WPF native support is disabled in both local and published applications. In this case, to enable WPF support only in published applications, you MUST manually change the nsdefaults.ini file (on the workstation) to include "Allow Text Service Support=1".

## Disable support for WPF controls in local and published applications

1. On the workstation where you will install or upgrade Dragon, open a command prompt.
2. Navigate to the location of the Dragon installer or the patch installer exe file.
3. Run the installer exe file, passing the "TEXT\_SERVICE\_SUPPORT=0" command flag as a parameter. For example:  

```
C:\Temp\DNS10ServicePack3.exe "TEXT_SERVICE_SUPPORT=0"
```

## **Disable support for WPF controls only in an application published from a Citrix server**

**Note:** On the workstation, in the nsdefaults.ini file, if the :Allow Text Service Support.flag is set to 0, you cannot enable WPF support in published applications..

1. On the Citrix server, open a command prompt.
2. Navigate to the location of the mindragon installer exe file.
3. Run the installer exe file, passing the "TEXT\_SERVICE\_SUPPORT=0" command flag as a parameter. For example:  
C:\Temp\Minidragon.exe "TEXT\_SERVICE\_SUPPORT=0"

## **Enable support for WPF controls in local and published applications**

**Note:** This requires WPF support libraries to be registered on the Citrix server.

1. On the workstation where you will install or upgrade Dragon, open a command prompt.
2. Navigate to the location of the Dragon installer (for Installing/Re-installing Dragon SP3) or the patch installer exe file (for upgrading Dragon to SP3).
3. Run the installer exe file, and either pass the "TEXT\_SERVICE\_SUPPORT=1" command flag as a parameter or do not use the "TEXT\_SERVICE\_SUPPORT" flag.  
For example: C:\Temp\DNS10ServicePack3.exe "TEXT\_SERVICE\_SUPPORT=1"  
or  
C:\Temp\DNS10ServicePack3.exe

## **Enable support for WPF controls only in an application published from a Citrix server**

1. On the workstation where you will install or upgrade Dragon, open a command prompt.
2. Navigate to the location of the Dragon installer (for Installing/Re-installing Dragon SP3) or the patch installer exe file (for upgrading Dragon to SP3).
3. Run the installer exe file, passing the "TEXT\_SERVICE\_SUPPORT=0" command flag as a parameter. For example:  
C:\Temp\DNS10ServicePack3.exe "TEXT\_SERVICE\_SUPPORT=0"
4. On the Citrix server, open a command prompt.
5. Navigate to the location of the mindragon installer exe file.
6. Run the installer exe file and either pass the "TEXT\_SERVICE\_SUPPORT=1" flag as a parameter or do not use the "TEXT\_SERVICE\_SUPPORT" flag. For example:  
C:\Temp\Minidragon.exe "TEXT\_SERVICE\_SUPPORT=1"  
or  
C:\Temp\Minidragon.exe

7. On the workstation, in Windows Explorer, find and open the nsdefaults.ini file. You can find nsdefaults.ini in the following locations:
  - **Windows XP:**  
C:\Documents and Settings\All Users\Application Data\Nuance\NaturallySpeaking12\
    - **Newer versions of Windows**  
C:\ProgramData\Nuance\NaturallySpeaking12\
      - 8. In the **Options** section of the nsdefaults.ini file, manually set the :Allow Text Service Support.flag to 1.

## Creating Accounts

Before you begin the installation, you create two user accounts, one for *Dragon Medical 360 | Network Edition* services to run under (see next immediate *Caution*) and one to install the software (see next section).

---

**Caution:**

Before you carry out this procedure, you must create **a single Windows administrator account** to run all services under (named something like **NMSapps**) that meets the following requirements:

- Is an administrator account in the domain or, for a single server configuration, the workgroup.
- Never expires.
- Has a password that never expires (does not have to be changed at regular intervals).
- Has rights to install software and Windows services on the server.
- Has rights to create and start a Windows service on the server.

**VERY IMPORTANT:**

- Has full read/write access rights to all other servers within the network.
- Has full read/write access to the database server (if it is on a separate server).
- Has full read/write/modify permissions to access the directory hosting the master user profiles.

You must set up this account with **Log on as Service** rights so that it can launch the services when the installation is complete.

---

## Creating/selecting user account to install all services

---

**Caution:**

Before you carry out this procedure, you must create **a single Windows administrator account** to install all DM360 Network Edition services. That account must meet these requirements:

- Has rights to install software and Windows services on the server.
- Has rights to create and start a Windows service on the server.
- Has full read/write access to the database server.

**VERY IMPORTANT:**

You must use this account to install the database software and all servers in the product.

---

# Installing Dragon Medical 360 | Network Edition

Before you begin the installation, you should evaluate your own system installation skill set. To select the appropriate hardware and install the *Dragon Medical 360 | Network Edition* server and client software, you should have adequate skills and experience to:

- Create a network domain/user account with full read/write access rights across all servers
- Create databases with SQL Server
- Set up backup plans for SQL Server
- Create and securely administer a Windows share
- Set Windows user rights and directory permissions
- Set up and configure Internet Information Services (IIS)
- Securely administer IIS (if using web server for master user profiles)
- Order, receive, and install SSL certificates in IIS (if using secure web server for master user profiles)
- Edit XML configuration files
- Manage Windows Services

# Assigning access to servers, clients, and master user profile locations

**Caution:**

To ensure that your Dragon Medical 360 | Network Edition network components can communicate with each other and that the network can function properly, you must assign permissions to all appropriate directories and access rights to administrator and user accounts on servers and clients as indicated in the tables that follow this note.

Locations Servers Need Access To			
Location	Permissions level or Type of user access rights	Users affected	Equipment given access
Directories where server components are installed.	Full read/write/modify permissions	<b>On servers:</b> Windows admin account that all server services run under.	<b>Server Components:</b> <i>NMS Server</i> <i>Nuance Management Console</i> <i>NMS Database</i> <i>Profile Optimizer</i> <i>Profile Optimizer Database</i> Each <i>Profile Optimizer Speech Node</i> SQL Server
Master User Profiles folder	Full read/write/modify permissions	Windows admin accounts that all server services run under & user accounts for all providers dictating on <i>Dragon Medical Clients</i> .	<b>Server Components:</b> <i>NMS Server</i> <i>Nuance Management Console</i> <i>NMS Database</i> <i>Profile Optimizer</i> <i>Profile Optimizer Database</i> Each <i>Profile Optimizer Speech Node</i> <b>Client Components:</b> Each dictating healthcare provider

Locations Clients Need Access To			
Location or Registry Key	Permissions level or Type of access rights	Users affected	Equipment given access
Master User Profiles folder	Full read/write/modify permissions	Windows user accounts for all providers dictating on <i>Dragon Med-</i>	<b>Client Components:</b> Each dictating health-care provider



Locations Clients Need Access To			
Location or Registry Key	Permissions level or Type of access rights	Users affected	Equipment given access
Locations on all physical servers that house <i>NMS Servers, Profile Optimizer, and Databases</i> for both			
<drive letter> : \Users\All Users\Application Data\Nuance folder and all sub-folders	Full read/write/modify permissions	Windows user accounts for all providers dictating on <i>Dragon Medical Clients</i> .	<b>Client Components:</b> Each dictating health-care provider
<drive letter> : \Program Data\Application Data\Nuance folder and all sub-folders	Full read/write/modify permissions		
<drive letter> : \Program Files\Nuance folder and all sub-folders	Read permissions		
Locations on the client workstation where the provider dictates with <i>Dragon Medical Client</i>			
<drive letter> : \Program Data\Nuance folder and all sub-folders	Full read/write/modify permissions	Windows user accounts for all providers dictating on <i>Dragon Medical Clients</i> .	<b>Client Components:</b> Each dictating health-care provider
<drive letter> : \<Windows User ID>\AppData\ folder and all sub-folders	Full read/write/modify permissions		
<drive letter> : \Documents and Settings\All Users\Application Data\Nuance folder and all sub-folders	Full read/write/modify permissions		
Locations in Registry of the client workstation where the provider dictates with <i>Dragon Medical Client</i>			
HKEY_LOCAL_MACHINE\SOFTWARE\Nuance	Rights to update the registry to read/write to these keys.	Windows accounts that workstations running <i>Dragon Medical Client</i> run under.	<b>Client Components:</b> Each dictating health-care provider
HKEY_CURRENT_USER\SOFTWARE\Nuance			

## Assigning permissions to NMS and Profile Optimizer component files, clients, and master user profiles

**Caution: Servers:** To ensure all *NMS* and *Profile Optimizer* processes can interact with one another, you run all the software under a single administrator account. These components must have complete read/write/modify access to the **master user profiles directory**. If the servers and *Speech Nodes* cannot access the master user profiles, *Dragon Medical 360 | Network Edition* cannot function properly.

**Clients:** To ensure every dictating healthcare provider has appropriate access to his or her user profile, you must give full read/write/modify permissions to all files and directories housing the master user profiles, even to access them through an **http** or **https** connection. This level of permission/access ensures that when the provider dictates, *Dragon* can interact with the master user profiles effectively.

Each windows user account that logs in to the Dragon Medical Client 2.3 workstation should also have access to the master user profiles that allows reading/writing/modifying the profiles, actions that the Dragon Medical Client 2.3 takes frequently to keep profiles current.

**Master User Profiles:** Be sure that when you set up the master user profiles directory, you locate it either on a Windows machine or on a device connected to a Windows machine with .NET Framework 4.0 installed on it, and that the machine is in the same Windows domain as your DM360 Network Edition servers.

---

## Privacy of patient data

To protect the privacy of patient data and the integrity of the master user profiles, you should **not** give Windows user accounts of *Dragon Medical Clients* rights to log in to the master user profiles machine; the *Dragon* software writes to and modifies the profiles in the background.

## Ensuring appropriate ports are open

On the *Dragon Medical 360 | Network Edition* network, you must open particular ports to ensure the free flow of data between the various servers and clients. A complete list of all the ports that should be open is given in the table at the end of this section. You must open all ports listed in the table on any hardware firewalls to ensure that no firewall blocks transmission of data and brings the network to a halt.

### Ports you must open on the network

- Ports between *Dragon Medical Client 2.3* workstations and their *NMS Server*
- Ports between *Dragon Medical Client 2.3* workstations and the *Master User Profiles Server*
- Ports between workstations where you expect to run *NMC Console* and *NMS Server*
- Ports between *NMS Server* and its database if that database is on a separate server
- Ports between *Profile Optimizer Server* and its database if the database is on a separate server
- Ports between *NMS Server* and *Profile Optimizer Server*

- Ports between *Profile Optimizer* and each *Speech Node* machine
- Ports between each *Speech Node* machine and the *Master User Profiles Server*
- Ports between each *NMS Server* and the *Nuance Update Server*
- All ports mentioned above on all hardware firewalls protecting the network

## Summary: Ports to be opened on Clients, Servers, and hardware firewalls

Type of port	Ports to open
Hardware Firewalls	All ports in this table.
NMS Server	<ul style="list-style-type: none"> <li>■ 443 – All communication from the Dragon client is on SSL-encrypted REST endpoints on port 443.</li> <li>■ 80 - to connect with the NuanceLink</li> <li>■ 1433 - to connect to the NMS SQL database</li> <li>■ 808 - to connect to the Profile Optimizer Server</li> </ul>
Profile Optimizer Server	<ul style="list-style-type: none"> <li>■ 8001</li> <li>■ 905</li> </ul>
Speech Node	<ul style="list-style-type: none"> <li>■ 8000</li> </ul>
Master User Profiles Server	<ul style="list-style-type: none"> <li>■ 80 - for user profiles on an HTTP web server</li> <li>■ 443 - for user profiles on an SSL web server</li> </ul>
NMS Server SQL Database	<ul style="list-style-type: none"> <li>■ 1433 - if the NMS server and the NMS Server SQL database are on different physical servers</li> </ul>

## Turning off Automatic Updates

After you set up each physical server or workstation you plan to use in the network, be sure to turn off Windows Automatic Updates. You should be qualifying each update Windows sends by installing it first on a single test machine of the network and updating other machines on the network only after you determine that it clearly will not disrupt the network.

Even if you have determined an update is not going to negatively affect the network, you still should install the update during off-hours and, if required, reboot each machine during those hours to ensure that requests to reboot do not disrupt the servers or workstations during peak hours of dictation.

## Anti-Virus recommendations

Nuance recommends anti-virus software on all DM360 Network Edition servers and clients to protect the system from potential downtime due to viruses. However, be aware of the recommended restrictions.

You should exclude from the anti-virus scan any files found in the folders indicated below or with the extensions listed below.

## **On NMS Servers, Profile Optimization Server, and SQL Database Server**

- Nuance folder and all sub-folders
- Files with these extensions:  
DAT, DRA, ENH, INI, LCK, LOG, NWV, SIG, TXT, USR, VER, VOC, WAV

### **Dragon Medical Client Workstations (Windows 7, XP, and Vista):**

- C:\Program Files\Nuance\ folder and all sub-folders
- C:\Program Data\Nuance\ folder and all sub-folders
- C:\<Windows user\_ID>\AppData\ folder and all sub-folders
- C:\Documents and Settings\All Users\Application Data\Nuance folder and all sub-folders
- C:\Documents and Settings\Windows user\_ID\Local Settings\Temp folder
- Files with these extensions:  
BD, BIN, DAT, DVC, ENH, GSB, GRM, GRX, INI, LCK, NWV, SIG, SVC, USR, VER, VOC, WAV, XML, LOG

## **Recommended virtual memory settings**

Nuance recommends that you set virtual memory to particular levels on servers and workstations in the Dragon Medical 360 | Network Edition network.

### **Server Virtual Memory:**

Nuance recommends that the virtual memory for all servers be set to three times the physically installed RAM.

### **Dragon Medical Client Workstation Virtual Memory:**

Set Virtual Memory to 4092 on Windows Server 2008, or to the maximum possible setting on workstations that have 4 GB of RAM.

# Allocating disk space for logs

The *Profile Optimizer Speech Node* generates two log files for each ACO and LMO task it carries out:

- *Dragon* log file—*Dragon Medical SDK Client* writes this file.
- *Speech Node* service log file—Profile Optimizer services write these files.

(You can view both the *Dragon* log files and the *Speech Node* service log files through the *Nuance Management Console*.)

The *NMS Server* generates one log file for each user:

- Windows communication foundation service log files

The *NMS Server* stores up to the last 10 MB of logs generated, a maximum of 50 log files for the entire server, before purging the oldest files and replacing them with newer ones as it generates them.

The *Dragon* log and *Speech Node* service log files are generally between 3 and 5 KB each. The *Profile Optimizer Server* stores them for 30 days. Although the log files could be larger, they are stored in a zipped format and compress very well. If you run an optimization process for every provider every day and have 500 providers, if every log were as large as 5 KB, all of those logs would still use only 2.5 MB of storage space and in 30 days that would become 75 MB of storage space. After 30 days, the *Profile Optimizer* purges old log files, so the storage requirements do not grow substantially.

Storage space for all of these logs is relatively inconsequential; however, if you expand the number of providers in your organization, it is always best to take into account storage requirements for all generated files.

If you call Technical Support, you might be asked to provide any of these logs to help Nuance engineers work on any issues with your network.

To access your *Dragon* log files, refer to the *Nuance Management Server Administrator Guide*.

# Checklists for installing the Nuance Management Server and other servers

## Installing Operating System software

On each physical server where you plan to install *NMS* components, *Profile Optimizer* components, or either of their databases:

- Install Windows Server. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.
- Install all available Windows Updates and service packs.

## Decide to work in Active Directory

- Decide if you are going to be using *NMS Server* in the Active Directory Services interface.

## Creating required account

- Create single Windows administrator level account to run all *Dragon Medical 360 | Network Edition* services (call it something like **NMSapps**) and provide full access across all DM360 Network Edition servers and the master user profiles directory. Use this account to run all services, including SQL Server services, so that all servers run under the same account. You can also use this account to install all software on the network, but you can also make a separate account that meets less stringent requirements.

Refer to *Creating Accounts* on page 18 and *Creating/selecting user account to install all services* on the same page.

## Installing database software

- Install SQL Server. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.
- If you are using Active Directory Services, be sure to select **Mixed Mode** authentication. Otherwise, Nuance recommends you select **Windows** authentication.

Refer to *Installing SQL Server 2008* on page 49.

Refer to *Setting up the Nuance Management Server to run Active Directory Services* on page 220.

## Installing NMS Server, Console, and Database

### Gather information you need:

- Name or IP address of machine for this server: \_\_\_\_\_
- Name or IP address of database server: \_\_\_\_\_
- Name or IP address of machine to host master user profiles or URL to web server or SSL web server to host master user profiles: \_\_\_\_\_
- Name or IP address *Profile Optimizer Server*: \_\_\_\_\_
- Your customer ID \_\_\_\_\_

### Install prerequisite software:

- Install .NET Framework and all available updates. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported versions.

Refer to *Installing prerequisite software for the Nuance Management Server* on page 46.

- Install Internet Information Services. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.

- Install the PowerShell feature.

Refer to *Installing prerequisite software for the Nuance Management Server* on page 46.

### Install the NMS Server, Database, and Console:

- Run the *Nuance Management Server and Console* installation wizard to install the *NMS Server* and the *Nuance Management Console*

- Enter your customer ID.
- Enter server name or IP address of *NMS SQL Database*.
- Enter SQL Server Login (sa) and password.
- Enter information about the user account that will run all DM360 Network Edition servers.
- Enter server name or IP address of *Profile Optimizer Server*.

Refer to *Installing the Nuance Management Server and Console* on page 57.

### Open required ports on NMS Server and hardware firewalls:

In NMS 5.0, the NMS supports NMS server deployments on the standard port 443. Ports 8051, 8731, and 8010 are no longer supported.

- 443 - All communication between the Dragon client and the NMS is on SSL-encrypted REST endpoints on port 443.
- 80 - to connect with the NuanceLink
- 1433 - to connect to the NMS SQL database
- 808 - to connect to the Profile Optimizer Server.

## **Installing Profile Optimizer Server, Speech Nodes, and Database**

### **Gather information you need:**

- Name or IP address of machine for this server: \_\_\_\_\_
- Name or IP address of database server: \_\_\_\_\_  
or Database connection string for SQL server authentication:  
\_\_\_\_\_
- Name or IP address of machine to host master user profiles or URL to web server or SSL web server to host master user profiles: \_\_\_\_\_
- Path to where you want *Dragon* logs written (if not the default):  
\_\_\_\_\_
- Path to where you want *Profile Optimizer* logs written (if not the default):  
\_\_\_\_\_

### **To install Profile Optimizer Server & Speech Node on same machine:**

#### **Install prerequisite software for Profile Optimizer Server:**

- Install .NET Framework and all available updates. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.

#### **Install prerequisite software for Profile Optimizer Speech Nodes:**

- Install .NET Framework and all available updates. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.
- Only on machines where *Speech Nodes* will run in an operating system other than Windows Server 2008, Install Windows Installer 3.1 or later.
- Windows Server 2008 R2: On all machines where Speech Nodes will run on Windows Server 2008 R2 (with or without Service Pack 1), download and apply the following patch:  
[http://hotfixv4.microsoft.com/Windows%207/Windows%20Server2008%20R2%20SP1/sp2/Fix392120/7600/free/445413\\_intl\\_x64\\_zip.exe](http://hotfixv4.microsoft.com/Windows%207/Windows%20Server2008%20R2%20SP1/sp2/Fix392120/7600/free/445413_intl_x64_zip.exe)

Please see the following Microsoft Support articles for information about why this hot fix is



necessary for reliable operation of a Speech Node on Windows Server 2008 R2:

<http://support.microsoft.com/kb/2687753>

<http://support.microsoft.com/kb/2624677>

<http://support.microsoft.com/kb/2584874>

On all machines where *Speech Nodes* will run, install *Dragon Medical SDK Client* .

Refer to *Installing Profile Optimizer Server prerequisite software* on page 71 and *Installing prerequisite software for speech nodes* on page 73

Create folder for the Profile Optimizer Database Files:

On machine where database will reside, create folder for the *Profile Optimizer* database files.

### **Install the Profile Optimizer Server, Database, and Speech Node:**

Run the *Profile Optimizer Installer* wizard.

Select both check boxes on the **Custom Settings** page of wizard.

Enter information about the user account that will run all DM360 Network Edition servers.

Set paths to logs.

Enter *NMS Server* name and database server name/authentication type.

Enter full path to database files folder.

Refer to *Installing the Profile Optimizer Server and speech nodes* on page 75.

### **To install Profile Optimizer Server without Speech Node on machine:**

Nuance recommends a configuration where *Speech Nodes* are on their own machines or virtual machines for most DM360 Network Edition installations.

### **Install prerequisite software for Profile Optimizer Server:**

Install .NET Framework and all available updates. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.

Refer to *Installing Profile Optimizer Server prerequisite software* on page 71.

### **Create folder for the Profile Optimizer database files:**

On machine where database will reside, create folder for the *Profile Optimizer* database files.

### **Install the Profile Optimizer Server and database:**

Run the *Profile Optimizer Installer* wizard.

Select only *Profile Optimizer Server* check box on **Custom Settings** page.

- Enter information about the user account that will run all DM360 Network Edition servers.
- Set paths to logs.
- Enter *NMS Server* name and database server name/authentication type.
- Enter full path to database files folder.

Refer to *Installing the Profile Optimizer Server and speech nodes* on page 75.

**To install Profile Optimizer Speech Node alone on machine or virtual machine:**

**Install prerequisite software for Profile Optimizer Speech Node:**

- Install .NET Framework 4.0 and 3.5 SP 1 and all available updates.
- Install Windows Installer 3.1 or greater on machine.
- Install *Dragon Medical SDK Client* on machine.

Refer to *Installing prerequisite software for speech nodes* on page 73

### Install Profile Optimizer Speech Node:

- Run the *Profile Optimizer Installer* wizard.
  - Select only *Profile Optimizer Speech Node* check box on **Custom Settings** page.
  - Enter information about the user account that will run all DM360 Network Edition servers.
  - Set paths to log.
  - Enter the name of the physical server where the *Profile Optimizer Server* associated with this *Speech Node* resides.

Refer to *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84.

### Open required ports on Profile Optimizer Server and hardware firewalls:

- Profile Optimizer Server: 8001, 905.
- Speech Node: 8000

## Checklists for Setting up Active Directory Services

To set up your *NMS Server* to run in Active Directory Services you should take particular actions during each step of the *Dragon Medical 360 | Network Edition* installation and *NMS Server* setup process. The steps that require you take action are named in the headings below.

For details on each step, refer to *Setting up the Nuance Management Server to run Active Directory Services* on page 220.

### Installing SQL Server 2008

- Select **Mixed Mode** authentication for accessing database.

### Creating NMC Administrator Account for Active Directory Administrator

To create an **NMC Administrator** user account for the Active Directory Administrator:

- If you have not already done so, install the *NMS Server*.
- Install the Nuance Certificates on any workstation where you want to log in through the *Nuance Management Console*. Refer to *Installing Nuance software certificates* on page 92.

- Log in through the *Nuance Management Console* using the login and password that Nuance provides.
- Create a user account for the Active Directory administrator (see the *Nuance Management Server Administrator Guide* for details on setting up user accounts). You can add this account to the default **NMC Administration** group that comes with the product.
- (Optional, as you can create them later) Create all other user accounts, adding some to the default **NMC Administration** group that comes with the product and others to the default **DM360 Network Edition** group that comes with the product.

## **Enabling Active Directory and setting connection string**

- Configure *NMS Server* for Active Directory in **Nuance.NAS.Server.exe.config** file.

## **Logging Out and logging back in**

- Log out of the *NMS Server*.
- Stop and restart the Nuance Management Service.
- Log back in through the *Nuance Management Console* as Active Directory administrator.
- Revoke the **NMC Administrator** license of the original admin user account, as it does not work in Active Directory.

## **Creating Active Directory Single Sign-On user accounts (optional)**

You need to create these accounts before you can associate a user account with an already existing upgraded master user profile.

- Create Active Directory user accounts/logins.
- Create Single Sign-On user accounts with same login name as their Active Directory accounts.

## **Continue to Configure NMS Server as Active Directory Administrator**

- Follow instructions in *Nuance Management Server Administrator Guide*.

# Checklists for Starting the Nuance Management and other servers

Services should start as soon as the servers are installed. To verify that the *NMS Server* is running and ensure it can talk to the *Speech Nodes*:

- Install Nuance Certificates on each machine where you plan to run the *Nuance Management Console*.
- Verify that you can log in to the *Nuance Management Console* using the supplied login and password.
- Ensure that the *NMS Server* can communicate with *Profile Optimizer Speech Nodes*.

Refer to:

*Installing Nuance software certificates* on page 92

*Logging in to the Nuance Management Server through the Nuance Management Console* on page 95

*Logging in to the Nuance Management Server through the Nuance Management Console* on page 95

## Verifying server services are running

- Check for the status of each of the following services in the **Services** dialog box on corresponding physical servers:
  - Nuance Management Service
  - Profile Optimizer Server Service
  - Profile Optimizer Speech Node
- If any service is not running, start that service.

Refer to *Starting the Nuance Management Server and Profile Optimizer Server* on page 97.

## If you are planning to use Active Directory Services

- Proceed to *Checklists for Setting up Active Directory Services* on page 31.

# Checklists for Setting up a file server for master user profiles

- Select a machine to host the master user profiles.
- Be sure that the machine is a Windows server or workstation with .NET Framework installed (See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.) and that the machine is in the same Windows domain as your *Dragon Medical 360 | Network Edition* servers.
- If you are using a RAID array or other storage device, be sure that it is connected to a server or workstation running Windows with .NET installed (See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version.) and that the machine is in the same Windows domain as your DM360 Network Edition servers.
- Create top level master user profile directory on the host.
- For each site, create a subdirectory under the master user profile directory.
  - Share the top level master user profiles directory in Windows and give **Everyone** full read/write/modify control over the directory.

On each *Dragon Medical Client 2.3* workstation:

- If workstations will access the profiles over a mapped network drive, map a drive to the master user profiles location.
- If workstations will access the profiles through a UNC path, ensure the workstations have access to that path.

Refer to *Choosing a master user profiles location for a site* on page 104 and *Setting up a computer to host master user profiles* on page 106.

In the *Nuance Management Console*, in the **Master User Profiles Directory Settings** dialog for each site:

- Set **Location** to path each workstation later uses to access the master user profiles.
- Set **NMC UNC Path** to path the *NMS Server* later uses to find the master user profiles.

Refer to *Setting up a computer to host master user profiles* on page 106.

## Checklists – Setting up web server to host master user profiles

Be sure that the web server machine is a Windows server or workstation with .NET Framework installed (see *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the supported version) and that the machine is in the same Windows domain as your DM360 Network Edition servers.

Install the web server or secure web server.

Refer to *Installing software for storing master user profiles on a web server* on page 108.

Create top level master user profile directory on the web server.

Share the top level master user profiles directory in Windows and give **Everyone** full read/write/modify control over the directory.

On each *Dragon Medical Client 2.3* workstation:

If workstations will access the profiles through an **https** connection, install the required certificate on each workstation.

If master user profiles are on an **http** web server, open port 80.

If master user profiles are on an **https** web server, open port 443.

Refer to: *Choosing a master user profiles location for a site* on page 104 and *Setting up a computer to host master user profiles* on page 106.

In the *Nuance Management Console*, in the **Master User Profiles Directory Settings** dialog for each site:

Set **Location** to path each workstation later uses to access the master user profiles.

Set **NMC UNC Path** to path the *NMS Server* later uses to find the master user profiles.

Refer to *Setting up a computer to host master user profiles* on page 106.

In the *Nuance Management Console*, in the **HTTP Settings** or **SSL Settings** dialog for each site:

Set **HTTP Settings** for an **http** web server.

Refer to *Setting HTTP connection settings for web server* on page 121

Set **SSL Settings** for an **https** web server.

Refer to *Setting SSL connection settings for secure web server* on page 124

# Checklist for upgrading roaming user profiles

To upgrade each directory of roaming users from Version 8.x or 9.x of *Dragon Medical*, be sure to take **all steps below** in the order presented, starting with *Before you upgrade*, proceeding to *Upgrading*, and then to *Associating user accounts with newly upgraded master user profiles*. (You do not have to upgrade roaming users from Version 10 or later of *Dragon Medical*.)

- Be sure that all user profiles for a single site are in their own subdirectory of the master user profiles directory.
- Schedule the upgrade process during hours when dictation is not occurring.

## Before you upgrade

- Back up your Version 8.x or 9.x user profiles.
- Install *Dragon Medical SDK Client* on the machine where you are upgrading the profiles.
- Create lists of the different source directories of roaming user profiles you are upgrading.
- Copy profiles from a single directory to their own folder on the upgrade machine.
- On the upgrade machine, create a directory for the newly upgraded profiles to be stored in.
- In *Nuance Management Console*, create user accounts for all providers whose profiles you are upgrading.
- Be sure that providers whose profiles you are upgrading are not dictating with *Dragon Medical*.

Refer to *Creating user accounts for healthcare providers* on page 131 and

*Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132

## Upgrading

For each directory of roaming users being upgraded to master user profiles:

- On the upgrade machine, start the **upgrade.exe** utility.
- In the **User Upgrade Wizard**, add the existing user profiles.
- Execute the upgrade and choose the directory to store the newly upgraded profiles.
- (Optional) In **Advanced Options** dialog, modify user information, such as the vocabulary.
- Start the actual upgrade process by clicking **Begin** and click **Finish** when it completes.
- Copy the new master user profiles to the master user profiles host on the network.



Refer to *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132

## Associating user accounts with newly upgraded master user profiles

**Note:** Be sure you have already upgraded the profiles or you will not see them in the **Profiles** list.

Refer to *Associating new user accounts with upgraded user profiles* on page 146.

## Checklists – Converting local users

Schedule the conversion process during hours when dictation is not occurring.

### Before you convert

- Back up your Version 10 local user profiles.
- Be sure that providers whose profiles you are upgrading are not dictating with *Dragon Medical*.

### (If applicable) Combine multiple Dragon Medical Client 2.3 profiles for a single provider, keeping only one

- Export custom words from extra profiles.
- Export custom commands from extra profiles.
- Export vocabularies from extra profiles.
- Import the exported custom commands into the profile you are retaining.
- Import the exported vocabularies into the profile you are retaining.
- Import the exported words into the profile you are retaining.

### Exporting local user profiles

In Dragon Medical 360 | Network Edition, 2.3, you use the Dragon client to export and import user profiles. For details, see the Dragon Help.

- Create temporary location for local user profiles that exist.
- Create temporary location for roaming user profiles you will create as part of conversion.
- In *Dragon Medical Practice Edition*, export local user profiles to the roaming user profiles location you created.

## Enabling roaming feature on workstation

- In *Dragon Medical Practice Edition*, enable the **Roaming** feature in **Administrative settings**.
- Save the local users to the roaming user location you created.

## Associating user accounts with newly converted master user profiles

---

**Note:** Be sure you have already converted the profiles or you will not see them in the **Existing Profiles** list.

---

- In *Nuance Management Console*, create a user account for each provider.
- In *Nuance Management Console*, open the **User Profile Association** tool.
- Select a user account from the list of **User Accounts**.
- Select an upgraded profile for the user account from the list of **Existing Profiles**.
- Click the **Associate** button.
- Repeat the process for each user profile.

Refer to *Associating new user accounts with upgraded user profiles* on page 146.

## Migrating roaming users to *Dragon Medical 360* | Network Edition

- In *Nuance Management Console*, create user accounts for all providers whose profiles you are converting.
- Copy the temporary roaming users you just created to a subdirectory of the master user profiles directory on the network.
- In *Nuance Management Console*, associate new user accounts with the newly converted user profiles.
- On the workstation install the *Dragon Medical Client 2.3*.
- Log in using the new user account login and password.

Refer to *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132.

## Checklist for installing Dragon Medical Clients

There are several approaches to installing *Dragon Medical Client* and this checklist includes first prerequisite steps, then steps for each type of installation.

### Before removing earlier version of *Dragon Medical*

- Be sure you have converted any local user profiles from an earlier version of *Dragon Medical* to roaming user profiles before you remove the already existing installation of *Dragon Medical*. For instructions on how to convert the users, refer to *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132.

### Before beginning any client installation to a workstation

- Be sure workstations meet the requirements for installing *Dragon Medical Client 2.3*.
- Be sure that the account that each *Dragon Medical Client 2.3* workstation runs under has full read/write/modify access to the master user profiles directory.
- Be sure the Nuance certificates are installed on the client workstations.
- Be sure you have the *Dragon Medical Client 2.3* serial number on hand.

## Downloading Dragon Medical Client MSI installer through the Nuance Management Console

- On the client workstation, log in as a Windows administrator.
- Log in to the Nuance Management Console.
- Set the location of the Dragon MSI install file on the *NMS Server* in the **System Settings > DM360 Network Edition..**
- Download the MSI installer for the *Dragon Medical Client 2.3* from the *Nuance Management Console*.
- Log in to the client using a user account and enter the name of the *NMS Server*.

Refer to *Associating Dragon with the Nuance Management Server or Call Forwarder* on page 158.

## Installing Dragon client manually

- Insert the *Dragon Medical Enterprise client* software DVD into the DVD reader of the workstation.
- Browse the DVD and double click the **setup.exe** file.
- Follow the wizard instructions.
- Log in to the client using a user account and enter the name of the *NMS Server*.

Refer to *Installing Dragon manually outside of the Nuance Management Console* on page 155 and *Associating Dragon with the Nuance Management Server or Call Forwarder* on page 158.

## Pushing Dragon MSI installation to multiple workstations: administrative installation

- Copy and modify the **admininstall.bat** file provided on the *Dragon Medical Enterprise client* software DVD.
- Use any of the options or variables in the tables provided:

*General options for installing Dragon*

*MSI options for installing Dragon features/ advanced options*

## Pushing Dragon MSI installation to multiple workstations: using SCCM

- Create MSI installer to use with SCCM to install *Dragon Medical Client 2.3* on several workstations.

Refer to *Pushing the Dragon MSI installation to workstations* for more information.

## Pushing Dragon MSI installation to multiple workstations: creating custom installer for Active Directory

- Create the custom installer for *Dragon Medical Client 2.3* following the instructions provided. Refer to *Creating a custom installer for the client in Active Directory* on page 167

## Installing multiple clients with same default options using MSI

- Install *Dragon Medical SDK Client* on a client workstation where you will set the options.
- Open a command window and run: **natspeak /SetDefaultOptions**
- Set the *Dragon Medical Client 2.3* options under the tabs in the **Options** dialog box.
- Retrieve the **nsdefaults.ini** file from the workstation where you set the options and copy it to a location accessible to all workstations you are installing.
- Create an MSI command line where you pass the nsdefaults.nin file as the value of the **DEFAULTSINI** option.
- Be sure to include the **NAS\_ADDRESS** option in your MSI command line.

---

**Note:** If the user already entered a value for this option, your value will overwrite that.

Refer to *MSI Installation of multiple clients with the same default options* on page 174



# ***Chapter 2: Installing the Nuance Management Server and components***

To install the *NMS Server* and its components for the Dragon Medical 360 | Network Edition network, you carry out the procedures in these sections:

---

<b>Prerequisites for installing the Nuance Management Server and Console .....</b>	<b>44</b>
<b>Installing prerequisite software for the Nuance Management Server .....</b>	<b>46</b>
<b>Installing SQL Server 2008 .....</b>	<b>49</b>
<b>Ensuring all required ports are open .....</b>	<b>56</b>
<b>Installing the Nuance Management Server and Console .....</b>	<b>57</b>
<b>Anti-virus recommendations and requirements .....</b>	<b>64</b>
<b>Configuring the network traffic switch to ping NMS Servers for load balancing .....</b>	<b>66</b>
<b>Verifying all necessary ports are open .....</b>	<b>67</b>

# Prerequisites for installing the Nuance Management Server and Console

Before you actually install the *Nuance Management Server* and *Console*, you should gather the information indicated below and make modification to your machine's security policy.

## Creating an account to run all services

---

### Note:

Before you carry out this procedure, be sure you have a Windows administrator account for running the server under, the same one you are running the *Profile Optimizer Server* under (named something like **NMSapps**) that meets the following requirements:

- Is an administrator account in the domain or, for a single server configuration, in the workgroup.
- Never expires.
- Has a password that never expires (does not have to be changed at regular intervals).
- Has rights to install software and Windows services on the server.
- Has rights to create and start a Windows service on the server.
- Has full read/write access rights to all servers within the same network.
- Has full read/write access to the database server (if it is on a separate server).
- Has full read/write/modify permissions to access the directory housing the master user profiles.

During the installation, the wizard prompts you to enter the name of this user account and the password to it.

**Important:** You should run all of the services of the product using this same account.

If you are creating the account for someone else to log in and install the software, the account only need to be able to run *NMS* services and does not require **Log into workstation** rights.

---



## **Information requirements for installing the NMS server and console**

Before you begin, you need to have the following information:

**Name or IP Address of NMS Server Machine**—You need the name or address of the machine where you intend to install the *Nuance Administration Server (NMS)*. If your network uses dynamic addresses, you should use the computer name to identify it, just in case the dynamic address changes in the future.

**Name or Address of Database Machine**—You need the name or address for the server machine where you either have installed or plan to install the *NMS SQL Database*. If your network uses dynamic addresses, you should use the computer name to identify it, just in case the dynamic address changes in the future.

# Installing prerequisite software for the Nuance Management Server

Before you install the *Nuance Management Server (NMS)*, you must install Windows Server and other prerequisite software on the same machine. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for a list.

Although you do not have to install it on the same machine as the *NMS Server*, you should also install the SQL Server 2008 database software before you install the *NMS Server*. For details, refer to *Installing SQL Server 2008* on page 49.

## Installing Windows Server and .NET Framework

Follow these steps:

1. If you have not already done so, install Windows Server.
2. After you install the server software, you should download any Windows updates to be sure you have all updates available. Then, once you have all updates available, turn off automatic updates.
3. Install .Microsoft .NET Framework 4.0 full version. If you do not have this version of .NET Framework already installed, visit the link provided and download/install it from there. Allow approximately 1 hour to install it. <http://www.microsoft.com/downloads/en/confirmation.aspx?FamilyID=9cfb2d51-5ff4-4491-b0e5-b386f32c0992&displaylang=en>
4. Install .NET Framework 4.0 Extended. You must be sure you have the Extended version of Microsoft .NET Framework 4.0 installed (.NET Framework 4.0 Client Profile version is not supported). If you do not have this version of .NET Framework already installed, visit the link below and download/install **dotNetFx40\_Full\_setup.exe** from there: <http://www.microsoft.com/downloads/en/confirmation.aspx?FamilyID=9cfb2d51-5ff4-4491-b0e5-b386f32c0992&displaylang=en>
5. Once you have saved the **dotNetFx40\_Full\_setup.exe** file, double click on the file to initiate the .NET Framework installation.
6. When the .NET Framework installation is complete, you should also retrieve any updates available for the program.

## Installing Internet Information Services (IIS) in Windows Server 2008

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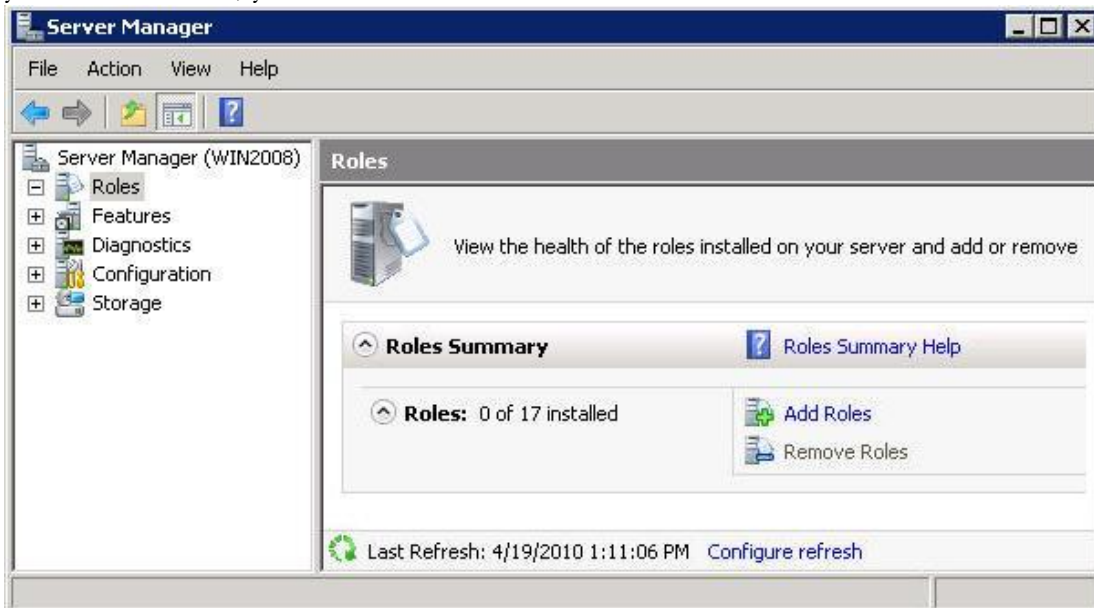
### Note:

Instructions for installing Microsoft products are not guaranteed to be stable. For the latest information, consult Microsoft.

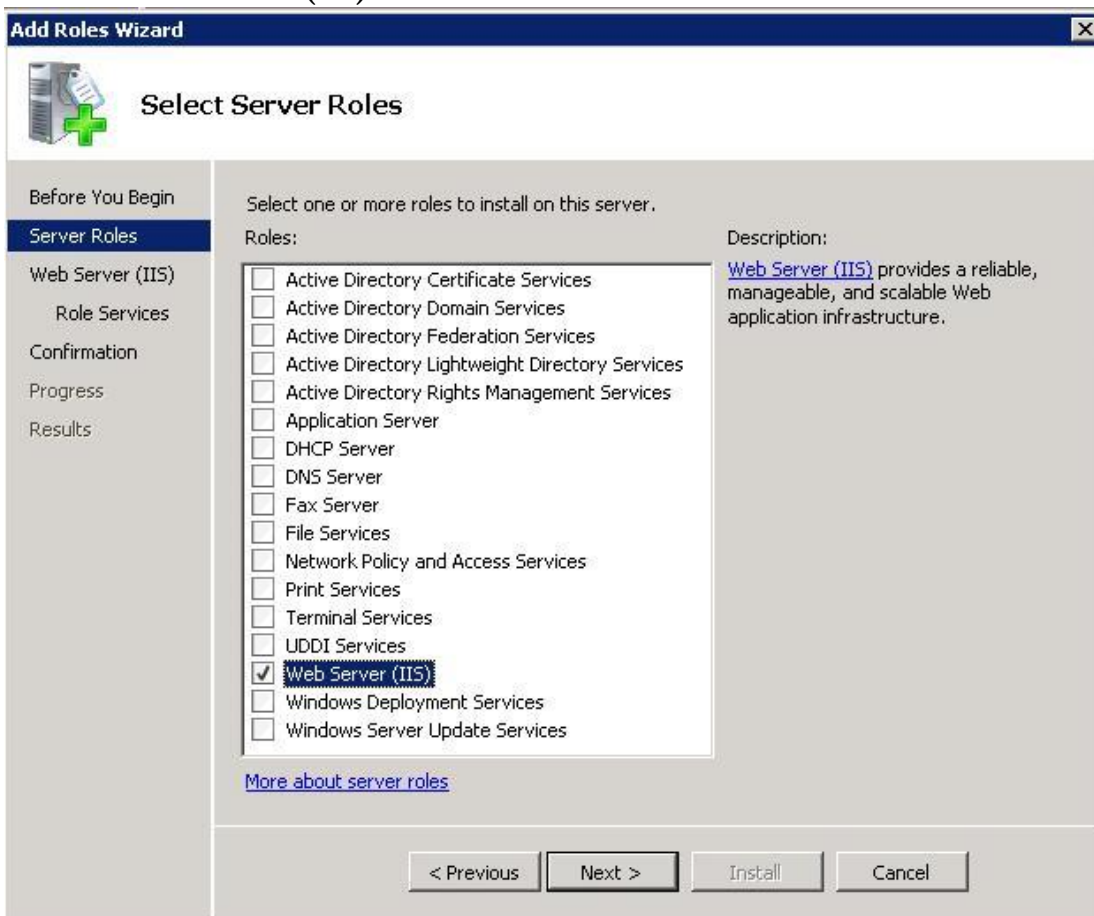
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To install IIS and any automatic updates in Windows Server 2008:

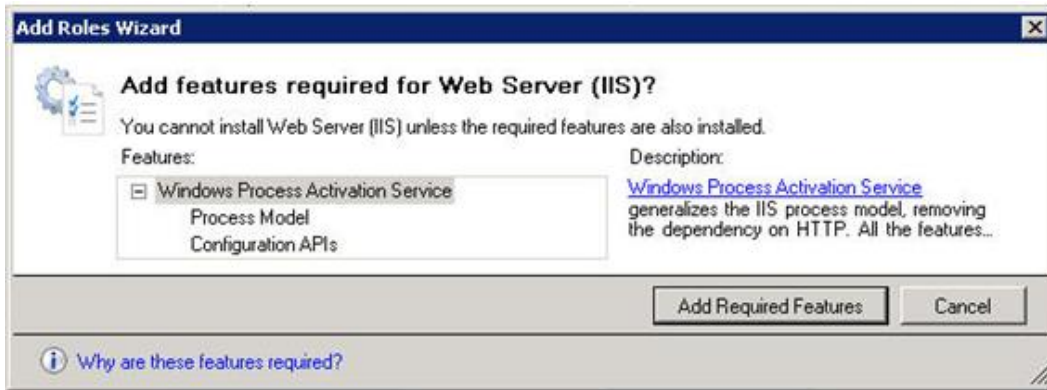
1. Go to your server desktop and click **Start > Programs > Administrative Tools** , then click on **Server Manager**.
2. To see if it is installed, under **Server Manager**, expand **Roles** and look for IIS in the list. If you do not see IIS, you need to install it.



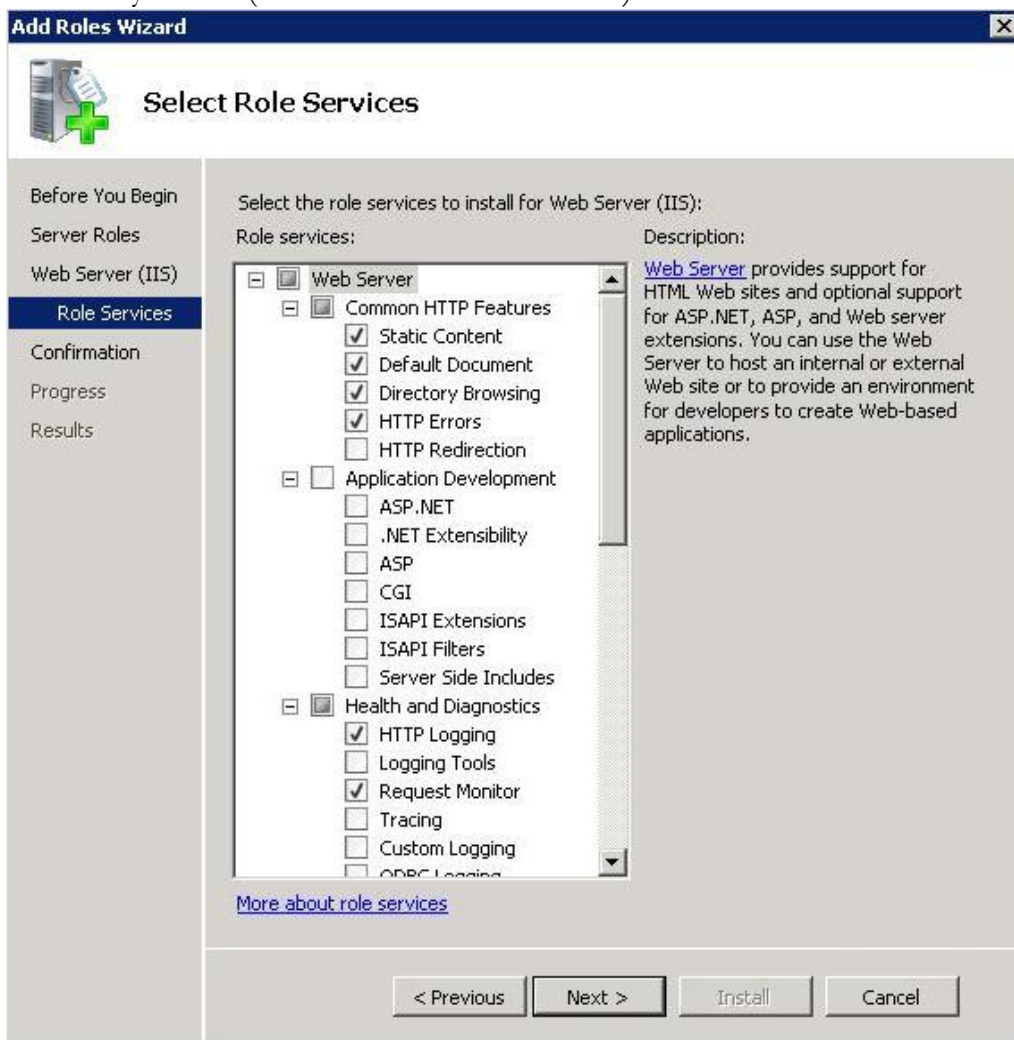
3. Click on **Add Roles** and when the **Add Roles Wizard** opens, click **Next**.
4. Check the **Web Server (IIS)** check box in the **Roles** list.



- When the **Add features required for Web Server (IIS)**, click the **Add Required Features** button.



- When the installation wizard displays again, click **Next** to proceed to the **Web Server (IIS)** page of the wizard.
- Click **Next** to proceed to the **Select Role Services** page of the wizard and accept the services selected by default (shown in the next illustration).



7. Click **Next** to proceed to the **Confirm Installation Selections** page and verify your selections under **Web Server (IIS)**.
8. Click **Install**. The **Installation Progress** page displays during installation.
9. When the **Installation Results** page appears, it should say **Installation succeeded**.
10. Click **Close** to exit the wizard.
11. Return to the **Server Manager** and click **Roles** in the **Server Manager** explorer. Under **Role Services** verify that the list of IIS features that you installed is complete.

## Installing PowerShell in Windows Server 2008

Before installing SQL Server 2008 on Windows Server 2008, install the PowerShell feature:

1. Click **Start > Administrative Tools > Server Manager** and then expand **Features**.
2. If you do not see PowerShell in the list of installed features, click **Add Features**.
3. When the **Select Features** page of the **Add Features Wizard** appears, check the **Windows PowerShell** feature in the list and click **Next**.
4. Click the **Install** button and wait for the installation to complete. You might need to restart the server after installing PowerShell.
5. Click the **Close** button to close the wizard.

When you have finished installing this required software, you are ready to install first SQL Server (if it is not already installed), then the *NMS Server*.

## Installing SQL Server 2008

Before you install the *Nuance Management Server (NMS)* or the *Profile Optimizer Server*, even if you do not plan to install the database on the same machine as either server, you must install the database server first. You usually install both *NMS* and *Profile Optimizer* databases on the same machine, as shown in the *Planning and Deployment Guide*.

For *Dragon Medical 360 | Network Edition*, you must install SQL Server 2008 on a Windows Server 2008 system where you have installed the PowerShell feature in IIS.

### Before you begin database software installation

Before you begin installing the database software, have the following information on hand:

- Machine name or IP address of the database's physical server.
- Windows user account name and password you want the database server to run under.

---

#### Caution:

Nuance recommends that you run all server DM360 Network Edition services and even all database services under the same Windows user account.

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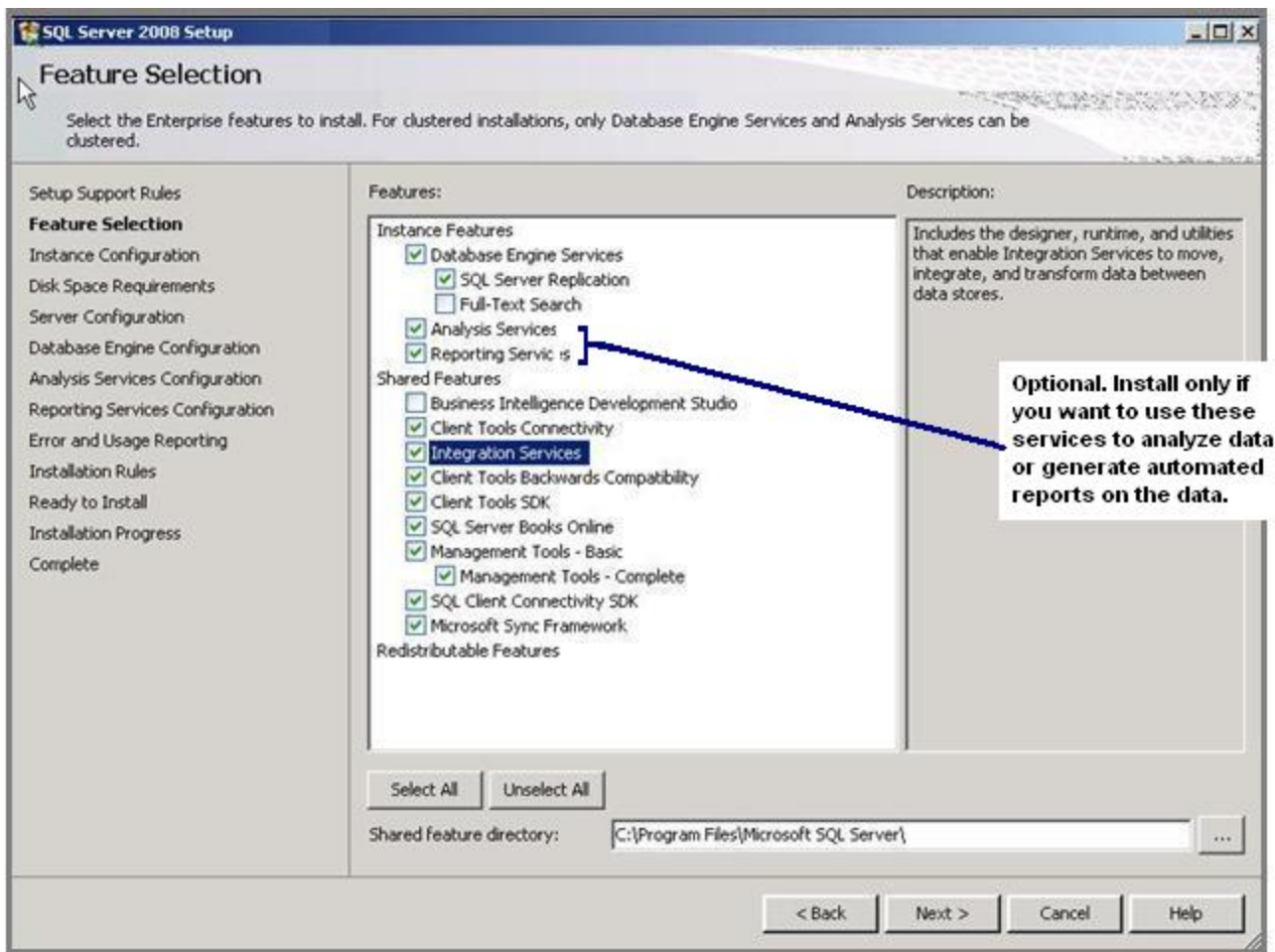
## Installing SQL Server

To install SQL Server 2008 from the *Nuance Management Server MS SQL 2008* DVD provided in the DM360 Network Edition software package you received from Nuance:

1. Log on to Windows as an Administrator or as a domain user who has local administrative rights. If you do not have that type of Windows account, create one first.
2. Using Windows Explorer, find and note which of the non-operating system hard drives has the most unused space on it.
3. Insert the *Nuance Management Server MS SQL 2008* DVD into the slot on your physical server.
4. If the install installation does not start automatically, find the **setup.exe** file on the DVD and double click on it to start the installation.
5. When the **SQL Server Installation Center** dialog box appears, select **New SQL Server stand-alone installation or add features to an existing installation** option.

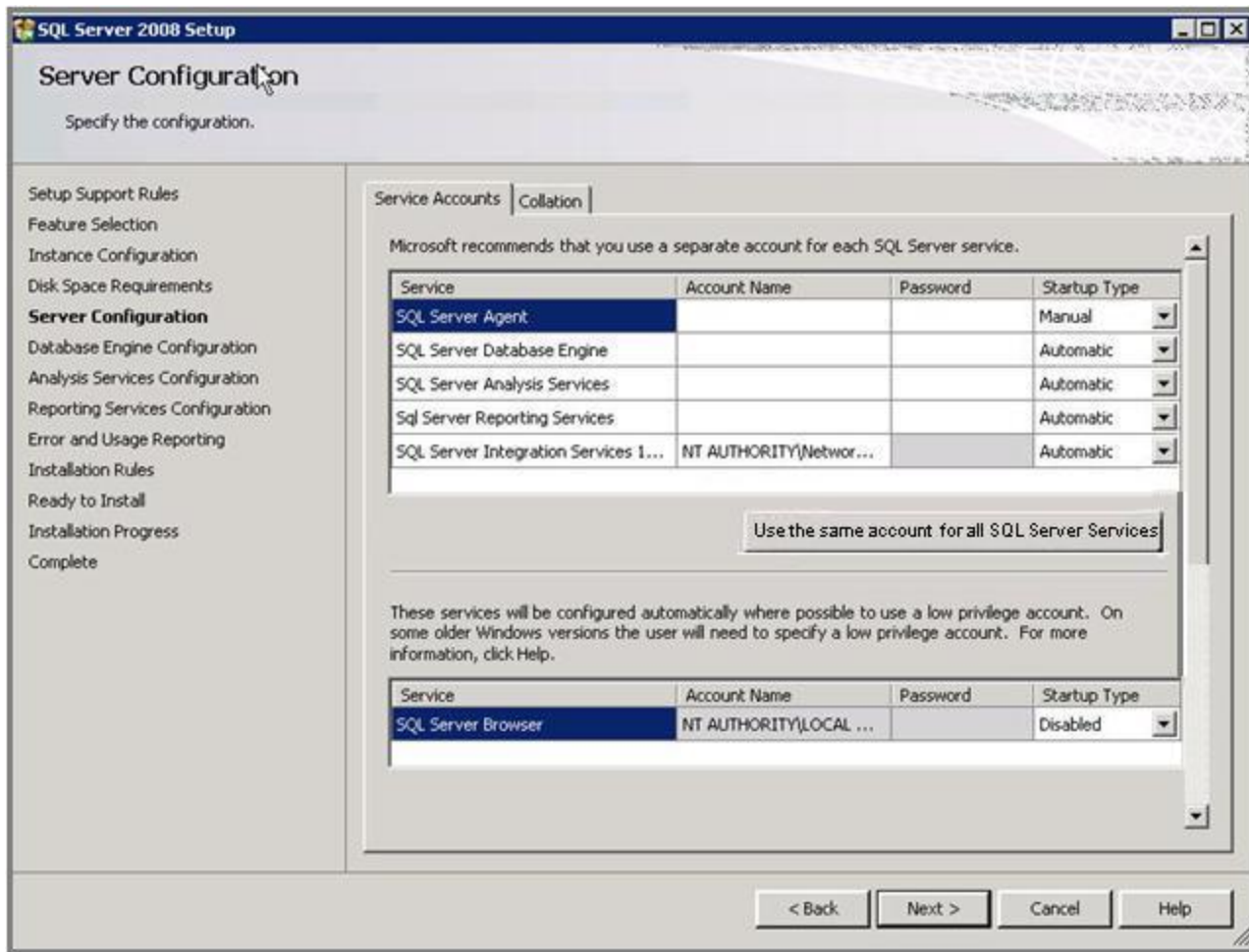


6. When the **Setup Support Rules** dialog box displays, click **Install**.
7. When the **Product Key** page is displayed, the SQL product key is automatically entered as it is embedded within the Nuance-provided SQL software DVD. The product key will not have to be entered manually. Click **Next**.
8. When the **License Terms** page of the wizard appears, check the box next to **I accept the license terms** and click **Next**.
9. If you are asked to create a local user with Administrative privileges and you do not have such an account, create one now and click **Next** to continue.
10. In the **Feature Selection** page, under **Instance Features**, you only need to select **Database Engine Services**. Under **Shared Features > Management Tools**, only **Basic** and **Complete** are required. All other features are optional. Click **Next** to continue.  
**Note:** **Analysis Services** and **Reporting Services** are not required by either *NMS Server* or *Profile Optimizer Server*, however, if any problems occur with your installation or later with your databases, these services can help Nuance technical support troubleshoot the problem, so you might choose to install them as a proactive measure.



12. When the **Instance Configuration** page of the wizard displays, leave the **Default instance** option selected and click **Next**.
13. When the **Disk Space Requirements** page of the wizard displays, verify that you have adequate storage space on the server and click **Next**.
14. When the **Server Configuration** page of the wizard displays, click the **Use the same account for all SQL Server services** button.



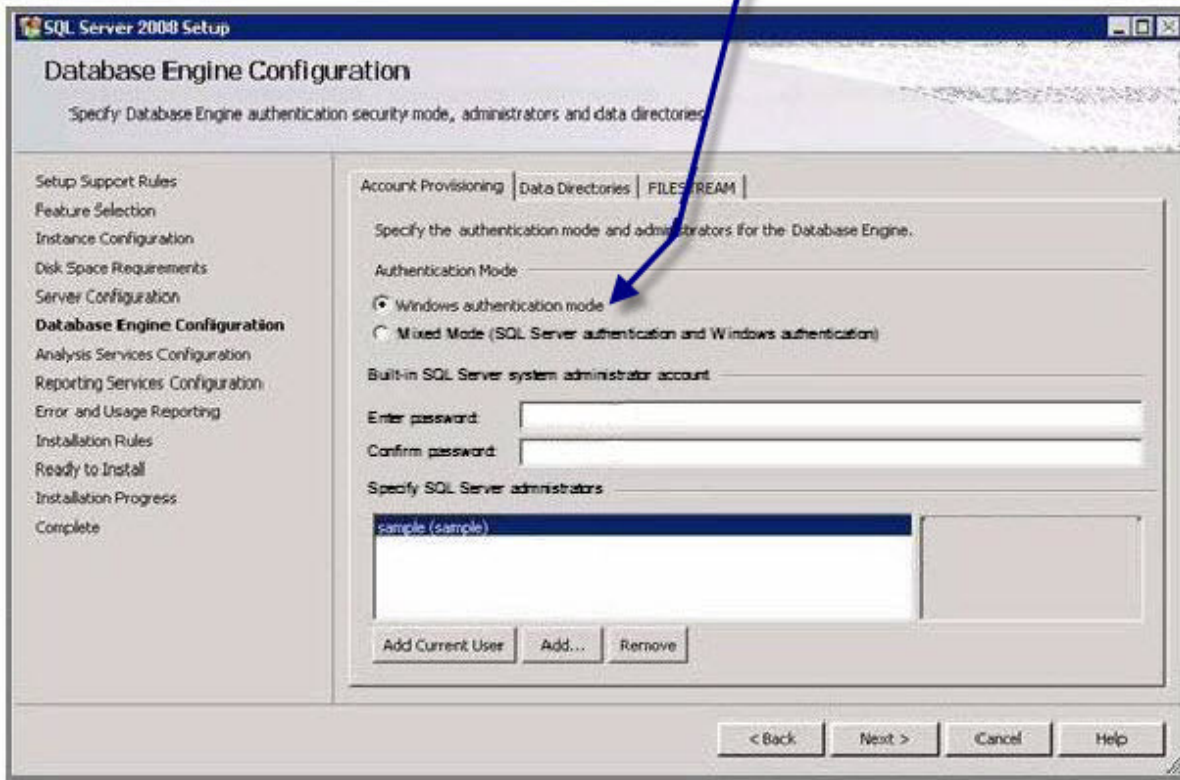


15. When the **Use the same account for all SQL Server 2008 services** popup appears, enter the username and password of the Windows user account that the SQL Server services should all run under and click **OK**. You should use the same account that the product services will run under. That account can be in a workgroup instead of a domain and Nuance recommends that you use an account in a workgroup if you are planning to install all DM360 Network Edition servers along with the database on a single machine.

Enter the name of the domain where the server resides followed by a backslash and then the user name for the account. Enter the password other servers and clients on the Dragon Medical 360 | Network Edition network will use to access the database.

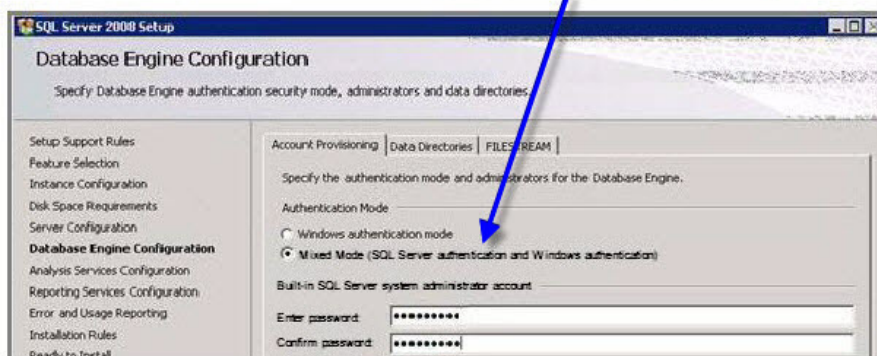


Windows authentication mode is the type of authentication Nuance recommends for most Networks.



16. When you return to the wizard, click **Next**.
17. When the **Database Engine Configuration** page of the wizard appears, you choose the type of authentication you want to use when allowing access to the SQL Server database.
  - Under **Authentication Mode**, Nuance recommends that you select **Windows Authentication Mode** (see illustration above). You would select **Mixed Mode** only if you plan to later attach to the database using an Active Directory account or an SQL Server account. Keep in mind that SQL Server accounts have full access to the database.

Select Mixed Mode only if you are planning to configure your Network to run under Active Directory.

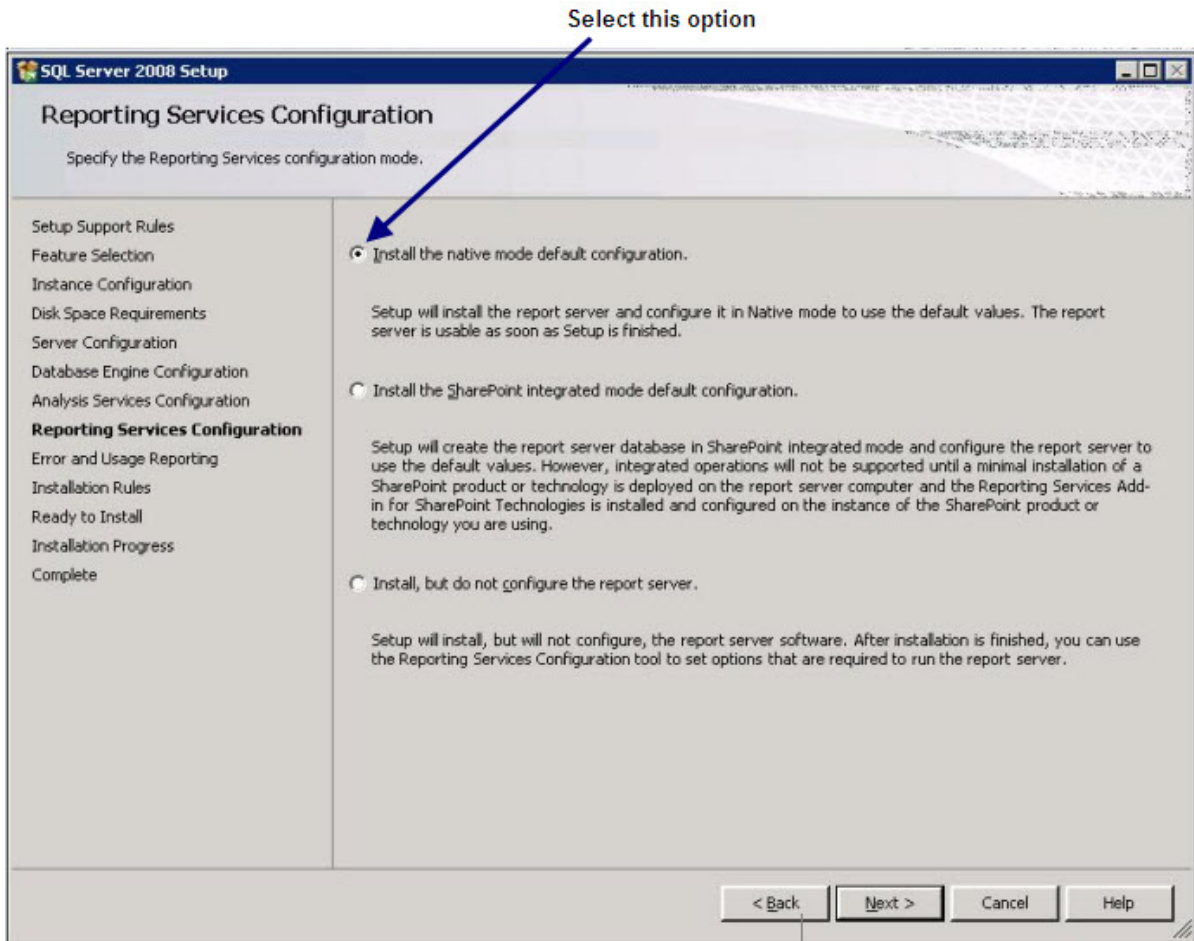


- If you select **Mixed Mode**, then under **Built-in SQL Server system administrator account**, enter the password in **Enter password** and type the password a second time in **Confirm password**.
  - Regardless of the type of authentication you choose, under **Specify SQL Server administrators**, click **Add...** and add the account you are installing under to make that account an SQL Server administrator will full access to the database, as you will need that access later in the installation process.
18. Still on the **Database Services Configuration** page of the wizard, to add the user account for the person is carrying out the installation to the list of users who can administer the database, click **Add Current User...** The user's name then appears in the list under **Specify SQL Server administrators**.
  19. Click **Add** and add the account you created for all services to run under, to ensure it not only has access to the database, but can also administer the database.
  20. Finally, click **Add** again and add at least one other user to the list to ensure that if either of the first two accounts is accidentally locked out of the database, you have one more account with the ability to administer the database.

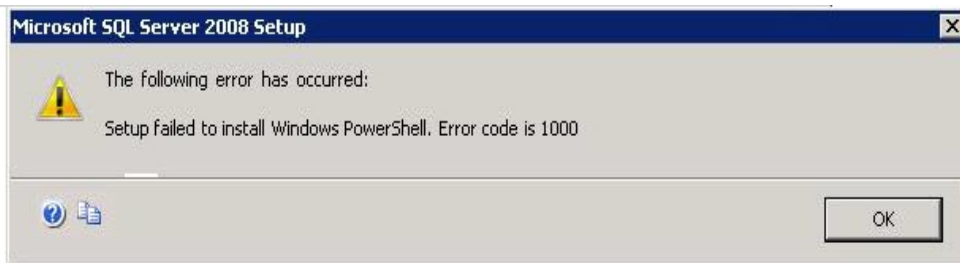


When you have added all these users to the database administrator list, click **Next**.

21. When the **Analysis Services Configuration** page of the wizard displays, under the **Account Provisioning** tab, click the **Add Current User** button to add the installer's user account to the list of users who can have access to the Analysis Services.
22. Click the **Add** button and add the **NMSapps** user account to give that account access to the Analysis Services.
23. Click the **Add** button again and add the database administrator account to give that account access to the Analysis Services; then click **Next**.
24. When the **Reporting Services Configuration** page appears, select **Install the native mode default configuration** and click **Next**.

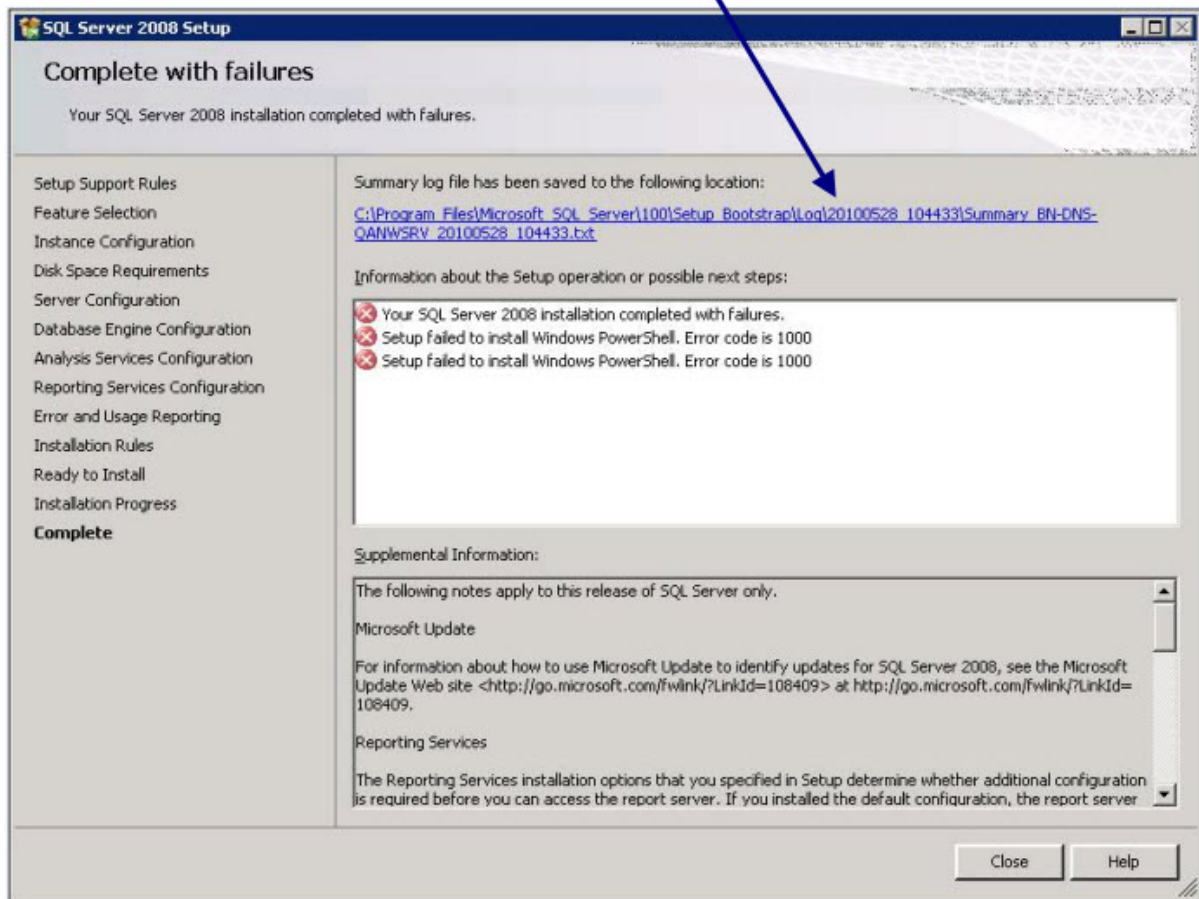


25. Skip the **Error and Usage Reporting** page and click **Next**
26. Click **Next** until you reach the **Ready to Install** page of the wizard.
27. Click **Install** and wait for the installation to complete. If you have not installed PowerShell and receive an error about **PowerShell**, click **OK** to continue.



28. If you experienced any failures while running the wizard, the **Complete with failures** page appears.

Click here to open the log file for more information on installation failures.



If you receive this page, click on the link near the top of the page under **Summary log file has been saved to the following location** and save the log in a location where you can retrieve it. If you later have any network issues, you can provide this log file to the Nuance support team.

29. After the installation is complete, to verify that all SQL Server database services are running before you begin to install the DM360 Network Edition servers, select **Start > Administrative Tools > Services** and check the **Services** window.

## Ensuring all required ports are open

Be sure that port 1433 is open on the database server that houses the *NMS SQL Database*.

# Installing the Nuance Management Server and Console

This procedure covers installing all components of the *Nuance Management Server (NMS)*, including the server, the console, and the database.

## Creating an account to run all services

---

### Note:

Before you carry out this procedure, be sure you have created a Windows administrator account to run this server and all other servers under (name it something like **NMSapps**). That server should meet the following requirements:

- Is in the organization's domain.
- Never expires.
- Has a password that never expires (does not have to be changed at regular intervals).
- Has rights to install software and Windows services on the server.
- Has rights to create and start a Windows service on the server.
- Has full read/write access rights to the *Profile Optimizer Server* and all *Profile Optimizer Speech Nodes* server(s) within the same network.
- Has full read/write/modify permissions to access the directory housing the master user profiles.

During the installation, the wizard prompts you to enter the name and password of this user account.

---

Be sure you have the organization identifier Nuance assigned you, delivered to you via email, in a readily accessible file on a stick or on the Windows Server itself.

Also be sure you have the name or IP address of the machine where the *Profile Optimizer* is either installed or to be later installed, because you supply that information to the *NMS Server* during the installation so that it later knows how to communicate with the *Profile Optimizer*.

## Installing the NMS—Server, Console, and Database

You are now ready to install all of the components of *Nuance Management Console*. You install them on the same machine using a single installation wizard. (After the installation is complete, you then use the console to configure the server.)

---

### Caution:

If you do **not** want to store the *NMS Server*'s data files in SQL Server's default location, you can let the installer create the database, its transaction log, and its dump device in the default location, then move the database and its files to the location you would prefer.

### FOR ADVANCED INSTALLERS ONLY:

If you are installing the database in any location other than the SQL default, you can create the **NuanceMC.mdf** database, the **NuanceMC\_log.LDF** transaction log, and the **NuanceMCDump.bak** dump device in SQL Server **before installing** the *NMS Server*; otherwise, the *NMS Server* installation ends up placing these files in the SQL default location.

---

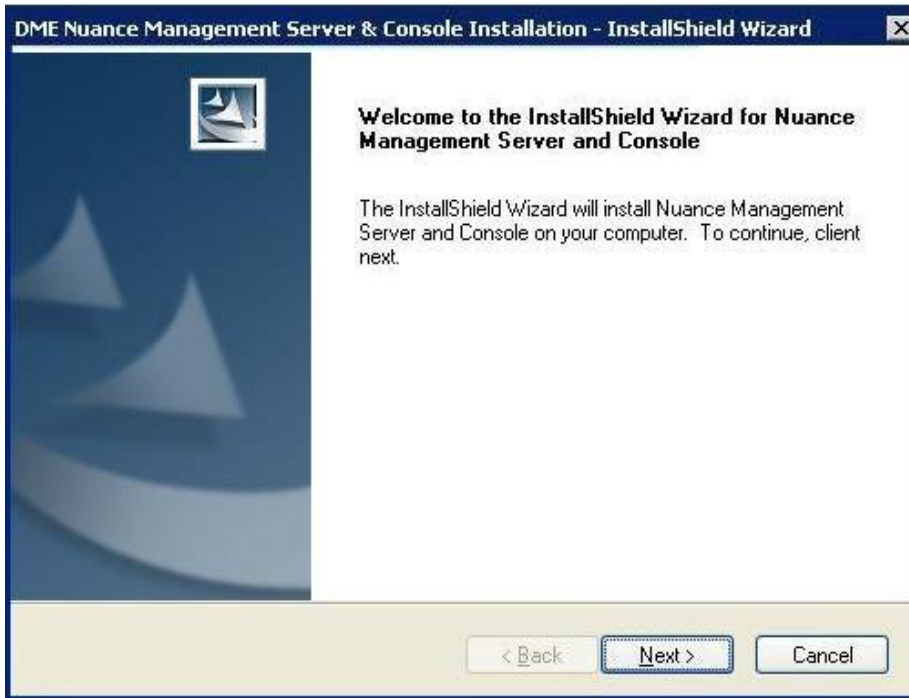
1. Install .Microsoft .NET Framework. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 the required version.
2. The *Nuance Management Console* software is code signed by Nuance to allow Nuance Support access to the client computer's resources. However, to ensure Nuance has access, if your hospital or medical facility's network requires a security policy on the computer where you install the client, you should set up that security policy to allow any code signed by Nuance to run on the machine with full trust credentials.
3. Before you begin the installation, you might want to turn off the Windows Server Firewall. If you prefer not to turn it off, you later need to open Port 8731 (the step is included at the end of this process) to ensure communication between the *NMS Server* and *Nuance Management Console*.

This step applies whether you are installing the *NMS Server* on the same machine as the SQL Server or on a separate/possibly remote machine. If you are planning to store data files in the default location that SQL uses, skip to step 4. If you instead plan to store data files in another location, you can move the database and its associated files after you let the installer create them for you.

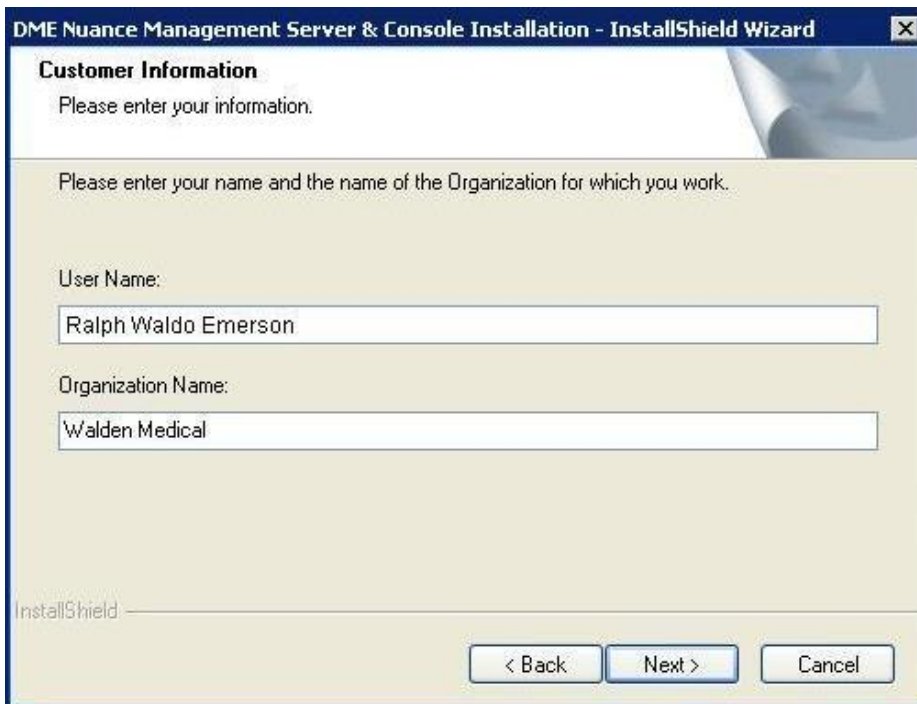
(Alternatively, you can create the **NuanceMC.mdf** database, the **NuanceMC\_log.LDF** transaction log, and the **NuanceMCDump.bak** device inside SQL Server first and specify where you want these files to reside, but Nuance recommends that you be an advanced user to create your own database.)

4. Insert the *Nuance Management Server Software and Documentation* DVD in the DVD reader of your server. Browse the DVD until you find the **Nuance Management Server and Console Installation.exe** file and double click it to launch the installation process.
5. Initially, you wait for a moment while the InstallShield wizard uncompresses the software; then the **Nuance Management Server & Console Installation** wizard displays to walk you through the installation process.

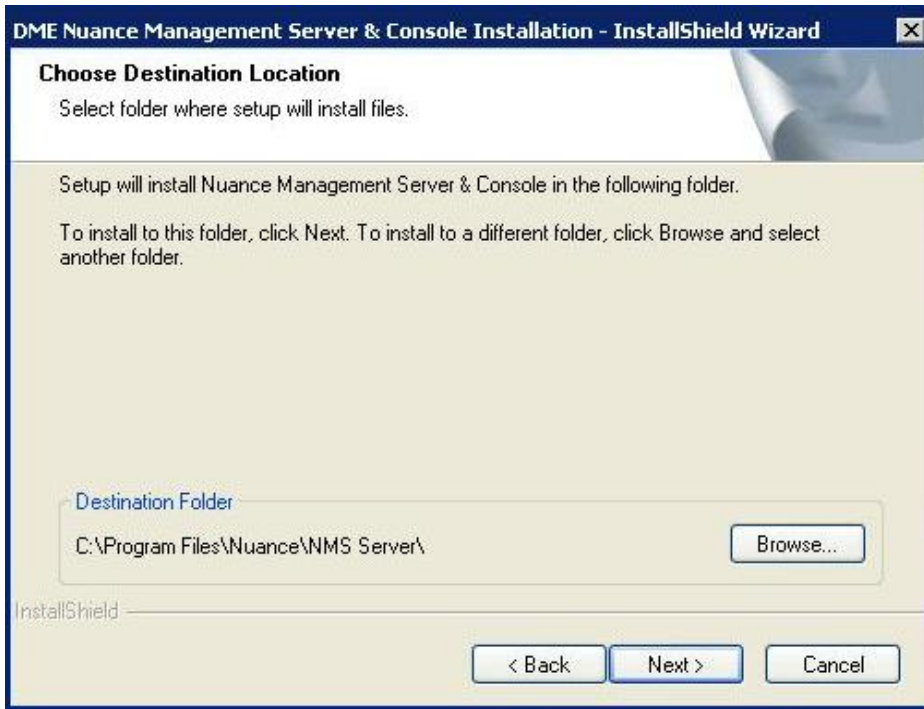




6. Click **Next** to see the License Agreement page and accept the terms of the license agreement; then click **Next** to proceed to the **Customer Information** page of the wizard.



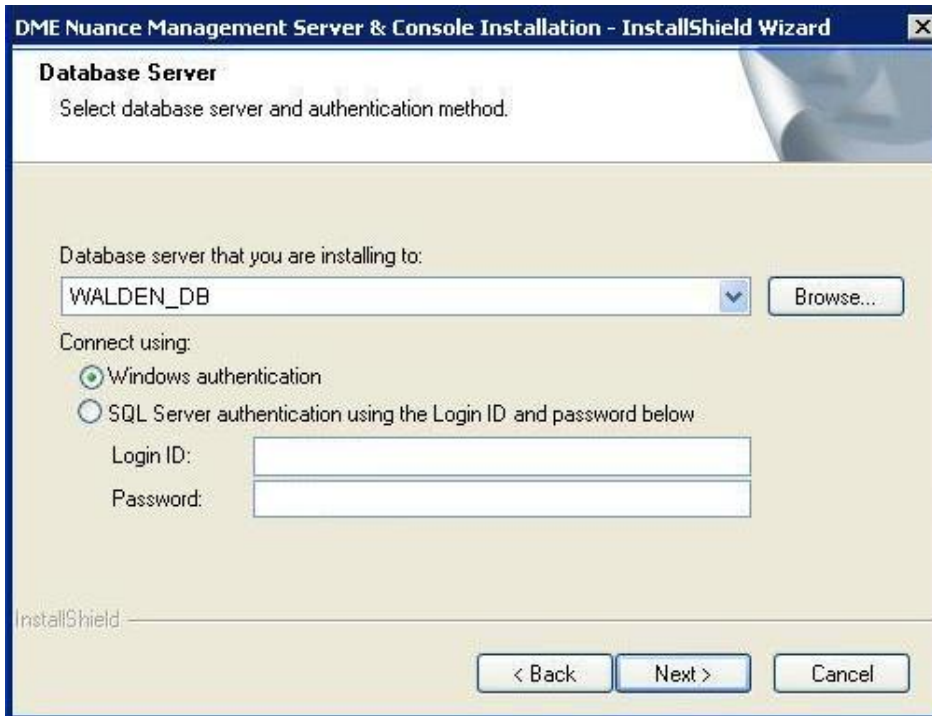
7. In the **Customer Information** page of the wizard, enter your name (or the name of an appropriate contact person) and your organization name in the **User Name** and **Company Name** text boxes and click **Next** to proceed to the **Choose Destination Location** dialog box.



8. The **Choose Destination Location** page of the wizard presents the location where it installs the *NMS Server* by default. If you want to change where the wizard installs the server, click **Browse...** and browse to a location you prefer.
9. Click **Next** to proceed to the **Database Server** page.
10. In the **Database server that you are installing to** text box, enter the machine name or IP address of the physical server where you have installed the SQL Database Server software.

The wizard automatically creates the database and its backup directory in default locations on that server.





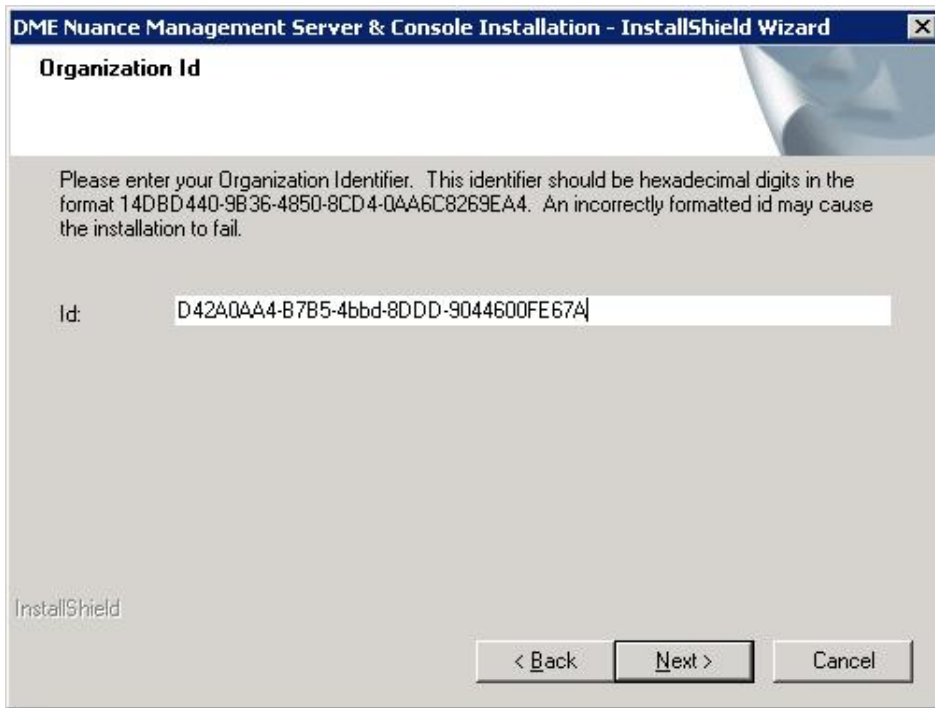
Under **Connect using**, you see from two ways for the server to access the database—using a Windows login and password to authorize access, as indicated by **Windows authentication** or an SQL Server login and password, as indicated by **SQL Server authentication**.

You should choose the same type of authentication for access to the database that you chose when you installed the SQL Server.

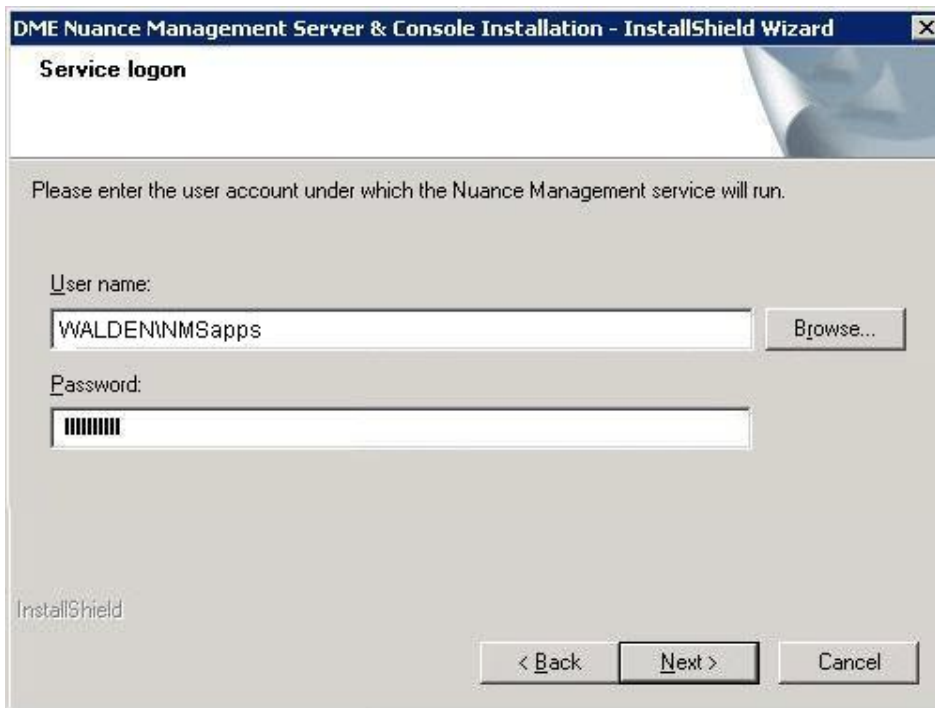
Nuance recommends **Windows authentication**. If you choose this type of authentication, the **Login ID** and **Password** text boxes become unavailable, as they are not required.

If you choose **SQL Server authentication using the Login ID and password below**, you then enter the database system administrator login name and password that you set up in SQL Server earlier into the **Login ID** and **Password** text boxes provided.

Click **Next** to continue.



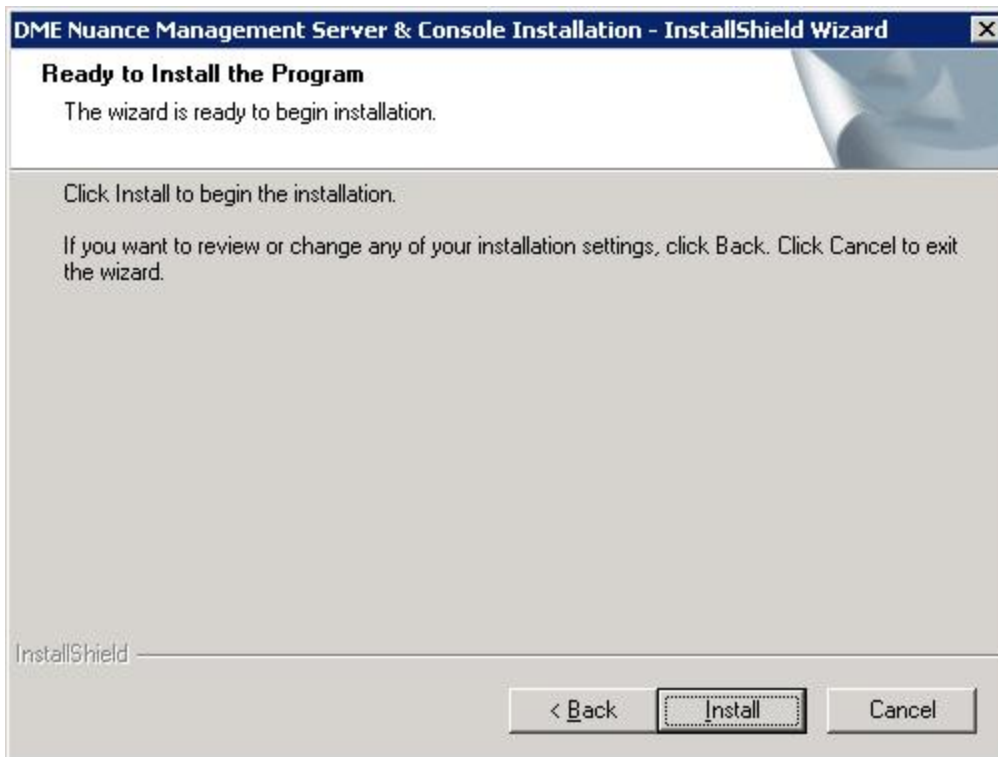
11. In the **Organization ID** page of the wizard, enter the unique ID that Nuance has assigned you. You should receive this ID on a slip of paper inserted with your *Dragon Medical 360 | Network Edition* software package. Carefully enter the ID into the **ID** text box here. You do not have to write it down or keep track of it on paper after you enter it here, as you will later be able to find the ID any time you need it through the *Nuance Management Console*. Click **Next** to continue.



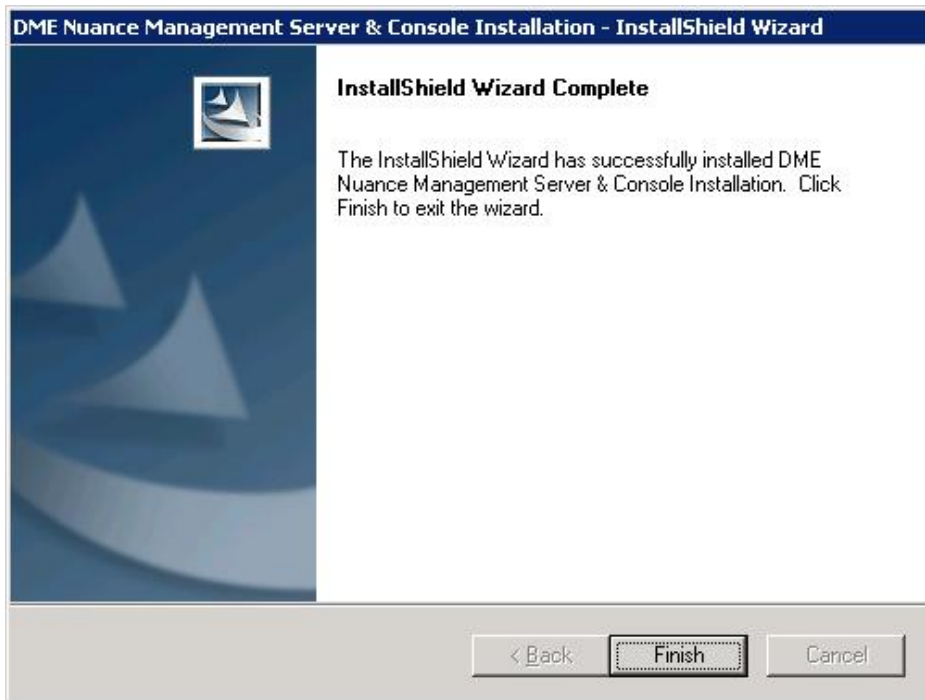
12. In the **Service logon** page, the wizard asks you for the user account that the *NMS Server* service is going to run under. You should enter the Windows user name and password of the account you created at the start of this procedure for all services to run under (such as **NMSapps**).

If the wizard determines that the user account you enter is not an administrator account or does not have rights to start the *NMS Service* or is inadequate in any other way, the wizard fails to let you proceed and stays on this page until you enter an acceptable account or click **Cancel**. If this situation arises, you should enter the local administrator or local system account and password in this page. If you need to enter such an alternative account here, you later need to change the account that the service is running under as described in *Changing the account running NMS Server* under *Changing the account running NMS Server* on page 97.

13. Click **Next** to continue.
14. In the **Profile Optimizer Server** page of the wizard, you enter the machine name or IP address of the physical server where the *Profile Optimizer Server* is (or will be) installed. The *NMS Server* needs to know this information to communicate with and pass data between itself and the *Profile Optimizer*. Often you are installing the Profile Optimizer Server on the same machine as the DM360 Network Edition server databases, as shown above. Click **Next** to continue.



15. In the **Ready to Install the Program** page of the wizard, you can click **Back** to return to any of the previous dialogs or, if you are ready, click the **Install** button to launch the actual installation.
16. When the installation is complete, click **Finish** to close the wizard.



17. If you installed the *NMS Server* and *Nuance Management Console* with the Windows Server 2008 Firewall turned on during the installation, you must now open Port 8731 so that the *Nuance Management Console* can communicate with the *NMS Server*.
18. As part of the process of installing the *NMS Server*, the installer:
  - Creates the actual *NMS SQL Database*, a transaction log file, and a dump device on the SQL Server that you installed earlier. When you look in SQL Server, you see:
    - Database, named **NuanceMC.mdf**
    - Transaction log named **NuanceMC\_log.LDF**
    - Dump device named **NuanceMCDump.bak**
  - Installs the service that the *NMS Server* uses, the **Nuance Management Service**.

After the installation completes, the *NMS Server* automatically starts.

You are now ready to install the *Profile Optimizer Server*.

## Anti-virus recommendations and requirements

Nuance recommends anti-virus software on all *Dragon Medical 360 | Network Edition* servers and clients to protect the system from potential downtime due to viruses. However, be aware of the recommended restrictions.

After you have installed the servers, be sure to exclude from the anti-virus scan any files found in the folders indicated below or with the extensions listed below.

## **On NMS Servers, Profile Optimizer Server, SQL Database Server:**

- **Nuance** folder and all sub-folders
- Files with these extensions:  
DAT, DRA, ENH, INI, LCK, LOG, NWV, SIG, TXT, USR, VER, VOC, WAV

# Configuring the network traffic switch to ping NMS Servers for load balancing

If you have a large network with multiple *NMS Servers*, you can include a network traffic switch in your network to balance the load on the *NMS Servers*. The network traffic switch can be an F5 or similar switch.

To configure the network traffic switch to send a message to the *NMS Server* to see if the server is operational, you would have the network traffic switch send the following message in the URL line of the browser:

```
http://<NMS-Server-Name>:443/Nuance.NMS.Services/  
  NMSServiceStatus/Rest/Status
```

The *NMS Server* delivers the following XML-formatted response to the network traffic switch:

```
<ServiceStatusResponse xmlns=  
  "http://schemas.datacontract.org/2004/07/Nuance.NAS.Connector.  
  DictationTranscription" xmlns:i="http://www.w3.org/2001/  
  XMLSchema-instance">  
  <Status>Running</Status>  
  <ServerDateTimeUTC>2010-12-13T20:50:13.0969590Z  
  </ServerDateTimeUTC>  
  <InterfaceType>basicHttpTransport</InterfaceType>  
</ServiceStatusResponse>
```

If the *NMS Server* is down, the switch receives an error. If the network traffic switch makes this call and the *NMS Server* sends anything other than the expected response, the switch can tag that server as down and reroute the traffic accordingly.

## Ensuring clients can contact an NMS Server with a load balancing traffic switch in the network

When you install clients using a push installation, if you have a load balancing traffic switch managing multiple *NMS Servers* on your network, you should set **NAS\_ADDRESS** to the address of the traffic switch, rather than the address of any particular *NMS Server*.

---

**Note:** If the user already entered a value for this option, your value will overwrite that.

When providers first log in to *Dragon Medical Client 2.3*, when they click the **Advanced** button, instead of entering the IP address or name of an *NMS Server*, they should enter the IP address or name of the **traffic switch appliance** in the **Address** text box of the **Server Location** dialog box.

If your workstations have desktop shortcuts for *Dragon Medical Client*, those shortcuts should also point to the traffic switch's address, rather than the address of any particular *NMS Server*.

## Accessing Nuance Management Console when load balancing traffic switch chooses among multiple NMS Servers on your network

When you have multiple *NMS Servers* and a load balancing traffic switch in your network, you should be sure that when you open the *Nuance Management Console*, you substitute the name or address of the switch for the name or address of the *NMS Server*. For instance, for a load balancing switch named **NMS\_Switch** at IP address **10.1.1.2**, here are two possible URLs you would use to run the console:

`http://NMS_Switch/nmc/client.xbap`

or

`http://10.1.1.2/nmc/client.xbap`

## Verifying all necessary ports are open

Be sure that all of the following ports are open on the *NMS Server*:

- **443** - All communication between the Dragon client and the NMS is on SSL-encrypted REST endpoints on port 443.
- **1433** - on both the *NMS Server* and the database server where the *NMS SQL Database* resides
- **808** - for communication with the *Profile Optimizer*

## Test access to NMS ports from a site client machine

You can test the ability of a client machine to communicate with the NMS (cloud or on-premise).

You access a web page where you can test access to all ports required for connecting to the NMS, including:

- Port 443: To determine access to SSL-encrypted Representational State Transfer (REST) endpoints.

### Steps for determining access to NMS ports

The web page tests the connection between a client machine and a server (the one in the URL when they access the web page).

If access to a port is available, the Accessibility column contains "Yes". Otherwise, the column contains "No" and may contain other information useful for troubleshooting.

- If the NMS is installed on-premise, the server URL is `http://<yourlocalservername>/nmc/portscan.html`.
  - If the NMS is in the cloud, the server URL is <http://nms.nuancehdp.com/nmc/portscan.html>.
1. Open a supported web browser and navigate to <http://nms-dev.nuancehce.com/nmc/portscan.html>.

2. Select the check box beside the product(s) to test:
  - Nuance Management Console: Tests access to port 443.
  - Dragon Medical 360 | Network Edition: Tests access to port 443.
  - Dragon Medical 360 | Recorders: Tests access to port 443.
  - Dragon Medical 360 | Direct:
    - Tests access to port 443.
    - If the NMS Server URL used to access the web page contains “nms.nuancehdp.com”, this indicates that we are accessing the production instance of the NMS. The web page tests the response of the following URL: <https://nsa.nuancehdp.com/SpeechAnywhereServices/IsAlive>
    - If the NMS Server URL used to access the page contains “nuancehce.com”, this indicates that we are accessing a QA/HCE instance of the NMS. The web page tests the response of the following URL: <https://nsa-qa.nuancehce.com/SpeechAnywhereServices/IsAlive>
    - If the NMS server URL used to access the page does not contain “nms.nuancehdp.com” or “nuancehce.com”, the installation process displays an edit box where you can enter the full Dragon Medical 360 | Direct URL for the web page to test.
3. Press **Test**. The web page displays the test results for each of the products you selected. If a port cannot be accessed, the web page displays the host, port number, and the related protocol. The web page also displays details about the error to help you troubleshoot the issue.



# Chapter 3: Installing Profile Optimizer components

To install the *Profile Optimizer* components of the Dragon Medical 360 | Network Edition network, you carry out the procedures in these sections:

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<b>Prerequisites for Installing Profile Optimizer components</b> .....	<b>70</b>
<b>Installing Profile Optimizer Server prerequisite software</b> .....	<b>71</b>
<b>Installing prerequisite software for speech nodes</b> .....	<b>73</b>
<b>Installing the Profile Optimizer Server and speech nodes</b> .....	<b>75</b>
<b>Revising or Repairing the Profile Optimizer Installation</b> .....	<b>83</b>
<b>Installing Profile Optimizer Speech Nodes on independent or virtual machines</b> .....	<b>84</b>
<b>Anti-virus recommendations and requirements</b> .....	<b>89</b>
<b>Open ports on the Profile Optimizer Server</b> .....	<b>89</b>

# Prerequisites for Installing Profile Optimizer components

Before you actually install the *Profile Optimizer*, you should gather the information and install some additional prerequisite software, as indicated in this section. This section details the information you need about configuration settings you will set during the installation process.

## Creating account to run all services

---

### Note:

Before you carry out this procedure, be sure you have a Windows administrator account to run all servers under. It should be the same one you are running the *NMS Server* under (named something like **NMSapps**). For details about the requirements for this account, refer to *Prerequisites for installing the Nuance Management Server and Console* on page 44.

During the installation, the wizard prompts you to enter the name of this user account and the password to it. You must set up this account with **Log on as Service** rights so that it can start *Profile Optimizer* and *Speech Node* services when the installation is complete.

---

For more information on how to set rights to start a service, refer to *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84.

## Gathering information you need

Before you begin, you need to have the following information:

- **Name or Address of Installation Machine** You need the name or address of the machine where you intend to install the *Profile Optimizer Server*. If your network uses dynamic addresses, you should use the computer name to identify it, just in case the dynamic address changes in the future.
- **Location of Master User Profiles folder** If you are planning to put the user profiles directory on the same machine with the *Profile Optimizer* installation, you should know that in advance.
- **Name of Machine where Profile Optimizer Database Server resides and name of folder for Database Files** Profile Optimizer requires access to the *Profile Optimizer Database* (possibly on the same machine) through its physical server's name. You will need to provide the database server name during the installation.
- Create a folder to contain the database files for the *Profile Optimizer Database* and create it on the machine where the *Profile Optimizer Database* is installed. Be sure you know where this folder is located, as you will need to provide the full path to it during the installation. You create this folder on a disk of the machine, not inside SQL Server's Object Explorer

## Installing software to support Profile Optimizer Speech Nodes installation

You install two extra packages on machines where you are planning to install *Profile Optimizer Speech Nodes*:

**Windows Installer 3.1** If you are installing a *Speech Node* on a machine with any supported operating system other than Windows Server 2008, the installer requires that the machine have Windows Installer 3.1 or greater on it. (Windows Server 2008 automatically installs a later version of Windows Installer.) For information on operating systems that support *Speech Nodes* refer to *Dragon Medical Enterprise Planning and Deployment Guide*.

**Dragon Medical SDK Client** You must install the latest version of the Dragon Medical SDK Client software on workstations where you plan to install *Speech Nodes*. This software is included on the *Nuance Management Server Software and Documentation DVD*.

## Installing Profile Optimizer Server prerequisite software

Before you install the *Profile Optimizer* components, you must install the Windows Server and other prerequisite software. Some of this software is required for both the *NMS Server* and the *Profile Optimizer Server*.

Before you install the *Profile Optimizer Server*, you must install the prerequisite software. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for a list.

Note that you need most of the same prerequisite software for both *NMS Server* and *Profile Optimizer Server*. It is not unusual to install both servers on the same physical server.

You need to install additional prerequisite software for *Speech Nodes*. For more information and instructions on additional packages you must install for *Speech Nodes*, refer to the next major section, *Installing prerequisite software for speech nodes* on page 73.

## Installing Windows Server and .NET Framework

Follow these steps:

1. If you have not already done so, install one of these versions of Windows Server: 2008, 2008 R2, 2003 SP2, or 2003 R2. For instructions on installing Windows Server 2008 or 2008 R2, refer to *Installing SQL Server 2008* on page 49.
2. After you install the server software, you should download any Windows updates to be sure you have all updates available. Then, once you have all updates available, turn off automatic updates.
3. If you have not already done so, install SQL Server 2008 following the instructions provided in this manual. You must have the database software installed before you install *Profile Optimize*.
4. Install .NET Framework 4.0. If you do not have this version of .NET Framework already installed, visit the link provided and download/install it from there. Allow approximately 1 hour to install it. <http://www.microsoft.com/downloads/en/confirmation.aspx?FamilyID=9cfb2d51-5ff4-4491-b0e5-b386f32c0992&displaylang=en>
5. Install .NET Framework 4.0 Extended. You must be sure you have the Extended version of Microsoft .NET Framework 4.0 installed (.NET Framework 4.0 Client Profile version is not supported). If you do not have the correct version of .NET Framework already installed, visit the link below and download/install **dotNetFx40\_Full\_setup.exe** from there: <http://www.microsoft.com/downloads/en/confirmation.aspx?FamilyID=9cfb2d51-5ff4-4491-b0e5-b386f32c0992&displaylang=en>
6. Once you have saved the **dotNetFx40\_Full\_setup.exe** file, double click on the file to initiate the .NET Framework installation.
7. When the .NET Framework installation is complete, you should retrieve and install any updates available for the program.

For information and instructions on additional packages you must install for *Speech Nodes* only, refer to the next major section, *Installing prerequisite software for speech nodes* on page 73.

If you are installing only the *Profile Optimizer Server* right now, you can proceed to *Installing the Profile Optimizer Server and speech nodes* on page 75.

# Installing prerequisite software for speech nodes

On machines where you are installing *Profile Optimizer Speed Nodes*, you must install all the same software you installed for the *Profile Optimizer Server*, except that:

- You have the option of installing a *Speech Node* on a workstation rather than a server.
- You are required to install additional software packages—an installer and an SDK.

## Required software for Speech Nodes

- See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for a list of required software.

- Windows Server 2008 R2: On all machines where Speech Nodes will run on Windows Server 2008 R2 (with or without Service Pack 1), download and apply the following patch:

[http://hotfixv4.microsoft.com/Windows%207/Windows%20Server2008%20R2%20SP1/sp2/Fix392120/7600/free/445413\\_intl\\_x64\\_zip.exe](http://hotfixv4.microsoft.com/Windows%207/Windows%20Server2008%20R2%20SP1/sp2/Fix392120/7600/free/445413_intl_x64_zip.exe)

Please see the following Microsoft Support articles for information about why this hot fix is necessary for reliable operation of a Speech Node on Windows Server 2008 R2:

<http://support.microsoft.com/kb/2687753>

<http://support.microsoft.com/kb/2624677>

<http://support.microsoft.com/kb/2584874>

More information on installing these prerequisites is in the corresponding section below.

## Installing Windows Installer 3.1 or higher for Speech Nodes not on Windows Server 2008

Every machine where you use install a *Profile Optimizer Speech Node*, Windows Installer 3.1 or greater must be on the machine.

---

### Caution:

If you are installing on a Windows Server 2008 machine, you installed the Windows Installer when you installed the operating system, so you can skip this section.

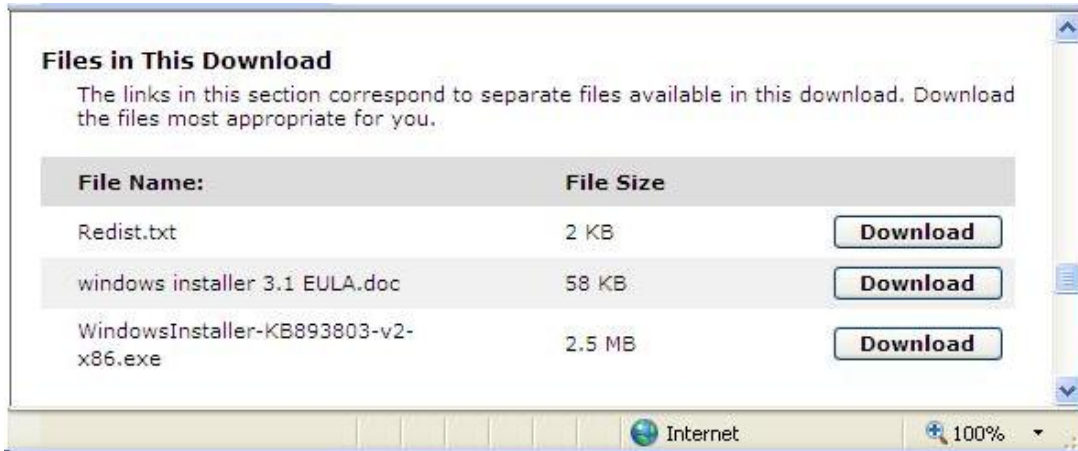
---

To install Windows Installer 3.1:

1. Proceed to the web site at:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=889482FC-5F56-4A38-B838-DE776FD4138C&displaylang=en>

2. Scroll down the web page until you find a heading that says **Files in This Download** and a list of files below it (see illustration):



3. Click the third **Download** button for the executable to download the file for the software.
4. When you are prompted to save or run the file, click **Run** and follow the wizard instructions Microsoft provides.

## **Installing Dragon Medical SDK Client Edition**

You can find the *Dragon Medical SDK Client* software on the *Nuance Management Server Software and Documentation DVD*. You must install this software on every machine or virtual machine where you plan to install a *Profile Optimizer Speech Node*. To install the software:

1. In the **Dragon Medical SDK Client** directory of the *Nuance Management Server Software and Documentation DVD*, find the **Dragon SDK Client Edition10.msi** file and double click it.
2. Click **Next** and, when choosing the type of installation, be sure to select **Typical/Complete**.
3. Click **Next** until you reach the installation page of the wizard.
4. Click **Install**.
5. When the installation is complete, click **Finish**.

When you have finished installing this required software, you are ready to install the *Profile Optimizer Server* and *Speech Nodes*.

# Installing the Profile Optimizer Server and speech nodes

This section of the installation covers installing the *Profile Optimizer Server* with or without a *Speech Node* on the same machine. If you have already installed the *Profile Optimizer Server* and want to install one or more *Speech Nodes* on another machine, see *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84

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## Caution:

When you are installing the *Profile Optimizer Server*, since you are also installing the *Profile Optimizer Database*, regardless of whether you install both the server and database on the same physical server, you should:

- Be sure to install SQL Server on the machine where the database will reside before installing the *Profile Optimizer Server*.
  - If you are upgrading to DM360 Network Edition Service Pack 3, you should uninstall the Profile Optimizer Service before the upgrade. Existing database and log files are not modified during the upgrade. After you close the Speech Node software, make sure the Nuance.ConversionServer.ClientApp.exe is not running. If you see the Nuance.ConversionServer.ClientApp.exe process in the Windows Task Manager, close it. See [Revising or Repairing Profile Optimizer Installation](#) in the *DM360 Network Edition Installation Guide* for information about how to uninstall and reinstall the Profile Optimizer software.
- 

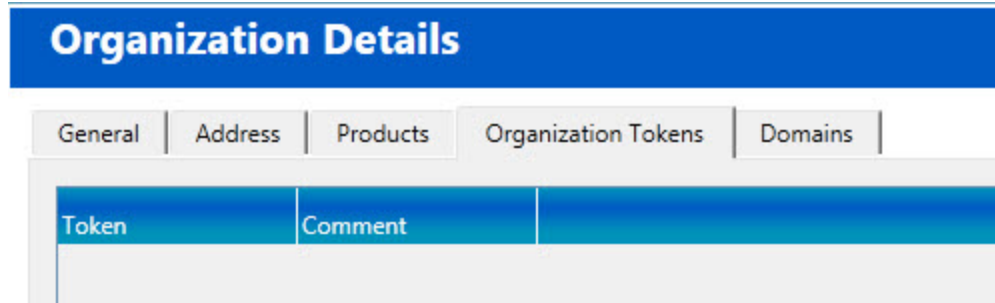
After you have installed all other prerequisite software and SQL Server, regardless of whether or not you plan to install any *Speech Nodes* on the same machine, you install the *Profile Optimizer Server* as follows:

1. Before you install or upgrade the Profile Optimizer Server, you will need an Organization Token. That token is used during the Profile Optimizer Server installation. The Organization token is required for both NMS in the cloud or an on-premise NMS. If you are using (or migrating to) NMS in the cloud, Nuance creates the Organization token for your organization and provides it to you. If you are using an on premise NMS, you must create the Organization Token yourself.

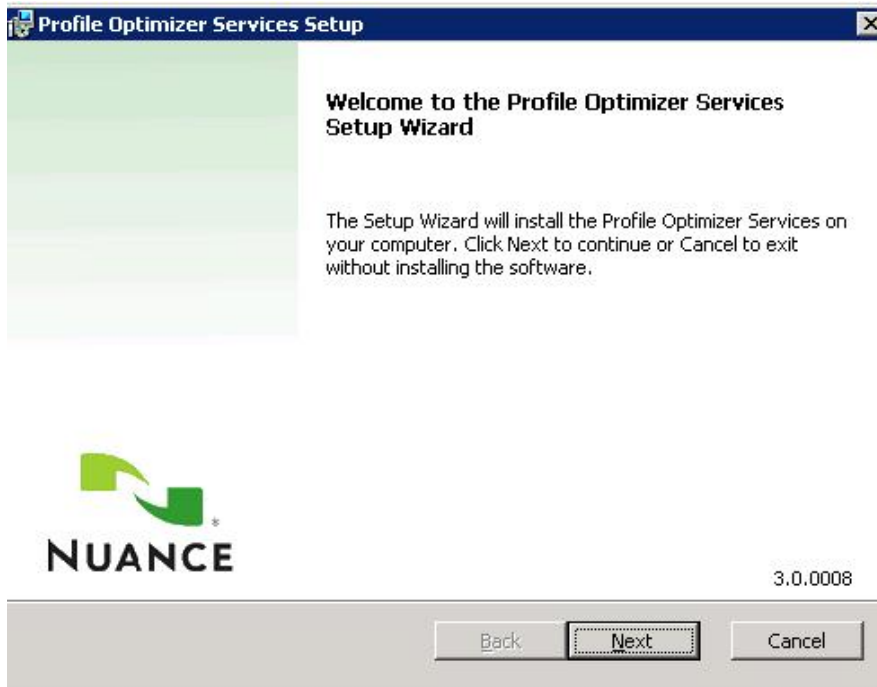
Complete the following steps to create an organization token:

- In the Nuance Management Console, go to **Organization > Search**.
- Enter your search criteria in the Search fields and click the magnifying glass button. Your search results appear.
- Select the site that you want to create a token for, and in the **Organizations** area click the **Details** icon. The **Organization Details** screen appears.
- In the **Organization Tokens** tab, click **Add** to generate a new organization token. The **Token** field is pre-filled. Optionally, enter a value in the **Comment** field. Click **Save**.
- The new token appears in the **Token** table. Copy or make a note of this value; you

will need it to configure EHR Single Sign-On or install the Profile Optimizer.



2. Create a folder on the database server's hard drive to store the database files of the *Profile Optimizer*. Make a note of the full path to this file, as you enter it later in this installation process.
3. Insert the *Nuance Management Server Software and Documentation* DVD in the DVD reader of your server. Browse the DVD until you find the **ProfileOptimizerServices.msi** file and double click on it to launch the installation. After you see the wizard start, click **Next** to proceed.



4. When the **Profile Optimizer Services** page of the wizard appears, choose the parts of the product you want to install on the particular machine. To install both the *Speech Node* and the server, you must install both at the same time by selecting both check boxes (as shown below), because if you try to use the installer on the same machine after installing a single component, **not** selecting the check box for a component **uninstalls** that component. To install the *Profile Optimizer Server* alone on a machine, select only the **Install Profile Optimizer Server** check box, instead of both check boxes.





If you are trying to install the *Speech Node* along with the server but the **Install Profile Optimizer Speech Node** check box is grayed out, it is probably because you do not have the required prerequisites installed, including Windows Installer 3.1 or greater and the *Dragon Medical SDK Client*. If this situation arises, click **Cancel** and go back to the instructions in *Installing prerequisite software for speech nodes* on page 73 then return to the beginning of this section and start over.

If you do want to install the *Speech Node* on the same machine as the server, you can install only a single non-virtualized node, because you are allowed to install only one *Profile Optimizer Speech Node* on the same machine with the server.

5. Click **Next** to proceed to the **Service Account Configuration** page of the wizard.



The screenshot shows a Windows-style dialog box titled "Profile Optimizer Services Setup". The main heading is "Service Account Configuration" with a sub-heading "Please specify the Service Account Credentials". The Nuance logo is in the top right corner. Below the heading, there is a paragraph of text: "The Profile Optimizer Services must run under a user account that has read/write privileges to the Profile Storage File Server and the configured SQL Instance, if Windows Authentication is used." There are four input fields: "Domain or Machine Name:" with the value "NAS-W2003", "User Name:" with the value "Administrator", "Password:" with a masked password of ten dots, and "Confirm Password:" with a masked password of ten dots. At the bottom, there are three buttons: "Back", "Next", and "Cancel".

On this page, you enter the domain and user name of the account to run the services under. Nuance recommends that you enter the account you created earlier to run all services under, that it be the same account you are running the *NMS Server* under, and that you assign an appropriate name, such as **NMSapps**, to the account. After you enter the password, you need to enter it again in **Confirm Password**.

If the domain, machine name, user account name, or password is not valid, the installer does not let you proceed until the values you enter are valid.

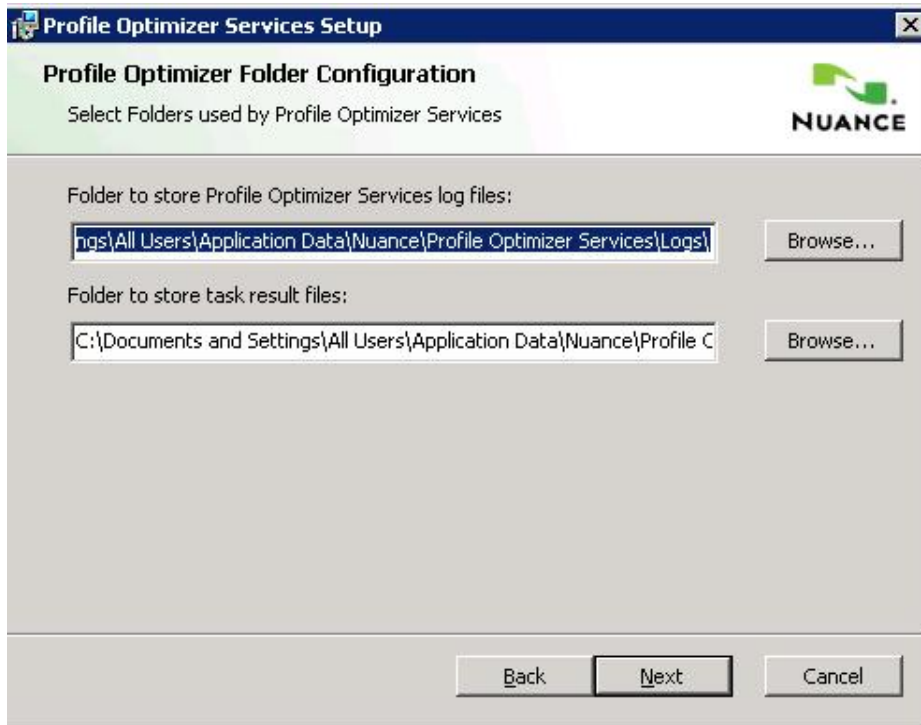
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**Caution:**

The account that the *Profile Optimizer Server* and *Speech Nodes* run under must have full rights to access the master user profiles, including rights to modify files in the profiles directory.

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6. After you click **Next**, the **Profile Optimizer Folder Configuration** page of the wizard appears. Here you set the paths, shown in the next illustration, to the *Profile Optimizer* log files and the task result files.



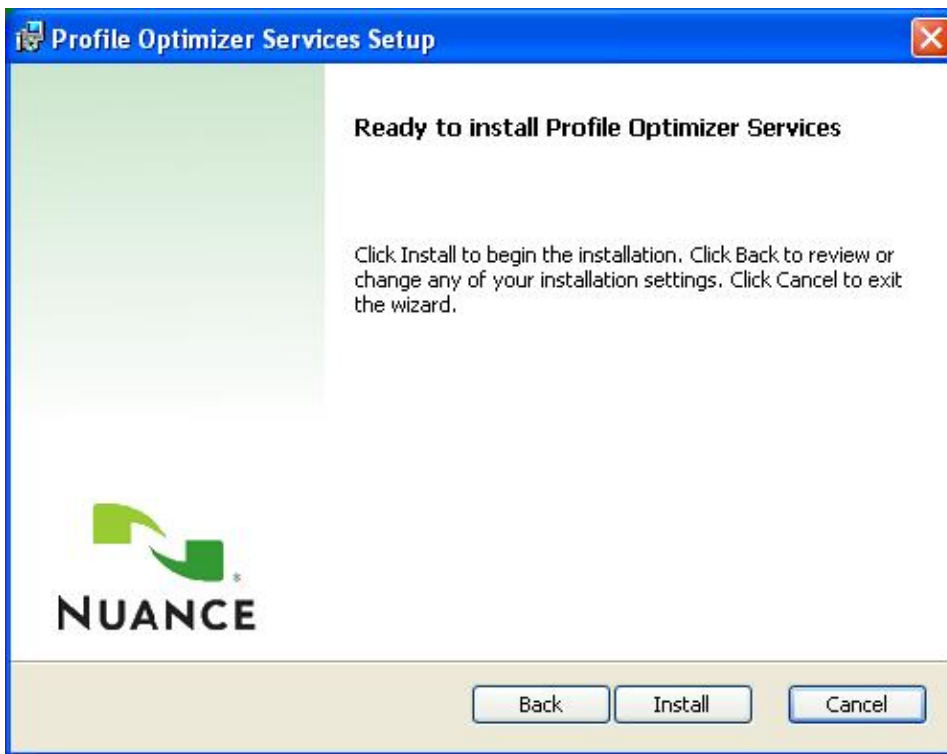
- **Folder to store Profile Optimizer Services log files**—Full path to the file that should contain the logs that all *Profile Optimizer* processes create. You can enter your own custom path or click **Browse** to find the location you want. The default location is *C:\Program Data\Nuance\Profile Optimizer Services\Log*.
  - **Folder to store task result files**—Full path to the output files that speech tasks create. These files include *Speech Node* logs and *Dragon* logs that the *NMS Server* can retrieve (for more information on logs, see the *Nuance Management Server Administrator Guide*). You can enter your own custom path or click **Browse** to find the location you want. The default location is *C:\Program Data\Nuance\Profile Optimizer Services\Jobs\*
7. When you have entered the information, click **Next** to proceed to the **Server Configuration** page of the wizard. Here you enter information required for the *Profile Optimizer Server* to connect to the *NMS Server* and the database server where the *Profile Optimizer SQL Database* resides (usually the same physical server where the *NMS SQL Database* resides, but not always). Nuance recommends that you use Windows Authentication to connect to the *Profile Optimizer SQL Database*.  
For on premise NMS installations, you need to create an Organization token (under **Organization Details**).

The screenshot shows a Windows-style dialog box titled "Profile Optimizer Services Setup" with a subtitle "Server Configuration". The main instruction is "Configure the Profile Optimizer Server". The Nuance logo is in the top right corner. The form contains the following fields and controls:

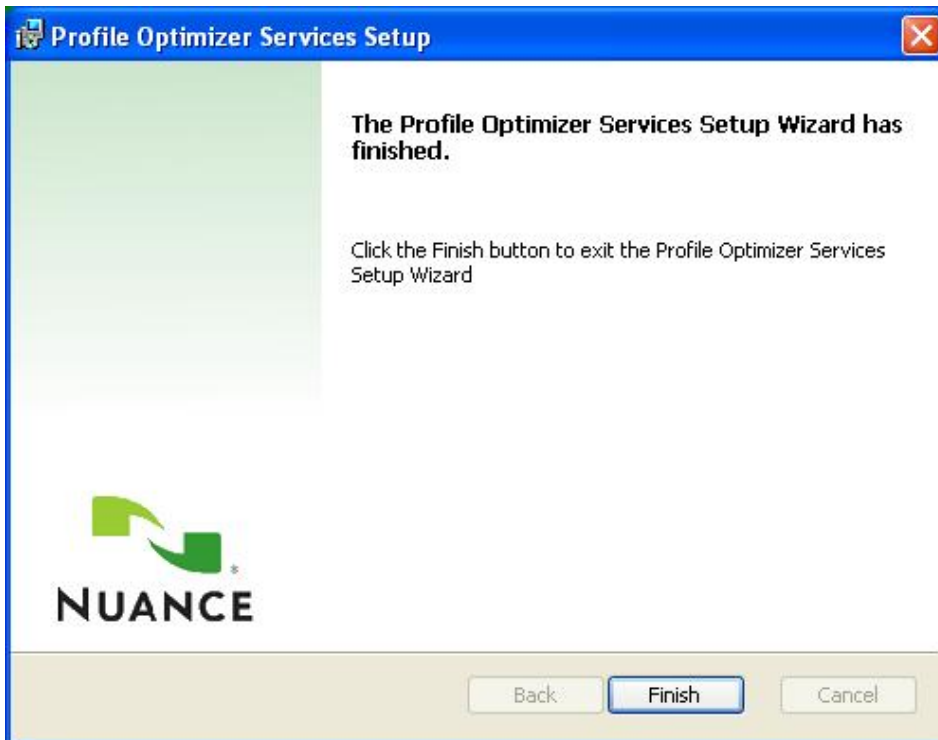
- NMS Server Name: [Text Input]
- NMS Customer Token: [Text Input]
- SQL Settings section:
  - SQL Server Name: [Text Input]
  - Use Windows Authentication (Recommended)
  - SQL User Name: [Text Input]
  - SQL Password: [Text Input]

At the bottom of the dialog are three buttons: "Back", "Next", and "Cancel".

- **NMS Server Name.** The name of the NMS server.
  - **NMS Customer Token.** The token for your organization. If you are migrating to NMS in the cloud, this is the token created for your organization in the cloud NMS. If you are not migrating to NMS in the cloud, this is the organization token for your on-premise NMS. See
  - **SQL Server Name** Enter the machine name of the physical server where you installed the SQL Server database software.
  - **Use Windows Authentication** check box. Check this box to use Windows Authentication. To instead use SQL Server Authentication, you need to fill in the SQL system administrator user name and password in the **SQL User Name** and **SQL Password** text boxes.
8. Click **Next** to proceed to the **Ready to install Profile Optimizer Services** page, where you click **Install** to launch the installation.



9. When the installation is complete, you receive the final page of the wizard. Click **Finish** to exit the wizard.



10. As a result of installing the *Profile Optimizer Server*, the installer:
  - Creates the actual database in SQL Server.
  - Installs the Profile Optimizer Server service of the Profile Optimizer Server.
  - Installs the service of the *Profile Optimizer Speech Node*:
    - Profile Optimizer Speech Node

You can now verify that the server installations were successful by proceeding to *Starting servers and logging in to the Nuance Management Console* on page 91. The services should start automatically after you complete the installation. However, even after the *Profile Optimizer Server* is running, it is not fully operational until you have installed at least one *Speech Node*.

Either before or after you verify the services are running, if you have not yet installed any *Speech Nodes*, to install one or more nodes on machines other than the *Profile Optimizer Server* machine, you should proceed to the next section, *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84

# Revising or Repairing the Profile Optimizer Installation

If you have installed the *Profile Optimizer Server* and/or its *Profile Optimizer Speech Nodes* and want to modify or repair that installation, you take only a few steps.

1. *Halting Profile Optimizer Speech Nodes* on page 83
2. *Revising or repairing the Profile Optimizer or Speech Node installation* on page 83

**Note:** If you are upgrading to DM360 Network Edition Service Pack 2, you should uninstall the Profile Optimizer Service before the upgrade. Existing database and log files are not modified during the upgrade. After you close the Speech Node software, make sure the `Nuance.ConversionServer.ClientApp.exe` is not running. If you see the `Nuance.ConversionServer.ClientApp.exe` process in the Windows Task Manager, close it.

## Halting Profile Optimizer Speech Nodes

If you have one or more *Profile Optimizer Speech Nodes* running, you need to terminate their processes:

1. To terminate the processes, open the Windows **Task Manager** and click the **Processes** tab.
2. Find any processes named `Nuance.ConversionServer.ClientApp`. Highlight them and click **End Process**.

## Revising or repairing the Profile Optimizer or Speech Node installation

After the *Profile Optimizer* Installer wizard starts up and you click **Next**, if you have already installed any portion of *Profile Optimizer*, the **Modify, Repair or Remove installation** page of the wizard appears and you should select **Modify**, then click **Next** to proceed.

# Installing Profile Optimizer Speech Nodes on independent or virtual machines

Before you install any *Speech Nodes*, be sure to install the *Profile Optimizer Server* (see *Installing the Profile Optimizer Server and speech nodes* on page 75).

In large *Dragon Medical 360 | Network Edition* configurations, you usually install multiple *Profile Optimizer Speech Nodes* on their own independent machines or on virtual machines. Once you have installed them on one or more separate machines, *Profile Optimizer Speech Nodes* automatically find the *Profile Optimizer Server* and add themselves to the network as resources for the *Profile Optimizer*. Because of this self-attaching feature of *Profile Optimizer Speech Nodes*, you can add more nodes as your network requirements grow.

## Installing Profile Optimizer Speech Nodes

To install *Profile Optimizer Speech Nodes* on their own machines or virtual machines:

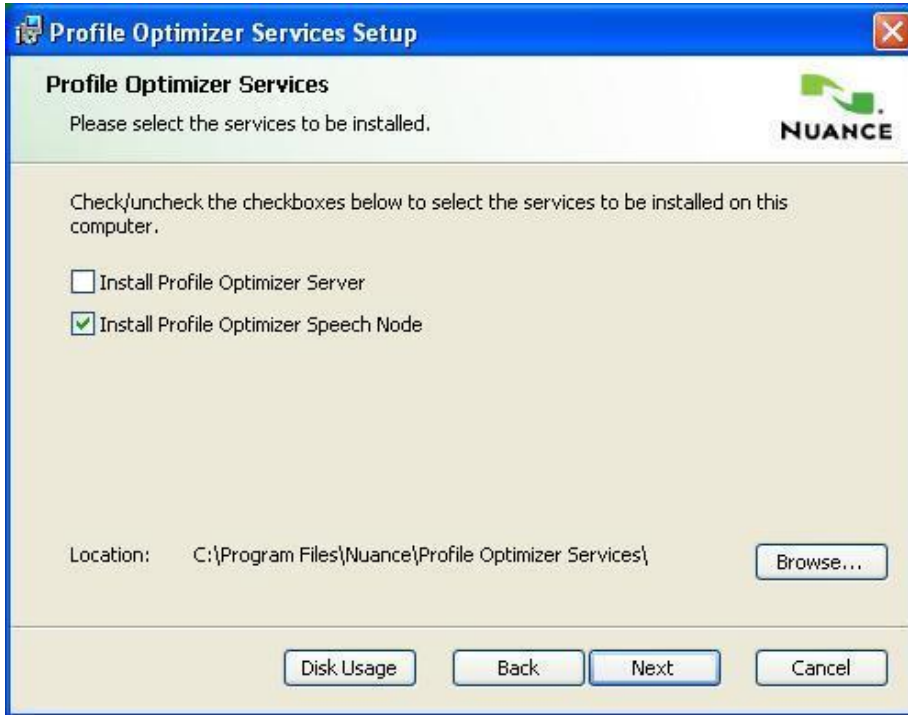
1. Be sure that on the *Speech Node* machine you have all prerequisite software installed, including the operating system and related packages, plus the installer and SDK required for *Speech Nodes* only, as covered in *Installing prerequisite software for speech nodes* on page 73.
2. Insert the *Nuance Management Server Software and Documentation* DVD in your server's DVD reader. Browse the DVD until you find the **ProfileOptimizerServices.msi** file and double click on it to launch the installation.



3. After you see the wizard start, click **Next** to proceed.

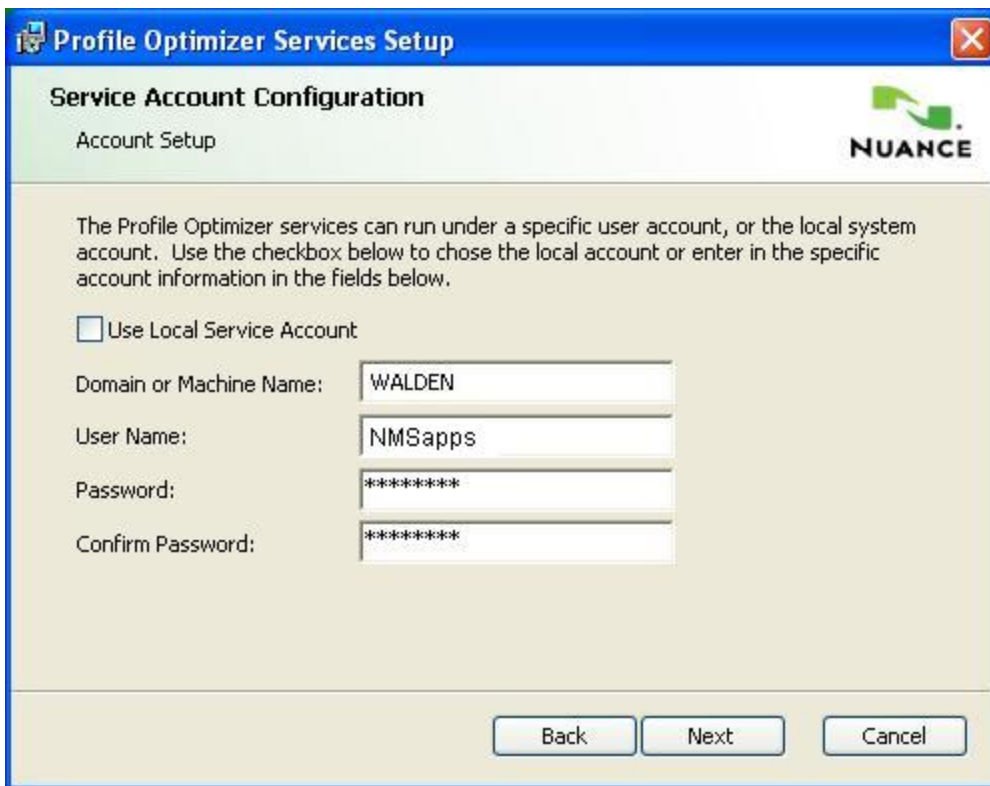


- When the **Custom Setup** page of the wizard appears, select only **Install Profile Optimizer Speech Node**.



If you attempt to install a *Profile Optimizer Speech Node* on an operating system other than Windows Server 2008 without first installing the prerequisite Windows Installer 3.1 and *Dragon Medical SDK Client* software, the **Install Profile Optimizer Speech Node** check box is grayed out so that you cannot select it. If this situation arises, click **Cancel** and go back to the instructions in *Installing prerequisite software for speech nodes* on page 73 *Installing prerequisite software for speech nodes* on page 73 then return to the beginning of this section and start over.

- Click **Next** to proceed to the **Service Account Configuration** page of the wizard.



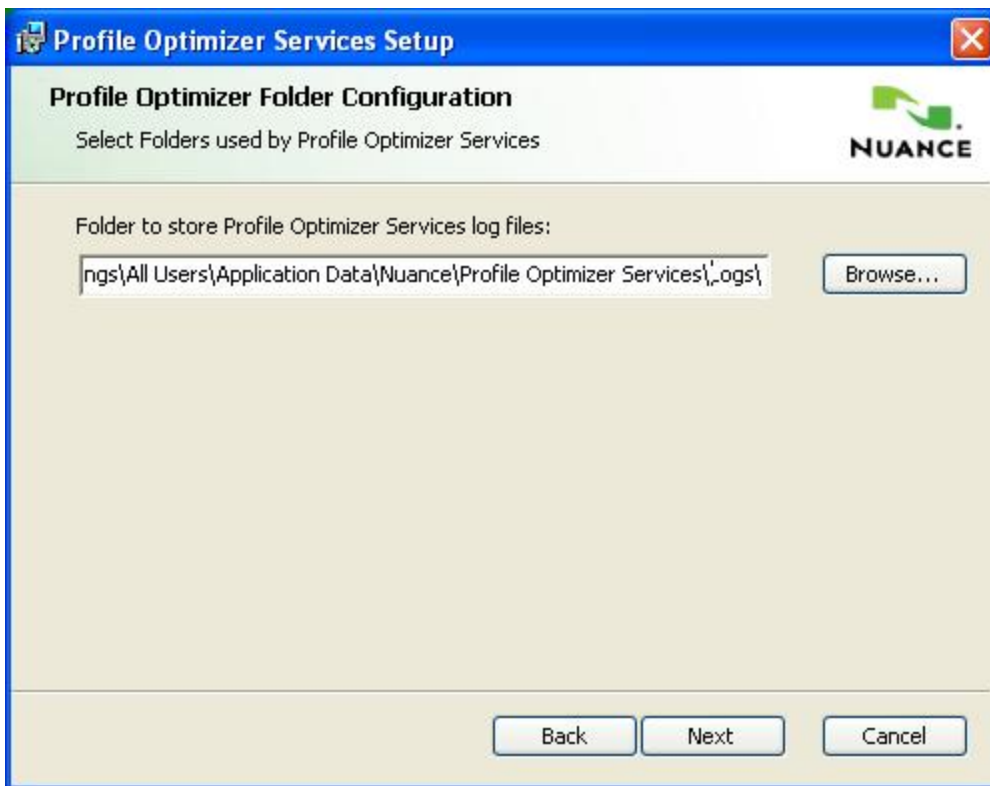
On this page you enter the user name and password of the account that this *Speech Node* service will be running under. The account should be the same account that the *NMS Server* and the *Profile Optimizer Server* are running under (unless you chose to have the Local Service Account run the *Profile Optimizer*), and should have an appropriate name, such as **NMSapps**.

If you are running the *Profile Optimizer Server* under the Local Service Account, you need to run all associated *Speech Nodes* under that account as well.

6. After you enter the password, you need to enter it again in **Confirm Password**.

If the domain or machine name or the user account name or password are not valid, the installer does not let you proceed until the values you enter are valid.

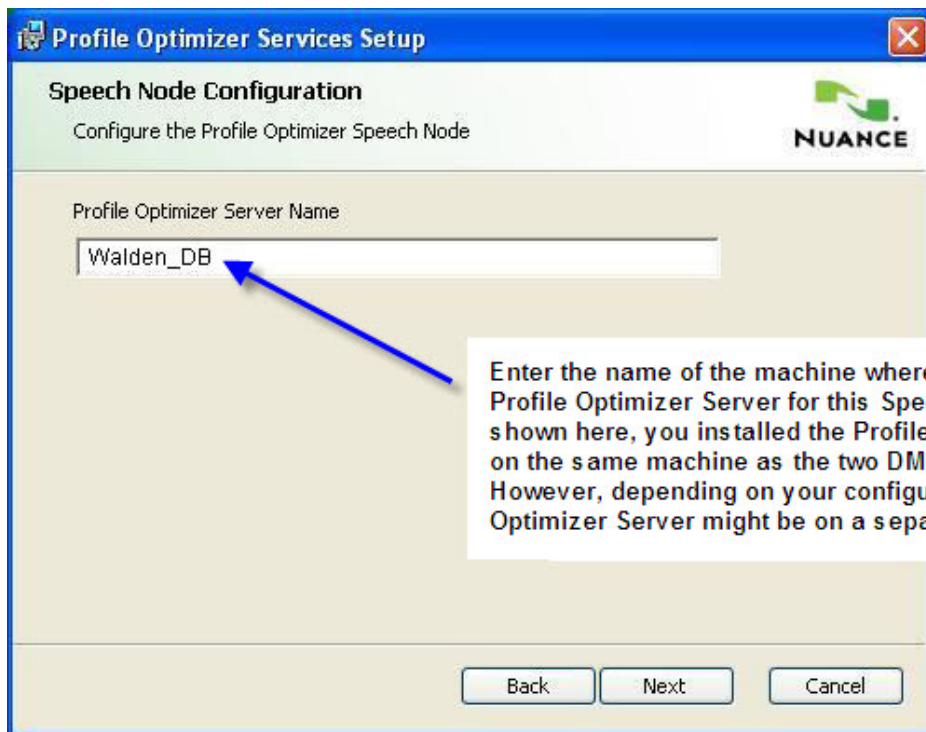
7. Click **Next** to proceed to the **Profile Optimizer Folder Configuration** page. Here you enter the full path to the folder that you want to store *Profile Optimizer* service log files that the *Speech Node* produces.



In the **Folder to store Profile Optimizer Services log files** text box, you can enter your own custom path or click **Browse** to find the location you want. The default location is operating system dependent, so yours may not match the one shown here.

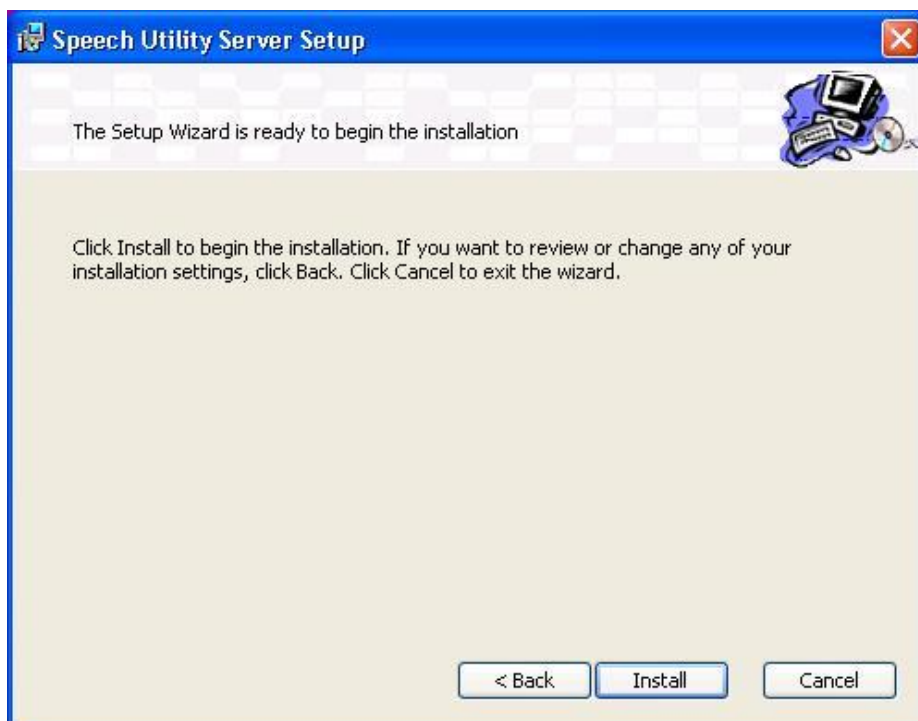
For instance, the default location on a Windows 2008 Server would be:  
*C:\Program Data\Nuance\Profile Optimizer Services\Logs*

7. Click **Next** to proceed to the **Speech Node Configuration** page of the wizard. Here you enter the name of the physical server where the *Profile Optimizer Server* for this *Speech Node* resides.



In many cases, the *Profile Optimizer Server* resides on the same machine as the *ProfileOptimizer SQL Database*, as is the case for the *Walden* organization shown throughout this chapter, where the *NMS Server* is installed on **Walden\_NMS**, and the *Profile Optimizer* and all databases are installed on the **Walden\_DB** machine (see above illustration).

8. Click **Next** to proceed to the **Ready to install Profile Optimizer Services** page of the wizard. Here you click **Install** to launch the installation process and wait for it to complete.



9. When the installation is complete and you receive the final page of the wizard, click **Finish** to exit the wizard.

While installing a *Profile Optimizer Speech Node*, the process installs the Profile Optimizer Speech Node service. This service should start automatically after you complete the installation.

You are now ready to verify that the *Profile Optimizer Server* and *Speech Node* services are running. Be sure to follow the steps outlined in the next chapter, *Starting servers and logging in to the Nuance Management Console* on page 91.

## Anti-virus recommendations and requirements

Nuance recommends anti-virus software on all *Dragon Medical 360 | Network Edition* servers and clients to protect the system from potential downtime due to viruses. However, be aware of the recommended restrictions.

After you have installed the servers, be sure to exclude from the anti-virus scan any files found in the folders indicated below or with the extensions listed below.

### On NMS Servers, Profile Optimizer Server, SQL Database Server:

- **Nuance** folder and all sub-folders
- Files with these extensions:  
DAT, DRA, ENH, INI, LCK, LOG, NWV, SIG, TXT, USR, VER, VOC, WAV

## Open ports on the Profile Optimizer Server

Although the installer opens the ports for you, you should verify that all of the following ports are open on the *Profile Optimizer Server*:

- Profile Optimizer Server: 8001, 905.
- Speech Node: 8000



# ***Chapter 4: Starting servers and logging in to the Nuance Management Console***

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Installing Nuance software certificates .....	92
Logging in to the Nuance Management Server through the Nuance Management Console ..	95
Starting the Nuance Management Server and Profile Optimizer Server .....	97
Starting Profile Optimizer Speech Nodes .....	98
Anti-virus recommendations and requirements .....	101

# Installing Nuance software certificates

Although you have installed the *NMS Server* software, you cannot log in to the *NMS Server* through the Nuance Management Console until you install the *Nuance Software Certificates*.

---

**Caution:**

You must install these *Nuance Software Certificates* on every machine where you want to log in to the *Nuance Management Console*.

---

These certificates are in the **Nuance\_Software\_Certificates.msi** file provided on the *Nuance Management Server Software and Documentation* product DVD.

You must have Windows administrator privileges on the machine to install the certificates.

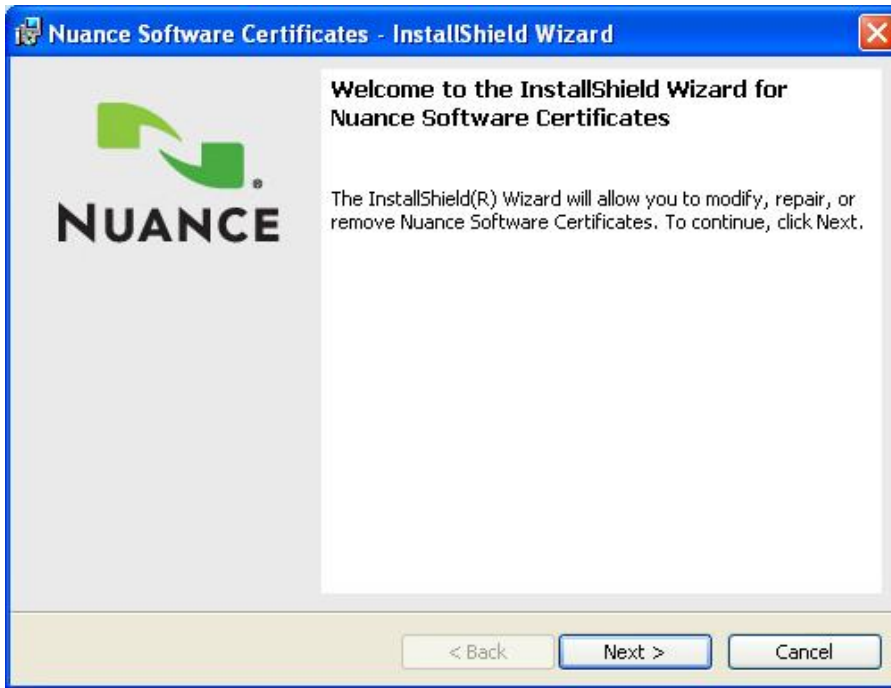
## Installing Nuance Security Software Certificates

To install the Nuance Software Certificates:

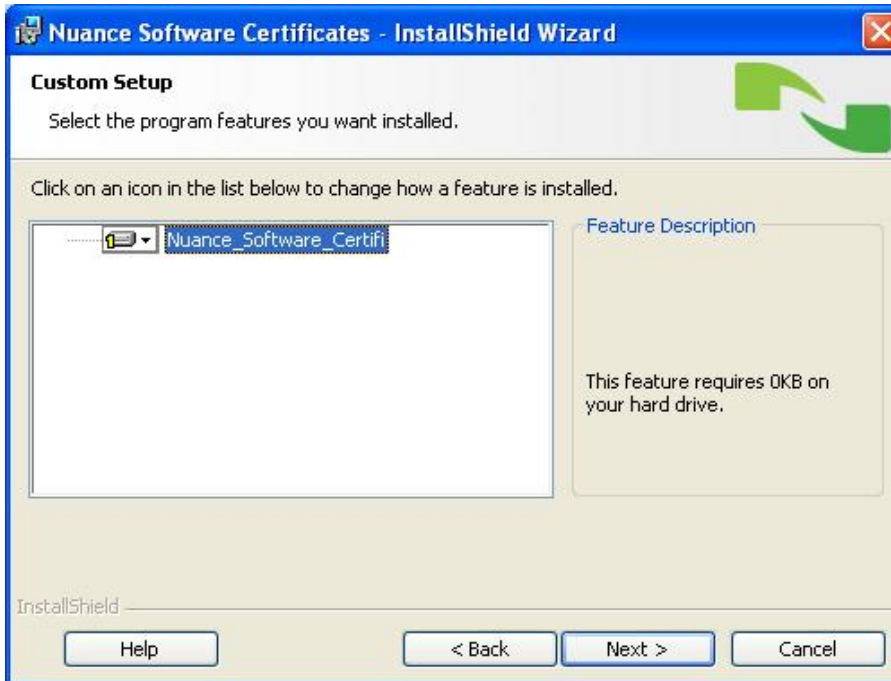
1. If it is not already there, insert the *Nuance Management Server Software and Documentation* DVD into your DVD reader.
2. Browse the DVD for the file named **Nuance\_Software\_Certificates.msi**.
3. Double click on the file and if you are prompted, click **Save** to download and save it, or **Run** to run it without downloading it. If you save it, then find the file where you saved it and double click on it.



4. The **Nuance Software Certificates InstallShield Wizard** appears.



5. Click **Next** to continue to the **Custom Setup** page.



6. On the **Custom Setup** page, choose to download the feature or and all of its sub features on the local hard drive. Then click **Next** to continue.
7. On the **Ready to Install the Program** page, click the **Install** button and give the installer time to install the certificates.



8. When the installation is complete, you should see the **InstallShield Wizard Completed** page and can click **Finish** to close the wizard.



You are now ready to run the *Nuance Management Console*. For instructions, proceed to *Logging in to the Nuance Management Server through the Nuance Management Console* on page 95.

# Logging in to the Nuance Management Server through the Nuance Management Console

Before you can log in to the *NMS Server* using the *Nuance Management Console*, you must be sure you have installed the Nuance Software Certificates. If you have not installed them on the machine, install them before you log in. Refer to *Installing Nuance software certificates* on page 92.

---

**Caution:**

If the time and date setting on a workstation machine you are trying to log in through is more than 5 minutes different from the time setting on the *NMS Server*, you will not be able to log in through the *Nuance Management Console* on that workstation. If you have trouble logging in, synchronize the clock settings on those machines.

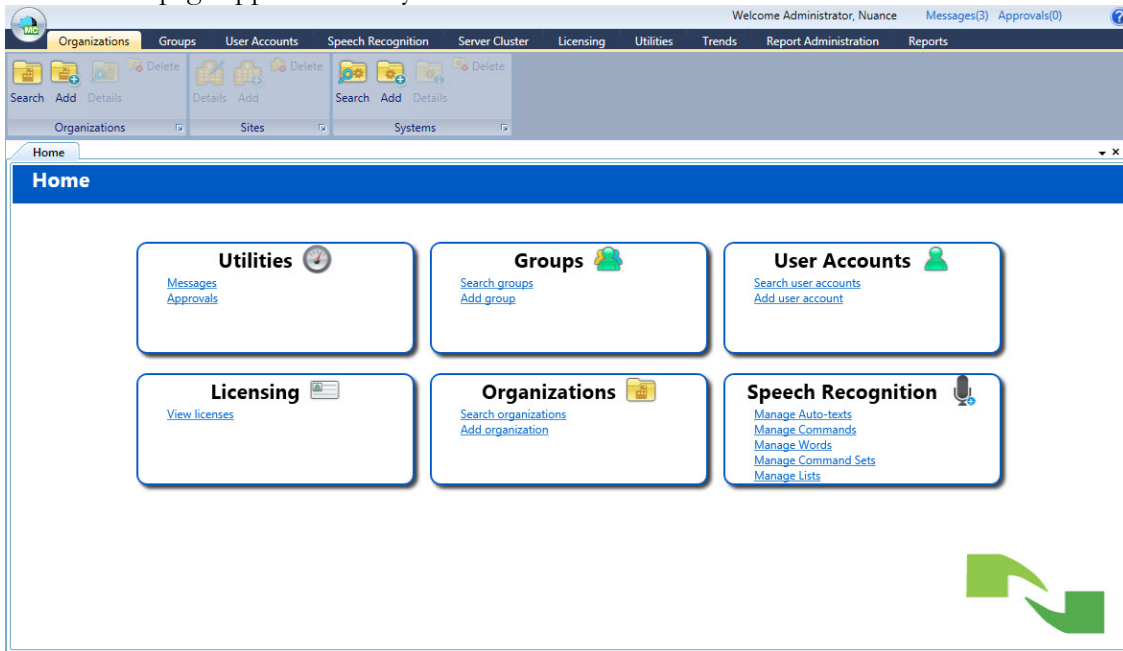
---

Once you are sure the *NMS Server* is running, you should be able to log in to the *Nuance Management Console*. To verify you can log in:

1. Once the server is running, you use the IP address or name of the machine where the server was installed to access the server and configure it.
2. Go to any workstation on the network and open a browser window.
3. In the URL line of the browser, enter **http://<IP\_address>/nmc/Client.xbap**, entering your server machine's IP address (but not the angle brackets). Then click the **Go** or similar button in the browser. Or, if you know the server name, use its name instead of its IP address: **http://<servername>/nmc/Client.xbap**  
(The URL shown here is based on the location of the **.xbap** file if you installed the *NMS Server* under the default directory.) Note that this URL changes if you have a load balancing switch managing traffic to multiple *NMS Servers* (see the end of this section for details).
4. When the **Nuance Management Console** login screen appears, enter **admin** as the user name and **password** as the password, then click **Log on**.

To change the standard login and password, refer to the *DM 360 | Administrator Guide*

5. The **Home** page appears. Here you see links to the various features of the *NMS Server*:



**Note:**

Be sure you change the standard login and password before you log out.

For how to change the password and other information on configuring the Dragon Medical 360 | Network Edition network and the *Nuance Management Server*, refer to the *Nuance Management Server Administrator Guide* or the *Nuance Management Console Help*.

## Accessing Nuance Management Console when load balancing traffic switch chooses among multiple NMS Servers on your network

When you have multiple *NMS Servers* and a load balancing traffic switch in your network, you should be sure that when you open the *Nuance Management Console*, you substitute the name or address of the switch for the name or address of the *NMS Server*. For instance, for a load balancing switch named **NMS\_Switch** at IP address **10.1.1.2**, here are two possible URLs you would use to run the console:

`http://NMS_Switch/nmc/client.xbap`

or

`http://10.1.1.2/nmc/client.xbap`

# Starting the Nuance Management Server and Profile Optimizer Server

After the *NMS* and *Profile Optimizer* servers are installed, if the services do not start on their own, be sure that the account the servers are running under has Windows administrator level privileges, has rights to start a service, and that the same account is the one all entities are running on all servers and (if Windows-based) file servers of the entire Dragon Medical 360 | Network Edition network, including *NMS Server*, *Profile Optimizer Server*, all *Speech Nodes* and the machine hosting the master user profiles directory.

---

**Caution:**

The account running the services for the *NMS Server*, *Profile Optimizer Server*, and *Speech Nodes* must have full access rights on all those machines and on the machine that hosts the master user profiles.

---

## Changing the account running NMS Server

If you had no trouble entering the user account the server should run under during the *NMS Server* installation, skip to the next subsection, *Starting NMS Server service* on page 97.

If during the installation you were forced to change the account that the *NMS Server* runs under to the local administrator or local system account, you need to change that account to the same one that the other servers are running under (such as **NMSapps**):

1. Click **Start > Control Panel** and double click **Administrative Tools**, then double click **Services**.
2. In the **Services** list, find the **Nuance Management Service**.
3. Right click on the service name and select **Properties** to open its **Nuance Management Service Properties** dialog box.
4. Click the **LogOn** tab and in the **This Account** text box enter the domain and user name of the account that all *Dragon Medical 360 | Network Edition* services should run under, separating them with a backslash:  
<DOMAIN>\<user name>
5. Enter the password in the **Password** and **Confirm Password** text boxes.
6. Click **Apply** to change the account and then click **OK** to close the dialog box.
7. Now you are ready to start any DM360 Network Edition services that do not automatically start.

## Starting NMS Server service

After you are sure you have all the necessary privileges, to start *NMS Server* service:

1. Click **Start > Control Panel** and double click **Administrative Tools**, then double click **Services**.
2. In the **Services** list, find the **Nuance Management Service**.

3. To start the service, right click on the service name to open its **Nuance Management Service Properties** dialog box.
4. If the **Startup type** is not set to **Automatic** select **Automatic** from the drop-down list.
5. Click the **Start** button in the lower third of the dialog box.
6. Click **OK** to close the dialog box.
7. If you have *Profile Optimizer* components installed on the same machine as the *Nuance Management Server*, to verify that you can log in to the *Nuance Management Console*, proceed to [Logging in to the Nuance Management Server through the Nuance Management Console](#).

## Starting Profile Optimizer services

After you are sure you have all the necessary privileges, to start the services of the *Profile Optimizer* or for one or more *Profile Optimizer Speech Nodes*:

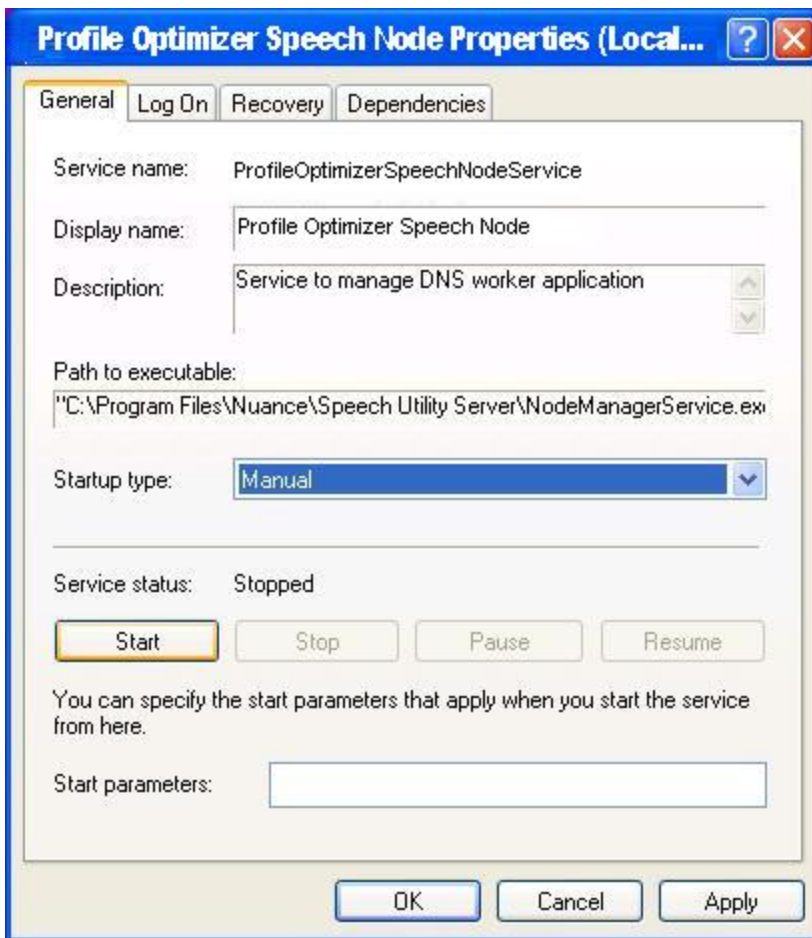
1. Click **Start > Control Panel** and double click **Administrative Tools**, then double click **Services**.
2. In the Services list, find the Profile Optimizer Server service for the Profile Optimizer Server. If a Speech Node is installed on the computer, the Services list displays the service for the Profile Optimizer Speech Node.
3. Start each service manually by clicking on the Service name to open its *<Service Name>* **Properties** dialog box.
4. If the **Startup type** is not set to **Automatic** select **Automatic** from the drop-down list.
5. Click the **Start** button in the lower third of the dialog box.
6. Click **OK** to close the dialog box.
7. Additional privileges may be required to start the *Profile Optimizer Speech Nodes*. For more information see *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84.
8. If you have not already done so, verify that you can start the *Nuance Management Console* (see [Logging in to the Nuance Management Server through the Nuance Management Console](#)).

# Starting Profile Optimizer Speech Nodes

## Running Profile Optimizer Speech Node service

Once you have installed *Profile Optimizer Speech Nodes*, to be sure the *Speech Nodes* are running and to start them if they are not:

1. Click **Start > Control** panel and double click **Administrative Tools** to open the **Administrative Tools** dialog box.
2. Find and double click **Services**. The **Services** dialog box opens, displaying a list of services installed on the machine.
3. Look in the **Name** column for the **Profile Optimizer Speech Node** service. Double click on the service name to open its **Properties** dialog box.

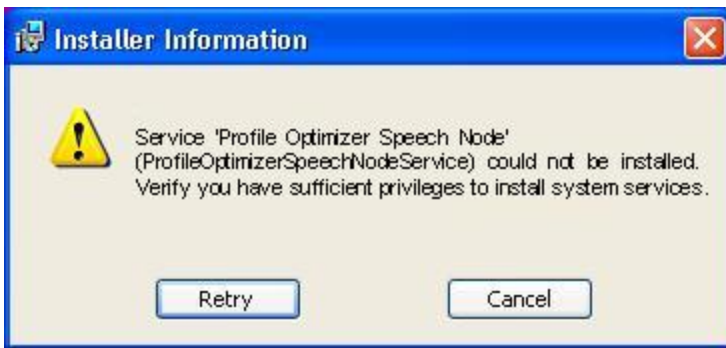


4. In the **Startup type** drop-down list, if the service is not already set to start automatically, select **Automatic**.
5. Under **Service status**, click the **Start** button to the left.
6. After the **Service status** says **Started**, you can click **OK** and close the dialog box.

## Giving yourself rights to start the service

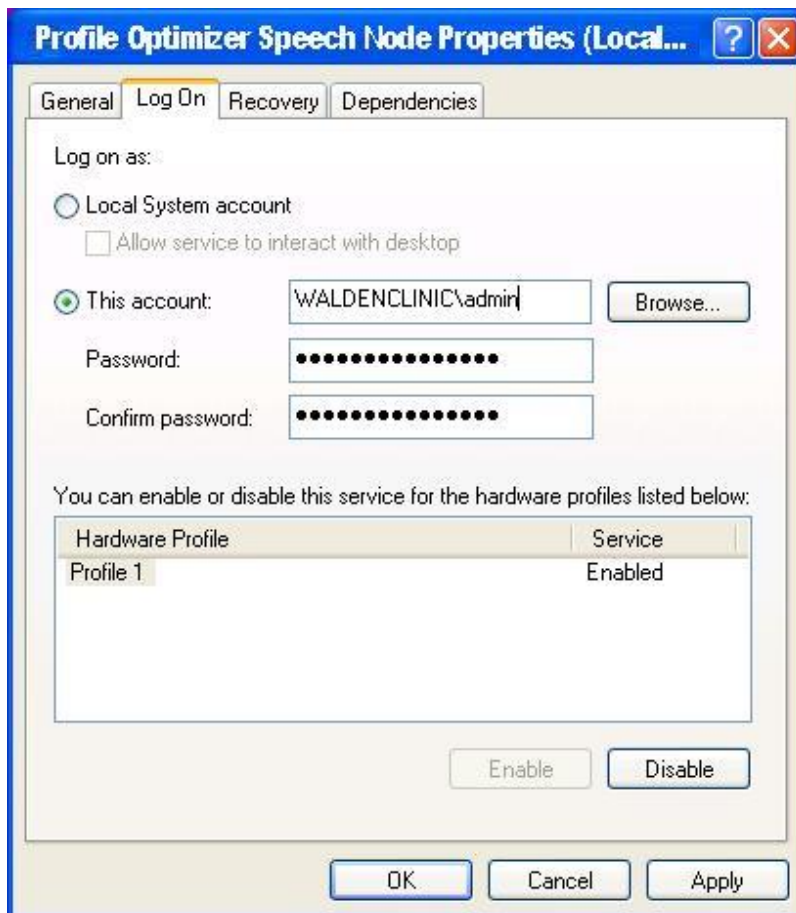
If you cannot start the *Profile Optimizer Speech Node*, you might have only had privileges to install the Speech Node; that means you might not have privileges to run the service that launches the node.

If you have **Log on as Service** level privileges, then the **SPARK Speech Node Manager** service should start immediately. If you do not have that privilege, you might receive the error shown below:



A quick way to correct this problem is to enter your credentials in the **Service Control Manager** by taking these steps:

1. Click **Start > Control** panel and double click **Administrative Tools** to open the **Administrative Tools** dialog box.
2. Find and double click **Services**. The **Services** dialog box opens, displaying a list of services installed on the machine.
3. Look in the **Name** column for the **Profile Optimizer Speech Node** service. Double click on the service name to open its **Properties** dialog box.





4. Click the **Log On** tab, then to enter a network domain level user's login and password, click **This account** and enter the domain and user name of the individual who should have access and enter it in the format of `<DOMAIN>\<username>` with a backslash between them. The user must be a Windows administrator level user.

To allow a local machine user to have access, click **This account** and enter `<machineName>\<username>` with a backslash between them or `.\<username>`, where `.\` precedes the login name.

Next, you prepare to log in to the *Nuance Management Console* by first installing the Nuance certificates on the workstation you want to log in on. Proceed to *Installing Nuance software certificates* on page 92.

## Anti-virus recommendations and requirements

Nuance recommends anti-virus software on all *Dragon Medical 360 | Network Editions* servers and clients to protect the system from potential downtime due to viruses. However, be aware of the recommended restrictions.

After you have installed the servers, be sure to exclude from the anti-virus scan any files found in the folders indicated below or with the extensions listed below.

### On NMS Servers, Profile Optimizer Server, SQL Database Server:

- **Nuance** folder and all sub-folders
- Files with these extensions:  
DAT, DRA, ENH, INI, LCK, LOG, NWV, SIG, TXT, USR, VER, VOC, WAV



# ***Chapter 5: Setting up the Master User Profiles machine***

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Choosing a master user profiles location for a site .....	104
Setting up a computer to host master user profiles .....	106
Installing software for storing master user profiles on a web server .....	108
Installing Microsoft Internet Information Services 6.0 web server .....	109
Setting HTTP connection settings for web server .....	121
Setting SSL connection settings for secure web server .....	124
Assigning access to folders and master user profiles across the network .....	126
Turning off Automatic Updates .....	126

## Choosing a master user profiles location for a site

For each site on your *Dragon Medical 360 | Network Edition* network, you must determine where on the network the master user profiles should be located. In fact, a site is, by definition, a facility location or group of facility locations in your organization that use the same server location for their user profiles. If all of your user profiles are stored in a single server location, your organization needs only one site.

All user profiles for a single site should be in their own subdirectory of the master user profiles directory.

The *NMS Server* lets you store your master user profiles on a Windows server, a networked Windows workstation (a server is not required), or a web server with or without SSL—this last option allowing you to access your master user profiles over the Internet. (The machine storing the master user profiles must be Windows-based.)

If you choose to use a networked Windows server or workstation, you should determine the path to where the master user profiles will reside and be able to access it any of these ways:

- Mapped Drives—Connects to a shared network folder that has a drive letter assigned to it.
- UNC Paths—Connects to a shared network folder using the Universal Naming Convention (UNC) to locate a user. The UNC is a way to identify a shared file on a computer or network without having to know the storage device it is on. Format is:  
\\<servername>\<sharename>\<path>\<filename>.
- HTTP (**http:**)—Connects to machine on the Internet or your local intranet running a web server. Format is: **http://<myserver.com>/<webdav>**
- HTTP with SSL (**https:**)—Connects to machine on the Internet or your local intranet running a secure socket layer (SSL) web server. Format is: **https://<myserver.com>/<webdav>**

The location(s) you select must be accessible to all computers where healthcare providers dictate. Each location must have adequate storage space for the master user profiles.

---

### Caution:

If the master user profiles directory is on a separate server or workstation, you must share the top level master user profiles directory in Windows and give **Everyone** full read/write/modify control over the directory, so that the *Dragon Medical Client* can write to those directories when it creates the master user profile for each healthcare provider.

---

**Caution:**

Be sure that when you set up the master user profiles directory, you locate it either on a Windows machine or on a device connected to a Windows machine with .NET Framework installed on it and that the machine is in the same Windows domain as your DM360 Network Edition servers. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7

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If you choose to use server, choose one of the supported web servers. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7

## Information required for setting up Web Server

If you have chosen to store the master user profiles on a web server or secure web server, you should determine the following information so that you can tell **Dragon** how to connect to the HTTP server:

- **The network location**—You need to know the URL address of your HTTP server.
- **HTTP settings**—For your **http** (or **https**) connection you need to know authentication, firewall, and proxy server information.
- **SSL settings**—For your **https** connection you need to know Certificate store information, and the type(s) of SSL protocols used.
- If you are using **Open SSL**, you need the locations of the cipher list, certificate authority file, and certificate authority directory.

# Setting up a computer to host master user profiles

---

## Caution:

If you have proxy servers in your network, they must all point to the machine hosting the master user profiles.

---

Any time after you have installed the *NMS Server* and started its service (even before you have the *Profile Optimizer Server* installed or running), you can set up the machine that hosts your master user profiles by taking these actions:

- *Creating the master user profile directory* on page 106
- *Mapping the disk drive on the client workstation* on page 106
- *Setting up access to the master user profile directory* on page 107

## Creating the master user profile directory

On the machine that you selected to host the master user profiles for the *Dragon Medical 360 | Network Edition* network:

---

## Caution:

Be sure the machine is a Windows server or workstation with the .NET Framework installed ( see *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for the appropriate version) and that the machine is in your Windows domain. If you are using a RAID array, be sure to attach the device to a Windows machine meeting these requirements. The requirements that machine be a Windows machine with specific software installed differ from roaming user storage requirements for previous non-network editions of *Dragon Medical*.

---

1. Create a directory to store the profiles. You can have more than one directory for profiles, but you should store all user profiles from providers at the same site in the same location.
2. Write down the machine name and full path to the directory.

## Mapping the disk drive on the client workstation

On the workstations where you have the *Dragon Medical Client 2.3* installed or in the Windows user profiles of all providers who will later dictate:

If your workstations uses a mapped drive to access the master user profiles, map a drive letter to the location where the master user profiles are located on every machine running the *Dragon Medical Client 2.3*. This mapping must be the same on every workstation and every Windows user profile.

## **Setting up access to the master user profile directory**

Please see 'Setting general site settings for master user profiles' in the DM 360 | Administrator Guide.

# Installing software for storing master user profiles on a web server

---

## Caution:

If you have never set up a web server or secure web server before, do not attempt to do so; these instructions assume you have experience setting up a web server. Appropriate settings vary.

---

After you install the *NMS Server* and *Nuance Management Console*, if you choose to store your master user profiles on a web server or secure web server, be sure you have the correct type of server, download the required software, and make the correct selections while installing the web server.

---

## Note:

Storing your master user profiles on a web server or secure web server is entirely optional. You can choose to store them on a mapped drive, on any *Dragon Medical 360* | *Network Edition* network physical server or workstation with adequate storage space, or on their own Windows server or workstation within your network's domain without using a web server at all.

---

To store the master user profiles on one of the web servers below, first be sure you have .NET Framework 4.0 installed as well as the associated WebDAV software for the server. For more information, visit the software provider's site (some links below are provided for reference):

- Microsoft Internet Information Services (IIS) Version 7.0 or 7.5 0 on Windows Server 2008:
  - 32-bit Version: [http://learn.iis.net/page.aspx/350/installing-and-configuring-webdav-on-iis-7/webdav\\_x86\\_75.msi](http://learn.iis.net/page.aspx/350/installing-and-configuring-webdav-on-iis-7/webdav_x86_75.msi)
  - 64-bit Version: [http://learn.iis.net/page.aspx/350/installing-and-configuring-webdav-on-iis-7/webdav\\_x64\\_75.msi](http://learn.iis.net/page.aspx/350/installing-and-configuring-webdav-on-iis-7/webdav_x64_75.msi)
- Microsoft Internet Information Services (IIS) Version 6.0 on Windows Server 2003: Refer to *Installing Microsoft Internet Information Services 6.0 web server* on page 109.
- Apache Server 2.2.16 or higher on Windows Server 2008:  
This server should run on Windows Server 2008 Core and also runs on Windows 7 or Vista.  
For more information see:
  - <http://www.markwilson.co.uk/blog/2007/07/apache-http-server-on-windows-server-2008-server-core.htm>
  - <http://www.thesitewizard.com/apache/install-apache-on-vista.shtml>
- Apache Server 2.0.54 or higher on Windows Server 2003.

For more information on installing Apache web server, see: <http://www.apache.org/>



# Installing Microsoft Internet Information Services 6.0 web server

The following instructions assume you have experience setting up a web server.

You install a Microsoft Internet Information Services 6.0 web server on a Windows Server 2003 system. With that version of the operating system, you receive IIS 6.0 and the WebDAV module.

To install an IIS 6.0 web server, take these general steps:

- Install IIS 6.0 web server and its WebDAV module on the physical server.
- Customize the web server settings for *Dragon Medical*.
- Configure HTTP or SSL settings in the *Nuance Management Console*.

## Installing IIS Server and WebDAV component on physical server

To install IIS 6.0 and the WebDAV module in Windows Server 2003 or 2003 R2:

1. Log on to the server as a local Windows administrator user.
2. Go to your server desktop and click **Start > Control Panel**, then click **Add or Remove Program**.
3. Once the **Add or Remove Programs** dialog box opens, look down along the left vertical bar and click the **Add or Remove Windows Components** icon to start the **Windows Components Wizard**.
4. When the wizard appears, check the check box for **Application Server** and highlight the selection and, when the **Details...** button becomes available, click the button to open the **Application Server** dialog box.

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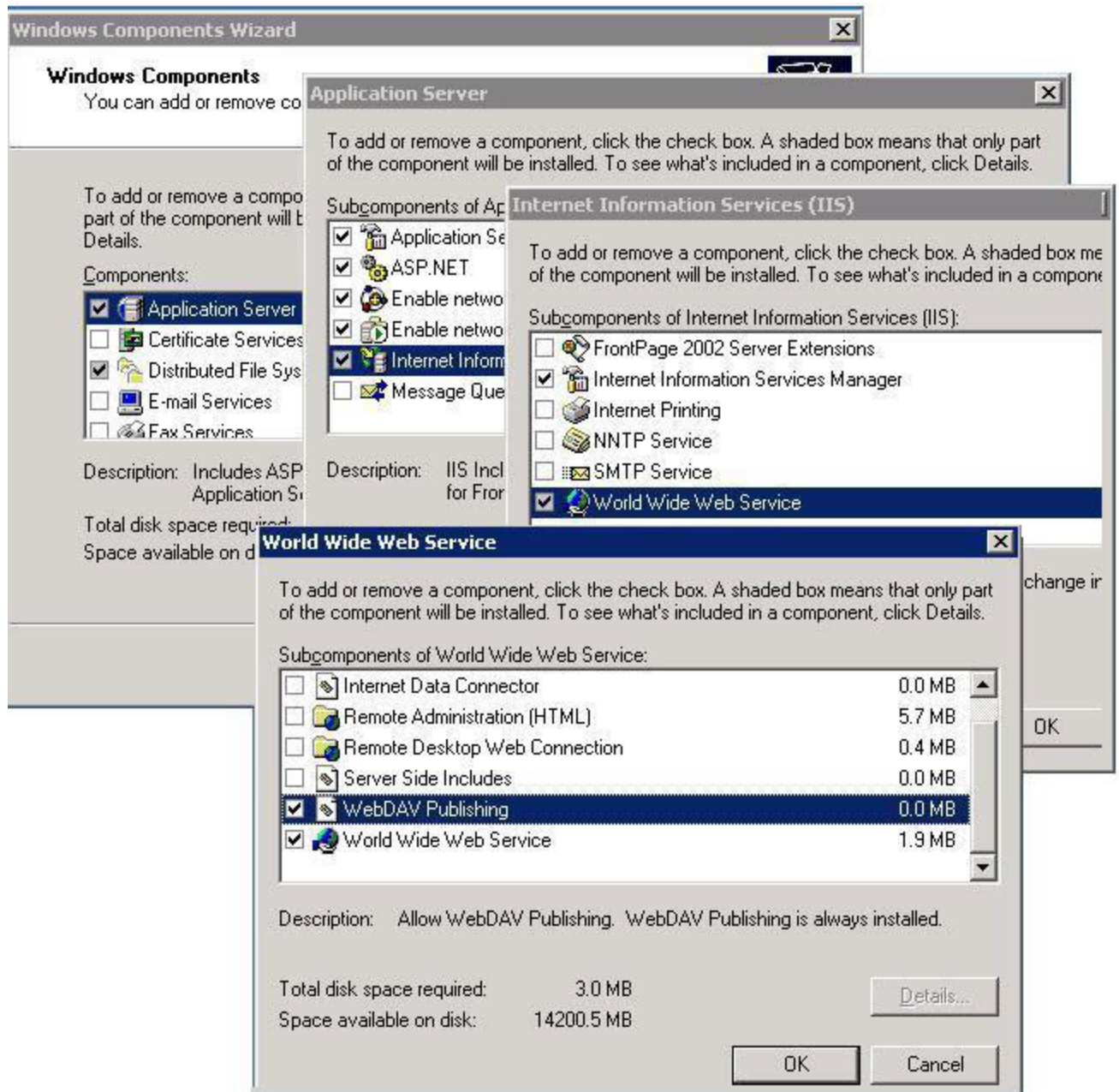
### Caution:

Do not uncheck any of the already checked boxes or the wizard will uninstall those components.

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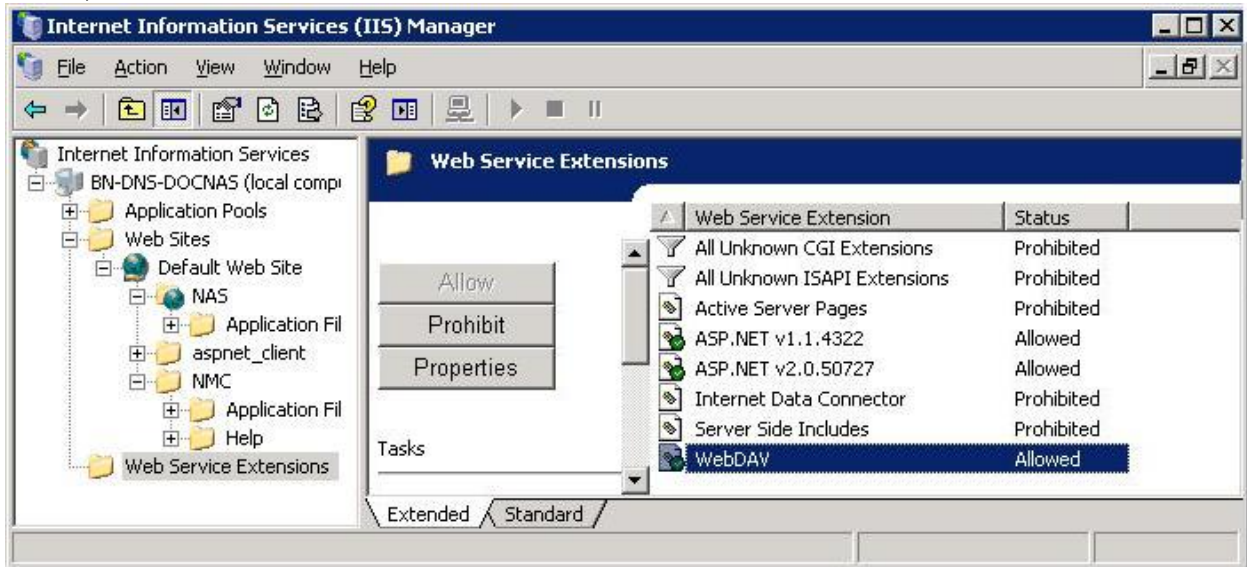
5. In the list, check the check box for **Internet Information Services** and highlight the selection, then click the **Details...** button to open the **Internet Information Services** dialog box.
6. In the list, check the check box for **World Wide Web Service** and highlight the selection, then click the **Details...** button to open the **World Wide Web Service** dialog box.
7. In the list, check the check box for **WebDAV Publishing**.
8. Click **OK** in each successive open dialog box until you return to the wizard; then click **Next** to initiate the installation.

- When the **Completing the Windows Components Wizard** page of the wizard appears, to exit the wizard, click **Finish**.



- To ensure WebDAV is enabled or enable it if it is not, select **Start > Programs > Administrative Tools > Internet Information Services (IIS) Manager** and expand the IIS Explorer in the left pane.
- Select **Web Service Extensions** (below **Web Sites**) and, in the right pane of the **IIS Manager** dialog box, select **WebDAV**, then click **Allow** to change its **Status** to **Allowed** (see next illus-

tration).



## Customizing web server settings for Dragon Medical

### Note:

Do not choose **Digest authentication**, as the *Dragon Medical 360 | Network Edition* network does not support the option for an IIS web server housing the master user profiles.

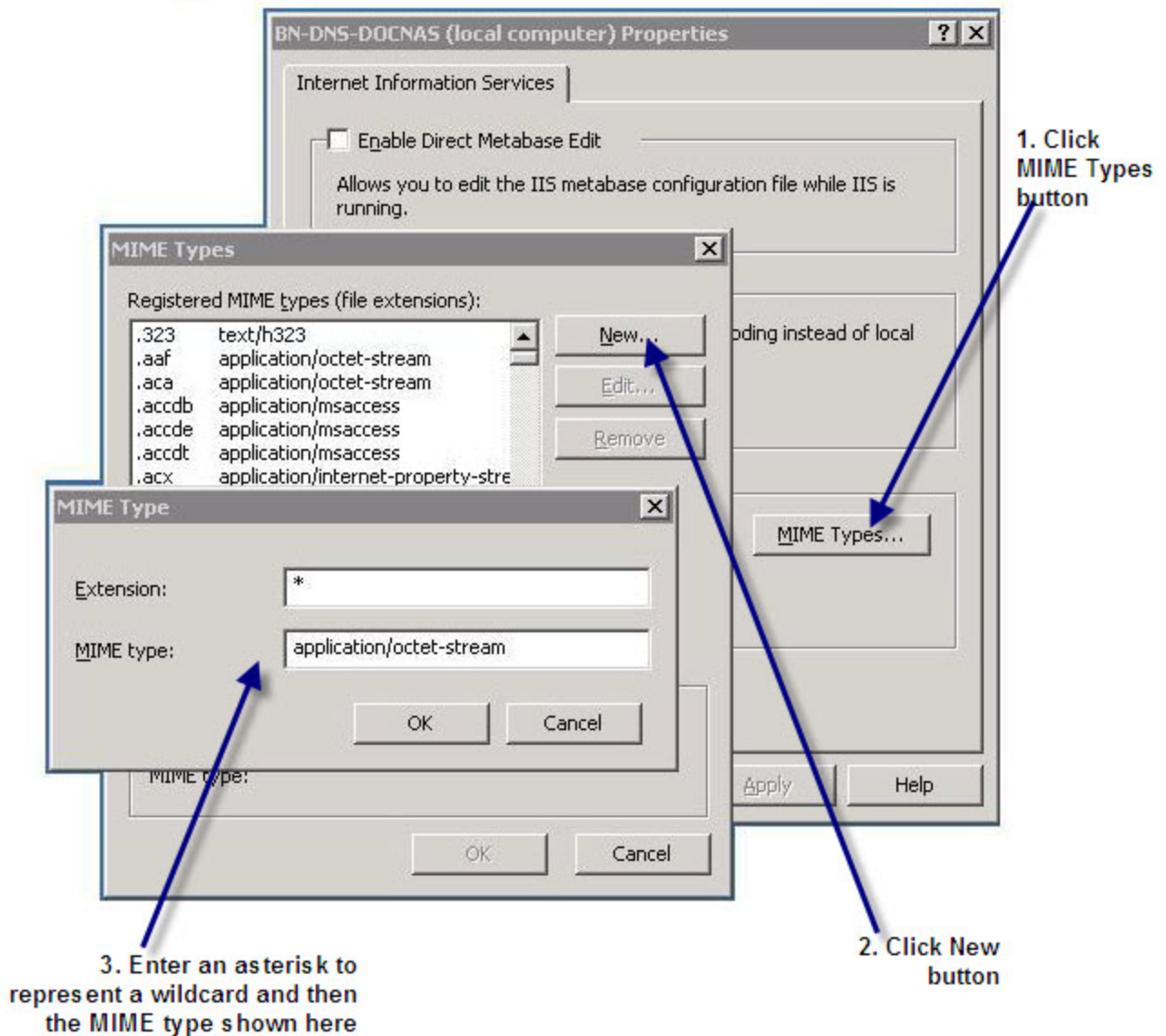
### Caution:

You should not give the right to log on locally to healthcare providers dictating with *Dragon Medical Client 2.3*. Only administrator level users should have log on rights to the web server hosting the master user profiles.

To customize the web server settings for the *Dragon Medical Enterprise* master user profiles:

1. Create a virtual directory for the web server. To create that virtual directory using Windows Explorer:
  - i. Open Windows Explorer.
  - ii. Right-click the folder you want to be a virtual directory, and click **Sharing and Security**.
  - iii. Click the **Web Sharing** tab and then click **Share this folder**.
  - iv. In the **Alias** text box, type the name for the virtual directory, then select the permissions under **Access permissions** and **Application permissions**.
  - v. Click **OK** in the **Edit Alias** dialog box, then **OK** again in the **Properties** dialog box.
2. To open the **IIS Manager**, select **Start > Programs > Administrative Tools > Internet Information Services (IIS) Manager**.

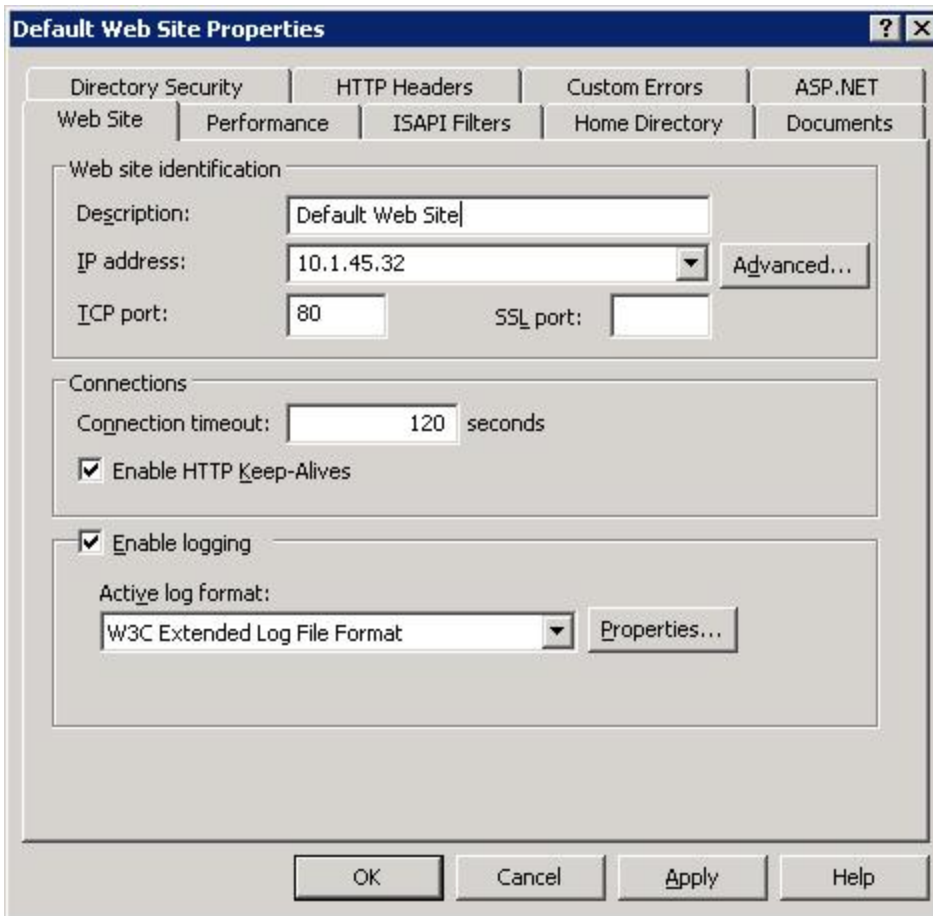
3. Add wildcard MIME mapping to the virtual directory. *Dragon Medical Client 2.3* requires this type of mapping. Take these steps in the **IIS Manager**:



- i. Right click on the local computer name and select **Properties** from the drop-down menu.
  - ii. In the local computer **Properties** dialog box, click the MIME Types button.
  - iii. In the **MIME Types** dialog box, click the **New...** button.
  - iv. In the **Extension** text box, type an asterisk (\*).
  - v. In the **MIME type** text box, type **application/octet-stream**.
  - vi. Click **OK** until you return to the **Internet Information Services** tab, where you click **Apply** to apply the changes and **OK** to close the dialog box.
4. In the **IIS Manager**, expand the tree under the local computer by double-clicking on it; then right-click the **Default Web Site** folder (or your individual Web server folder or the virtual directory) and select **Properties**. You see several tabs where you enter information about the web site. The tabs you fill out for your master user profiles web server are:
    - **Web Site**

- Virtual Directory or Home Directory
- Directory Security

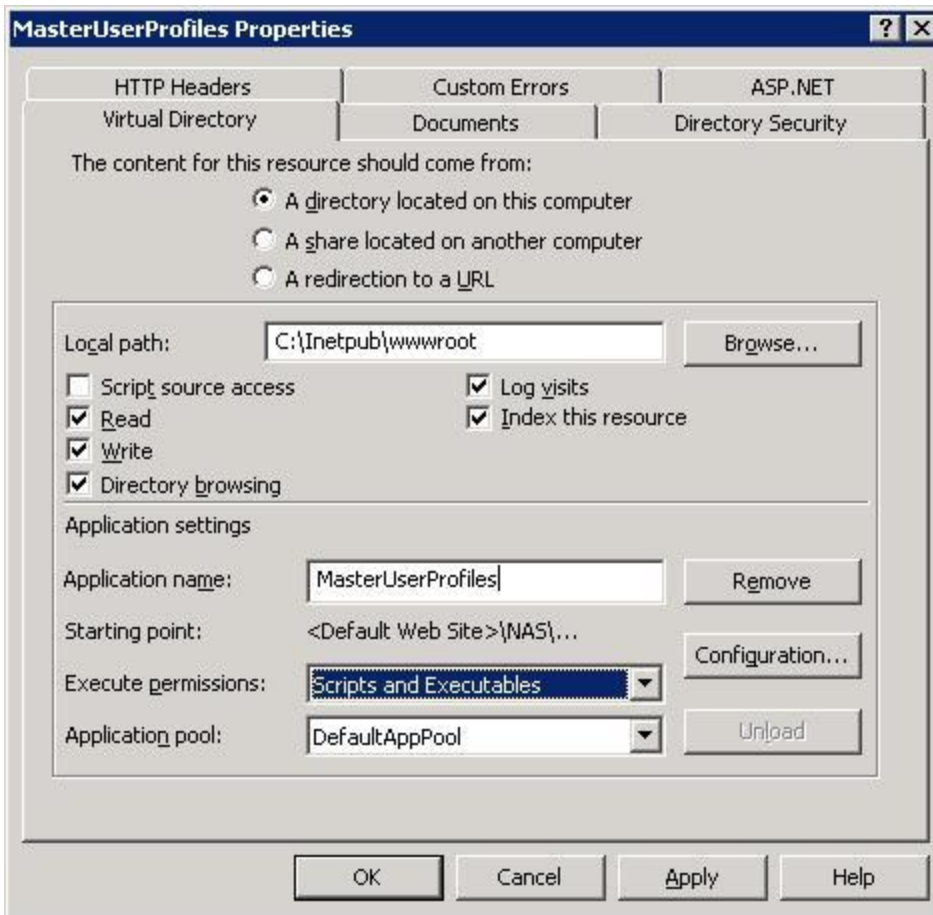
### Entering settings under Web Site tab



You should enter these settings under the **Web Site** tab:

1. Click the **Web Site** tab.
2. Under **Web site identification**, enter:
  - **Description:** Optional. **Master user profiles web server.**
  - **IP address:** Set to IP address of this machine.
  - **TCP port:** Set to **80**.
  - **SSL port:** Set to **443** only if you are creating a secure (SSL) web server.
3. Under **Connections**, enter:
  - **Connection timeout:** **120** seconds.
  - **HTTP Keep-Alives:** Check the check box to enable them.
4. Under **Enable logging**, enter:
  - **Active log format:** Select **W3C Extended Log File Format** from the drop-down list.
  - (Optional) Click the **Properties...** button to set up logging options.
5. Click **Apply** and proceed to either the **Home Directory** tab or the **Virtual Directory** tab.

## Entering settings under Virtual Directory or Home Directory tab



You should enter these settings under the **Virtual Directory** or **Home Directory** tab:

1. **The content for this resource should come from**—Select **A directory located on this computer**.
2. **Local path**—Enter the full path to the web site folder. If you use the default folder, the path is C:\inetpub\wwwroot.
3. Check off the following check boxes under the local path to indicate the kind of access to the master user profiles you want to grant to the user accounts running the other services of the *Dragon Medical 360 | Network Edition* network:
  - **Read**
  - **Write**
  - **Directory Browsing**



- Log visits
  - Index this resource
4. **Application name**—You should see the name you gave to your virtual directory, in this case **MasterUserProfiles**.
  5. **Execute permissions**—Select **Scripts and executables** from the drop-down list. You need the option of running executables on the master user profiles so that the acoustic and language model optimization results can be integrated into the profiles. When you choose this selection, the **IIS Manager** warns you that you could be exposing the site, so be sure your firewall and other security precautions are adequate to protect the site from malicious attack. To avoid giving permission to run scripts on the entire machine, be sure that you set the permissions to **Scripts and executables** only on the virtual directory, not on its parent directory.
  6. **Application pool**—Select **DefaultAppPool** from the drop-down list.
  7. Click **Apply** to apply the changes.

### Entering settings under Directory Security tab

Under the **Directory Security** tab, you select **Basic authentication** for the virtual directory you created for your web server. You also view and verify certificate information that ensures the identity of the computer if you are installing the software on a remote computer, rather than locally.

---

**Caution:**

**Basic authentication** transmits user names and passwords across the network in an unencrypted form. You must use your web server's encryption features to ensure the security of login information.

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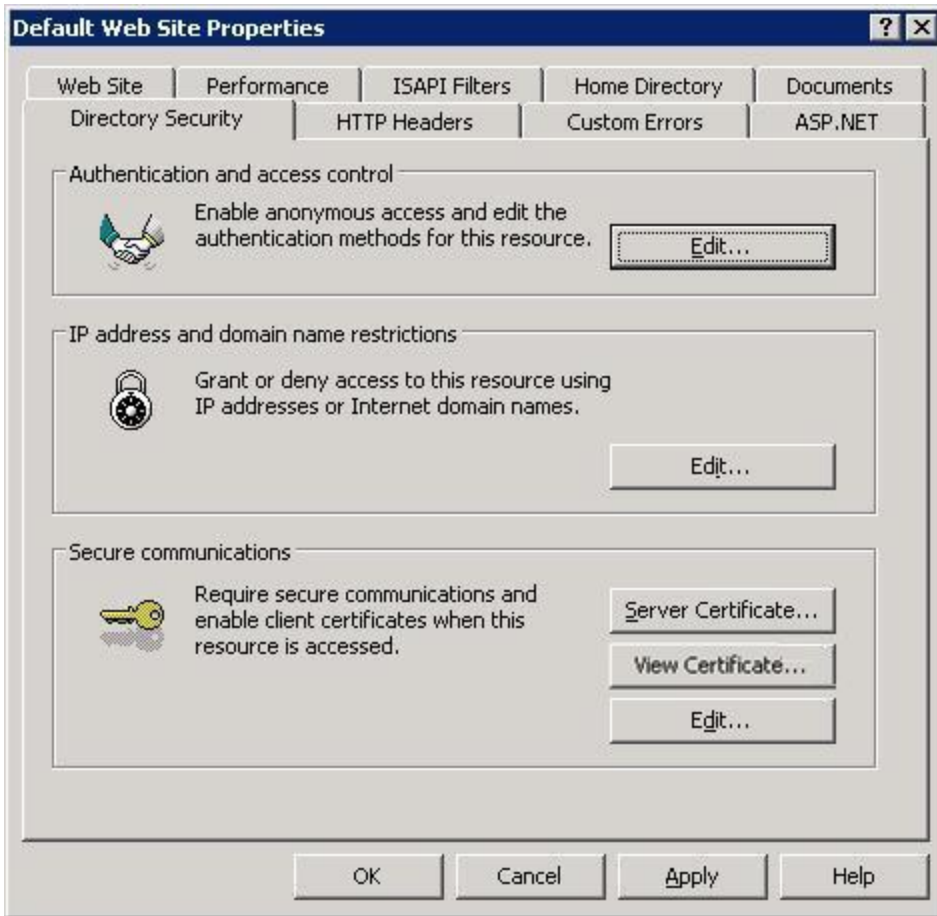
To use **Basic authentication** to control access to your web server, you grant each Windows administrator account that needs access the right to log on locally. (You can add each administrator to a group and then give the group access to the necessary files.)

---

**Caution:**

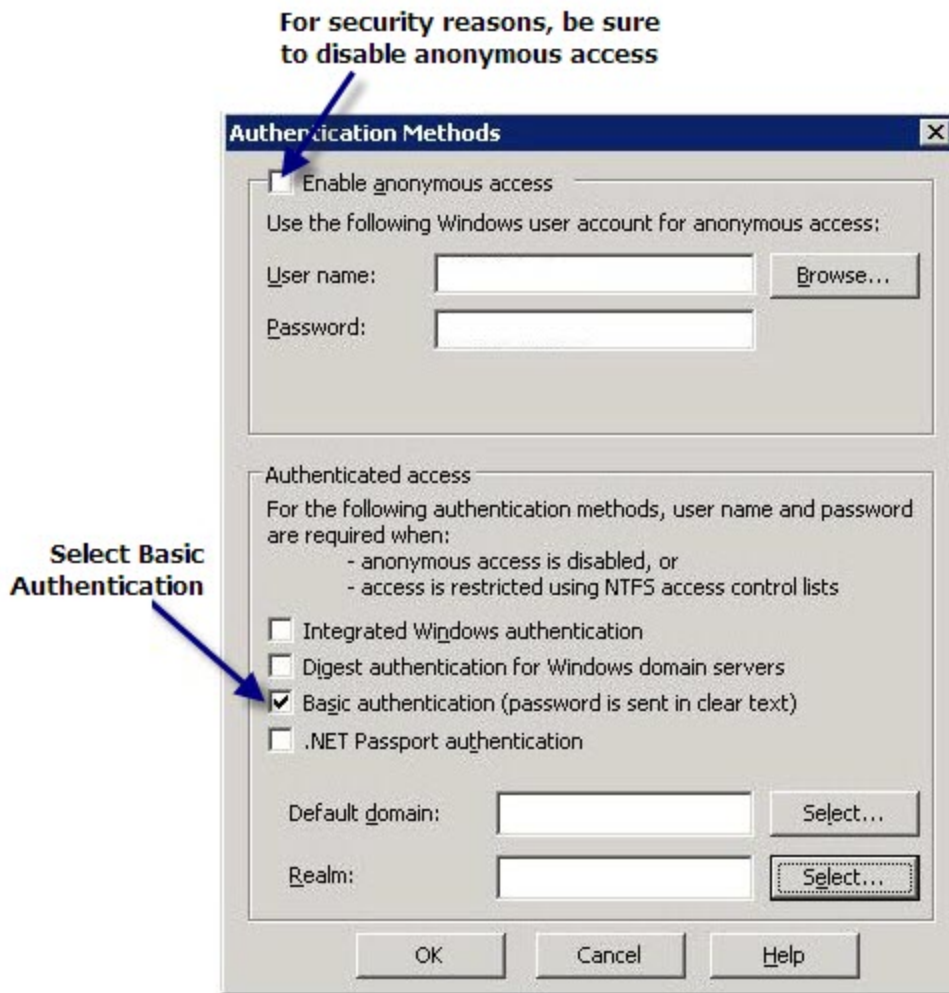
You should not give the right to log on locally to healthcare providers dictating with *Dragon Medical Client 2.3*. Only administrator level users should have log on rights to the web server hosting the master user profiles.

---



1. To enable **Basic Authentication**:
  - i. In the **Authentication and access control** section, click the **Edit...** button.
  - ii. When the **Authentication Methods** dialog box pops up, check off **Basic authentication**.





- iii. When you are warned that this type of authentication passes unencrypted passwords over the network, click **Yes** to proceed.
  - iv. Be sure that if you see a check mark in the check box for **Enable anonymous access** you click it to remove the check mark. For security reasons, you should not allow anonymous access.
  - v. Leave the **Default domain** text box empty to have the domain name be the name of the machine itself when a party accessing this web server does not provide the domain name.
  - vi. Click **OK** to save the changes and return to the **Directory Security** tab. If you are setting up a secure (SSL) web server, proceed to the next step. Otherwise, skip to step 5.
2. If you are setting up a secure (SSL) web server, for the web server to selectively allow only *Dragon Medical Client* machines access to the master user profiles, you need to require that the web server enable security certificates on any client that tries to access the web server. Take these steps:
    - i. In the **Secure communications** section, click the **View Certificate...** button.
    - ii. When the **Certificate** dialog box pops up, under the **General** tab you should see **Certificate Information** indicating that this certificate's purpose is to ensure the identity of the remote system seeking access.

- iii. Under the **Certification Path** tab, click the **View Certificate** button and again under the **General** tab you should see root **Certificate Information** that ensures the validity of all issuance and application policies.
3. If the **View Certificate...** button is not available, you can purchase an SSL certificates on the web and install it. The button should then become available. For more information on purchasing and installing an SSL certificate, you can visit [http://www.rapidssl.com/index\\_ssl.htm](http://www.rapidssl.com/index_ssl.htm) or a similar site.
4. For instructions on installing an SSL certificate, visit [http://www.rapidssl.com/resources/install/chainedssl/MS\\_IIS5.html](http://www.rapidssl.com/resources/install/chainedssl/MS_IIS5.html).
5. Click **Apply** to apply all changes in the **Directory Security** tab and then click **OK** to close the dialog box.

Now that you have finished entering all of the settings for the web server, restart the World Wide Web Publishing Service or wait for the process to recycle for the changes to take effect.

---

**Caution:**

You must share the top level master user profiles directory in Windows and give **Everyone** full read/write/modify control over the directory, so that the *Dragon Medical Client* can write to those directories when it creates the master user profile for each healthcare provider.

---

## **Configuring HTTP or SSL settings in Nuance Management Console**

Later, when you set up sites in the *NMS Server*, to set up access to the master user profiles, you enter HTTP settings for interacting with a non-secure web site or SSL settings for interacting with a secure web site. For details, refer to the related topics in the *Nuance Management Console Help* or the *Nuance Management Server Administrator Guide*.

For specific HTTP settings that you should enter in the **HTTP Settings** tab in the *Nuance Management Console* for this type of web server, refer to *Setting HTTP connection settings for web server* on page 121.

For specific SSL settings that you should enter in the **SSL Settings** tab in the *Nuance Management Console* for this type of web server, refer to *Setting SSL connection settings for secure web server* on page 124.

## Installing SSL certificates for IIS 6.0

1. After you have downloaded an SSL certificate for IIS, the **View Certificate...** button becomes available under the **Directory Security** tab.
2. Click the **View Certificate...** button to see the certificate and verify that it is valid. It should look something like the one shown below.



---

### Note:

All certificates should be valid, not expired, free of errors, and properly signed.

---

3. Keep the certificate open and click the **Certification Path** tab to display the path to the certificate that *Dragon Medical Client 2.3* workstations will need to follow.
4. In the **Certification Path** tab, expand the path in the **Certification path** box. The **Certificate Status** text box near the bottom of the dialog box should say **This certificate is OK.**(See the next illustration.)



5. Click the next **View Certificate** button and view the certificate for **All Issuance and Application Policies** to be sure it was issued to the correct organization and is valid for the expected time period.
6. Install the **Root Certificate** for **All Issuance and Application Policies** (see previous illustration) on every *Dragon Medical Client 2.3* workstation and install it to **Trusted Root Certification Authorities**.

---

**Caution:**

If you do not install the above certificate on every *Dragon Medical Client 2.3* workstation, when the workstation attempts to access a master user profile on the web server, the provider will receive this error: **This Certificate cannot be verified up to a trusted certification authority.**

When you save the certificate, be sure to save it to *<PC-name>/<Site-name>* where the *PC-name* matches the name of the computer and the *Site-name* matches the name of the site you created in **IIS Manager**. Or you can save it to a name that matches the Active Directory host name.

---

# Setting HTTP connection settings for web server

## Caution:

If you have never set up a web server before, do not attempt to do so; these instructions assume you have experience setting up a web server, and appropriate settings to use vary.

After you install your web server, you must set HTTP connection settings in the *Nuance Management Console*. For details on how to set up a site, refer to the *Nuance Management Server Administrator Guide*.

## Note:

You set these **HTTP Settings** only to store master user profiles on a web server.

The screenshot shows the 'Master User Profile Directory Settings' dialog box with the 'HTTP Settings' tab selected. The dialog is divided into three sections: Authentication, Firewall and Proxy Servers, and Miscellaneous.

- Authentication:**
  - Default user: [Empty text box]
  - Password: [Empty text box]
  - Authentication type: Basic (dropdown menu)
  - Prompt for user and password:
- Firewall and Proxy Servers:**
  - Use proxy server:
  - Type: Tunnel (dropdown menu)
  - Server: [Empty text box]
  - Port: 0 (text box)
  - User: [Empty text box]
  - Password: [Empty text box]
  - Firewall data: [Empty text box]
- Miscellaneous:**
  - Follow redirects: Never (dropdown menu)
  - Keep connection alive:
  - Lock timeout: 0 seconds (0= use server default)
  - Connection timeout: 0 seconds
  - Timeout of inactive:

At the bottom of the dialog are 'Save' and 'Cancel' buttons.

## Making selections on HTTP Settings tab

The next table shows the settings you should select for each type of web server (not using SSL).

## Recommended HTTP settings for particular web servers

Web Server Type & Version	Default Values for IIS 6.0, 7.0, or 7.5	Default Values for Apache 2.0.xx or 2.2.xx	Other Considerations Based on Your Site Configuration
<b>Authentication</b>			
Prompt for user and password	Off		Turn off to prevent prompt for a user-name/password when <i>Dragon Client</i> accesses master user profiles.
Default user	Empty		Enter username for the account that the servers run under, such as <b>NMSapps</b> .
Password	Empty		Enter password for the account that servers run under.
Authentication type	<b>Basic</b>	<b>Basic</b> or <b>Digest</b>	For IIS, always choose <b>Basic</b> . For Apache, choose type you set up on the web server. <b>Basic authentication</b> sends transmits as plain text. <b>Digest authentication</b> transmits passwords in encrypted form.
<b>Firewall and Proxy Servers</b>			
Use proxy server	Off		Check (On) if you are connecting through a proxy server.
Type	<b>HTTP</b>		<b>HTTP</b> for web page transactions. <b>Tunnel</b> if you are using tunneling software. <b>Socks4</b> for SOCKS4 protocol/transparent client access across firewall. <b>Socks5</b> for SOCKS5 protocol/transparent access across firewall and SOCKS5 server DNS lookup.
Server	Empty		Enter name of the proxy server.
Port	Empty		Enter number of port for proxy server or firewall.
User	Empty		Enter user name for logging in to proxy server or firewall.
Password	Empty		Enter password for logging in to proxy server or firewall.
Firewall data	Empty		Enter any special authentication string required.
<b>Miscellaneous</b>			
Follow redirects	Off	<b>Always</b> or <b>Same Scheme Only</b>	Never turn off. Handles redirects of incoming connections.
Keep connection alive	Off		Could be turned on even if turned off for the site. If on, keeps the connection alive after current communication ends, which can be useful if the connection setup process involves multiple message transfers between the web server and the client or server interacting with it. Should be off if you have

Web Server Type & Version	Default Values for IIS 6.0, 7.0, or 7.5	Default Values for Apache 2.0.xx or 2.2.xx	Other Considerations Based on Your Site Configuration
			<b>Follow Redirects</b> set to anything other than <b>Never</b> .
Lock timeout	<b>120</b> seconds		Never set this value to <b>0</b> . Setting the value to 0 causes the web server to choose a timeout which may be excessively long, and can result in users being locked out of their user profiles.
Connection timeout	<b>60</b>		Must be <b>60</b> .
Timeout of inactive	Off		Must be On.

# Setting SSL connection settings for secure web server

**Caution:**

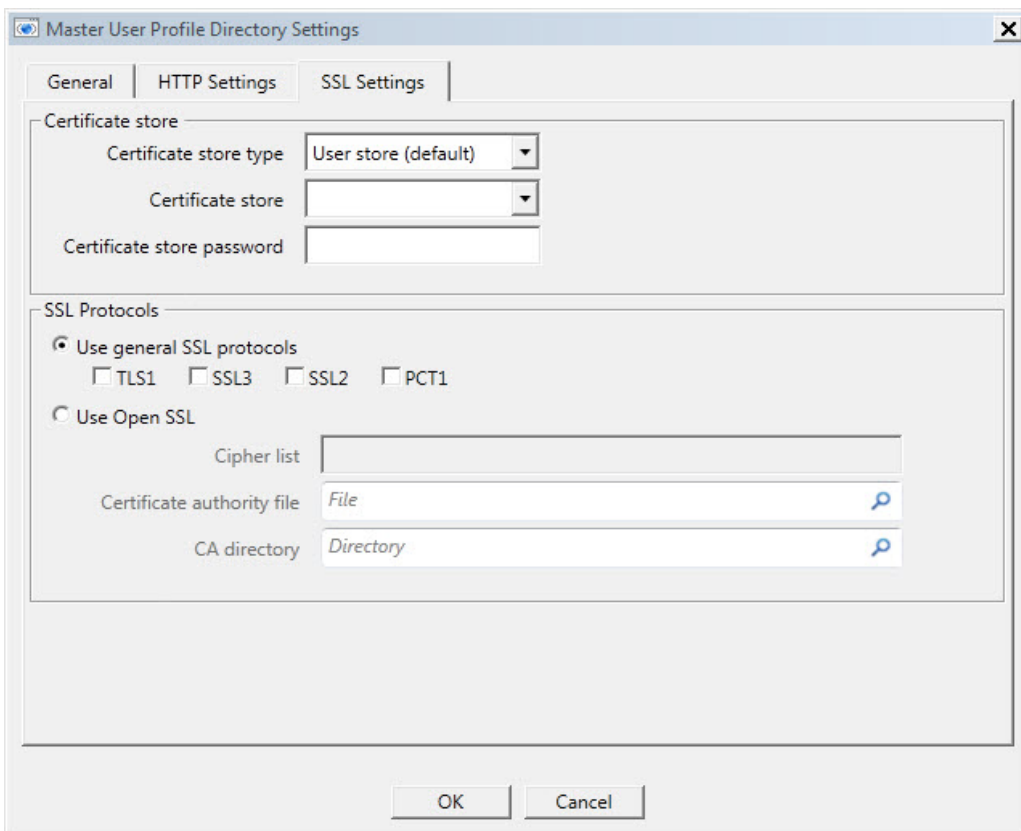
If you have never set up a secure web server before, do not attempt to do so; these instructions assume you have experience setting up a secure web server. Appropriate settings vary. Be sure that you install an SSL certificate that is trusted for directory on every workstation. You should push install the SSL certificate as Trusted Root Certificate Author.

After you install your secure web server, you must set SSL connection settings in the *Nuance Management Console*. For details on how to set up a site, refer to the *Nuance Management Server Administrator Guide*.

**Note:**

You set these SSL Settings only to store your master user profiles on a secure web server.

## Settings on SSL Settings tab





## Recommended settings for SSL web servers

The table below shows the settings you should select for various versions of each type of secure web server. In general, you have flexibility in selecting these settings and should select those appropriate for your installation.

### Recommended settings for particular secure web servers

Web Server Type & Version	IIS 6.0, 7.0, or 7.5	Apache 2.0.xx or 2..xx	Other Considerations Based on Your Site Configuration
<b>Certificate store</b>			
Certificate store type	User Store	User Store	
Certificate store	My	My	
Certificate store password	Empty	Empty	
<b>SSL Protocols</b>			
Use general SSL protocols	On	On	Check all protocols your server might receive legitimate input from: <b>TLS1</b> , <b>SSL3</b> , <b>SSL2</b> , and <b>PCT1</b> .
Use Open SSL	On	On	
Cipher List	String of ciphers if applicable.		These options apply only if you are using <b>OpenSSL</b> as a Certificate Authority.  Refer to the <i>Nuance Management Server Administrator Guide</i> for details.
Certificate authority file	Name of file containing list of certificate authorities to trust.		
CA directory	Path to the directory where certificate authority certificates reside.		

# Assigning access to folders and master user profiles across the network

---

**Caution:**

To ensure that your *Dragon Medical Clients* can communicate with the master user profiles server and the other servers, you must assign correct permissions to all appropriate directories and access rights to particular keys in the registry, as indicated in the tables in *Assigning access to servers, clients, and master user profile locations* on page 20. Do not skip this step, as it is important!

---

## Turning off Automatic Updates

On each machine you plan to use in the network, be sure to turn off Windows Automatic Updates. You should, instead, qualify each update Windows sends by installing it first on a single test machine of the network and then updating other machines on the network only after you determine that it clearly will not disrupt the network.

Once you are sure an update does not have any negative effects, you should install the update during off-hours and, if required, reboot each machine during those hours to ensure that requests to reboot do not disrupt the servers or workstations during peak hours of dictation.

# ***Chapter 6: Upgrading roaming and local User Profiles***

---

Preparing to upgrade non-network edition Dragon Medical Clients .....	128
Creating user accounts for healthcare providers .....	131
Migrating Non-Network Dragon User Profiles to the Nuance Management Server .....	132
Upgrading User Profiles from DM360 Network Edition Version 10.x to Version 2.0 or Higher .....	139
Configuring the location of user profiles .....	142
Upgrading a user profile to DM360 Network Edition Version 2.3 .....	144
Associating new user accounts with upgraded user profiles .....	146

# Preparing to upgrade non-network edition Dragon Medical Clients

If you are planning to install the *Dragon Medical 360 | Network Edition* on a computer where *Dragon Medical Client 2.3* is already installed, you do not have to uninstall the non-*Network Edition* first. However, Nuance recommends you uninstall *Dragon Medical* first if doing so would not disrupt the operation of your medical facility.

## Before you upgrade Dragon Medical non-network edition

If you choose to uninstall the non-*Network Edition* of *Dragon Medical*, you should be sure to take these steps first:

- Save and back up all user profiles.
- If you have any local users (not roaming) from *Dragon Medical 10.x* (non-*Network Edition*), prepare to move them to DM360 Network Edition as explained in *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132
- Save any *Dragon Medical 10.x* roaming user profiles to a location where the *NMS Server* can access them.
- Uninstall the previous edition of *Dragon Medical* (optional, but recommended).
- Install the new Dragon client on each client workstation.

---

### Note:

The term **roaming user profiles** has been changed for DM360 Network Edition. Since all users of the DM360 Network Edition server networks are *roaming* by definition (the master copy of their profiles always resides on a central machine), the profiles stored on a central machine are now called **master user profiles**. When a provider dictates, the *Dragon Medical Client 2.3* retrieves a copy of the master user profile and that copy is called the **local cache user profile**.

When you upgrade previously existing **roaming user profiles** or **local user profiles** for use with *Dragon Medical 360 | Network Edition*, these profiles all become **master user profiles**.

---

## Overview of migrating local users from Dragon Medical Practice Edition

If you have local users from *Dragon Medical Practice Edition*, to move them to *Dragon Medical 360 | Network Edition*, you take these general steps:

1. If any local users have multiple login names, combine all of their profiles under a single login name.

2. Export the local user profiles to a different location, so that the action you take does not affect the user profiles of dictating providers. In Dragon Medical 360 | Network Edition, 2.3, you use the Dragon client to export and import user profiles. For details, see the Dragon Help
3. Enable the **Roaming** feature on the workstation and save the local users to the roaming user location.
4. Export each roaming user profile to a location where the *NMS Server* can access it. In Dragon Medical 360 | Network Edition, 2.3, you use the Dragon client to export and import user profiles. For details, see the Dragon Help.
5. Create user accounts in *NMS Server* for the healthcare providers dictating with the local user profiles you are converting.
6. Associate the user accounts with the master user profiles for the corresponding healthcare professionals.

For more details, refer to *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132.

## **After you install the Dragon Medical client, perform the following steps**

After you install *Dragon Medical 360 | Network Edition*, on the new client:

1. Log in to the *Dragon Medical Enterprise Client* with the *NMS Server* user account login and password.
2. Re-import any custom words, commands, and vocabularies as instructed in the Dragon Help.

# Creating user accounts for healthcare providers

When you are upgrading your roaming user profiles to *Dragon Medical 360 | Network Edition*, you begin by creating a user account for each dictating healthcare provider.

---

**Note:**

More details about creating user accounts are available in the *Nuance Management Server Administrator Guide*.

---

To create user accounts:

1. Log into the *Nuance Management Console*. For details, see *Logging in to the Nuance Management Server through the Nuance Management Console* on page 95
2. On the Menu bar, click on the **User Accounts** ribbon.
3. When the **User Accounts** ribbon appears, click the **Add User Account Add** icon. The **User Account Details** window opens.
4. Configure the options and settings on tabs in the **User Account Details** window:
  - **Details**—Enter data in the shaded text boxes (required data) for now. Required information includes the healthcare provider's first and last names and the login.

---

**Caution:**

If you are creating a user account to be managed in Active Directory, the login you enter must match an existing login in Active Directory. If, additionally, you are setting up providers to log in only once (called Active Directory Single Sign-On), the login you enter must match the user name that the provider enters to log in to Windows and must also be a login in Active Directory.

---

- **Address**—Physical location information. None of this data is required right now.
  - **Group Memberships**—If you have created no other groups, two groups exist when you first run the product, **NMC Administration** and **DM360 Network Edition**. Add the dictating user account to the DM360 Network Edition group.
  - **Messaging**: —To configure email settings to enable the NMS to send messages to users and administrators.
  - **DM360 Network Edition**—To apply default settings for now, click the **Use group rules** button. For more information, refer to *Configuring user account Dragon settings* in the *Nuance Management Server Administrator Guide*.
  - **User Profile**—Ignore these settings. The *Dragon Medical Client 2.3* provides them.
3. Click **Save** to save the user account settings.
  4. When you save the user account, the *Nuance Management Console* pops up a dialog box that asks you if you want to grant a license to the user account now.



You should click **Yes**.

5. When the next message asks you the type of license to assign, you can select either a **Physician Author** or **Non-Physician Author** license. The number of licenses available shows in parentheses after the license type. If no licenses of a particular are available, that license type is grayed out. If you need a license that is not available, contact your Nuance representative.
6. Repeat the above steps for each healthcare provider whose profile you plan to upgrade.
7. Depending on the type of user you are creating, return to either the Active Directory or Single Sign-On instructions, or, proceed to [Upgrading Dragon roaming user profiles](#).

---

**Note:**

For now, you can skip setting options and other information for the user accounts that you want to associate with upgraded master user profiles. To later assign all related user accounts the same option settings, you can:

- Create a group.
- Set all options for that group.
- Add the user accounts that should have those same option settings to the group.

For details on how to carry out these tasks, refer to the *Nuance Management Server Administrator Guide*.

---

## Migrating Non-Network Dragon User Profiles to the Nuance Management Server

If you want to migrate *Dragon Medical* (non-network) user profiles (stored only on *Dragon Medical Client 2.3* workstations) to DM360 Network Edition (where they become master user profiles on the network), complete the following steps:

---

### Before migrating Dragon local user profiles

---

**Caution:**

Nuance recommends that you protect your profile data by taking these precautions:



- Migrating profiles can take a long time. Because of this, plan to convert the *Dragon Medical* local user profiles at a time when healthcare providers are not using them to dictate, such as at night or on a weekend. If there is no time when all your user profiles are not in use (because healthcare providers dictate 24/7), you can convert sets of local user profiles from particular workstations at appropriate times.
- Note that once you migrate these user profiles, if you continue using the profiles stored on the workstations (instead of the versions on the NMS), any additions or changes to those user profiles will not propagate to the copies on the NMS.
- Make sure that the Dragon workstations that contain profiles you want to convert have .NET Framework Version 4 installed. You can find a copy of this framework at:

```
Medical_Enterprise.rel_DVD\DNS12_  
DVD1\ISSetupPrerequisites\dotNetFramework\dotNetFx  
40_Full_x86_x64.exe
```

See Microsoft's documentation for more information on installing the .NET framework.

---

## Migration Paths

Nuance Communications supports migrating from the following products to DM360 Network Edition, version 2.3:

- Dragon Medical Enterprise Edition, version 10.1
- DM360 Network Edition, version 11

## Overview of migrating local user profiles

To migrate DM360 Network Edition and Dragon Medical Enterprise Edition local user profiles to DM360 Network Edition Version 2.3 user profiles, on each workstation with users to move to DM360 Network Edition, you take these major steps:

1. Back up local user profiles by exporting them to a different location, so that the actions you take do not affect the user profiles of dictating providers. See *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132
2. If any one healthcare provider has multiple user names for logging in, that provider has more than one profile. For efficiency, you should combine multiple user profiles for the same provider, creating a single user profile for that person. See *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132 for more information.
3. If they aren't already there, export the profiles that you want to upgrade to the default location for Dragon user profiles. See *Migrating Non-Network Dragon User Profiles to the Nuance Management Server* on page 132 for more information.
4. On the Nuance Management Server (NMS), set the directory for the user profiles that you are migrating. See *Step 7: Create user accounts for the migrated profiles on the NMS* on page 138 for more information.

5. Copy the directory containing the User Profile Export Tool to a location on the network that can access all of the DM360 Network Edition and Dragon Medical Enterprise Edition workstations that you want to upgrade. See *Step 5: Copy the User Profile Export Tool to a network location* on page 137 for more information.
6. Install and run the User Profile Export tool. See *Step 6: Install and Run the User Profile Export Tool* on page 137
7. Create user accounts in *NMS Server* for the healthcare providers dictating with the local user profiles you are converting. See *Step 7: Create user accounts for the migrated profiles on the NMS* on page 138 for more information.
8. Associate the user accounts with the master user profiles for the corresponding healthcare professionals. See *Step 8: Associate the new user accounts with the profiles you migrated in Step 6* on page 138 for more information.
9. Upgrade the master user profiles. See *Step 9: Upgrade the User Profiles* on page 138
10. Install the *Dragon Medical Enterprise Client* on the workstation. See *Step 10: Install/Upgrade the Dragon Client on the workstations* on page 138
11. Log in to the *Dragon Medical Enterprise Client* with the *NMS Server* user account login and password. See *Step 11: Log in* on page 138

## **Step 1: Back up local user profiles**

Before you migrate your local user profiles, you should back them up to ensure that you'll still have them if anything goes wrong. To do this, export the local user(s) from the workstation where DM360 Network Edition or Dragon Medical Enterprise Edition is installed to a separate directory on the same machine or to a shared location on the network:

1. Create a temporary location for the user profiles (for example, **CpyLocProfiles**).
2. Map a drive to the location for the user profiles (for example, **Z:\CpyLocProfiles**).
3. Start DM360 Network Edition or Dragon Medical Enterprise Edition.
4. On the DragonBar, select **Profile > Manage user**.
5. When the **Manage Users** dialog box appears, select the name of the user profile you want to make a copy of and then select **Advanced > Export**.
6. Browse the repository where you are storing the copies of local profiles (**Z:\CpyLocProfiles**) and click **OK**.
7. Repeat the above steps for each user profile you want to copy.

## **Step 2: Combine multiple Dragon Medical profiles for a single provider (DMEE only)**

Any healthcare provider who has more than one user name, has more than one user profile. If you have any such providers, you need to reduce their profiles to a single user profile for using with *Dragon Medical 360 | Network Edition*. The single profile can have more than one vocabulary and more than one audio input device (dictation source), so it is not any more restrictive than working with multiple profiles.

To combine the multiple profiles, take these steps:

### Export custom words from extra profiles

1. In Dragon Medical Enterprise Edition, on the DragonBar, select **Dragon > Manage Users**.
2. In the list of user profile names, decide which profile you want to merge the others into for the provider. If you are not sure which profile to select, you should find out the one that the provider most recently used and keep that profile. You can click the **Properties** button to find out the date each profile was last saved.
3. Open one of the profiles you do not expect to keep. You see the vocabulary it uses.
4. Select **Words > Export** to export all custom words created with this profile. When the **Export Words** dialog box opens, browse to the directory where you want to save the file and save the words in a **.txt** file. You can name it whatever you would like—usually a name containing the user name and the vocabulary helps identify the file. For example, you might name it **ConradCardiology.txt**.

### Export commands from extra profiles

1. On the DragonBar, select **Tools > Command Browser** and open the **Task Pane**.
2. In the **Task Pane**, click **Manage** (under **Mode**). You then see a list of command types appear in the pane to the right.
3. Select all check boxes for all command types in the pane to the right.
4. In the **Task Pane**, click **Export** (under **Manage**).
5. When the **Export Commands** dialog box opens, browse to the directory where you want to save the file and save the custom commands as a **.dat** file using the same root name as you used for the **.txt** file of words. For example, you might name the file **ConradCardiology.dat**.

### Export vocabularies from extra profiles

1. If the provider has multiple vocabularies, go to the DragonBar and select **Dragon > Manage Vocabularies....** Select the vocabulary in the list and click the **Export** button to the right.
2. When the **Save As** dialog box opens, save the vocabulary in a **.Top** file using the same root name as you used for the words and commands. For example, you might name it **ConradCardiology.Top**.

### Import commands into the profile you are retaining

1. Open the profile you are retaining and plan to upgrade to DM360 Network Edition.
2. On the DragonBar, select **Tools > Command Browser**.
3. Open the **Task Pane** and in the **Task Pane** click **Manage** (under **Mode**).
4. In the **Task Pane**, click **Import** (under **Manage**).
5. In the **Import Commands** dialog box, select the **.dat** file you saved earlier and click **Open**.
6. In the **Import Commands** dialog box, click **Import**.
7. If any of the commands would replace a command with the same name, you are prompted to replace the existing command. Click **No** if you are uncertain whether or not to replace the command. Remember, the user profile you are keeping is the newest one, so probably has the newest command by the same name.

### Import vocabulary into the profile you are retaining

1. If it is not already open, open the profile you are retaining and plan to upgrade to DM360 Network Edition.

2. On the DragonBar, select **Dragon > Manage Vocabularies...**
3. In the **Manage Vocabularies** dialog box, click **New** and in the **New Vocabulary** dialog box, name the vocabulary anything you would like and choose a vocabulary to base it on from the pull down list for **Based on**. Then click **OK**.
4. When the **Vocabulary Optimizer** dialog box appears, click **Cancel**. When the **Manage Vocabularies** dialog box reappears, you see the additional vocabulary in the list.

### **Import words into the profile you are retaining**

1. If it is not already open, open the profile you are retaining and plan to upgrade to DM360 Network Edition.
2. On the DragonBar, select **Words > Import**.
3. When the **Add Words from Word Lists Wizard** appears, click **Next**.
4. Click **Add File** and when the **Add File** dialog box opens, select the file of words you exported earlier and click **Open**.
5. Click **Next** to advance the wizard until you reach the end.
6. Click **Finish** to complete the process and close the wizard.

## **Step 3: Export user profiles to the default user profile directory**

Your user profiles should be in Dragon's default user profile directory—if they are, you can skip this step. If they aren't—if you have changed the location where the profiles are stored, for example, or you are exporting roaming user profiles—complete the following steps to export them to the default directory:

1. Start DM360 Network Edition or Dragon Medical Enterprise Edition.
2. In Dragon (non-Network Edition), on the DragonBar, select **Dragon > Manage User**.
3. When the **Manage Users** dialog box appears, select the name of the user profile you want to make a copy of and then select **Advanced > Export**.
4. Browse to the default location for Dragon user profiles.

If you are running Dragon on Windows XP, this is:

```
C:\Documents and Settings\All Users\Application  
Data\Nuance\NaturallySpeaking<VersionNumber>\Users  
where <VersionNumber> is the version number of your Dragon installation.
```

If you are running Dragon on Windows 7, this is:

```
C:\Program  
Data\Nuance\NaturallySpeaking<VersionNumber>\Users  
where <VersionNumber> is the version number of your Dragon installation.
```

5. Click **OK**.
6. Repeat the preceding steps for each user profile you want to copy.

(missing or bad snippet)

## Step 4: Set Up a Directory for the User Profiles via the Nuance Management Console

Set up the directory for the migrated profiles using the NMC by entering the path to your chosen directory in the **DMNE Version 2.0 (or higher) Speech Profile Location** field of the Master User Profile Directory Settings dialog.

See *Configuring the location of user profiles* on page 142 for instructions.

## Step 5: Copy the User Profile Export Tool to a network location

The DM360 Network Edition client installation DVD includes a profile export tool. You must copy the directory containing the export tool to a location on your network where you can do a push install via .msi to all the Dragon workstations containing profiles that you want to export.

1. Open the DM360 Network Edition Client installation DVD and locate the following directory:

```
DNS12_DVD1/Dragon Profile Export
```

2. Copy the Dragon Profile Export directory to a location on the network where you can run an .msi install to all Dragon workstations containing profiles that you want to export.

## Step 6: Install and Run the User Profile Export Tool

1. Use the following command to install the User Profile Export Tool:

```
msiexec.exe /i DgnProfileExport.msi NETWORKLOCATION=<location>  
[NETWORKCREDENTIALS=PROMPT] /qn
```

Parameter	Description
NETWORKLOCATION (Required)	A path—either a UNC path or a path to a mapped drive—to the network location of the DM360 Network Edition Version 2.3 User Profiles.  See the <i>Configuring the location of user profiles</i> section of the DM360 Network Edition Administrator's Guide for more information.
NETWORKCREDENTIALS (Required)	Set this value to PROMPT. This insures that if a network connection isn't established prior to the running the User Profile Export Tool, the tool prompts for Windows user credentials and establishes a network connection before your profiles are exported.

### MSI command line example

```
msiexec.exe /i "DgnProfileExport.msi" NETWORKLOCATION=N=\\myserver\DragonUsers\Exported NETWORKCREDENTIALS=S=PROMPT /qn
```

2. Reboot the Dragon Medical Client 2.3 workstation where the tool is installed. The User

Profile Export Tool is invoked on reboot.

The exported profiles appear in the specified user profile directory with the following naming convention:

*username.workstation*

For example, a profile with username `John_Doe` on the `DoeWorkstation` will be named:

`John_Doe.DoeWorkstation`

## **Step 7: Create user accounts for the migrated profiles on the NMS**

Log on to the Nuance Management Console (NMC) and create user accounts in *NMS Server* for the healthcare providers who dictate with the local user profiles you are migrating. For more information on creating users, refer to *Creating user accounts for healthcare providers* on page 131.

## **Step 8: Associate the new user accounts with the profiles you migrated in [Step 6](#)**

Associate the user accounts with the master user profiles for the corresponding healthcare professionals. For more information, see *Associating new user accounts with upgraded user profiles* on page 146.

## **Step 9: Upgrade the User Profiles**

Upgrade your user profiles to the latest version by following the instructions in *Upgrading a user profile to DM360 Network Edition Version 2.3* on page 144.

## **Step 10: Install/Upgrade the Dragon Client on the workstations**

Install/Upgrade the Dragon Medical Client 2.3 on the workstation. For more information, see *Installing Dragon and documentation through the Nuance Management Console* on page 154.

## **Step 11: Log in**

Log in to the Dragon Medical Client 2.3 with the *NMS* user account login and password. For more information, see *Logging in to the Nuance Management Server through the Nuance Management Console* on page 95

# Upgrading User Profiles from DM360 Network Edition Version 10.x to Version 2.0 or Higher

After you have upgraded the Nuance Management Server (NMS), you must upgrade your DM360 Network Edition Version 10.5 user profiles to DM360 Network Edition 2.3 or higher.

---

## Before upgrading Dragon user profiles

---

### Caution:

Nuance recommends that you plan to upgrade the *Dragon Medical* user profiles at a time when healthcare providers are not using them to dictate, such as at night or on a weekend. If there is no time when all your user profiles are not in use (because healthcare providers dictate 24/7), you can convert sets of local user profiles from particular workstations at appropriate times.

---

### Note:

- If you are upgrading from a version of DM360 Network Edition that is not Service Pack 3 or higher, you must first upgrade to Service Pack 3. See the *DM360 Network Edition SP 3 Installation Guide* for more information.
- Nuance recommends upgrading user profiles on multi-core machines for better throughput. Profiles upgraded on machines with a number of cores that is different than the number of cores on the speech nodes that run the profiles generates a warning message about recognition accuracy. For example, if you upgrade your profiles on a dual core machine but run them on a single core speech node, the warning message appears when the profile is opened.

To prevent the warning message from appearing, use machines with the same number of cores to upgrade speech profiles and for the speech nodes. For example, if you upgrade the profiles on a dual core machine, run those profiles on dual core speech nodes.

---

Complete the following tasks before you upgrade your user profiles:

- Configure the Master User Profile directory for the DM360 Network Edition Version 2.0 (and higher) user profiles by entering the path to your chosen directory in the **DMNE Version 2.0 (or higher) Speech Profile Location** field of the Master User Profile Directory Settings dialog.

See *Configuring the location of user profiles* on page 142 for instructions.

- Share the Master User Profile directory and grant the Nuance service account (for instance `nmsapps`) at least Modify permissions to the folder structure. This share should mirror the same access permissions as the DM 360 | Network Edition 10.x Master Profile directory share.
- For each speech node, set the user profile directory for DMENE 2.0 and higher to the same

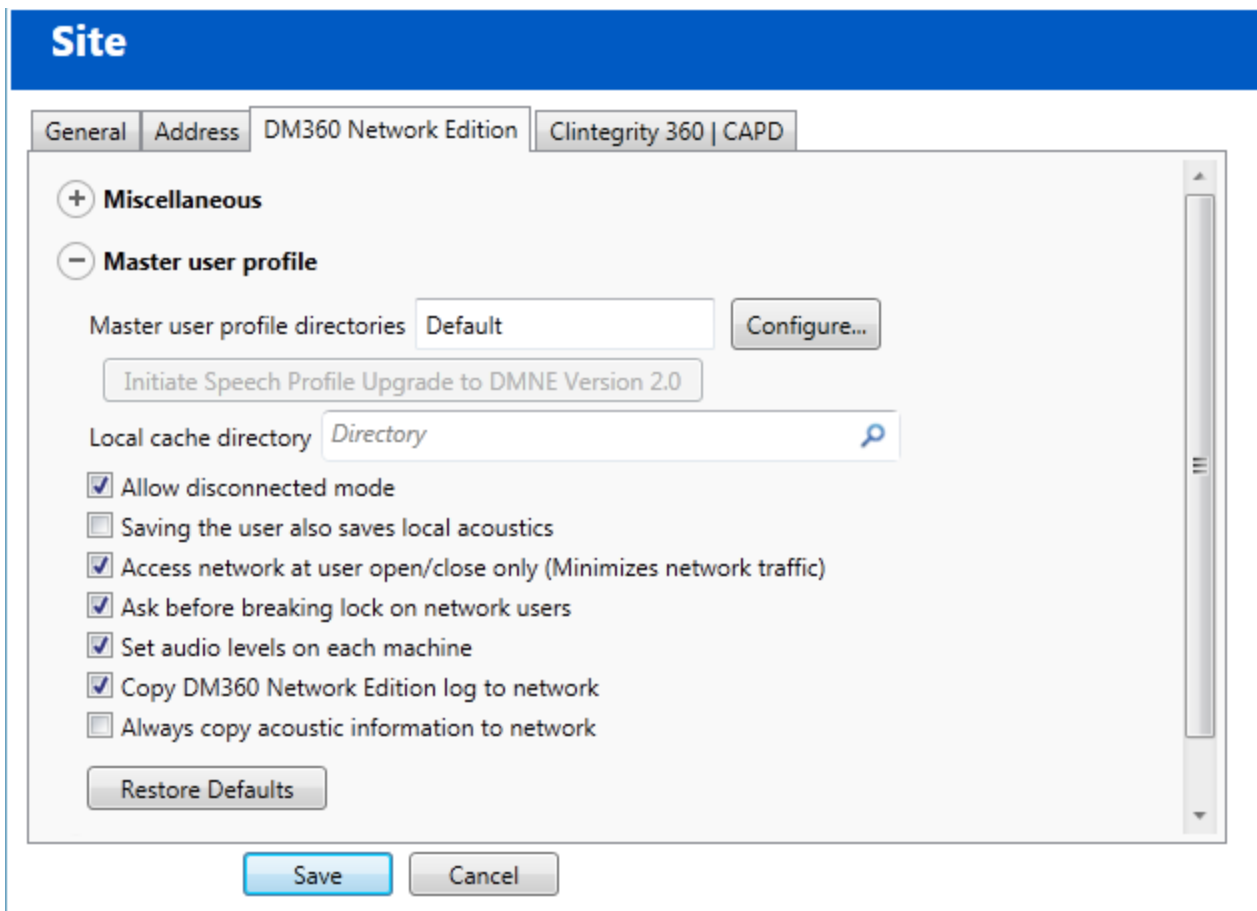
location as your Master User Profile Directory.

See *Configuring the location of user profiles* on page 142 for instructions.

## Upgrade the User Profiles

Complete the following steps to upgrade your DM360 Network Edition user profiles:

1. Log in to the Nuance Management Console.
2. Go to the site that contains the user profiles that you want to upgrade and click the **DM 360 Network Edition** tab. The DM360 Network Edition settings interface appears.
3. Click the + icon next to **Master user profile** to expand the Master user profile options:



4. Click the **Initiate Speech Profile Upgrade to DMNE Version 2.0** button. A dialog appears asking if you want to upgrade speech profiles to DM360 Network Edition Version 2.0. Click **YES** to start the upgrade.

You can monitor conversion's progress on the Profile Optimizer Status tab of the Nuance Management Console, under Utilities > Profile Optimizer > Profile Optimizer Status.

5. When the profile upgrade is complete, the NMC sends a confirmation message to the Administrator.
6. Install/Upgrade the Dragon Medical Client 2.3 on the workstation. For more information, see *Installing Dragon and documentation through the Nuance Management Console* on page 154.



7. Log in to the Dragon Medical Client 2.3 with a DM 360 Network Edition user name and password  
*Logging in to the Nuance Management Server through the Nuance Management Console* on page 95

# Configuring the location of user profiles

NMS 3.1 supports multiple versions of user profiles:

- Dragon Medical 360 | Network Edition 10.x
- Dragon Medical 360 | Network Edition, version 2.0 or higher

Each version has its own user profile location.

When an end user logs into Dragon through the NMS server, the NMS sends the location of the user's profile to Dragon. This allows Dragon to find and access the user profile.

**Note:** In NMS 4.1, the “New User Accounts will use DMNE Version 1.0 speech profiles” option lets you set all new user accounts to use either:

- version 10 profiles: for a site that has not yet upgraded to DM360 Network Edition, version 2.0 or higher
- version 12 profiles: for a site that has upgraded to DM360 Network Edition, version 2.0 or higher

For details, see [New User Accounts will use DMNE Version 1.0 speech profiles](#).

An administrator can configure these locations in the Nuance Management Console.

## Setting the location of profiles for Dragon

1. In the Nuance Management Console, in **Sites** group, select **Manage organizations & sites**.
2. On the **Organizations** screen, double-click a site.
3. Select the **DM360 Network Edition** tab.
4. Expand the **Master user profile** section.
5. Beside **Master user profile directories**, select **Configure**. Perform step 6 if the site uses DM360 Network Edition SP3 or earlier. Perform step 7 if the site uses DM360 Network Edition, version 2.3.
6. In the **General** tab, in the **DMNE Version 1.x Speech Profile Location** field, enter the location of the Dragon Medical 360 | Network Edition 10.x user profile. This is the user profile that Dragon uses when an end-user logs into DM360 Network Edition SP3 or earlier through the NMS.
7. In the **DMNE Version 2.0 (or higher) Speech Profile Location** field, enter the location of the Dragon Medical 360 | Network Edition, version 2.3 user profile. This is the user profile that Dragon uses when an end-user logs into DM360 Network Edition, version 2.3 through the NMS.

## Setting the location of profiles for the Profile Optimizer

1. In the Nuance Management Console, select **Utilities**.
2. Search for and double-click a speech node.

3. On the **Speech Node Collection** screen, in the **DMNE v1.x (UNC)** field, enter the UNC path for the Speech Node Collection for the Dragon Medical 360 | Network Edition 10.1 user profile.
4. In the **DMNE v1.x (HTTP - WebDAV)**, enter the http(s) path for the speech node to access the Master User Profiles directory for the Dragon Medical 360 | Network Edition 10.1 user profile only if webDAV is used. Also include webDAV credentials.
5. In the **DMNE v2.0 or higher (UNC)** field, enter the UNC path for the Speech Node Collection for the Dragon Medical 360 | Network Edition, version 2.3 user profile.
6. In the **DMNE v2.0 or higher (HTTP - WebDAV)** field, enter the http(s) path for the speech node to access the Master User Profiles directory for the Dragon Medical 360 | Network Edition, version 2.3 user profile only if webDAV is used. Also include webDAV credentials.

# Upgrading a user profile to DM360 Network Edition Version 2.3

If you are upgrading from:

- Dragon Medical Enterprise Edition Version 10.1
- Dragon Medical Practice Edition Version 11
- DM360 Network Edition Version 10.5

to DM360 Network Edition, version 2.3, you must upgrade your user profiles.

---

## Note:

If you are upgrading from a version of DM360 Network Edition that is not Service Pack 3 or higher, you must first upgrade to Service Pack 3. See the *DM360 Network Edition SP 3 Installation Guide* for more information.

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Complete the following steps to upgrade your user profiles:

## Before upgrading Dragon user profiles

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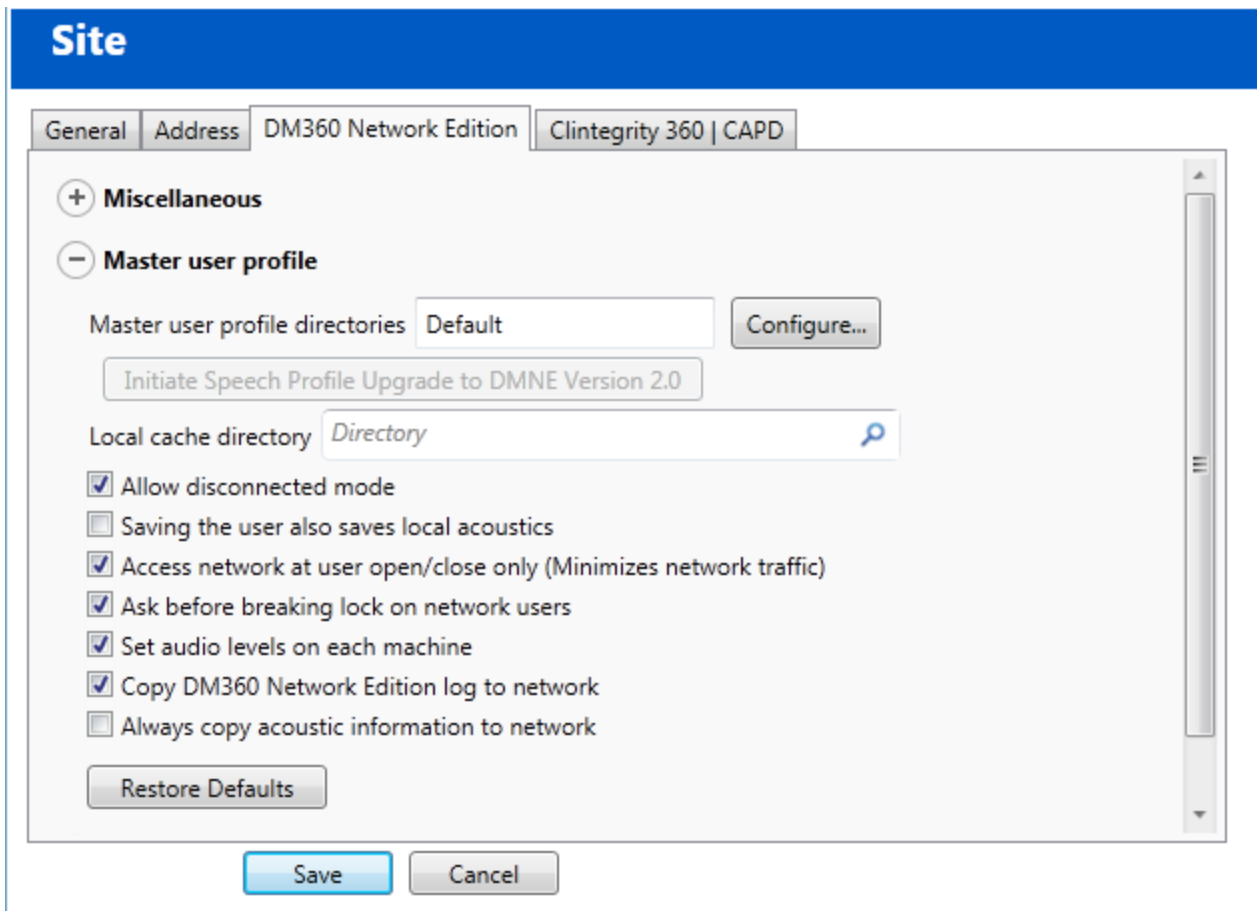
### Notes:

- Before you upgrade them, Nuance recommends you back-up your user profiles.
- Profile upgrades can take a long time. Because of this, Nuance recommends that you plan to upgrade the user profiles at a time when healthcare providers are not using them to dictate, such as at night or on a weekend. If there is no time when all your user profiles are not in use (because healthcare providers dictate 24/7), you can upgrade multiple sets of user profiles at appropriate times.
- Export your Dragon Medical Enterprise Edition and Dragon Medical Practice Edition profiles to the NMC, as described in the *Converting local user profiles to master user profiles* section of the Dragon Medical 360 | Network Edition Installation and Upgrade Guide.
- Nuance recommends upgrading user profiles on multi-core machines for better throughput. Profiles upgraded on machines with a number of cores that is different than the number of cores on the speech nodes that run the profiles generates a warning message about recognition accuracy. For example, if you upgrade your profiles on a dual core machine but run them on a single core speech node, the warning message appears when the profile is opened.

To prevent the warning message from appearing, use machines with the same number of cores to upgrade speech profiles and for the speech nodes. For example, if you upgrade the profiles on a dual core machine, run those profiles on dual core speech nodes.

---

1. Start the Nuance Management Console and log in.
2. Go to the site that contains the user profiles that you want to upgrade and click the **DM 360 Network Edition** tab. The DM360 Network Edition settings interface appears.
3. Click the + icon next to **Master user profile** to expand the Master user profile options:



4. Click the **Initiate Speech Profile Upgrade to DMNE Version 2.0** button. A dialog appears asking if you want to upgrade the speech profiles. Click **OK** to start the upgrade.
5. When the profile upgrade is complete, the NMC sends a confirmation message to the Administrator.
6. Associate the upgraded user profiles with user accounts, as described in *Associating new user accounts with upgraded user profiles* on page 146.

## Associating new user accounts with upgraded user profiles

If you have not already done so, you should upgrade any user profiles from *Dragon Medical* Versions as described elsewhere in this chapter. Then to allow healthcare providers to dictate with their newly upgraded user profiles, you need to:

- In the *Nuance Management Console*, create a *Dragon Medical Enterprise* user account for each healthcare provider (refer to sections on configuring groups and user accounts in the *Nuance Management Server Administrator Guide* for details).
- Associate that user account with the corresponding master user profile.

### Installing the Profile Association Tool

The Profile Association tool is only needed for US customers that are upgrading from Dragon Medical US Enterprise Edition.

1. If you are running the user profile association tool for the first time, the Nuance Management Console displays a dialog box that asks if you want to install the tool. Click **Yes**.
2. On the **Profile Association Tool - InstallShield Wizard**, click **Next**.
3. Click **Install**.
4. When you see the **InstallShield Wizard Complete** screen, click **Finish**.

### Associating user accounts with upgraded Dragon roaming user profiles

In Dragon Medical 360 | Network Edition, 2.3, the profile association tool is available as a separate tool from the Nuance Management Console. You can still access the tool from the Nuance Management Console but it is installed and run locally.

The main functionality of the profile association tool has not changed.

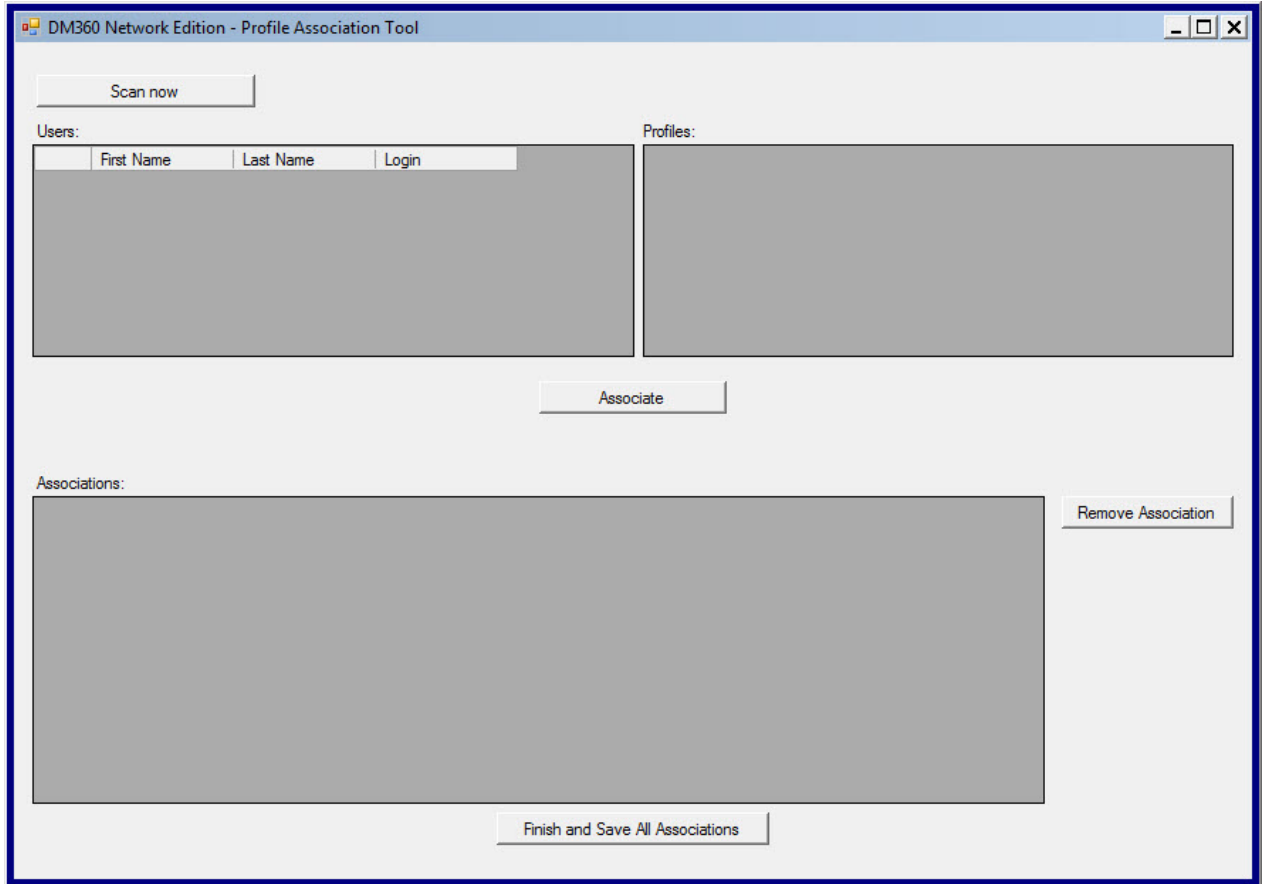
However, there are some new features:

- The tool prompts you for the address of the server with the users you want to associate to profiles. The server can be an on-premise NMS server or a Cloud-based NMS server.
- You must provide your login credentials to connect to the server.
- The tool only displays the users that are part of your organization.
- The tool only displays information about: users that are a member of a group with the “Dragon Author” role, and that have a Physician Author or Non-Physician Author license.

To run the user profile association tool, you must have the Dragon – Able to run DM360 Network Edition tools rights.

1. Start the *Nuance Management Console* and log in.
2. On the menu bar, click **Utilities > Tools**.
3. Click **Launch user profile association tool**.

4. Fill out the fields in the following dialog box:
  - **Login:** The login id for the server with the users you will associate to profiles.
  - **Password:** The password for the server with the users you will associate to profiles.
  - **Server:** The address of the server that contains the users you will associate to profiles.
5. Click **OK**. The DM360 Network Edition - Profile Association Tool screen appears.



6. If you do not see the names or profiles you are looking for in the **Users** or **Profiles** lists, click the **Scan now** button and wait for the lists to update.
7. Click the login for the user account in the **Users** list, then click the corresponding user profile in the **Profiles** list, and click the **Associate** button to tie the profile to the user account. The user account and the associated user profile appear in the **Associations** list in the lower portion of the screen.
8. Repeat the above steps until you have associated all provider user accounts with profiles.
9. To undo the association, you can select a user account in the **Associations** list and click the **Remove Association** button; the user account and profile return to the lists above, and you can try again.
10. Click **Finish and Save All Associations**.
  1. Repeat the above steps until all healthcare provider user accounts have been associated with their profiles.
  2. If you make a mistake, you can select a user account in the **Associations** list and click the **Remove** button. The user account and user profile return to the two lists above and you can associate them with a different user account or user profile.

3. Click **Finish** to save changes you made in the **User Profile Association** tool.
4. To exit the tool *without* saving your changes, click **Close** without clicking **Finish** first.



# ***Chapter 7: Installing the Dragon Medical Client***

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Overview of installing the Dragon Medical Client .....	150
Pushing the Dragon MSI installation to workstations .....	151
Installing Dragon and documentation through the Nuance Management Console .....	154
Installing Dragon manually outside of the Nuance Management Console .....	155
Associating Dragon with the Nuance Management Server or Call Forwarder .....	158
Pushing the Dragon MSI installation to workstations .....	160
Understanding Dragon MSI command line options .....	163
Creating a custom installer for the client in Active Directory .....	167
MSI Installation of multiple clients with the same default options .....	174
Starting Dragon Medical Clients from Command Line .....	178
Creating Organization Tokens .....	180
Creating Single Sign-On user accounts .....	180
Closing the Dragon Medical client from a command line .....	185
Summary: natspeak options in Dragon Medical Client .....	186
Ensuring Dragon Medical Client anti-virus recommendations are met .....	188
Assigning access to folders and master user profiles across the network .....	189
Turning off Automatic Updates .....	189

# Overview of installing the Dragon Medical Client

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## Caution:

The account that each *Dragon Medical Client 2.3* workstation runs under must have full read/write/modify access to the master user profiles directory so that *Dragon* can create and modify the master user profile for each healthcare provider.

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When you install the client, you usually perform a *typical Dragon* installation.

However, if you want to set up *Dragon* so that the *DragonBar* always comes up in, for instance, Floating mode on every single client workstation in your network, you can still set some options in advance of the installation by using the *Dragon Medical SDK Client*, available on the *Nuance Management Server Software and Documentation* DVD. After you set the options, you can retrieve the **nsdefaults.ini** file and pass it as an argument to **msiexec.exe** (the MSI installer from Microsoft) on the command line by following the instructions in *MSI Installation of multiple clients with the same default options* on page 174.

## Opening ports to access user profiles on web server or secure web server

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### Caution:

It is critical that if they are not already open, you open the ports required for the *Dragon Medical Client 2.3* to access the master user profiles on a web server or secure web server.

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To allow the *Dragon Medical Client 2.3* to access master user profiles on a web server (http) that is not SSL, open port **80**.

To allow the *Dragon Medical Client 2.3* to access master user profiles on a secure (SSL) server (https), open port **443**.

## Approaches to installing the Dragon Medical Client

You can install the *Dragon Medical Client 2.3* in any of these ways:

- *Installing Dragon and documentation through the Nuance Management Console* on page 154
- *Installing Dragon manually outside of the Nuance Management Console* on page 155
- *Pushing the Dragon MSI installation to workstations* on page 160
  - *Carrying out administrative installation of Dragon with .bat file* on page 1
  - *Creating a custom installer for the client in Active Directory* on page 167
- *MSI Installation of multiple clients with the same default options* on page 174

# Pushing the Dragon MSI installation to workstations

An overview of the options for installing multiple *Dragon Medical Client 2.3* workstations at once is provided below.

The Dragon Medical 360 | Network Edition DVD includes a Microsoft Windows Installer (MSI) file. You can use this MSI file to install *Dragon* from a server to client workstations across a network or to install several client workstations at once using either an SMS or SCCM installation or an ActiveDirectory Services installation.

**Caution:** Whenever you carry out an MSI installation of DM360 Network Edition, Nuance recommends that you uninstall any *Dragon Medical* software already on the machine before it proceeds to install the new client software. You can do this via the MSI installer using the `/x<Product.msi>` command, where `<Product.msi>` is the name of the .msi file of the version of DM360 Network Edition that you are uninstalling. For more information on command line options you can use to install Dragon, refer to *Understanding Dragon MSI command line options* on page 163.

---

## Note:

When you create an MSI installer for the *Dragon Medical Client 2.3* included with the *NMS Server*, you are not required to have the installer set any user or administrative options that you would prefer to set in the *Nuance Management Server* later. However, if you would like to set the same *Dragon* options on all workstations, you can pre-set them as outlined in *MSI Installation of multiple clients with the same default options* on page 174.

---

DVD name	MSI file name
Dragon Medical Enterprise Network Edition Client Software DVD	Dragon NaturallySpeaking 12.msi
Nuance Management Server Software and Documentation DVD	Dragon SDK Client Edition 12.msi

The command line you use to install *Dragon* using the .MSI file is:

```
msiexec.exe /i "Dragon NaturallySpeaking 12.msi"
```

- General options for installing *Dragon*
- MSI options for installing *Dragon* features/advanced options
- Feature variables to set through the ADDLOCAL or ADVERTISE properties

## **Options for pushing MSI installation of Dragon to one or more workstations on a network**

You can use a server application to push an MSI installation of *Dragon* to client workstations without having to install *Dragon* separately on each computer. The server administrator creates an image of the *Dragon* installation program. The administrator then places the image on a server and configures the server to automatically push the application to client workstations.

There are several server applications that you can use to push a *Dragon* installation. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported versions:

- Windows Server
- System Center Configuration Manager (SCCM)
- Active Directory Services

## **Support for the Windows System Center Configuration Manager**

You can use the System Center Configuration Manager (SCCM) to push an MSI installation of *Dragon Medical Client 2.3* across a network to multiple client workstations at once. SCCM provides a mechanism for pushing the *Dragon Medical Client 2.3* installation from a server to several client workstations, using a Windows Installer (MSI) file to push the installation to workstations that run a compatible Windows operating system. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported operating systems.

For information about Windows Installer technology, you can download the article *Software Distribution in Configuration Manager*, available at this link: <http://technet.microsoft.com/en-us/library/bb632640.aspx>

## **Support for the Windows System Management Server**

You can use the System Management Server (SMS) to push an MSI installation of *Dragon Medical Client 2.3* across a network to multiple client workstations at once. SMS provides a mechanisms for pushing the *Dragon Medical Client 2.3* installation from a server to several client workstations, using a Windows Installer (MSI) file to push the installation to workstations that run a compatible Windows operating system. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7

For information about Windows Installer technology, you can download the article *Scenarios and Procedures for Systems Management Server 2003: Planning and Deployment* available at this link: <http://www.microsoft.com/downloads/details.aspx?FamilyId=E0644BB4-2336-4254-8A18-9BC180713F7E&displaylang=en>.

## Support for Windows Server with Active Directory Services

You can use Windows Active Directory Service to push an MSI installation of *Dragon* across a network to multiple client workstations at once.

Active Directory Services is a feature of Windows Server. The Group Policy component of Active Directory Services includes a Software Installation snap-in that lets an administrator create a network installation. Administrators can use this feature to install *Dragon Medical Client 2.3* to workstation computers that run Windows XP or Windows Vista.

*Dragon* supports the **Active Directory Services Assign to Computers installation** option. This option requires that you reboot the computer to complete a *Dragon Medical Client 2.3* installation.

You can delay the installation of *Dragon Medical Client 2.3* on a workstation that runs Windows XP or Vista by enabling logon optimization for group policy. You can view a log entry for this type of installation in the event log after the client computer reboots for the first time. The *Dragon* installation application then installs *Dragon* and reboots the computer for a second time. The installation is a silent installation and does not display a GUI.

1. If necessary, create a custom MSI installation of *Dragon Medical Client 2.3* to push to several client workstations.
2. Verify that each computer meets the system requirements for *Dragon Medical Client 2.3* installation. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for more information.
3. Push the custom MSI installation of *Dragon* to the client workstations.

# Installing Dragon and documentation through the Nuance Management Console

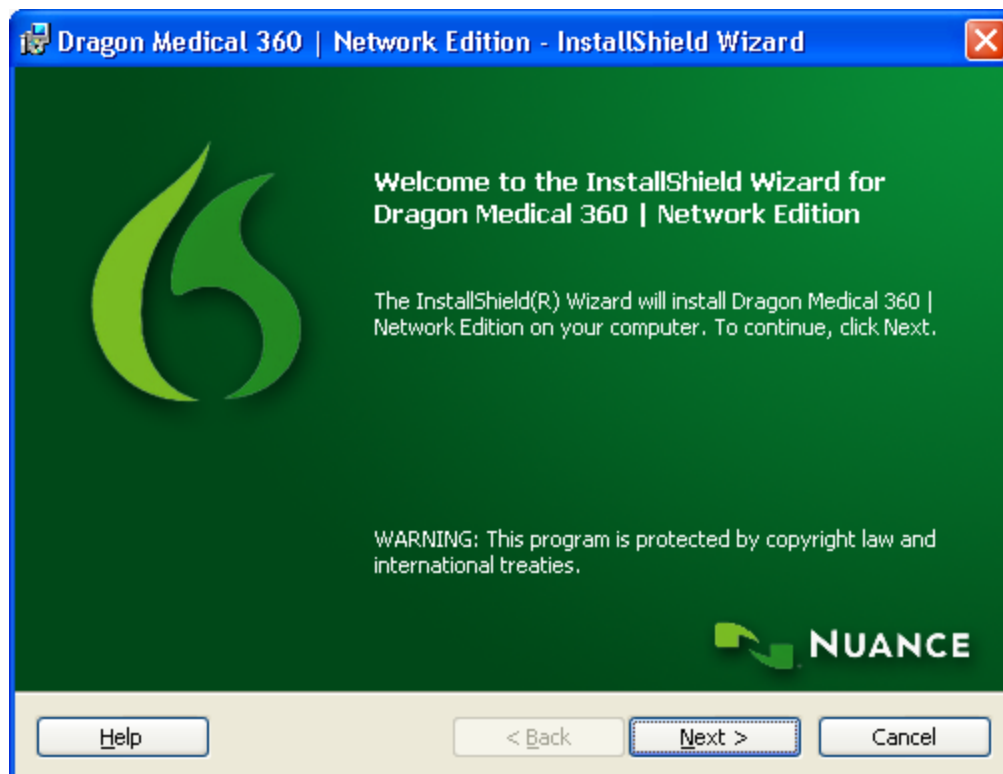
After you create your own MSI installer for *Dragon Medical Client 2.3* and place that file on the *NMS Server*, from any workstation on the network where you have installed the appropriate certificates, you can access the *Nuance Management Console*, then download the *Dragon Medical Client 2.3* MSI installer through the console for installation on that workstation:

1. Be sure that the computer you are installing the *Dragon* client on meets the system requirements for installing and running *Dragon*. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7.
2. Log in to the computer as a Windows administrator.
3. On the workstation where you are installing *Dragon*, be sure that you install the Nuance certificates (see *Installing Nuance software certificates* on page 92).
4. On the workstation where you are installing *Dragon*, open Internet Explorer and enter the URL to access the *Nuance Management Console* (see *Logging in to the Nuance Management Server through the Nuance Management Console* on page 95).
5. Once the client GUI displays its login dialog box, log in.

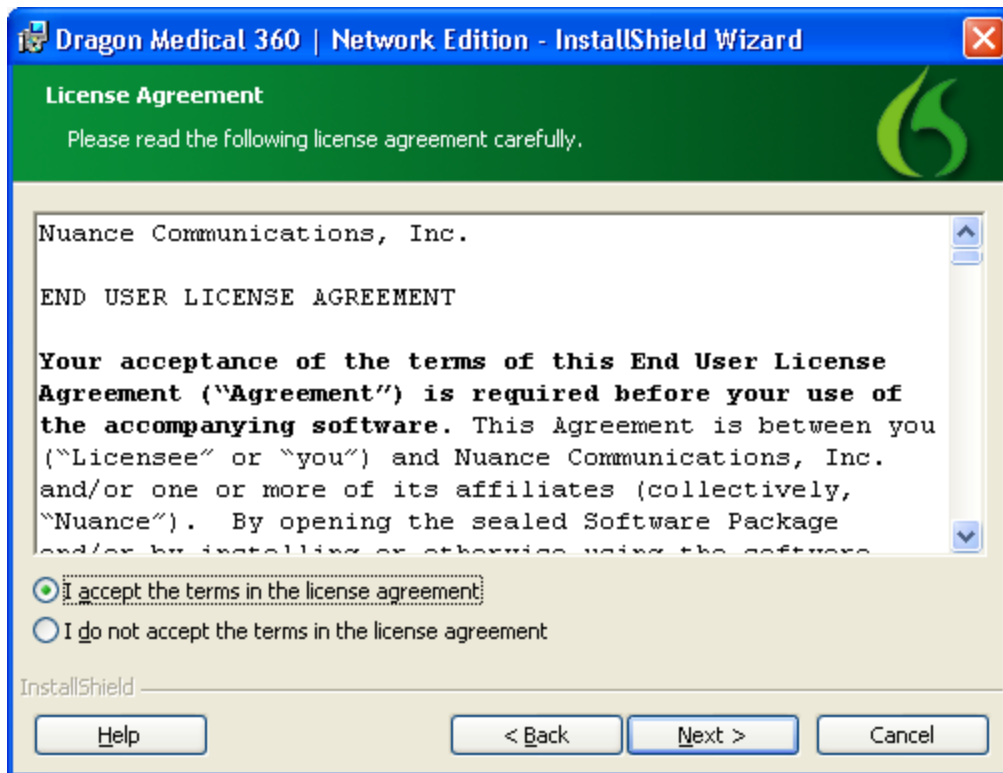
# Installing Dragon manually outside of the Nuance Management Console

Be sure your computer meets the system requirements for installing and running *Dragon Medical*. For additional steps you might need to take if you are upgrading, see *Preparing to upgrade non-network edition Dragon Medical Clients* on page 128.

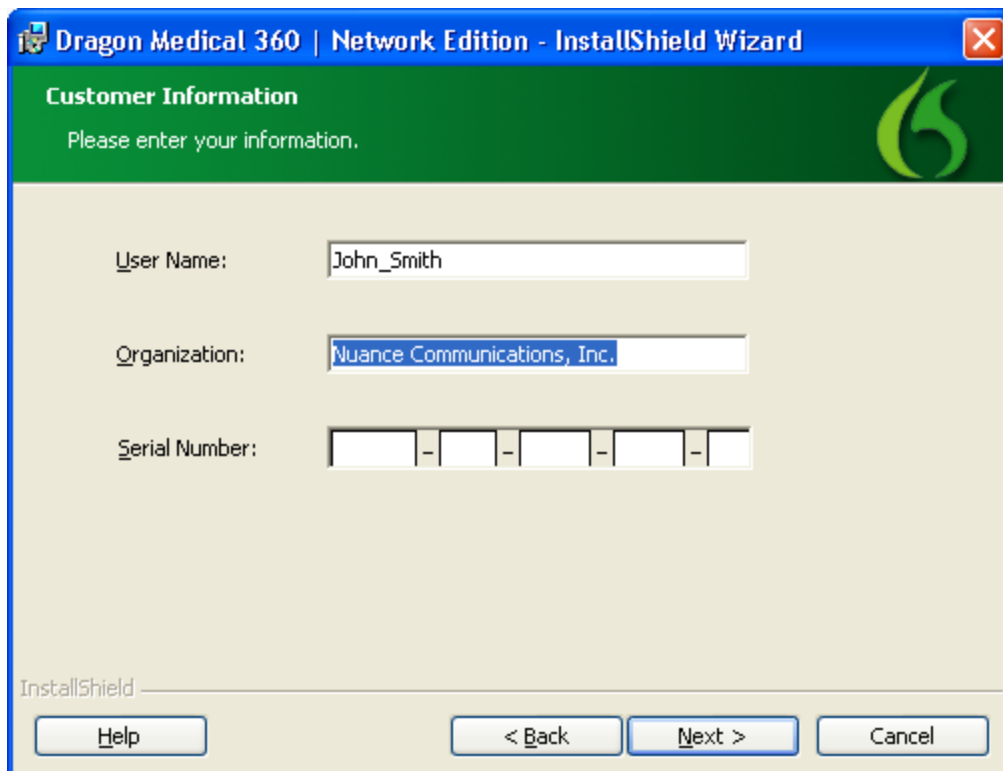
1. Insert the installation DVD into the DVD drive of the computer. If the installation does not start on its own, browse on the DVD for the **setup.exe** file and double click it.
2. The InstallShield window might display and ask you to install software that *Dragon Medical* requires on the computer. The software might include Microsoft .NET Framework .
3. If a message displays asking you to restart your computer, restart the workstation and follow the instructions.
4. On the **Welcome** screen, click **Next**:



5. On the **License Agreement** screen, read the license agreement information. Select **I accept the terms in the license agreement** and click **Next**.

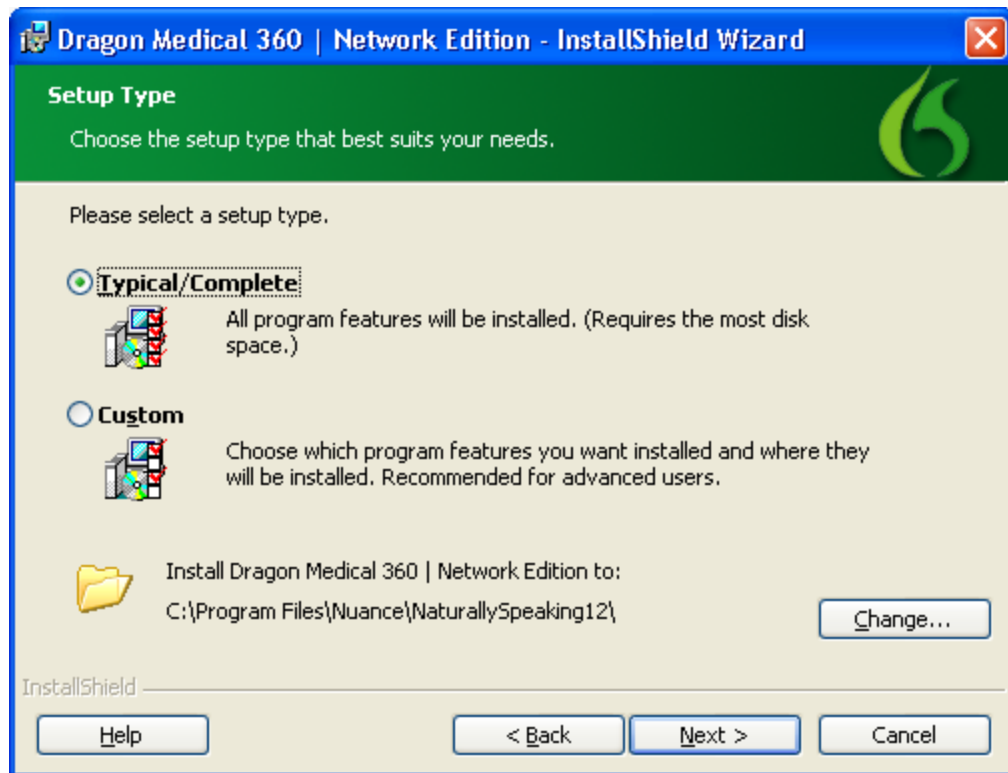


6. On the **Customer Information** screen, type your name, the name of your organization and the serial number from Nuance, then click **Next**.



7. On the **Setup Type** screen, select **Typical/Complete**. Click **Next**.





8. On the **Ready to Install the Program** page, click **Install**. The installation process begins to copy files to your computer.
9. When the wizard displays the **InstallShield Wizard Completed** screen, click **Finish**.

Now, proceed to [Associating Dragon with the Nuance Management Server](#) to associate the Dragon client with the *NMS Server*.

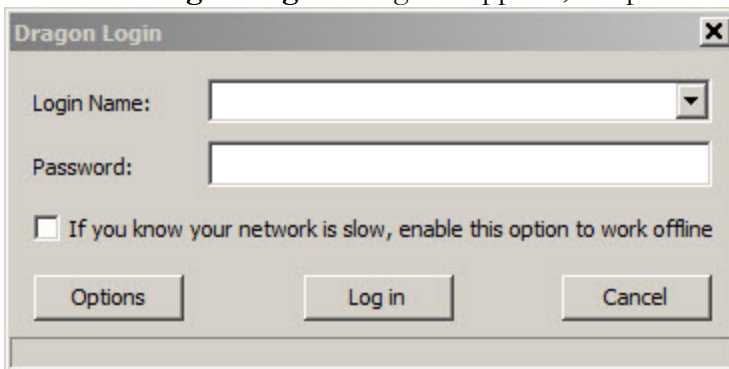
# Associating Dragon with the Nuance Management Server or Call Forwarder

After you have completed installation of the *Dragon Medical Client 2.3* on one or more workstations, you must be sure to open all required ports and then let the client know the name of the particular *NMS Server* to communicate with.

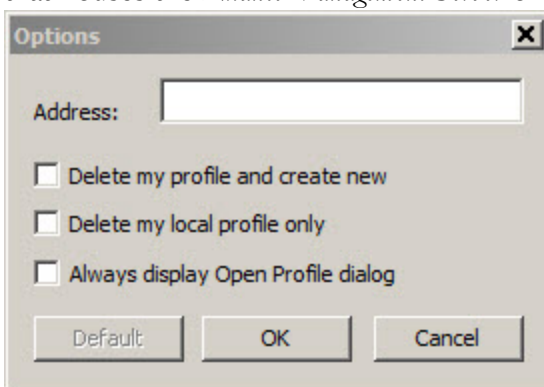
## Associating Dragon with an NMS Server or Call Forwarder

Once the appropriate ports are open, when a healthcare provider logs in to the client, that provider indicates the particular machine where the server is running:

1. When the healthcare provider logs in to the *Dragon Medical Client 2.3*, first the splash screen displays.
2. When the **Dragon Login** dialog box appears, the provider should click the **Options** button:



3. When the **Options** dialog box appears, the provider must then enter the name of the machine that houses the *Nuance Management Server* or Call Forwarder:



For information on using the check boxes in this dialog box, refer to the *Dragon Medical Client* Help. If you have a network traffic switch managing multiple *NMS Servers*, see *Ensuring clients can contact an NMS Server with a load balancing traffic switch in the network* at the end of this section for more information on what to enter for the address.

4. The provider then logs in using the user account that an **NMS Administrator** has created in the *Nuance Management Server*.

5. If this is the very first time the provider has ever logged in to the *Dragon Medical Client 2.3* (the user has no previously existing profile of his or her voice), the **New User Wizard** appears. The **New User Wizard** does not appear if the provider has a user profile you upgraded from an earlier version of *Dragon Medical*.
6. The provider should click the check box indicating **I have read and agree to the License Agreement** and proceed through the **New User Wizard** as instructed.
7. When the provider finishes completing every page of the wizard, the **DragonBar** then becomes available, and the provider can begin dictating.

## **Ensuring clients can contact an NMS Server with a load balancing traffic switch in the network**

When you install clients using a push installation, if you have a load balancing traffic switch managing multiple *NMS Servers* on your network, you should set **NAS\_ADDRESS** to the address of the traffic switch, rather than the address of any particular *NMS Server*.

---

**Note:** If the user already entered a value for this option, your value will overwrite that.

When providers first log in to *Dragon Medical Client 2.3*, when they click the **Advanced** button, instead of entering the IP address or name of an *NMS Server*, they should enter the IP address or name of the **traffic switch appliance** in the **Address** text box of the **Server Location** dialog box.

If your workstations have desktop shortcuts for *Dragon Medical Client*, those shortcuts should also point to the traffic switch's address, rather than the address of any particular *NMS Server*.

For more information on using the *Dragon Medical Client 2.3*, refer to the *Dragon Help*.

# Pushing the Dragon MSI installation to workstations

An overview of the options for installing multiple *Dragon Medical Client 2.3* workstations at once is provided below.

The Dragon Medical 360 | Network Edition DVD includes a Microsoft Windows Installer (MSI) file. You can use this MSI file to install *Dragon* from a server to client workstations across a network or to install several client workstations at once using either an SMS or SCCM installation or an ActiveDirectory Services installation.

---

**Caution:** Whenever you carry out an MSI installation of DM360 Network Edition, Nuance recommends that you uninstall any *Dragon Medical* software already on the machine before it proceeds to install the new client software. You can do this via the MSI installer using the `/x<Product.msi>` command, where `<Product.msi>` is the name of the .msi file of the version of DM360 Network Edition that you are uninstalling. For more information on command line options you can use to install Dragon, refer to *Understanding Dragon MSI command line options* on page 163.

---

**Note:**

When you create an MSI installer for the *Dragon Medical Client 2.3* included with the *NMS Server*, you are not required to have the installer set any user or administrative options that you would prefer to set in the *Nuance Management Server* later. However, if you would like to set the same *Dragon* options on all workstations, you can pre-set them as outlined in *MSI Installation of multiple clients with the same default options* on page 174.

---

DVD name	MSI file name
Dragon Medical Enterprise Network Edition Client Software DVD	Dragon NaturallySpeaking 12.msi
Nuance Management Server Software and Documentation DVD	Dragon SDK Client Edition 12.msi

The command line you use to install *Dragon* using the **.MSI** file is:

```
msiexec.exe /i "Dragon NaturallySpeaking 12.msi"
```

- General options for installing *Dragon*
- MSI options for installing *Dragon* features/advanced options
- Feature variables to set through the ADDLOCAL or ADVERTISE properties

## Options for pushing MSI installation of Dragon to one or more workstations on a network

You can use a server application to push an MSI installation of *Dragon* to client workstations without having to install *Dragon* separately on each computer. The server administrator creates an image of the *Dragon* installation program. The administrator then places the image on a server and configures the server to automatically push the application to client workstations.

There are several server applications that you can use to push a *Dragon* installation. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported versions:

- Windows Server
- System Center Configuration Manager (SCCM)
- Active Directory Services

## Support for the Windows System Center Configuration Manager

You can use the System Center Configuration Manager (SCCM) to push an MSI installation of *Dragon Medical Client 2.3* across a network to multiple client workstations at once. SCCM provides a mechanism for pushing the *Dragon Medical Client 2.3* installation from a server to several client workstations, using a Windows Installer (MSI) file to push the installation to workstations that run a compatible Windows operating system. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for supported operating systems.

For information about Windows Installer technology, you can download the article *Software Distribution in Configuration Manager*, available at this link: <http://technet.microsoft.com/en-us/library/bb632640.aspx>

## Support for the Windows System Management Server

You can use the System Management Server (SMS) to push an MSI installation of *Dragon Medical Client 2.3* across a network to multiple client workstations at once. SMS provides a mechanisms for pushing the *Dragon Medical Client 2.3* installation from a server to several client workstations, using a Windows Installer (MSI) file to push the installation to workstations that run a compatible Windows operating system. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7

For information about Windows Installer technology, you can download the article *Scenarios and Procedures for Systems Management Server 2003: Planning and Deployment* available at this link: <http://www.microsoft.com/downloads/details.aspx?FamilyId=E0644BB4-2336-4254-8A18-9BC180713F7E&displaylang=en>.

## **Support for Windows Server with Active Directory Services**

You can use Windows Active Directory Service to push an MSI installation of *Dragon* across a network to multiple client workstations at once.

Active Directory Services is a feature of Windows Server. The Group Policy component of Active Directory Services includes a Software Installation snap-in that lets an administrator create a network installation. Administrators can use this feature to install *Dragon Medical Client 2.3* to workstation computers that run Windows XP or Windows Vista.

*Dragon* supports the **Active Directory Services Assign to Computers installation** option. This option requires that you reboot the computer to complete a *Dragon Medical Client 2.3* installation.

You can delay the installation of *Dragon Medical Client 2.3* on a workstation that runs Windows XP or Vista by enabling logon optimization for group policy. You can view a log entry for this type of installation in the event log after the client computer reboots for the first time. The *Dragon* installation application then installs *Dragon* and reboots the computer for a second time. The installation is a silent installation and does not display a GUI.

1. If necessary, create a custom MSI installation of *Dragon Medical Client 2.3* to push to several client workstations.
2. Verify that each computer meets the system requirements for *Dragon Medical Client 2.3* installation. See *System Requirements for Dragon Medical 360 | Network Edition* on page 7 for more information.
3. Push the custom MSI installation of *Dragon* to the client workstations.

# Understanding Dragon MSI command line options

## Modifying the admininstall.bat file

To make changes to the **admininstall.bat** file, you can use any of the following options.

**Note:** Be sure that the values that you pass in to the MSI are valid. Entering an invalid value can cause the installer to crash.

### General options for installing Dragon

Options	Description
SERIALNUMBER=abcde-fgh-ijkl-mnop-qr	The serial number for the <i>Dragon</i> product. All <i>Dragon</i> installations require that you provide a serial (license) number for the product. The <i>Dragon</i> installation process checks for a serial number even if you run the process from a command line.
NAS_ADDRESS="DNS <IP_address>"	<p>Indicates the IP address of the <i>NMS Server</i> that the <i>Dragon Medical Client 2.3</i> connects to when the healthcare provider logs on. If you set this option during the installation, then the provider does not need to enter the server machine name when logging in to <i>Dragon Medical Client 2.3</i> for the first time. If you do not set this option during the installation, each provider should click the <b>Advanced</b> button when logging in to the client for the first time and enter either the IP address or the machine name (with no prefix for instance, no <b>www</b> or <b>http://</b>) in the <b>Server Location</b> text box.</p> <p>If your network has multiple <i>NMS Servers</i> being managed by a load balancing traffic switch in the network, you should set this option to the address of the switch rather than the address of any particular <i>NMS Server</i>.</p> <p><b>Note:</b> If you define this option when installing an upgrade to <i>Dragon Medical 360   Network Edition, version 2.3</i>, you will overwrite any value the user already entered.</p>
NAS_LDAP_SIGN_ON=0 (or 1 or 2)	<p><b>Note:</b> Before you enable LDAP, you must make additional configuration changes in order for the feature to work. See the "DM 360   Administrator Guide" <i>Configuring LDAP</i> section for more information.</p> <p>Set the option to <b>0</b> to disable LDAP login.</p> <p>Set the option to <b>1</b> to enable LDAP login for a single domain LDAP. In this case, <i>Dragon</i> retrieves the domain name from the user's workstation.</p> <p>Set the option to <b>2</b> to enable LDAP login for multiple domains. In this case, the user must supply credentials in the "domain name\user name" format.</p> <p>The default value is <b>0</b>.</p> <p>Be sure that the value you set here is the same as the type of LDAP that is enabled in the Nuance Management Server. See the "DM 360   Administrator Guide" <i>Configuring LDAP</i> section for more information.</p> <p><b>Note:</b> If you define this option when installing an upgrade to <i>Dragon Medical 360   Network Edition, version 2.3</i>, you will overwrite any value the user already entered.</p>

<p>NAS_SINGLE_SIGN_ON=0 (or 1)</p>	<p><b>Note:</b> Before you enable EHR single sign on, you must make additional configuration changes in order for the feature to work. See the "DM 360   Administrator Guide" <i>Implementing EHR Single Sign-On</i> section for more information.</p> <p>Set the option to <b>0</b> to disable single sign on from an EHR.</p> <p>Set the option to <b>1</b> to enable single sign on from an EHR.</p> <p>The default value is <b>0</b>.</p> <p>Be sure that the value you set here —enabled or disabled—that is set in the Nuance Management Console. See the "DM 360   Administrator Guide" <i>Implementing EHR Single Sign-On</i> section for more information.</p> <p><b>Note:</b> <i>If you define this option when installing an upgrade to Dragon Medical 360   Network Edition, version 2.3, you will overwrite any value the user already entered.</i></p>
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### MSI options for installing Dragon features/advanced options

Options	Description
<p>ADDLOCAL=Feature1,Feature2,... or ADDLOCAL=ALL</p>	<p>Set the ADDLOCAL option to a comma delimited list of features to install locally. To install all features locally (including speech files), set the ADDLOCAL option to <b>ALL</b>.</p> <p>See General Options for Installing Dragon for a list of the features that you can make available or install locally using the ADDLOCAL option or the ADVERTISE option.</p>
<p>ADVERTISE- E=Feature1,Feature2,Feature3,...</p>	<p>Set the ADVERTISE option to a comma delimited list of features to make available but not install locally. To install all features as advertised, set the ADVERTISE option to <b>ALL</b>.</p> <p>The ADVERTISE option overrides the ADDLOCAL option. The best method for installing a particular set of features is to set the ADDLOCAL option to <b>ALL</b> and then set the ADVERTISE option to the features you do not want to install locally.</p> <p>See General Options for Installing Dragon for a list of the features that you can make available or install locally using the ADDLOCAL option or the ADVERTISE option.</p>
<p>REINSTALL=Feature1,Feature2,... (or ALL)</p>	<p>Set the REINSTALL option to a comma delimited list of features to reinstall. To reinstall all features, set the REINSTALL option to <b>ALL</b>.</p> <p>If you set the REINSTALL option, you should also set the REINSTALLMODE option to set the type of reinstall to perform. If you do not set the REINSTALLMODE option, the installation process only reinstalls a file if it is an earlier version of the file that is presently installed or if the a file is not present on the system. By default, no registry entries are rewritten.</p>



	<p>Even if you set the REINSTALL option to <b>ALL</b>, the installation process only reinstalls features that are already installed. Thus, if you use the REINSTALL option for a product that is not yet to installed, product installation does not occur.</p> <p>For more information, see: <a href="http://msdn.microsoft.com/en-us/library/windows/desktop/aa371175">http://msdn.microsoft.com/en-us/library/windows/desktop/aa371175</a></p>																						
<p>REINSTALLMODE={type of reinstallation to perform}</p>	<p>Set the REINSTALLMODE option to a string that indicates the type of reinstall to perform. Options are case-insensitive and order-independent.</p> <p>You should use this option when you use the REINSTALL option. You can also use this option during an installation of <i>Dragon Medical Client 2.3</i>, not just during a reinstallation.</p> <table border="1" data-bbox="667 667 1313 1890"> <thead> <tr> <th>Opt</th> <th>Purpose</th> </tr> </thead> <tbody> <tr> <td>p</td> <td>Only reinstall a file if the file is missing.</td> </tr> <tr> <td>o</td> <td>Only reinstall a file if the file is missing or is an older version.</td> </tr> <tr> <td>e</td> <td>Only reinstall a file if the file is missing or is an equal or older version.</td> </tr> <tr> <td>d</td> <td>Only reinstall a file if the file is missing or a different version is present.</td> </tr> <tr> <td>c</td> <td>Only reinstall a file or files whose checksums are missing or corrupt.</td> </tr> <tr> <td>a</td> <td>Force a reinstall of all files, regardless of checksum or version.</td> </tr> <tr> <td>u</td> <td>Rewrite all required registry entries from the Registry Table that go under HKEY_CURRENT_USER or HKEY_USERS.</td> </tr> <tr> <td>m</td> <td>Rewrite all required registry entries from the Registry Table that go under HKEY_LOCAL_MACHINE or HKEY_CLASSES_ROOT. Regardless of machine or user assignment.  Rewrite all data from the following tables: Class, Verb, PublishComponent, ProgID, MIME, Icon, Extension, and AppID .  Reinstall all qualified components. When reinstalling an application, run the RegisterTypeLibraries and InstallODBC actions.</td> </tr> <tr> <td>s</td> <td>Reinstall all shortcuts and re-cache all icons, overwriting existing shortcuts and icons.</td> </tr> <tr> <td>v</td> <td>Run from the source package, re-cache the local package. Does not apply to a new installation of a product or feature.</td> </tr> </tbody> </table>	Opt	Purpose	p	Only reinstall a file if the file is missing.	o	Only reinstall a file if the file is missing or is an older version.	e	Only reinstall a file if the file is missing or is an equal or older version.	d	Only reinstall a file if the file is missing or a different version is present.	c	Only reinstall a file or files whose checksums are missing or corrupt.	a	Force a reinstall of all files, regardless of checksum or version.	u	Rewrite all required registry entries from the Registry Table that go under HKEY_CURRENT_USER or HKEY_USERS.	m	Rewrite all required registry entries from the Registry Table that go under HKEY_LOCAL_MACHINE or HKEY_CLASSES_ROOT. Regardless of machine or user assignment.  Rewrite all data from the following tables: Class, Verb, PublishComponent, ProgID, MIME, Icon, Extension, and AppID .  Reinstall all qualified components. When reinstalling an application, run the RegisterTypeLibraries and InstallODBC actions.	s	Reinstall all shortcuts and re-cache all icons, overwriting existing shortcuts and icons.	v	Run from the source package, re-cache the local package. Does not apply to a new installation of a product or feature.
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v	Run from the source package, re-cache the local package. Does not apply to a new installation of a product or feature.																						
<p>REMOVEOLDPROD=1</p>	<p>Set the REMOVEOLDPROD option to remove an older ver-</p>																						

	sion of Dragon before installing the newer version. You should on only use this option for major upgrades.
/x<Product.msi ProductCode>	Set the installation process to uninstall the current installed version of <i>Dragon</i> . You must perform this action during an upgrade. However, you should be familiar with the entire upgrade procedure before you use this option.

### Feature variables to set through the ADDLOCAL or ADVERTISE properties

Feature/Sub-feature	Sub-feature	
NatSpeak <b>Note:</b> Required in ADDLOCAL; if not included, installation fails	None	
Samples (Sample Commands files)	None	
TTS (Text-to-Speech)	TTSENU (US English Text-to-Speech) TTSENG (British English Text-to-Speech)	
Tutorial	TutENX (English Tutorial)	
Speech ENX (English) /ENU (US English)	<b>Dragon NaturallySpeaking and Dragon Medical:Sub-features for ENU (US English):</b> ENULegal (US English Legal Large) ENUGeneral (US English General Medium, US English Empty Dictation, US English Commands Only) ENUGenSvc (US English Large General)	<b>Note:</b> The ENU sub-feature includes support for the following accents:  General: Use if your accent is not covered by the another choice or you are not sure which to select.  Australian accented English  British accented English  Indian accented English  Inland Northern US (Great Lakes area): Covers Upstate New York through the Chicago area.  SEAsian accented English: South East Asian  Southern US: Covers most of the Southern United States, including Texas.  Spanish Accented English
Speech ENX (English) /ENU (US English) (continued)	<b>Dragon Medical Only Sub-features for ENU (US English):</b> ENUCardiology (US English Medical Large Cardiology, Pediatric Cardiology) ENUEmergency (US English Emergency Medicine Large) ENUGastroenterology (US Eng-	ENUObGyn (US English Medical Large ENT, Fetal Medicine, Midwifery, Obstetrics and Gynecology, Ophthalmology) ENUOncology (US English Medical Large Oncology, Radiation Therapy) ENUOrthopaedic (US English Medical

	<p>lish Medical Large Gastroen- terology, Pediatric Gastroen- terology)                  ENUGeneralPractice (US English                  Large Family Medicine, Allergy                  and Immunology, Dermatology,                  Epidemiology, Geriatric, Hemat-                  ology, Infectious Disease,                  Internal Medicine, Medical Edu-                  cation and Writing,                  Nephrology, Nursing, Osteo-                  pathy, Pulmonary Disease,                  Rheumatology, Sleep Lab)                  ENUMedical (US English General                  Medical Large No Specialty)                  ENUMentalHealth (US English                  Large Medical Addiction Psy-                  chiatry; Endocrinology, Diabetes,                  and Metabolism; Psychiatry, Psy-                  chology)                  ENGNeurology (US English Anes-                  thesiology, Neurology, Pain Medi-                  cine, Physical Medicine and                  Rehabilitation, Vascular and Inter-                  ventional Radiology)</p>	<p>Large Dentistry, Large Hand Sur-                  gery, Neurosurgery, Orthopaedics,                  Oral and Facial Surgery, Orthopaedic                  Surgery, Plastic Surgery, Podiatry)                  ENUPathology (US English Medical                  Large Pathology)                  ENUPediatrics (US English Medical                  Large Pediatrics, Neonatal and                  Perinatal Medicine, Pediatric                  Dentistry)                  ENURadiology (US English Medical                  Large Nuclear Medicine or                  Radiology)                  ENUREhabilitation (Neurology, Phys-                  ical Medicine, Rehabilitation and                  Speech and Language Pathology)                  ENUSurgery (US English Medical                  Large Cardiac Surgery, Colon and                  Rectal Surgery, Surgery, Thoracic                  Surgery, Urology, Vascular Surgery)</p>
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## Creating a custom installer for the client in Active Directory

If you are installing Dragon on a network using Active Directory Services, you can create a custom installation program using a set of tools available from Microsoft.

- Download and install the tools
- Run the wizard

You are then ready to use the custom installer to install the *Dragon Medical Client 2.3* from Active Directory Services.

### Installing the Microsoft Custom Installation Wizard

The Microsoft Custom Installation Wizard is part of the Microsoft Office Resource Kit Tools. To install the Custom Installation Wizard:

1. Download the Office Resource Kit Tools (**OrkTools.exe**) from: <http://www.microsoft.com/office/orkarchive/xpddl.htm>. The **OrkTools.exe** self-extracting executable (EXE) file installs the core Office XP Resource Kit tools on your computer through a single Setup program.
2. After downloading **OrkTools.exe**, to install the tools, you either double-click the executable or select **Start > Programs > Microsoft Office Tools > Microsoft Office XP Resource Kit Tools**.

After you install the tool, you use its **Custom Installation Wizard** to create your custom installation. For details on using the wizard, continue with the next subsection.

## Modifying setup Properties for Custom Installation

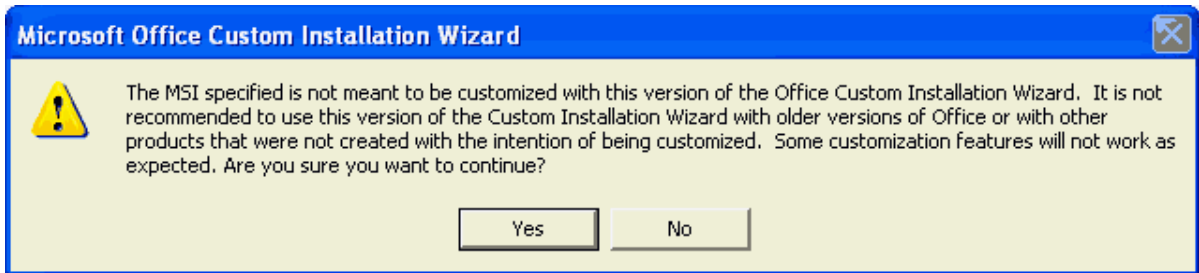
The following explains how to modify setup properties for a custom installation of *Dragon Medical Client 2.3*. This example shows how to add to the installer configuration one of the many MSI options you can set for installing *Dragon Medical Client 2.3*, the SERIALNUMBER property. (You can add any options available to MSI on the command line.)

1. Start the Microsoft Custom Installation Wizard by choosing **Start > Programs > Microsoft Office Tools > Microsoft Office XP Resource Kit Tools**, and then click **Custom Installation Wizard**. The **Custom Installation Wizard** screen displays:

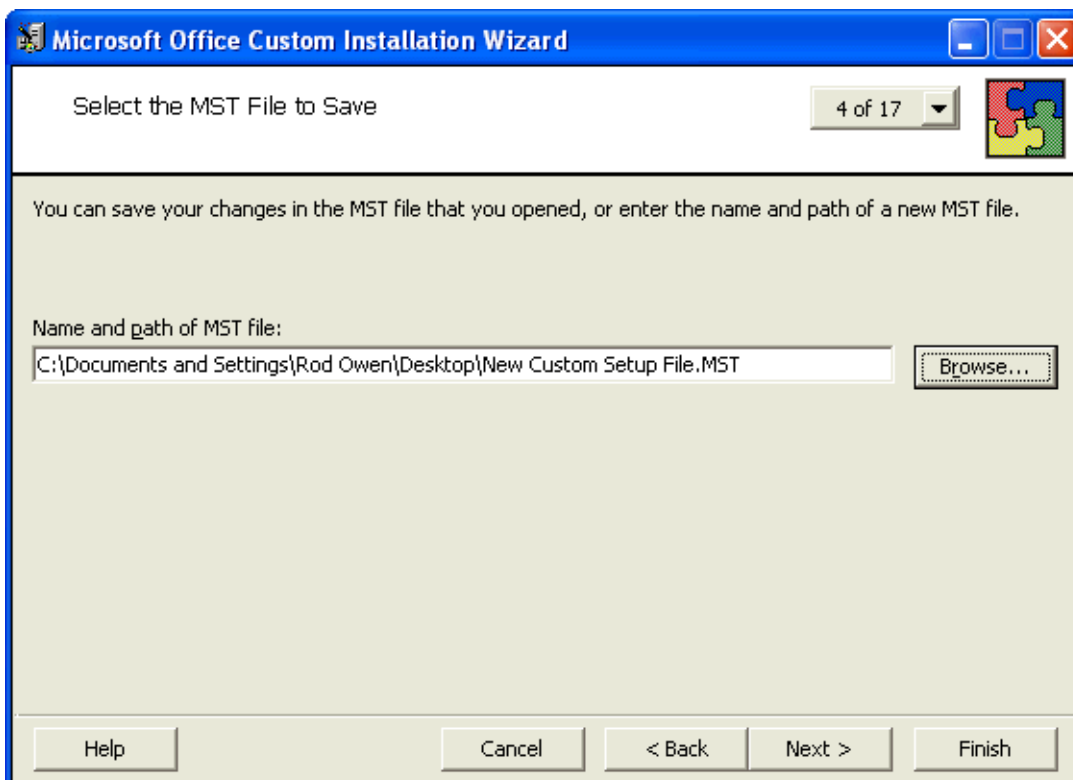


2. Click **Next**.
3. On the Open the MSI File page of the wizard, shown below, select the .MSI file you want to use to create a custom installation. The compiled .MSI file is located on your installation CD. The file you should select is named *Dragon Medical: Dragon NaturallySpeaking 12.msi*.
4. Click **Next**.

5. Click **Yes** when you see the following message:

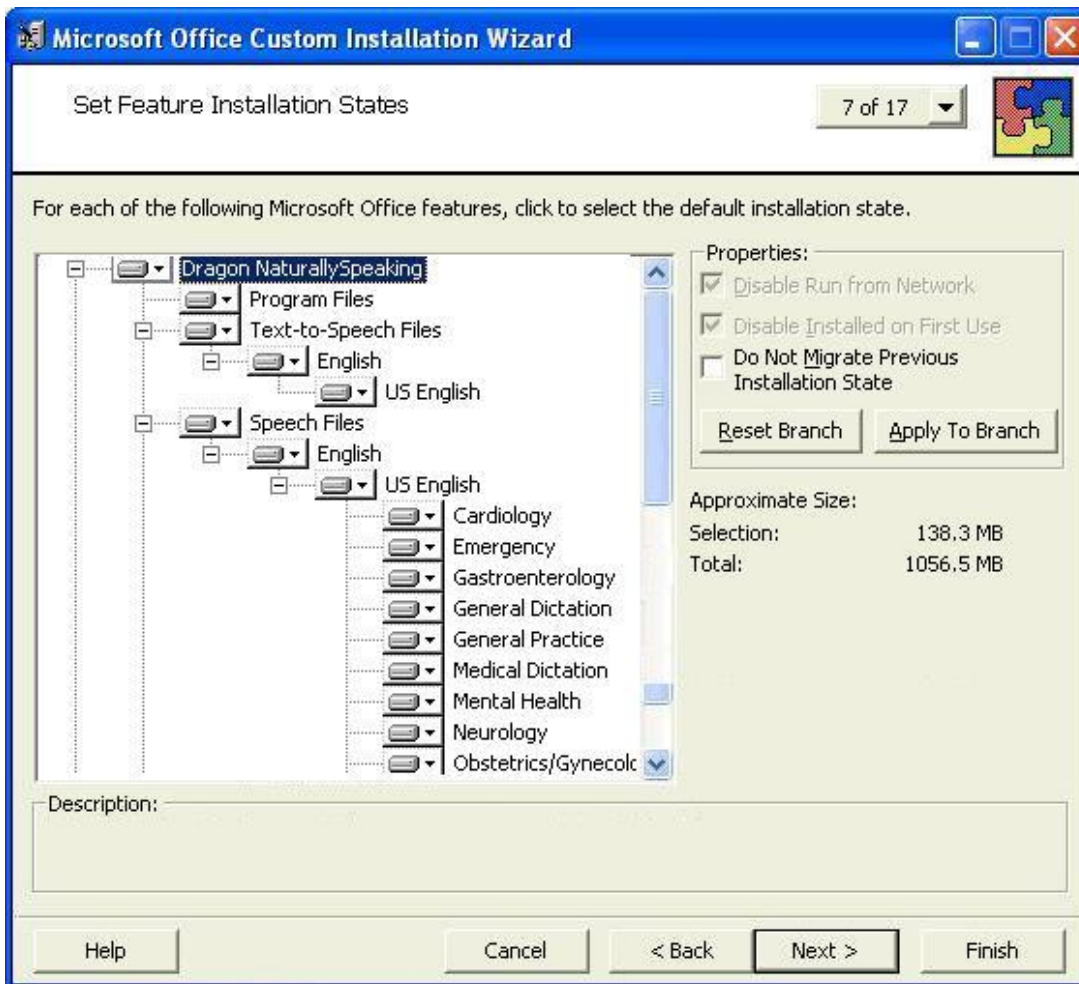


6. On the **Open the MST File** page of the wizard, select **Create a new MST file**.
7. Click **Next** to continue.
8. On the **Select MST File to Save** page of the wizard, select a file name and path for the MST file you are creating:



9. Click **Next**.

10. On the **Specify a Default Path and Organization** page, select the default path for the installation. By default, *Dragon Medical Client 2.3* installs in \Program Files\Nuance\NaturallySpeaking12.
11. Click **Next**.
12. On the **Remove Previous Versions** page, keep the default selections and click **Next**. This page applies only to Microsoft Office and does not affect the *Dragon Medical Client 2.3* installation.
13. Click **Next** to keep all the defaults when you come to the **Set Features Installation States** page, where you select particular components to install. The illustration here shows some of the Medical vocabularies you might choose:



14. On the next several pages of the wizard, click **Next** on each, and proceed until you reach the **Modify Setup Properties** page. All the pages in between apply only to Microsoft Office or do not affect the *Dragon Medical Client 2.3* installation.

Customize Default Application Settings page

Change Office User Settings page

Add/Remove Files page

Add/Remove Registry Entries page

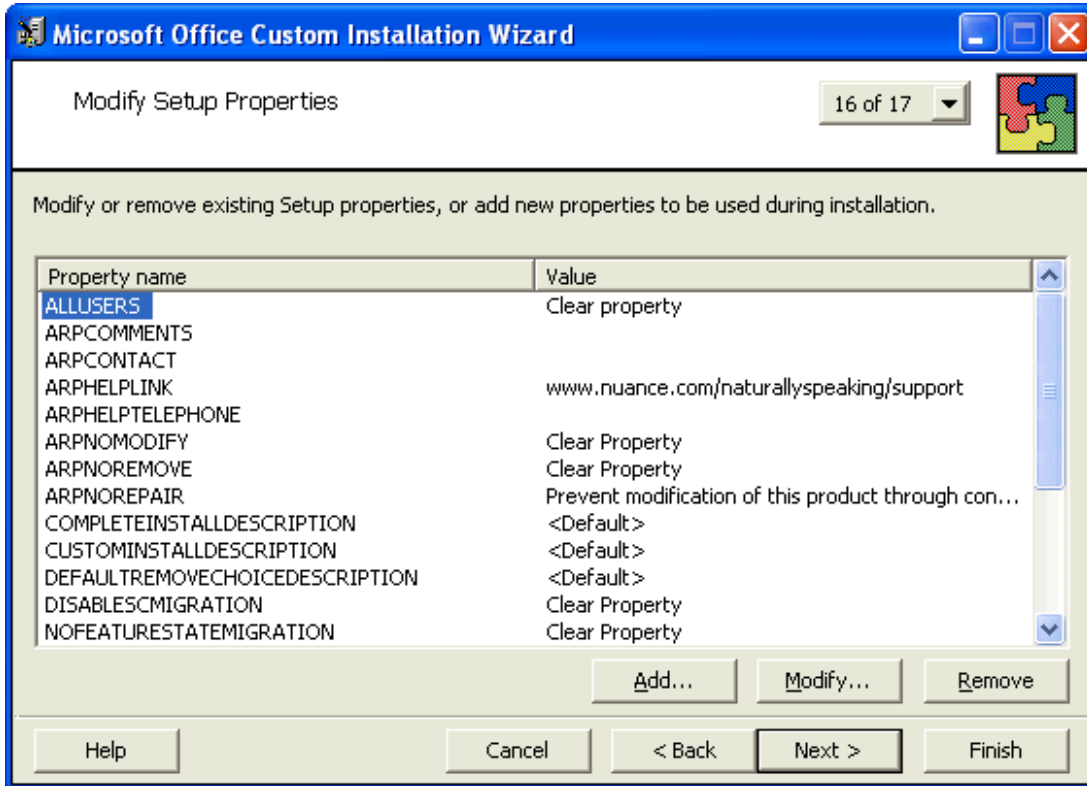
Add, Modify, or Remove Shortcuts page

Identify Additional Servers page

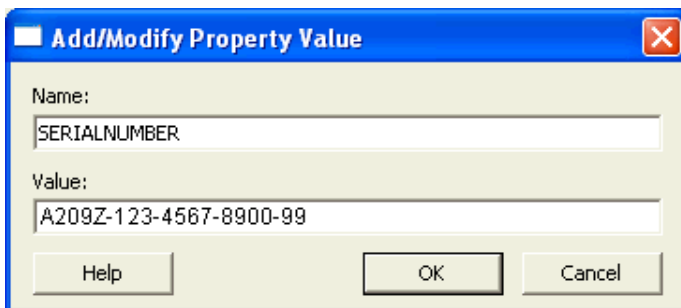
Specify Office Security Settings page

Add Installations and Run Programs page

15. Use the **Modify Setup Properties** page, shown below, to add, modify, and set the MSI options of your custom installation.



16. Click the **Add...** button to display the **Add/Modify Property Value** dialog box, where you modify the MSI installation options. In this example, we add and set the SERIALNUMBER option.
17. In the following **Add/Modify Property Value** page, enter the new property name SERIALNUMBER and a valid serial number, then click **OK**:



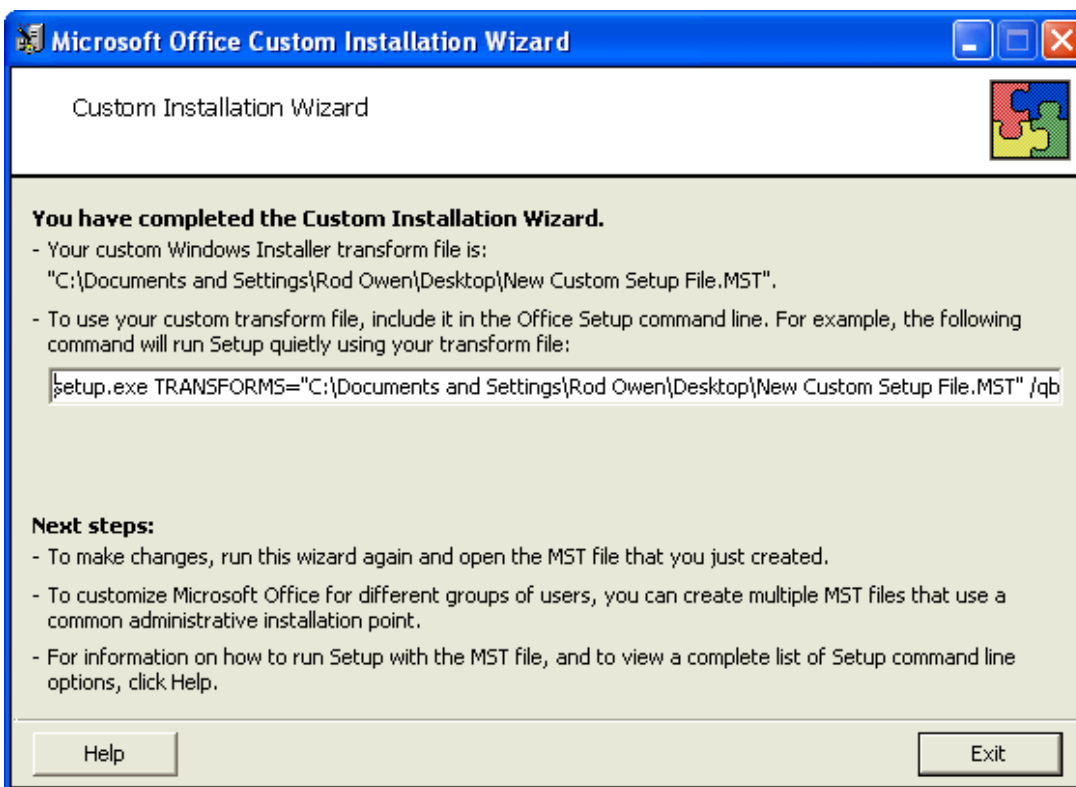


18. Note that the **Modify Setup Properties** page re-displays with the updated information. For example:

Modify or remove existing Setup properties, or add new properties to be used during installation.

Property name	Value
SERIALNUMBER	A209Z-123-4567-8900-99

19. Continue adding or modifying other MSI options that apply for your environment. Once you are done, click **Next**.
20. On the **Save Changes** page, click **Finish**.
21. When the **Custom Installation Wizard** page appears, click **Exit**. This screen displays the location of *Windows Installer transform* (.MST file) that you created.



After you save changes, you can use the resulting .MST file to manage an installation through a Group Policy in Active Directory Services.

You are now ready to use the custom installer you created to install the product.

# MSI Installation of multiple clients with the same default options

If you would like to set the same default options for a several *Dragon Medical Client 2.3* workstations, you can pre-configure them using a **natspeak** option of the *Dragon Medical SDK Client* on the command line and then apply those settings by passing the **.ini** file the SDK creates to the MSI installer on the command line.

You must take the actions outlined in the subsections that follow on a machine where you have installed the *Dragon Medical SDK Client*. (It is required on every *Profile Optimizer Speech Node*.) If you have not yet installed the SDK, refer to *Installing Profile Optimizer Server prerequisite software* on page 71

## Setting Dragon options on the command line before installing Dragon

After you install the *Dragon Medical SDK Client* on any *Profile Optimizer Speech Node* machine, you can take advantage of a **natspeak** command line option available only in the SDK.

You use the *Dragon Medical SDK Client* **natspeak** command to pre-configure default settings for one workstation, then later have those defaults automatically apply to multiple *Dragon Medical Clients* you install using an MSI installation. When you use the **natspeak** command, you no longer have to set these options on each individual *Dragon Medical Client 2.3* workstation.

On any *Profile Optimizer speech Node* machine, take the following steps to set the options you want to pre-set on multiple *Dragon Medical Clients* through an MSI installation:

1. Open a command prompt and locate the following directory, where `<VersionNumber>` is the version number of the current version of the Dragon SDK client:

```
<drive>:\Program Files\Nuance\Dragon SDK Client Edition<VersionNumber>\Program
```

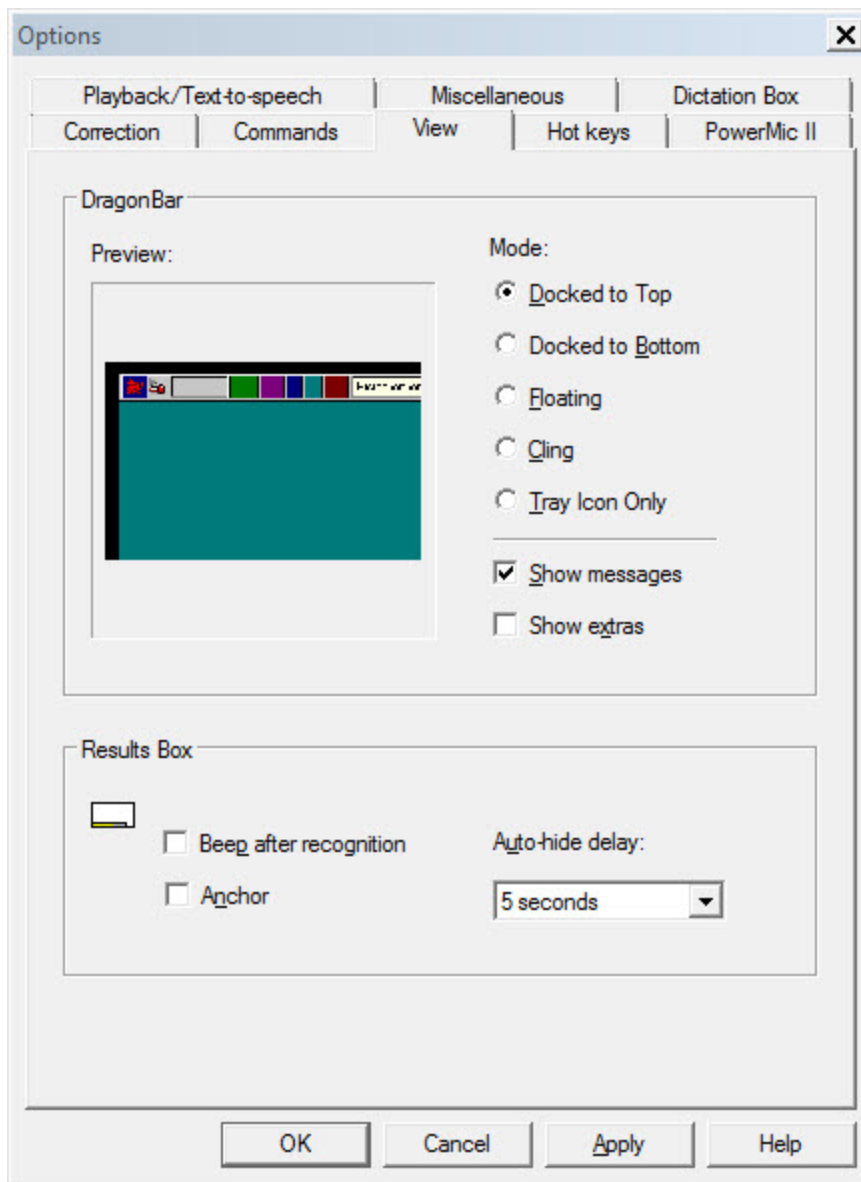
2. Enter the command line shown below, passing **/SetDefaultOptions**:

```
natspeak.exe /SetDefaultOptions
```

3. In a moment, the **Options** dialog box appears.

Here you set the options you'd like each client workstation to use.

You set the options under the several tabs you see. For instance, the next illustration shows the **View** tab with display **Mode** for *Dragon* set to **Floating** and the **Results Box** set to anchor itself to the application and hide after 5 seconds.



4. For more information on setting the options in the tabs of the **Options** dialog box, refer to the *Dragon Medical Client* Help.
5. When you have finished setting all of the options the way you want them, click **OK** to close the dialog box. *Dragon* has saved the configuration you created with the **natspeak.exe** command in the **nsdefaults.ini** file. You can find **nsdefaults.ini** in the following locations:

**Windows XP:**

C:\Documents and Settings\All Users\Application Data\Nuance\NaturallySpeaking12\

**Newer versions of Windows:**

C:\ProgramData\Nuance\NaturallySpeaking12\

6. Retrieve the **nsdefaults.ini** file and copy it to a directory where all workstations you plan to install the *Dragon Medical Client 2.3* on can access it.

## Installing Dragon Medical Client using pre-defined options in nsdefaults.ini

You use the **nsdefaults.ini** file you created earlier in an MSI installation of *Dragon Medical Client*:

1. Go to the machine you plan to carry out the MSI installation from and copy the files from the DVD to a location on your network that you can access all client workstations from.
2. Open a command prompt and switch to the directory on your machine where the **setup.exe** file for *Dragon Medical Client 2.3* is now located.
3. Enter the MSI installation command, passing it the options shown below:

```
msiexec /i "Dragon NaturallySpeaking 12.msi" SERIALNUMBER=#####-###-####-#####-## INSTALLDIR="C:\DragonMed" NAS_ADDRESS=10.45.133.91 DEFAULTSINI-I="C:\<full_path>\nsdefaults.ini" /Lwiemo+ "C:\logfile.log" /qn
```

You must put the name of the **.msi** file in quotation marks.

Set the **INSTALLDIR** to the full path where you want the files installed on the workstation.

Set the **NAS\_ADDRESS** to the IP address or machine name of the *NMS Server* for this particular *Dragon Medical Client*. If you have a load balancing traffic switch managing multiple *NMS Servers*, set this option to the address of the switch rather than the address of a particular *NMS Server*.

---

**Note:** If the user already entered a value for this option, your value will overwrite that.

Set the **DEFAULTSINI** to the full path to the **nsdefaults.ini** file you created earlier.

You should include the **/L** option followed by the full path to an error log file, so that if something goes wrong during the installation, you receive messages about it. When you pass **/L**, you also pass a series of sub-options to have the installation process log both errors and other types of messages related to the process. (You can then send the log file to Nuance Technical Support should any issues arise.)

The first time you carry out this installation, you should not pass the **/qn** option, so that if you have neglected to provide information about a setting that does not have a default, you receive a prompt asking for that information. Later, when you are sure this command line works, you can add the **/qn** option.

When you generate the MSI command line, be sure to group the *Dragon* options together after the **/i** option, then add the other MSI options at the end of the command line.

To run the installation to a server, you must pass the **/a** option to **msiexec** rather than the **/i** option.

## Summary: Additional MSI options for use with nsdefaults.ini file

Below is a summary of additional *Dragon* options you can use when you install *Dragon Medical Client 2.3* from the command line using **msiexec.exe**.

## Additional MSI command line options for using nsdefaults.ini file

Option	Function
DEFAULTSINI	Set to the full path to the <b>nsdefaults.ini</b> file.
INSTALLDIR	Set to the full path to where you want the <i>Dragon Medical Client 2.3</i> to be installed.
NAS_ADDRESS	<p>Set to the IP address or name of the <i>NMS Server</i> machine. If you have more than one <i>NMS Server</i>, be sure to give the correct server's address.</p> <p>If you have a load balancing traffic switch managing multiple <i>NMS Servers</i>, set this option to the address of the switch rather than the address of a particular <i>NMS Server</i>.</p> <p><b>Note:</b> <i>If you define this option when installing an upgrade to Dragon Medical 360   Network Edition, version 2.3, you will overwrite any value the user already entered.</i></p>
/L "<logfile>.log"	Creates a log file where the <b>msiexec</b> installer logs any errors in the installation. The log file's name must be in quotation marks.

# Starting Dragon Medical Clients from Command Line

On any workstation where you installed the client, you can start the *Dragon Medical Client* from the command line and login/connect to the *NMS Server*, as long as you know the login name and password of the user account on the server:

1. Select **Start > Run...** and enter **cmd** in the **Run** dialog box that pops up.
2. Switch directories to the following path:

```
<drive>:\Program Files\Nuance\NaturallySpeaking12\Program
```

3. Enter the command line shown below, passing either the **-user** option or the **/user** option followed by the user name and password, in that order. The user name and password must be from a user account created on the *NMS Server*:

```
natspeak.exe /user <username> <password>
```

4. The password is optional if a provider does not have a password, but Nuance recommends that you assign all providers using *Dragon Medical* a password.
5. To log in using an Active Directory single sign-on user account (when the *NMS Server* has been set up to run in Active Directory and the user accounts correspond to Windows user accounts), once the provider has logged in to Windows, he or she can use the **/trusted** switch on the command line:

```
natspeak.exe /trusted
```

6. To log in using an EHR single sign-on user account use the **/SSOUser** switch on the command line.

If you are running the command on the same machine where Dragon is installed use:

```
natspeak.exe /SSOUser <username> <ClientID>
```

If you are running the command where Dragon is installed on a Citrix machine, use:

```
natspeakSSO.exe /SSOUser <username> <ClientID>
```

Where **<username>** is an EHR username, and **<Client ID>** is the token that you created in *Creating Organization Tokens* on page 180.

The user account must be set up in the *NMS Server*, as described in *Creating Single Sign-On user accounts* on page 180.

7. You can also use **natspeak** to install the client from the command line. To receive diagnostic messages about the *Dragon Medical Client* installation process, you can use the diagnostic option shown below:

```
natspeak.exe /diagnose
```

When you use the **/diagnose** option, *Dragon Medical* sends any information about errors that occur during the installation into the **Dragon.log** file.

## Creating Organization Tokens

Complete the following steps to create an organization token:

1. In the Nuance Management Console, go to **Sites > Organization Overview**.
2. Select the site that you want to create a token for, and in the **Organizations** area click the **Details** icon. The **Organization Details** screen appears.
3. In the **Organization Tokens** tab, click **Add** to generate a new organization token. The **Token** field is pre-filled. Optionally, enter a value in the **Comment** field. Click **Save**.
4. The new token appears in the **Token** table. Copy or make a note of this value; you will need it to configure EHR Single Sign-On.

See [Creating Single Sign-On user accounts](#) for information on using the tokens to configure EHR Single Sign-On.

## Creating Single Sign-On user accounts

Dragon Medical 360 | Network Edition supports two types of single sign-on accounts:

- Active Directory Single Sign-On, which allows users to log in using their Windows credentials.
- EHR Single Sign-On, which allows users to log in from their EHR.

The following sections describe how to configure both types of Single Sign-On accounts.

---

**Note:** For the most current information on how to configure Single Sign-On accounts, see the <https://isupport.nuance.com> website.

### Implementing Active Directory Single Sign-On

When you implement Active Directory Single Sign-On, you set up providers to automatically log in when they have logged in to Windows. In this type of setup, providers avoid having to enter their login and password multiple times.

#### Steps

- You must configure your *NMS Server* to use Windows Active Directory Services. For more information see [Setting up the Nuance Management Server to run Active Directory Services](#) in the Dragon Medical 360 | Network Edition Administrators Guide.
- You must set up Windows Domain user names and user account login names that are identical. For more information, see [To configure Active Directory Single Sign-On](#) in the Dragon Medical 360 | Network Edition Administrators Guide.

If the login credentials for an existing user account do not match the user's Windows login, you must delete the user account and create a new one. Make sure the login credentials for the new account match the user's Windows login credentials. See the Enabling Active Directory Single



Sign-On for Dragon users after you install DM360 Network Edition tech note, found at the <https://isupport.nuance.com> website, for details.

---

**Note:** For DM360 Network Edition, if you upgrade your Active Directory Single Sign-On from a pre-SP3 implementation to an SP3 or newer implementation, your Nuance Management Console logins will change from being authenticated by the LDAP system to being authenticated by the Nuance Management Console. This means that users must log in to the Nuance Management Console using their NMS credentials, not their LDAP credentials.

### To configure Active Directory Single Sign-On

1. During the process of creating provider user accounts in the *NMS Server*, be sure to assign a login name that matches the user name of the provider's Windows Domain login name.

In the **Login** field, enter the user name of the provider's Windows Domain login name. The logins for DM360 Network Edition and Windows must be identical.

For example, if a provider's Windows Domain login name is one of the following:

- "Domain\John\_Doe"
- "John\_Doe@domain.example.com"

You enter "John\_Doe" in the **Login** field.

For DM360 Network Edition, for each Dragon client, perform the steps in Enabling Dragon client computers for Active Directory Single Sign-On.

## Implementing EHR Single Sign-On

To implement EHR Single Sign-On, you create the log in and log out code for DM360 Network Edition. You then configure your EHR to call that code; allowing providers to log in and out of DM360 Network Edition from the EHR.

While the steps for configuring this in the EHR differ depending on which EHR your providers use, the steps on the DM360 Network Edition side are the same regardless of the EHR.

### Steps

- (Optional) Ensure that vSync is installed on both the Citrix client and server
- Enable EHR Single Sign-On
- Generate a Client ID
- (Optional) Map the User's EHR log in to their DM360 Network Edition log in credentials
- Write the log in/log out code
- Configure your EHR to call the log in/log out code
- For DM360 Network Edition, install the Dragon Clients with EHR Single Sign-On enabled

### (Optional) Ensure that vSync is installed on the Citrix server

For DM360 Network Edition, if your EHR is running on Citrix, EHR Single Sign-On requires that vSync be installed on the Citrix server and Citrix Support components be installed on the client machine. Visit <https://isupport.nuance.com> and view "*L-3431 - Using Dragon with Citrix clients and servers Administrator Guide*" for more information about vSync.

## **Enable EHR Single Sign-On in the Nuance Management Console**

Complete the following steps for each site that you want to use EHR Single Sign-on:

1. Open the site in the Nuance Management Console.
2. In the **Organization** tab, click **Search**.
3. Enter your search criteria in the search fields and click the magnifying glass button. The search results appear.
3. In the **Organizations** screen, double-click an organization to select it. The Management screen appears.
4. Select a site from the list of sites that displays under the folder icon on the left-hand side of the screen. In the **Sites** tab, click **Details**.
4. In the **Site** screen, click the **DM360 Network Edition** tab.
5. Expand the **Miscellaneous** section.
6. Check the **Enable SSO authentication** checkbox to enable EHR Single Sign-on for the site.
7. Click **Save** to save your changes.

### **Generate a Client ID**

Generate a client ID for each site that you want to use EHR Single Sign-on. For information about how to generate a Client ID, see [Creating Organization Tokens](#). Your log in script for DM360 Network Edition will use this ID as a parameter .

### **(Optional) Map the EHR User Names to the log in credentials for DM360 Network Edition**

If your users' EHR usernames and user account usernames are the same, you can skip this step.

If your users' EHR usernames and user account usernames are **not** the same, complete the following steps:

1. Open the user you want to configure.
2. Go to **User Account Details > Credentials > Token:**  
Go to **User Account Details > Credentials > Token:**
3. Click **Add**. The **New Credential** dialog box appears.
4. Enter the user's EHR user name in the **Login** field.
5. Click **OK** to save your changes.

### **Write commands for logging in and out of DM360 Network Edition**

You use command line parameters to log in and out of DM360 Network Edition using EHR Single Sign-on. You can integrate these commands with your EHR in a number of ways including:

- using a third party product
- using functionality that is built in to your EHR
- using an external scripting language.

### Logging into the local machine

If you are going to run the log in command on the same machine where DM360 Network Edition are installed, use the following syntax to login a user:

```
<Path to the product executable>\<product exe file>/SSOUser <Username> <Client ID>
```

where:

- <Path to the product executable> is the path to the directory that contains the product exe file.
- <product exe file> is the name of the exe file that launches the product.
  - For DM360 Network Edition, the exe file is called natspeak.exe.
- <Username> is an EHR username.
- <Client ID> is the ID that you created. See [Creating Organization Tokens](#).

For example:

```
C:\Program Files\Nuance\NaturallySpeaking12\Program\natspeak.exe /SSOUser jdoe eacd17e4-f0fb-4a2b-9b20-03a80231e9a0
```

### Logging out of the local machine

If you are going to run the log out command on the same machine where DM360 Network Edition are installed, use the following syntax to log out the currently loaded user:

```
<Path to the product executable>\<product exe file>/SSOUser <Username> <Client ID>
```

where:

- <Path to the product executable> is the path to the directory that contains the product exe file.
- <product exe file> is the name of the exe file that launches the product.
  - For DM360 Network Edition, the exe file is called natspeak.exe.
- <Username> is an EHR username.
- <Client ID> is the ID that you created. See [Creating Organization Tokens](#).

For example:

```
C:\Program Files\Nuance\NaturallySpeaking12\Program\natspeak.exe /Logout
```

### Logging in when running DM360 Network Edition on a Citrix server

Use the following command to log users into DM360 Network Edition:

```
<Path to the product SSO executable>\<product SSO exe file>/SSOUser <Username> <Customer Token>
```

where:

- <Path to the product SSO executable> is the path to the directory that contains the product SSO exe file.
- <product SSO exe file> is the name of the SSO exe file for the product.
  - For DM360 Network Edition, the exe file is called natspeakSSO.exe.

- <Username> is an EHR username.
- <Customer Token> is the organization token that you created. For details, see [Creating Organization Tokens](#).

For example:

```
C:\Program Files\Nuance\EHR Synchronizer\Program\natspeakSSO.exe  
/SSOUser jdoe eacd17e4-f0fb-4a2b-9b20-03a80231e9a0
```

### **Logging out when running DM360 Network Edition on a Citrix server**

Use the following command to log out the currently loaded user:

```
<Path to the product SSO executable>\product SSO exe file> /Logout
```

where:

- <Path to the product SSO executable> is the path to the directory that contains the product SSO exe file.
- <product SSO exe file> is the name of the SSO exe file for the product.
  - For DM360 Network Edition, the exe file is called natspeakSSO.exe.

For example:

```
C:\Program Files\Nuance\EHR Synchronizer\Program\natspeakSSO.exe  
/Logout
```

### **Configure your EHR to call the log in/log out code**

Follow the instructions provided in your EHR documentation to configure the EHR to call the log in and log out code that you created in the *Write Dragon log in/log out commands* topic in the Nuance Management Console Help.

### **Install the client software with EHR SSO Enabled**

Use the MSI installer to install the DM360 Network Edition client software - with EHR Single Sign-On enabled Set the MSI command line option to enable EHR Single Sign-On by passing in `NAS_SINGLE_SIGN_ON=1`. See the Nuance Management Console Help for more information about the MSI installer and MSI command line options.

---

#### **Notes:**

Be sure that EHR Single-Sign On is enabled or disabled in **both** the Nuance Management Console **and** the client software for DM360 Network Edition. If these settings are out of synch—for example, EHR Single Sign-On is enabled in the Nuance Management Console but not on the clients—unpredictable log in behavior results.

When installing an upgrade for DM360 NE on a client machine, you can enter values in the command line for the Active Directory and EHR single sign-on settings. However, be aware that your values will overwrite any the user already entered for these settings.

# Closing the Dragon Medical client from a command line

In Dragon Medical 360 | Network Edition, version 2.3, on any workstation where Dragon is installed, end-users can logout of Dragon and close the Dragon from the command line.

Closing Dragon from a command line is the same as closing Dragon from the Dragonbar menu and closes all Dragon related processes.

This feature is useful for customers that use Dragon in a virtual environment as it allows administrators to close Dragon without using the Task Manager.

1. Select **Start > Run...** and enter **cmd** in the **Run** dialog box that pops up.
2. Switch directories to the following path:

```
<drive>:\Program Files\Nuance\NaturallySpeaking<VersionNumber>\Program
```

3. To close Dragon without saving user profile changes, enter the command line shown below. This command works even if the **Automatically save user files on close** option is enabled in the Dragon Client.

```
natspeak.exe /ShutDown
```

4. To close Dragon and save user profile changes, enter the command line shown below. This command works even if the **Automatically save user files on close** option is enabled in the Dragon Client.

```
natspeak.exe /SaveandShutDown
```

---

## Notes:

- If Dragon is running and a user profile is not open, running `natspeak.exe /ShutDown` or `natspeak.exe /SaveandShutDown` simply closes Dragon and all related processes.
- If Dragon is running and a user profile is open, running `natspeak.exe /ShutDown` closes Dragon and all related processes and **does not** save user profile changes.
- If Dragon is running and a user profile is open, running `natspeak.exe /SaveandShutDown` closes Dragon and all related processes and **saves** user profile changes.

# Summary: natspeak options in Dragon Medical Client

You can run the *Dragon Medical Client* from the command line by running **natspeak** from the following location on the workstation:

**C:\Program Files\Nuance\NaturallySpeaking<Version Number>\Program\**

where **<Version Number>** is the version number of your installation of DM 360 | Network Edition. For example:

**C:\Program Files\Nuance\NaturallySpeaking12\Program\**

## natspeak switches

You can use the following options on the command line with **natspeak** to modify the way that *Dragon Medical Client 2.3* starts up.

Switch	Function
/diagnose	Runs the <i>Dragon Medical Client</i> in diagnostic mode. Outputs information into the <b>Dragon.log</b> file and exits.  The diagnostic information shown in the log includes file version verifications. The diagnostic results end with a line that says <b>Diagnoses: Passed</b> .
/trusted	Automatically logs in to the <i>Dragon Medical Client</i> with the user account of the logged in Windows user (also known as Active Directory Single Sign-On). The user account must be set up in Active Directory and have a corresponding user account in the <i>NMS Server</i> .
/SSOUser	Automatically logs in to the <i>Dragon Medical Client</i> with the user account named. The switch expects you to supply the EHR username and a Client ID. See <i>Creating Customer Tokens</i> in the Administrator's Guide for more information. The user account must be set up in the <i>NMS Server</i> as described in <i>Creating Single Sign-On user accounts</i> on page 180
/user <username> <password>	Automatically logs in to the <i>Dragon Medical Client</i> with the user account named. The password is optional if the account does not have a password. The user account must be set up in the <i>NMS Server</i> .  Note that Nuance always recommends each user account have a password.
/ShutDown	Closes Dragon without saving user profile changes. This command works even if the <b>Automatically save user files on close</b> option is enabled in the Dragon Client.
/SaveandShutDown	Closes Dragon after saving user profile changes. This command works even if the <b>Automatically save user files on close</b> option is disabled in the Dragon Client.

## natspeak command line options

Via the SDK installed on your speech node, you can use the following option on the command line with **natspeak** to modify the *Dragon Medical Client 2.3* options settings in the **nsdefaults.ini** file before installing the client on multiple machines. See *MSI Installation of multiple clients with the same default options* on page 174 for more information.

Switch	Function
/SetDefaultOptions	Opens the <i>Dragon Medical Client 2.3</i> 's <b>Options</b> dialog box, where you can pre-set the options. When you apply the setting changes and save them, Dragon saves the settings in the <b>nsdefaults.ini</b> file.

## Ensuring Dragon Medical Client anti-virus recommendations are met

Nuance recommends anti-virus software on all DM360 Network Edition servers and clients to protect the system from potential downtime due to viruses. However, on *Dragon Medical Clients*, be sure to exclude from the anti-virus scan any files found in the folders indicated below or with the extensions listed below (on Windows workstations):

- C:\ProgramData\Nuance\ folder and all sub-folders
- C:\<Windows user\_ID>\AppData\Roaming folder and all sub-folders
- C:\Documents and Settings\All Users\Application Data\Nuance folder and all sub-folders
- C:\Documents and Settings\Windows user\_ID\Local Settings\Temp folder
- Files with these extensions: **BD, BIN, DAT, DVC, ENH, GSB, GRM, GRX, INI, LCK, NWV, SIG, SVC, USR, VER, VOC, WAV, XML, LOG**



# Assigning access to folders and master user profiles across the network

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**Caution:**

To ensure that your *Dragon Medical Clients* can communicate with the master user profiles server and the other servers, you must assign correct permissions to all appropriate directories and access rights to particular keys in the registry, as indicated in the tables in *Assigning access to servers, clients, and master user profile locations* on page 20. Do not skip this step, as it is important!

---

## Turning off Automatic Updates

On each machine you plan to use in the network, be sure to turn off Windows Automatic Updates. You should, instead, qualify each update Windows sends by installing it first on a single test machine of the network and then updating other machines on the network only after you determine that it clearly will not disrupt the network.

Once you are sure an update does not have any negative effects, you should install the update during off-hours and, if required, reboot each machine during those hours to ensure that requests to reboot do not disrupt the servers or workstations during peak hours of dictation.



# ***Chapter 8: Upgrading to DM360 Network Edition or changing server and database installations***

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Upgrading an On-Premise Installation .....	192
Upgrading the Nuance Management Server .....	193
Upgrading the Profile Optimizer Server, Speech Nodes, and Dragon SDK .....	195

# Upgrading an On-Premise Installation

Upgrading an on-premise installation of DM 360 | Network Edition involves some of the same steps that you take to install. For upgrades from an on-premise installation to a cloud-based installation, see *Upgrade to NMS in the cloud* on page 242.

The following list takes you through the on-premise upgrade steps:

---

**Note:** For upgrades to DM 360 | Network Edition version 2.x, your Dragon Client software must be at SP3 or higher and your Nuance Management Server must be at 2.0 or higher.

---

## Step One: Upgrade the Server-Side Components

Upgrade the following components in the order given:

**If you are running the Profile Optimizer Server and Speech Nodes on the same machine:**

- Nuance Management Server (NMS)
- SDK Software on the Speech Nodes
- Profile Optimizer Server and Speech Nodes

**If you are running the Profile Optimizer Server and Speech Nodes on separate machines:**

- Nuance Management Server (NMS)
- Profile Optimizer Server
- SDK Software on the Speech Nodes
- Profile Optimizer Software on the Speech Nodes

The current chapter, *Upgrading to DM360 Network Edition or changing server and database installations*, includes instructions for upgrading all of the server-side components.

## Step Two: Upgrade Your User Profiles (Upgrades from DM 360 | Network Edition 10.x to 2.3 Only)

Upgrade your user profiles to 2.3 by following the steps in *Upgrading User Profiles from DM360 Network Edition Version 10.x to Version 2.0 or Higher* on page 139.

## Step Three: Upgrade Your Client Software

Follow the instructions in *Installing the Dragon Medical Client* on page 149

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**Note:** If you do not want to upgrade all of the components in your system at once, you can upgrade the NMS, upgrade some of the speech nodes to 2.3 while leaving others at 10.x, and upgrade some of the clients to 2.3 while leaving others at 10.x. However, you'll need to upgrade all of the components—the NMS, the speech nodes, and the clients—to the latest version to access all of the latest DM 360 | Network Edition features.

---

## Step Four: (Optional) Migrate from the Data Distribution Tool to Command Sets

As of DM360 Network Edition 2.3, the Command Sets feature replaces distributing custom commands via the Data Distribution Tool (DDT). If you used DDT to distribute commands, migrate to the Command Sets feature using the instructions in *Migrating from Data Distribution Tool to Command Sets* on page 198.

If you did not use DDT to distribute commands, you can skip this step.

## Step Five: (Optional) Migrate from the Data Distribution Tool to Word Sharing

As of DM360 Network Edition 2.3, the Word Sharing feature replaces distributing custom words/auto-texts via the Data Distribution Tool (DDT). If you used DDT to distribute custom words/auto-texts, migrate to the Word Sharing feature using the instructions in *Migrating Custom Words from Data Distribution Tool to Word Sharing* on page 201.

If you did not use DDT to distribute custom words/auto-texts, you can skip this step.

# Upgrading the Nuance Management Server

## Before you upgrade

Before you upgrade the Nuance Management Server (NMS), you must:

- Verify that .NET Framework 4.0 is installed on the server machine.

## Upgrade the NMS

Complete the following steps to upgrade the NMS:

1. If you are logged in to it, log out of the *Nuance Management Console*.
2. Shut down the *NMS Server* by stopping its service: In the **Control Panel**, click **Administrative Tools**, then open the **Services** window, find the **Nuance Management Service**, and stop the service. If you are running more than one NMS, be sure to shut down the service on all servers.
3. Back up the NMS database, following the instructions in *NMS SQL Server backup system* on page 206.
4. To start the installation of the *NMS Server*:
  - If you have the NMS server DVD: insert the DVD in your DVD reader.
  - If you downloaded the NMS server software: find and double-click **Nuance Management Server and Console Installation.exe**.
4. When the **DME Nuance Management Server and Console Installation InstallShield Wizard** pops up telling you it is about to upgrade the server and asks you if you want to continue,

click **Yes**.

5. Wait while the **Preparing to Install...** message displays and, when the first full page of the wizard appears, click **Next**.
6. The **Setup Status** page appears and displays a progress bar while the installer takes several steps, starting with **Computing space requirements**, until the entire Service Pack is installed. When you see the **Update Complete** page of the wizard, click **Finish**.
7. Verify that the Nuance Management service is running. For details, refer to *Starting the Nuance Management Server and Profile Optimizer Server* on page 97.

# Upgrading the Profile Optimizer Server, Speech Nodes, and Dragon SDK

This chapter describes how to upgrade the Profile Optimizer Server, speech nodes, and the Dragon SDK. It contains the following sections:

- [Before you upgrade](#)
- [Step 1: Uninstall the old and install the new Dragon SDK client](#)
- [Step 2: Upgrade the Profile Optimizer Server \(Installations with Profile Optimizer Speech nodes on independent or virtual machines only.\)](#)
- [Step 3: Install the new version of the Profile Optimizer Server and/or Speech Nodes](#)

## Before you upgrade

Before you upgrade the Profile Optimizer Server, you must:

- Verify that .NET Framework 4.0 is installed on the server machine.

## Step 1: Uninstall the old and install the new Dragon SDK Client

To uninstall the old version of *Dragon SDK Client* from any *Speech Node* machine, use the Windows Control Panel:

1. Click **Start > Control Panel** and open **Add/Remove Programs** or **Programs and Features**, depending on your version of Windows.
2. Find **Dragon SDK Client** in the list and click it to select it.
3. Click the **Remove** button to uninstall the Dragon SDK Client.
4. Install the new version of the *Dragon SDK Client* on any Profile Optimizer speech node machine. Get the software from the product DVD and install it following the instructions in *Installing prerequisite software for speech nodes* on page 73.

## Step 2: Upgrade the Profile Optimizer Server (Installations with Profile Optimizer Speech Nodes on independent or virtual machines only.)

If you have an installation where the Profile Optimizer server runs on a separate machine from the Profile Optimizer speech nodes, follow the instructions in *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84 to install the latest version of the Profile Optimizer server.

If your installation has the Profile Optimizer and the Speech Nodes on the same machine, skip this step and continue on to [Step 3](#).

## **Step 3: Install the new version of the Profile Optimizer Server and/or the Speech Nodes**

If you are running the Profile Optimizer Server and Speech Nodes on separate machines, install the new version of the speech nodes as described in *Installing Profile Optimizer Speech Nodes on independent or virtual machines* on page 84.

If you are running the Profile Optimizer server and speech nodes on the same machine, install the new version of both the *Profile Optimizer Server* and the *Profile Optimizer Speech Nodes* by following the instructions *Installing the Profile Optimizer Server and speech nodes* on page 75

Once the new software has been installed, to verify that the *NMS Server*, *Profile Optimizer Server*, and *Speech Nodes* have started or to start them if they have not started, refer to *Starting the Nuance Management Server and Profile Optimizer Server* on page 97.



# ***Chapter 9: Migrating from the Data Distribution Tool to Command Sets and Command Sharing***

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Migrating from Data Distribution Tool to Command Sets .....	198
Migrating Custom Words from Data Distribution Tool to Word Sharing .....	201

# Migrating from Data Distribution Tool to Command Sets

As of DM360 Network Edition 2.3, the Command Sets feature replaces distributing custom commands via the Data Distribution Tool (DDT). This section discusses the factors that you will need to consider before migrating, and tells you how to migrate to the Command Sets feature.

## About Command Sets

Command Sets are a collection of related commands that are managed on and distributed from the Nuance Management Server (NMS). Once a Command Set is created, the Administrator uses the Nuance Management Console (NMC) to assign it to specific sites and groups, and can add, update, or remove the Command Set from the NMS.

An Administrator generates a Command Set by:

- Exporting custom commands from the Dragon Client's Command Browser to a .dat or .xml file (Nuance recommends using a .dat file whenever possible).
- Creating a Command Set in the NMC. This involves uploading the exported command file to the NMS, where it becomes the basis of the Command Set.

See the [DM 360 | Administrator's Guide](#) for details on how to create a Command Set.

When a user logs in to the Dragon Client, the most recent Command Set files are downloaded and placed in her profile. The downloaded Command Set files are kept separate from custom commands, allowing the Administrator to make changes to the Command Sets without affecting a user's custom commands.

If the name and availability of a command within a Command Set exactly matches the name and availability of a command in a user's MyCommands, the local version overrides the version of the command in the Command Set, and the Command Set version will be inactive. You will have to remove the local version of the command using the "Purge Identical MyCommands" feature in order for the Command Set version to become active.

## Choosing a Migration Strategy

There are multiple ways to migrate from DDT-distributed commands to Command Sets. The following section outlines the pros and cons of each strategy, allowing you to choose the best one for your organization.

### Creating Command Sets that Replicate Existing DDT-Distributed Commands

You can migrate to distributing commands via Command Sets by creating new Command Sets that exactly replicate your existing DDT-distributed commands.

The advantage of this strategy is that running the "Purge Identical MyCommands" feature is likely to find and delete any custom commands created on the Dragon Client that are causing conflicts.

However, to be sure that your new Command Sets contain all of the commands that your organization needs, you may need to wait until the Purge feature has been run for all of your users, assess the new Command Sets, update them, and redeploy them.

If you choose this migration strategy, you'll use the following workflow to migrate:

1. Create Command Set files that replicate the existing commands that were distributed via DDT. This can be as simple as using the existing .dat or .xml files that comprised your DDT commands as the data files for your new Command Sets. See the DM 360 | Administrator Guide for details on how to create a Command Set.
2. For each user that you want to migrate over to Command Sets, log in to the Dragon Client as that user and run the "Purge Identical MyCommands" feature. This will delete any custom commands that duplicate commands in your Command Sets. See the DM 360 | Administrator Guide for details on how to run the "Purge Identical MyCommands" feature.
3. Save the user profile to save these changes.
4. Repeat steps 2 and 3 until all of the user profiles have been purged of identical commands.
5. Update and redeploy the Command Sets as needed.

### **Creating Command Sets that are Different from Existing DDT-Distributed Commands**

You can also create Command Sets that don't exactly replicate your existing DDT-distributed commands. This migration strategy makes conflicts between old and new commands and between old and new lists within those commands less likely, as you can name the commands and lists in your new Command Sets specifically to reduce these sorts of problems.

However, this strategy also means that running the "Purge Identical MyCommands" feature may not find all identical commands, and you may have to delete those duplicates manually.

If you choose this strategy, you'll use the following workflow to migrate:

1. Create new Command Sets with new command and list names, chosen to prevent current and future conflicts. See the DM 360 | Administrator Guide for naming guidelines.

Assign those Command Sets to the appropriate sites and groups. See the DM 360 | Administrator Guide for instructions on how to create new command sets and assign them to sites and groups.

2. Temporarily deploy Command Set versions of the DDT commands, but prefix the Command Sets with a low-sorting and easily identifiable name, such as 'zzzTEMP\_<DDTCommandSetName>', where <DDTCommandSetName> is the name of the original DDT .dat or .xml file. This allows any new Command Set commands that conflict to be loaded first and be active.
3. For each user in the affected sites and groups, log in to the Dragon Client as that user and run the "Purge Identical MyCommands" feature. This will delete any custom commands that duplicate commands in your Command Sets. See the DM 360 | Administrator Guide for details on how to run the "Purge Identical MyCommands" feature.
4. Save the user profile to save these changes.
5. Repeat steps 3 and 4 until all of the user profiles have been purged of identical commands.

6. Once the 'Purge' process is complete across the user profiles, delete the temporary Command Set files from the NMS. This results in these files being removed from the Command Set files on the Dragon Clients. See the DM 360 | Administrator Guide for instructions on how to delete Command Sets.
7. Review the existing MyCommands and delete any that are no longer relevant.

# Migrating Custom Words from Data Distribution Tool to Word Sharing

In DM 360 | Network Edition version 2.1 and newer, the Word Sharing feature replaces using the Data Distribution Tool (DDT) to share custom words across your organization.

Take the following steps to migrate from distributing custom words via DDT to distributing them via the Word Sharing feature:

- Import the custom words that you used to distribute via DDT to the Nuance Management Server (NMS). See the *Working with Text and Graphics auto-texts and custom words* chapter of the DM 360 | Administrator Guide for instructions.
- When users log into the client for the first time after a large number of words have been added or deleted from the NMS, the vocabulary may take a bit longer than usual to load, as the custom words download from the server are added and deleted from the users' vocabulary.

Users **must** save their profiles after this to avoid the vocabulary loading slowly in the future.

# ***Chapter 10: Revising or Repairing Profile Optimizer Server and Speech Nodes***

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Revising or Repairing the Profile Optimizer Installation .....	203
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# Revising or Repairing the Profile Optimizer Installation

If you have installed the *Profile Optimizer Server* and/or its *Profile Optimizer Speech Nodes* and want to modify or repair that installation, you take only a few steps.

1. *Halting Profile Optimizer Speech Nodes* on page 203
2. *Revising or repairing the Profile Optimizer or Speech Node installation* on page 203

**Note:** If you are upgrading to DM360 Network Edition Service Pack 2, you should uninstall the Profile Optimizer Service before the upgrade. Existing database and log files are not modified during the upgrade. After you close the Speech Node software, make sure the Nuance.ConversionServer.ClientApp.exe is not running. If you see the Nuance.ConversionServer.ClientApp.exe process in the Windows Task Manager, close it.

## Halting Profile Optimizer Speech Nodes

If you have one or more *Profile Optimizer Speech Nodes* running, you need to terminate their processes:

1. To terminate the processes, open the Windows **Task Manager** and click the **Processes** tab.
2. Find any processes named **Nuance.ConversionServer.ClientApp**. Highlight them and click **End Process**.

## Revising or repairing the Profile Optimizer or Speech Node installation

After the *Profile Optimizer* Installer wizard starts up and you click **Next**, if you have already installed any portion of *Profile Optimizer*, the **Modify, Repair or Remove installation** page of the wizard appears and you should select **Modify**, then click **Next** to proceed.





# ***Chapter 11: Backing up server systems***

---

NMS SQL Server backup system .....	206
Profile Optimizer SQL Server backup system .....	208
Master user profiles backups .....	209
Removing a master user profile folder for a deleted user account .....	209
Servers and Dragon client logs .....	210
View log files for a variety of products and product components .....	213
Nuance Management Console logs .....	214

## NMS SQL Server backup system

When you look in the SQL Server explorer, to find the *NMS SQL Database* database, look for a database named **NuanceMC** by default. If you name the database differently during the installation process, *NMS Server* retrieves the database name from SQL Server and uses its name as the root for the backup files.

During the installation process, the *NMS Server* creates the backup folder in the location you indicate or, by default, in the **C:\NMSDDBBACKUP** folder.

The *NMS Server* automatically backs up the data you have entered into it on sites, users, groups, and other objects into the backup folder. It also backs up all Windows communication foundation service logs that it creates.

(For more information on logs that the clients and servers create, refer to *Servers and Dragon client logs* on page 210.)

### Scheduled NMS transaction log and database backups

The *NMS Server* schedules these backups:

- Transaction log backups—Scheduled hourly
- Differential database backups—Scheduled daily
- Full database backups—Scheduled weekly

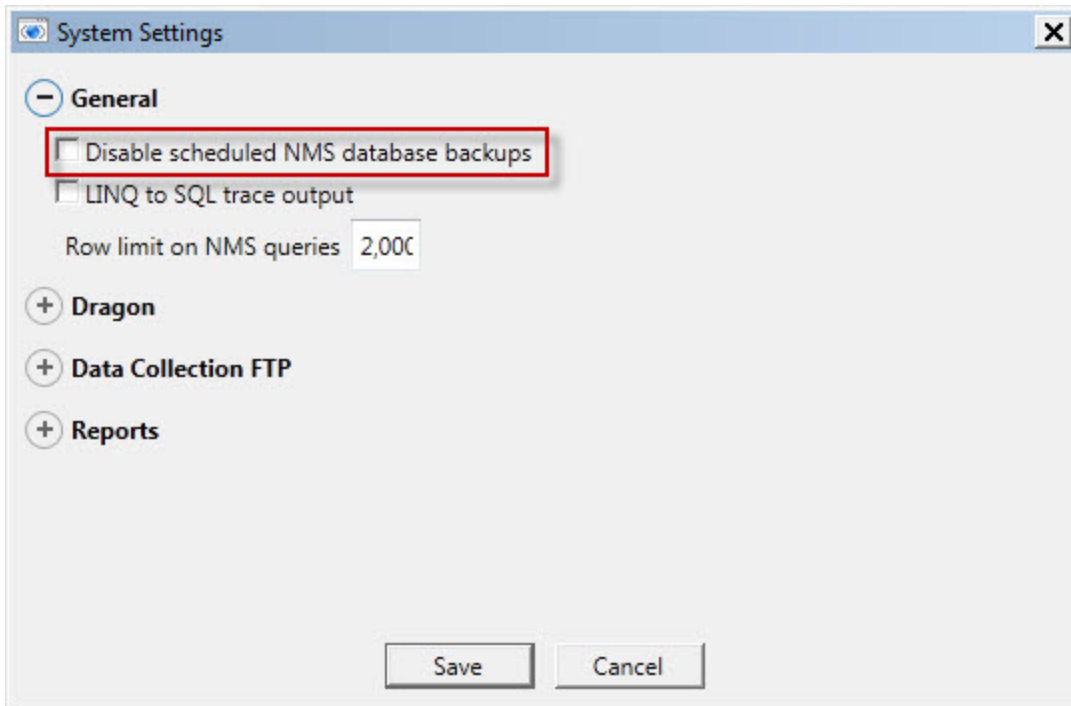
The *NMS Server* stores up to one month of backups on its hard disk.

To retain more than one month of backups, you must copy the data before the month is over.

### Disabling scheduled backups of the NMS database

You can set an option to turn off scheduled backups of the NMS database. This is useful for sites that want to manage their own backups of the NMS database. When you set the option, the scheduled backups still run but do not do anything. To disable scheduled backups of the NMS database:

1. In the Nuance Management Console, in **System Settings**, check **Disable scheduled NMS database backups**.



2. Click **Save**.

## File names of database backups

Each time it carries out a full database backup, the *NMS Server* takes the following steps:

1. Deletes database files older than 1 month.
2. Renames the **NuanceMCDump.BAK** file currently in the folder to **NuanceMCDump\_YY\_MM\_DD\_hh\_mm\_ss.BAK**, using the current date- and timestamp.
3. Generates a new database backup and names it **NuanceMCDump.BAK**.

# Profile Optimizer SQL Server backup system

When you look in the SQL Server explorer, to find the *Profile Optimizer SQL Database* database, look for a database named **NuancePODB**.

At the beginning of the installation process, you create the *Profile Optimizer Server* database files folder and place it on the hard drive of the SQL Server. This file does not require a particular name, because you tell the server the name of the file later in the installation process. You might name it something that helps identify it, like **ProfOpt\_DB**. The *Profile Optimizer Server* automatically backs up the data that it generates into this database files folder.

---

## Note:

The server does not automatically back up *Dragon* log files and *Speech Node* service log files that it creates.

---

(For more information on logs that the network clients and servers create, refer to *Servers and Dragon client logs* on page 210.)

## Automatic Profile Optimizer transaction log and database backups

The *Profile Optimizer Server* generates these backups after the **Profile Optimizer Server Service** starts:

- Differential database backups—Created when the services first start up, then generated daily
- Transaction log backups—Generated hourly as long as the **Profile Optimizer Server Service** is running
- Full database backups—Generated after the **Profile Optimizer Server Service** has run for a full week, then every time the service has been running a full week since the last full backup

The *Profile Optimizer Server* stores up to one month of backups on the database server hard disk.

To retain more than one month of backups, you must copy the data before the month is over.

## File names of database backups

Each time it carries out a full database backup, the *Profile Optimizer Server* takes the following steps:

1. Deletes database files older than 1 month.
2. Renames the **NuancePODBDump.BAK** file currently in the database files folder to **NuancePODBDump\_YY\_MM\_DD\_hh\_mm\_ss.BAK**, using the current date- and timestamp.
3. Generates a new database backup and names it **NuancePODBDump.BAK**.

# Master user profiles backups

The master user profiles file structure follows a particular pattern. Understand this structure can help you better plan to back up the master user profiles.

---

## Caution:

Nuance recommends that you back up all master user profiles weekly. You should retain these backups for several weeks in case you need them.

---

Each DM360 Network Edition master user profile is stored in its own subdirectory of the *Master User Profiles Server* (or directory on the *NMS Server*, *Profile Optimizer Server*, or database server) as shown below:

```
\\<ServerName>\<ProfilesDir>\<NMS_userLoginName>\last known good\
profile1
```

The first profile for the provider is under **profile1**. If the provider has more than one profile, the next is under **profile2**.

If a profile becomes corrupted, you receive a notification about it in the **Messages** box on the *NMS Server*; the *NMS Server* moves the profile to the following location:

```
\\<ServerName>\<ProfilesDir>\<NMS_userLoginName>\BAD\profile1
```

The next time the provider starts to dictate, the *Dragon Medical Client 2.3* automatically creates a new profile for that provider.

The corrupted profile remains on the *Master User Profiles Server* until you remove it. When you have any corrupted profiles, you should contact Nuance, as these profiles are not automatically uploaded to the Nuance data collection site. Avoid removing these profiles until Nuance subsequently notifies you that it has retrieved the profiles for analysis.

## Removing a master user profile folder for a deleted user account

In Dragon Medical 360 | Network Edition, 2.3, you use the Dragon client to export and import user profiles. For details, see the Dragon Help.

Before you delete a user account, you should be sure to export the user profile for the account first. Exporting the user profile saves the information accrued about that particular provider's voice and speech patterns. Should you ever need that user profile again, you can then import the exported user profile to bring the provider back up to speed more quickly.

For details on how to export a user profile and delete its associated user account, refer to the Dragon Help.

# Servers and Dragon client logs

---

## Note:

The servers regularly purge all of these logs and do not automatically back them up, so you might want to back them up to another location if you want to save them for longer periods.

---

## Dragon and Profile Optimizer Speech Node logs

The *Profile Optimizer Speech Node* generates two log files for each ACO/LMO task it carries out:

- *Dragon* log files—*Dragon Medical SDK Client* creates **dragon.log** and **dgnsetup.log**. In Service Pack 4, you cannot view Dragon log files from the Nuance Management Console.
- *Speech Node* service log file—*Profile Optimizer* services write these files

The *Profile Optimizer Server* stores these files for 30 days. After 30 days, the *Profile Optimizer* purges old log files. If you would like to preserve them, you can back them up.

## Viewing Speech Node service logs

You can view the *Dragon* log files and *Speech Node* service log files in the *Nuance Management Console*.

### Note: Viewing node and task status when upgrading the PO Server to the cloud

Prior to NMS 3.0 and NMS 3.1, the NMS sends requests to the PO server to get task and node information. In NMS 3.0 and NMS 3.1, with NMS in the cloud, a path from NMS to the PO server no longer exists.

Instead, the NMS hosts an interface that allows the PO server to send task and node information to NMS in the cloud for storage. The NMS uses its locally accessible tasks and nodes storage to satisfy queries from the Nuance Management Console.

Prior to NMS 3.0 and NMS 3.1, the PO server sends updates to the NMS server every time the state of a task changes. In NMS 3.0 and NMS 3.1, the PO server sends updates to the NMS in the cloud every 60 seconds (by default) for tasks on a scheduled basis.

When you upgrade the PO Server to NMS 3.0 or NMS 3.1, the on-premise PO server starts migrating node and task tables to NMS in the cloud. The PO server first sends its newest data to NMS in the cloud. The server then sends older or historical data to the cloud.

During the upgrade, there may be a small period of time when data is not available in the Nuance Management Console for node groups or task status.

## Upload Speech Node service logs

You must upload the logs before you can view them in the Nuance Management Console.

1. In the Nuance Management Console, click **Utilities**.
2. In the **Profile Optimizer** section, click **Status**.
3. Right-click a speech node and select **Request logs**.
4. Enter start and end dates for the logs.

5. Click **OK**. The request is sent to the Profile Optimizer Server. The server processes the request and uploads the logs to the Nuance Management Server. It may take a few minutes for the logs to appear in the Nuance Management Console.
6. To view the logs, under **Utilities**, click **Server Logs**.

## View Speech Node service logs

You can view the *Dragon* log files and *Speech Node* service log files in the Nuance Management Console.

To view the *Speech Node* service log file by taking these steps:

1. On the Menu bar, click the **Utilities** tab.
2. Click the **Profile Optimizer > Tasks** icon.
3. In the **Search Criteria** section, enter information into the fields.
4. Click the magnifying glass.
5. In the **Profile Optimizer Tasks** screen, double click on the task of the *Speech Node* whose log you would like to view. For details, see Viewing status of scheduled and automatic optimizations in the *DM 360 | Network Edition Administrator Guide*. The **Profile Optimizer Task Log** opens and displays a history of the actions the *Speech Node* has taken.

## Viewing Dragon logs

To view the *Dragon* log files, see the *Viewing Dragon log files* section in the *Nuance Management Server Administrator Guide*.

You can also find the *Dragon* logs in the file system. Note that the location of the files depends on the operating system. Paths on Windows Server 2008 and on Windows XP are shown below.

In Service Pack 4, you cannot view *Dragon* log files from the Nuance Management Console.

### Location of Dragon logs on Windows Server 2008:

```
C:\Users\Administrator\AppData\Local\Temp\dgnsetup.log
C:\Users\Administrator\AppData\Roaming\Nuance\Dragon SDK Client
Edition10\dragon.log
```

### Location of Dragon logs on Windows XP:\*

```
C:\Documents and Settings\\Local Settings\Temp\
dgnsetup.log
C:\Documents and Settings\\Application Data\Nuance\
NaturallySpeaking12\Dragon.log
```

## NMS Server logs

The *NMS Server* generates Windows communication foundation service log files for each individual user account.

## Finding NMS service logs

You can find the Windows communication foundation service logs on the *NMS Server* under a separate path for each user account:

On Windows Server 2008:

```
C:\ProgramData\NMS\Logs\NMS Server\
```

On Windows Server 2003:

```
C:\Documents and Settings\All Users\Application Data\NMS\Logs\NMS Server
```

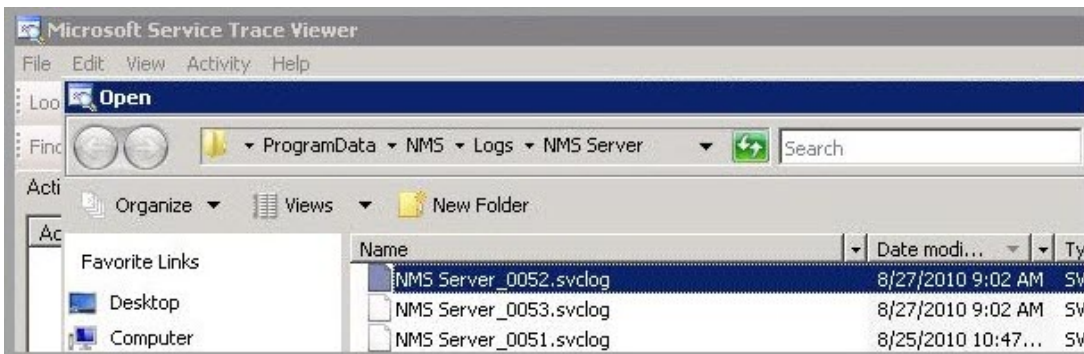
The service log files are named **NMS Server\_0000.svclog** to **NMS Server\_9999.svclog**. The *NMS Server* keeps the last 10 MB of files generated, or about 50 files, for the entire system. When it creates new files that exceed those numbers, the server purges the older files.

## Viewing NMS service logs

You can view the *NMS Server* service log files in the Microsoft Service Trace Viewer utility by double clicking on the log file. (The utility is available in .NET Framework.) Or you can open the Service Trace Viewer by double clicking its executable, available at:

```
C:\Program Files\Nuance\NMS Server\SvcTraceViewer.exe
```

If you run the Service Trace Viewer from its executable, when first you select **File > Open**, you must browse to the location of the log files. The next time, the viewer remembers the path.



If you call Technical Support, you might be asked to provide one or more of the logs mentioned in this section to help Nuance engineers work on any issues with your network.



## **View log files for a variety of products and product components**

Please see 'View log files for a variety of products and product components' in the DM 360 | Administrator Guide.

## Nuance Management Console logs

The Nuance Management Console stores user session data in a Nuance Management Console log file. The log file includes data that could be useful for troubleshooting Nuance Management Console exceptions or issues.

If an administrator performs an action that causes a Nuance Management Console error or crash, the next time the Nuance Management Console starts, it sends the Nuance Management Console Log file to the NMC server. Technical support can then analyze the log file. An administrator can also manually upload the Nuance Management Console log file to the NMS.

An Nuance Management Console log file is kept until it becomes larger than 10 MB in size. At that time, the Nuance Management Console discards the log file and creates a new one. The Nuance Management Console also creates a new log file after it uploads the current one to the NMS.

### **Upload the Nuance Management Console log file to the NMS**

1. In the Nuance Management Console, click the Nuance icon (top left of the screen).
2. Select **Upload NMC Log File**.

# Chapter 12: Moving Databases

---

Moving NMS Server SQL database .....	216
Moving the Profile Optimizer Server database .....	217

# Moving NMS Server SQL database

To move the *NMS SQL Database*, you first move it to the new location, then test the new database to be sure it is operational. Finally, you remove the database from the original location.

## Moving the database to a new location

To move the *NMS SQL Database*, take these steps:

1. Back up the *NMS SQL Database* and then close all network connections.
2. Remove the *NMS SQL Database* from the existing server. This step exports a copy of the database but does not remove it from the original server. For more details, see the SQL Server dump/export documentation from Microsoft.
3. Install the SQL Server software on the new physical server.
4. Restore the database on the new server. For more details, see the SQL Server restore documentation from Microsoft.
5. Uninstall the *NMS Server* following the steps in *Moving NMS Server SQL database* on page 216. The old database remains intact.
6. Reopen all network connections.
7. Reinstall the *NMS Server* to its original location, being sure to give the new location of the database when you are prompted for it during the installation process.
8. Once you are sure that the new database is operational, remove the old database from the original server (see steps below).

## Removing the old database from the original location

To remove the old *NMS SQL Database*, take these steps:

1. Close all network connections on the original database server.
2. Click **Start > Programs** and look for **SQL Server Management Studio**.
3. When the **Microsoft SQL Server Management Studio** dialog box appears, expand **Databases** in the Object Explorer (to the left) and find the database named **NuanceMC**. That is your *NMS Server* database.
4. Right click on **NuanceMC** and select **Delete** from the drop-down menu.

# Moving the Profile Optimizer Server database

To move the *Profile Optimizer Database*, you first move it to the new location, then test the new database to be sure it is operational. Finally, you remove the database from the original location.

## Moving the database to a new location

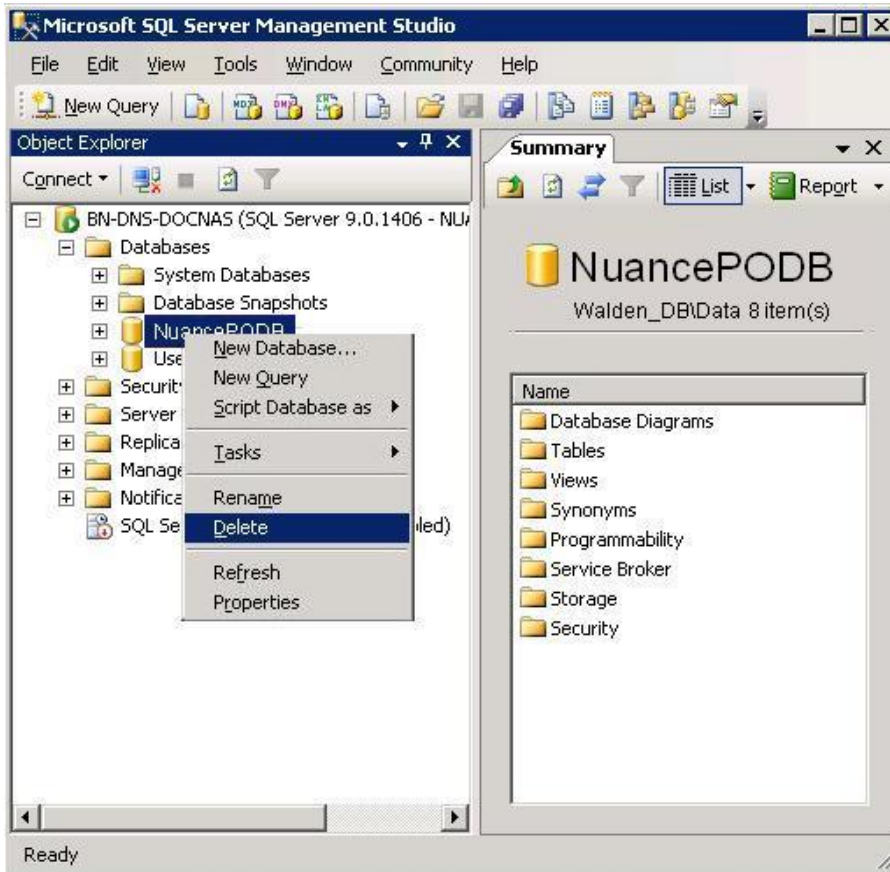
To move the *Profile Optimizer Database*, take these steps:

1. Back up the *Profile Optimizer Database* and then close all network connections.
2. Remove the *Profile Optimizer Database* from the existing server. This step exports a copy of the database but does not remove it from the original server. For more details, see the SQL Server dump/export documentation from Microsoft.
3. Install the SQL Server software on the new physical server.
4. Restore the database on the new server. For more details, see the SQL Server restore documentation from Microsoft.
5. Reopen all network connections.
6. Uninstall the *Profile Optimizer Server* following the steps in *Moving NMS Server SQL database* on page 216. The old database remains intact.
7. Reinstall the *Profile Optimizer Server* to its original location, being sure to give the new location of the database when you are prompted for it during the installation process.
8. Once you are sure that the new database is operational, remove the old database from the original server (see steps below).

## Removing the old database from the original location

To remove the *Profile Optimizer Database*, take these steps:

1. Close all network connections.
2. Click **Start > Programs** and look for **SQL Server Management Studio**.
3. When the **Microsoft SQL Server Management Studio** dialog box appears, expand **Databases** in the Object Explorer (to the left) and find the database named **NuancePODB**. That is your *Profile Optimizer* database.
4. Right click on **NuancePODB** and select **Delete** from the drop-down menu (see illustration below).



# ***Chapter 13: Setting up Active Directory Services***

---

Setting up the Nuance Management Server to run Active Directory Services .....	220
Creating an NMS user account for Active Directory .....	223

# Setting up the Nuance Management Server to run Active Directory Services

You can use ActiveDirectory Services to manage your DM360 Network Edition network. Ideally, you should decide to use Active Directory Services before you install the DM360 Network Edition network. Enabling Active Directory Services requires specific steps during the DM360 Network Edition installation process. However, you can enable Active Directory Services before or after you have installed the DM360 Network Edition network.

## Enabling Active Directory Services

1. Install SQL Server 2008.
2. Creating Nuance Management Console Administrator Account in NMS Server for Active Directory Administrator: After you install the *NMS Server*.
  - Install the Nuance Certificates on any workstation where you want to log in through the *Nuance Management Console*. (Refer to the *Dragon Medical 360 | Network Edition Installation Guide*.)
  - Log in to *NMS Server* using the admin login Nuance provides.
  - Prepare to create user accounts by changing the name of the organization/site Nuance provides to match your organization and site.
  - Create a **Nuance Management Console Administrator** user account for the Active Directory administrator.
  - If you would like, create all other user accounts now; or you can create user accounts later.
  - **Create Active Directory Single Sign-On User Accounts:** If you want to set providers up to log in only once, you can set up Active Directory Single Sign-On user accounts (they are optional); see *Creating Single Sign-On user accounts* on page 180. You need to create these accounts before you can associate a user account with an already existing upgraded master user profile.
3. Set the Active Directory connection string.
4. Continue to configure the NMS Server as Active Directory Administrator
  - Follow instructions in Nuance Management Server Administrator Guide.

## Creating an NMC Administrator account for Active Directory

To create the **NMC Administrator** account for the Active Directory administrator:

1. Install the *NMS Server* following the instructions in this manual.
2. Log in to the *NMS Server* through the *Nuance Management Console*.
3. To prepare to set up user accounts required for Active Directory in *NMS Server*, you need to first:



- Change the name of the default organization to your organization's name. See details on modifying the organization information in the *Nuance Management Server Administrator Guide* under *Accessing and adding to your organization data*.
  - Change the name of the default site in that organization to your site's name. See details on how to create a site in the *Nuance Management Server Administrator Guide* under *Configuring sites in DM360 Network Edition*
4. Create an **NMC Administrator** user account for the Active Directory administrator to use when logging in to the *NMS Server*. Make sure the login you assign in *NMS Server* matches an existing login in Active Directory.
  5. Assign an **NMC Administrator** license to the new account for the Active Directory administrator.
  6. You can create other user accounts at this time, but if you are not ready to create them, you can create them later, as long as every *NMS Server* user account login you assign matches an existing login in Active Directory.
  7. Proceed to the next subsection.

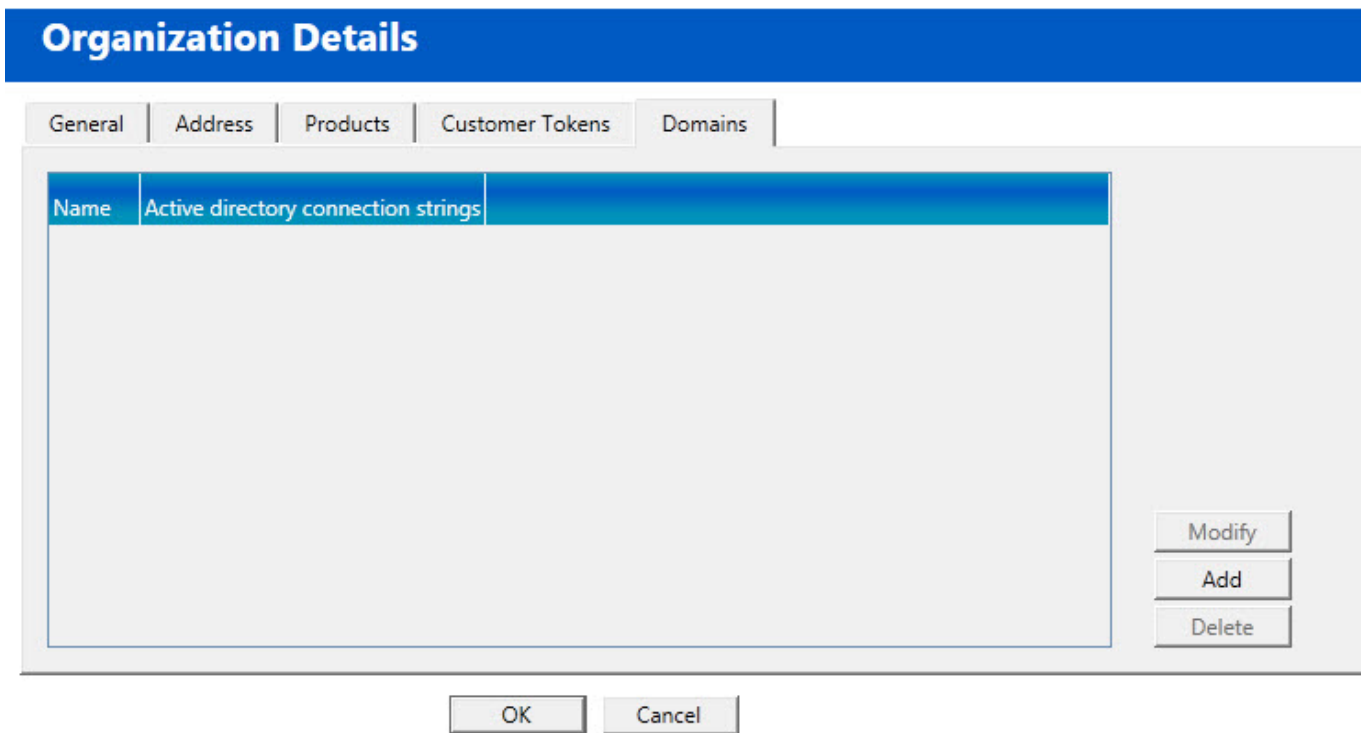
## Set the Active Directory Connection String

Complete the following steps to add an Active Directory connection string:

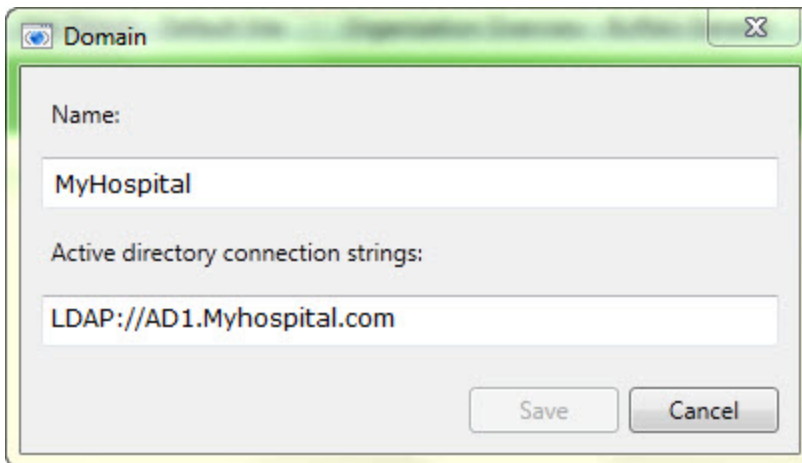
1. Click the **Organization Details** icon for the site that you want to configure, then click the **Domains** tab:

The screenshot shows a software interface window titled "Organization Details". At the top, there is a green header bar. Below it is a tabbed interface with several tabs: "General", "Address", "DM360 Network Edition Settings", "NMC Settings", "Customer Tokens", "Domains", "EHR Integrations", and "DM360 M.D. Assist Settings". The "Domains" tab is currently selected. Inside the "Domains" tab, there is a table with two columns: "Name" and "Active directory connection strings". The first row of the table contains the text "MyDomain" in the "Name" column and an empty cell in the "Active directory connection strings" column. To the right of the table are three buttons: "Modify", "Add", and "Delete". At the bottom of the dialog box are two buttons: "OK" and "Cancel".

2. Click **Sites > Organization > Details** icon for the site that you want to configure, then click the **Domains** tab:



3. Click **Add**. The **Domain** dialog box appears.
4. Enter the domain name in the **Name** field, and the Active Directory connection string for that domain in the **Active directory connection strings:** field:



5. Click **Save** to save your changes.
6. Repeat steps 2-4 for every domain that you want to set up.

Once Active Directory is on, the *NMS Server* sends all authentication requests to the server you specified in the connection string value. You can then take actions to set up and manage your network using Active Directory Services. For information on using Active Directory Services, refer to the documentation Microsoft provides.

## Restarting the Nuance Management Service

1. Restart the *NMS Server* by restarting the service: In the **Control Panel**, double click **Administrative Tools**. Then double click **Services**. In the **Services** window, find the **Nuance Management Service** and restart it.
2. Log in to the *NMS Server* using the new **NMC administrator** user account you created for the Active Directory administrator.
3. Revoke the **NMC administrator** license of the original **admin** user account that Nuance provided, since that account does not work within Active Directory. You might want to grant that license to another user account.
4. If you would like dictating healthcare providers to be able to log in to Windows and then automatically be logged in to the *Dragon Medical Client* on the same workstation without having to enter separate login credentials for *Dragon*, see *Creating Single Sign-On user accounts* on page 180.
5. To continue to configure the *NMS Server* as Active Directory administrator account by following the remaining instructions in this book.

## Creating an NMS user account for Active Directory

When you are planning to work in Active Directory, one of the steps you take is to create an **NMS Administrator** account for the Active Directory administrator.

---

### Note:

More details about creating user accounts are available in the *Nuance Management Server Administrator Guide*.

---


To create an **NMC Administrator** account for the Active Directory administrator:

1. Log in to the server through the *Nuance Management Console*. For details, see *Logging in to the Nuance Management Server through the Nuance Management Console* on page 95.
2. On the Menu bar, click on the **User Accounts** ribbon.
3. When the **User Accounts** ribbon appears, click the **Add User Account** Add icon. The **User Account Details** window opens.

### User Account Details

Details | Address | Group Memberships | Messaging | DM360 Network Edition | User Profile

Organization: Michael's Org test

NPI:   

First name: 1015 Last name: 1015

Middle name:  Prefix:

Login: 1015

Location:  Department:

Disable Authentication

### User Account Details

Details

Organization: Danube Development

First name: <Generated> Last name: ,

Middle name:  Prefix:

Login:

Location:  Department:

Email:

4. Configure the settings in the tabs in the **User Account Details** window:

- **Details**—Enter data in the shaded text boxes, as that data is required. You can fill in the others later. Required information includes the Active Directory administrator's first and last names and the login.

---

**Caution:**

The login you enter must match a login that exists in Active Directory.

---

- **Address**—Physical location information. None of this data is required right now. You can fill it in later.
    - **Group Memberships**—If you have created no other groups, two groups exist when you first run the product, **NMC Administration** and **DM360 Network Edition**. Add the Active Directory administrator to the **NMC Administration** group.
  - **Messaging**: To configure email settings to enable the NMS to send messages to users and administrators.
  - **DM360 Network Edition**—To apply default settings for now, click the **Use group rules** button. For more information, refer to *Configuring user account DM360 Network Edition* in the *DM 360 | Administrator Guide*.
  - **User Profile**—Ignore these settings. The *Dragon Medical Client 2.3* provides them.
5. Click **Save** to save the user account settings.
  6. When you save the user account, the *Nuance Management Console* displays a dialog box that asks you if you want to assign a license to the user account now.



You should click **Yes**.

7. When the next message asks you the type of license to assign, you select an **NMC Administrator** license. The number of licenses available shows in parentheses after the license type. If no licenses of a particular type are available, that type of license is grayed out. If no administrator license are available, contact your Nuance representative.
8. Return to the Active Directory configuration instructions under *Setting up the Nuance Management Server to run Active Directory Services* on page 220.

---

**Note:**

For now, you can skip setting options and other information for the user accounts that you want to associate with upgraded master user profiles. To later assign all related user accounts the same option settings, you can:

- Create a group and set all options for that group.
- Add the user accounts that should have the same options to the group.

For details on how to carry out these tasks, refer to the *Nuance Management Server Administrator Guide*.

---

# **Chapter 14: Managing the Nuance Management Server**

This chapter presents information about managing multiple NMS Servers and configuring network traffic switch to ping NMS Servers for load balancing:

---

<b>Managing multiple Nuance Management Servers .....</b>	<b>228</b>
<b>Using and configuring the FileStore location for multiple NMS servers .....</b>	<b>229</b>
<b>Use a network traffic switch to balance the load on the Nuance Management Server .....</b>	<b>230</b>

# Managing multiple Nuance Management Servers

In a large network, you might choose to have multiple *NMS Servers*, one for every 1,000 dictating healthcare providers.

For some illustrations of larger *DM360 Network Edition Networks* and guidelines on when to deploy such a structure, refer to the *DM360 Network Edition Planning and Deployment Guide*.

On a large network, you should include a network traffic switch to help route server requests to the appropriate *NMS Server*. More details on configuring the network traffic switch to work with *NMS Servers* are provided in *Use a network traffic switch to balance the load on the Nuance Management Server* on page 230.



## Using and configuring the FileStore location for multiple NMS servers

The NMS FileStore is a common location for files that need to be shared between the nodes/servers of the NMS system. If only one node/server is used, you can use the default FileStore location (which is the local system). If more than one node/server is used, you must create a common location for the nodes/servers to use as a FileShare.

You must configure each NMS node to use this common location. It is recommended that you not use one of the NMS nodes as the common location. If the server were to fail, the other nodes will not be able to access the FileShare location.

In DM360 Network Edition, the NMS System uses the FileStore to store temporary files that upload and download to the Nuance Management Console. For example, log files from various client applications.

Space requirements for the FileStore will depend on your system configuration.

You use the `Nuance.NAS.Server.exe.config` file to configure the FileStore location. There is a key in the "appSettings" section called `FileStorePath` that controls the location of the NMS FileStore.

Look for the following line:

```
<add key="FileStorePath" value="" />
```

An empty string ("") means to use the default. The default location is

```
%ALLUSERSPROFILE%\NMS\FileStore
```

where `%ALLUSERSPROFILE%` is an environmental variable.

The value of the environmental variable depends on the operating system. The following is a list of default locations for the environmental variable `%ALLUSERSPROFILE%` based on the operating system:

- Windows 2008: `C:\ProgramData`
- Windows 7: `C:\ProgramData`
- Windows Vista: `C:\ProgramData`
- Windows XP: `C:\Documents and Settings\All Users\Application Data`

The NMS Server creates an Upload, Download, and Completed folder in the `FileStorePath` location.

For example, in Windows 2008, if "" is used in the configuration file, the NMS Server uses `c:\ProgramData\NMS\FileStore` as the location of the FileStore. If "D:\NMS\FileStore" is used, the NMS Server uses `D:\NMS\FileStore` as the FileStore location.

To change the `FileStorePath`:

1. Determine where you want to put the `FileStorePath`.
2. Shutdown the NMS Service. You can't move an existing `FileStorePath` while the service is running.

3. Create the FileStorePatch folder that you chose in step 1.
4. Copy the current ClientLogs, Completed, Download, and Upload folders to the folder you created in step 3.
5. Delete the current FileStore folder.
6. Modify the FileStorePath key value to use the folder you picked in step 1.
7. Save the FileStorePath key value.
8. Restart the NMS Service.

## Use a network traffic switch to balance the load on the Nuance Management Server

If you have a large network with multiple *NMS Servers*, you can include a network traffic switch in your network to balance the load on the *NMS Servers*. The network traffic switch can be an F5 or similar switch.

To configure the network traffic switch to send a message to the *NMS Server* to see if the server is operational, you would have the network traffic switch send the following message in the URL line of the browser:

```
http://<NMS-Server-Name>:443/Nuance.NMS.Services/  
  NMSServiceStatus/Rest/Status
```

The *NMS Server* delivers the following XML-formatted response to the network traffic switch:

```
<ServiceStatusResponse xmlns=  
"http://schemas.datacontract.org/2004/07/Nuance.NAS.Connector.  
DictationTranscription" xmlns:i="http://www.w3.org/2001/  
XMLSchema-instance">  
  <Status>Running</Status>  
  <ServerDateTimeUTC>2010-12-13T20:50:13.0969590Z  
  </ServerDateTimeUTC>  
  <InterfaceType>basicHttpTransport</InterfaceType>  
</ServiceStatusResponse>
```

If the *NMS Server* is down, the switch receives an error. If the network traffic switch makes this call and the *NMS Server* sends anything other than the expected response, the switch can tag that server as down and reroute the traffic accordingly.

# ***Chapter 15: Overview of NMS in the cloud***

This chapter discusses NMS in the cloud; how it works, how it differs from hosting an on-premise NMS, and how to upgrade to NMS in the cloud.

---

<b>Overview of NMS in the cloud</b> .....	<b>232</b>
<b>Installing and Configuring NMS in the Cloud</b> .....	<b>237</b>
<b>Upgrade to NMS in the cloud</b> .....	<b>242</b>
<b>Setting the NMS download location</b> .....	<b>250</b>
<b>Move data from an existing on-premise NMS server to the cloud NMS server</b> .....	<b>251</b>
<b>Logging existing and new users into NMS in the cloud</b> .....	<b>258</b>

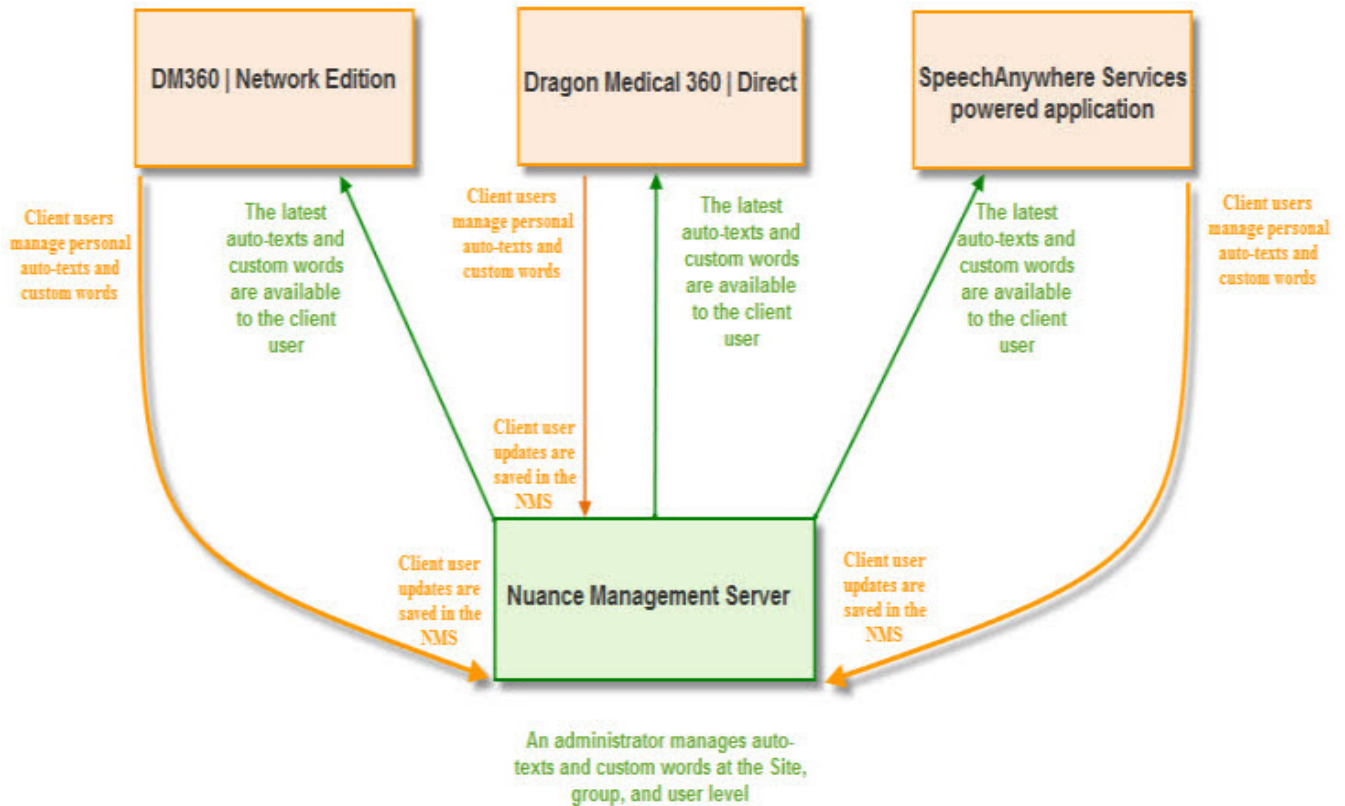
## Overview of NMS in the cloud

Starting with the Nuance Management Server (NMS) 3.1, you can optionally upgrade to the Nuance Management Server in the cloud. If you purchase and install the NMS upgrade and migrate your system to the cloud, data objects are stored in the Nuance Management Server (NMS) in the cloud (in the Nuance data center) instead of an on-premise NMS. These objects include the following profile customizations:

- User account
- Text and Graphics/auto-texts
- Custom words
- Custom Command Sets

Storing objects in NMS in the cloud allows organizations that have more than one Nuance product to share data across multiple Nuance applications. For example, if an administrator at an organization creates an auto-text in the Nuance Management Console, that organization's users can see and use that object with Dragon Medical 360 | Network Edition, Dragon Medical 360 | Direct as well as any application that uses Speech Anywhere Services.

## Connect for Dragon Medical 360 | Network Edition



**Note:** Migrating to Nuance in the cloud is optional and only required if you plan on sharing profile customizations with Nuance cloud based products.

## What will be different when you migrate to NMS in the cloud?

This section describes what you can expect when moving or upgrading to the NMS in the cloud configuration.

**Note:** Text and Graphics and DragonTemplates are supported. Text and Graphics with Lists are not supported.

- NMS is hosted in the Nuance Data Center instead of being hosted in your organization.
- The cloud NMS stores all the Dragon user settings.
- Management - Your administrators access the cloud Nuance Management Console to configure and manage users. This provides the administrators with one place where they can view and manage all product licenses for NMS supported products.

- Shared content (profile sharing) with other Nuance Healthcare products. Text and Graphics/auto-texts and custom words can be shared between DM360 Network Edition and Dragon Medical 360 | Direct 1.4, and, SpeechAnywhere Services powered third party applications like Cerner PowerChart Touch™ and EPIC Haiku/Canto.
- Single and centralized cloud management of products.
- You no longer need to install and maintain the NMS database and the SQL database. You still need to install the Profile Optimizer Server and speech nodes on-premise. When you upgrade the Profile Optimizer to NMS in the cloud, the server is configured to communicate directly with the NMS cloud server.
- Management of cloud Text and Graphics/auto-texts using the cloud Nuance Management Console.
- Management of Dragon and NMS settings that was previously accomplished using the on-premise Nuance Management Console is now done using the cloud/hosted Nuance Management Console.
- User profiles are enhanced with customizations; auto-texts and custom words that are defined at the Site or Group level.
- Importing, exporting, and deletion of user profiles is not available in the cloud NMS. These features have been moved to the Dragon client for Dragon Medical 360 | Network Edition.
- After you upgrade to NMS in the cloud, the on-premise NMS is uninstalled.
- The Profile Optimizer and its speech nodes are still hosted in your organization.
- All calls between the PO Server and the cloud NMS are one way - from the PO Server to the cloud NMS.
- Calls from the PO Server to the cloud NMS use service to service token security. The PO Server installs with an organization token for an organization and passes this token as a credential to the NMS. There is no need to configure the PO Server with a login or password to make service to service calls to the cloud NMS. The NMS uses the token to limit the information it returns to the PO Server for an organization.
- An administrator can back up and restore a user account from the **User Accounts** screen.
- In some cases, you may need to install and configure an NMS “call forwarder” when on-premise LDAP or Active Directory support is required.
- For Text and Graphics/auto-texts, the Meta Data tab is visible if you log in to Nuance Management Console with the Dragon Medical 360 | Direct license. The tab is not visible if you only log in with the DM360 Network Edition license.
- Speech node collections are defined at the organization level.
- NMS download packages are distributed to individual organizations instead of to everyone on the system.
- You can add comments to organization tokens
- The **Organization Tokens** tab ( a client ID for each site that you want to use EHR Single Sign-on) and **Credentials** tab are visible to all administrators.

## Upgrading and moving data to the cloud

When you upgrade to NMS in the cloud, you use the Cloud migration tool to move the data from an on-premise NMS server to the NMS server in the cloud.

After you migrate the data, you can uninstall the NMS server from your site.

If you are using LDAP integration, a local call forwarder must be installed on-premise. The call forwarder maintains your local LDAP integration while forwarding all other NMS calls to NMS in the cloud..

For details and steps, see [Upgrade to NMS in the cloud](#).

## Managing user logins

User logins in the cloud must be unique. If an on-premise NMS user's login is being used by a user in another organization in the cloud NMS, this is a user login conflict that needs to be resolved before the on-premise user can be migrated to the cloud NMS. For example, if you are upgrading "Bob" to NMS in the cloud, and user login "Bob" already exists in the cloud NMS, this is a naming conflict. For more details, see [Move data from an existing on-premise NMS server to the cloud NMS server](#).

### Organizations using LDAP/AD

If you are using LDAP or Active Directory to authenticate users, there should be no conflicts when moving to the cloud. The NMS uses a “domain” along with the login which maps to a unique organization.

1. Install and configure the NMS call forwarder.
2. Minor configuration of the NMS call forwarder is required which basically consists of setting a domain name and the LDAP address where non-trusted LDAP/AD functionality is required. For details, see [Install the NMS Call Forwarder](#).

### Organizations using NMS native credentials

If you are using NMS native logins to authenticate users, when you move to the cloud, the NMS native logins may conflict with existing user accounts. For example, if your organization has a user login called “bob” and a user login called “bob” is already in use in the cloud system, you must change the user login before you can move that user account to NMS in the cloud. The call forwarder is not required.

The Cloud Migration tool considers a user account on an on-premise NMS and a user account on the cloud NMS to be the same if their user logins are the same and both accounts belong to the same organization.

## Upgrading from Dragon Enterprise Edition to DM360 Network Edition using the Profile Association Tool

The Profile Association tool is only required for US customers that are upgrading from Dragon Medical US Enterprise Edition.

The following applies to organizations that migrate from Dragon Enterprise Edition to NMS in the cloud and use an on-premise NMS server.

The profile association tool that currently resides in the Nuance Management Console will no longer reside in the Nuance Management Console. Instead, administrators can run a separately installable tool that contains the exact same functionality. The new tool:

- Requires access to the profile store
- Communicates with the NMS server in the cloud

The workflow for using the profile association tool is the same as before. If you are running a pre-NMS version of the Dragon client:

- Nuance sets up an Organization for your organization in the cloud NMS server .
- Your administrator uses the cloud Nuance Management Console to create user accounts in the cloud NMS server
- Your administrator runs the standalone Profile Association Tool to:
  - Search the local user profile store for available user profiles that require user accounts
  - Search the cloud NMS server for user accounts that need user profiles
  - Allows the administrator to map the user profiles to the user accounts.

## **Authentication**

After you upgrade a user account or a Dragon client to Nuance Management Server (NMS) in the cloud, users must log into the system using the Dragon client in connected mode. This action authenticates the user with the NMS and allows them to later use Dragon in disconnected mode.

The user cannot use Dragon in disconnected mode until they first login to Dragon in connected mode.

The following only applies to organizations that are using LDAP/AD for authentication. NMS native credential users do not require the call forwarder.

Since the NMS is no longer on-premise, you must install and configure the “NMS call forwarder” to query your LDAP/AD store and validate user credentials. You install the “NMS call forwarder” at your site in place of the on-premise NMS server. On premise Dragon clients must be configured to point to the call forwarder. The call forwarder tests the user credentials and sends authentication requests to the cloud NMS to retrieve data.

## **Profile importing, exporting, and deleting**

Since the NMS in the cloud does not have access to the profile store, this functionality is no longer available in the Nuance Management Console. Instead, it is available and performed through the Dragon Client.

If an administrative task requires the importing, exporting, or deletion of user profile(s), someone must perform these actions on the Dragon workstations. For details, see the Dragon Help.



# Installing and Configuring NMS in the Cloud

This section describes how to install and configure Dragon Medical 360 | Network Edition with the Nuance Management Server (NMS) in the cloud.

If you already have Dragon Medical 360 | Network Edition installed with a locally-hosted NMS and you want to upgrade to NMS in the cloud, see the *Upgrade to NMS in the cloud* section.

## Overview of Installing and Configuring NMS in the Cloud

You will complete the following steps to install and configure Dragon Medical 360 | Network Edition with the Nuance Management Server (NMS) in the cloud:

1. [Before You Begin](#)
2. [Install the Profile Optimizer and Speech Nodes](#)
3. [Install the NMS Call Forwarder \(Optional\)](#)
4. [Install and Configure Dragon clients](#)

### Before You Begin

Before you begin, Nuance will send you a welcome email containing the information that you need to install and configure NMS in the cloud, including:

- The URL for NMS in the cloud.
- Your Organization ID.
- Your administrator user name and password.
- An alphanumeric token that you will need to install the Profile Optimizer and, optionally, the Call Forwarder.

Keep this information on hand; you will need it as you install and configure DM360 Network Edition with NMS in the cloud.

### Install the Profile Optimizer and Speech Nodes

Have the token that Nuance created for your Organization at hand; you will need this when you install the Profile Optimizer.

Install and configure the Profile Optimizer and one or more speech nodes, as described in the "Installing Profile Optimizer components" chapter of the DM360 Network Edition Installation Guide.

### Install the NMS Call Forwarder (Optional)

If you want to use LDAP or Active Directory Single Sign On for your authentication, you must install the NMS Call Forwarder on a server that is accessible to both the cloud NMS and your

Dragon Clients. If you want to use Dragon's native authentication, you can skip this step.

The cloud NMS cannot test LDAP credentials inside your organization. The NMS forwarder fills this gap by testing LDAP credentials. If they pass verification, the forwarder sends the credentials to NMS in the cloud for processing. All requests from DM360 Network Edition go through the call forwarder.

The NMS call forwarder is installed on premise. No SQL Server or configuration is required.

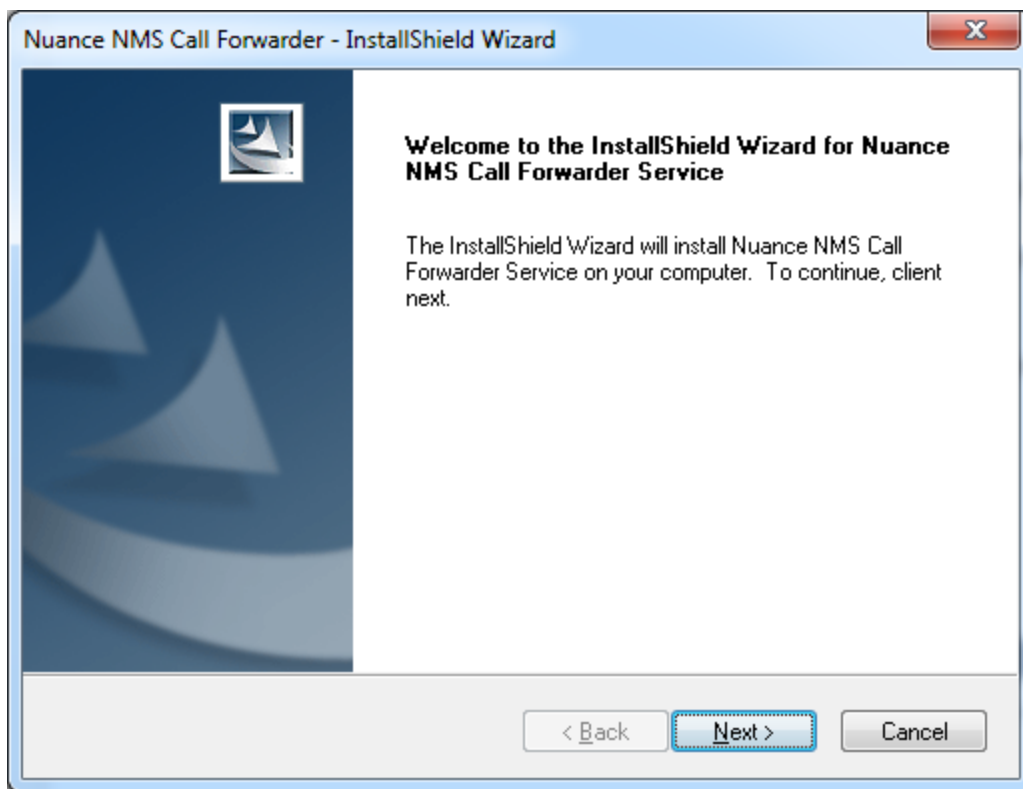
## **Installing the Call Forwarder**

What you require before you begin:

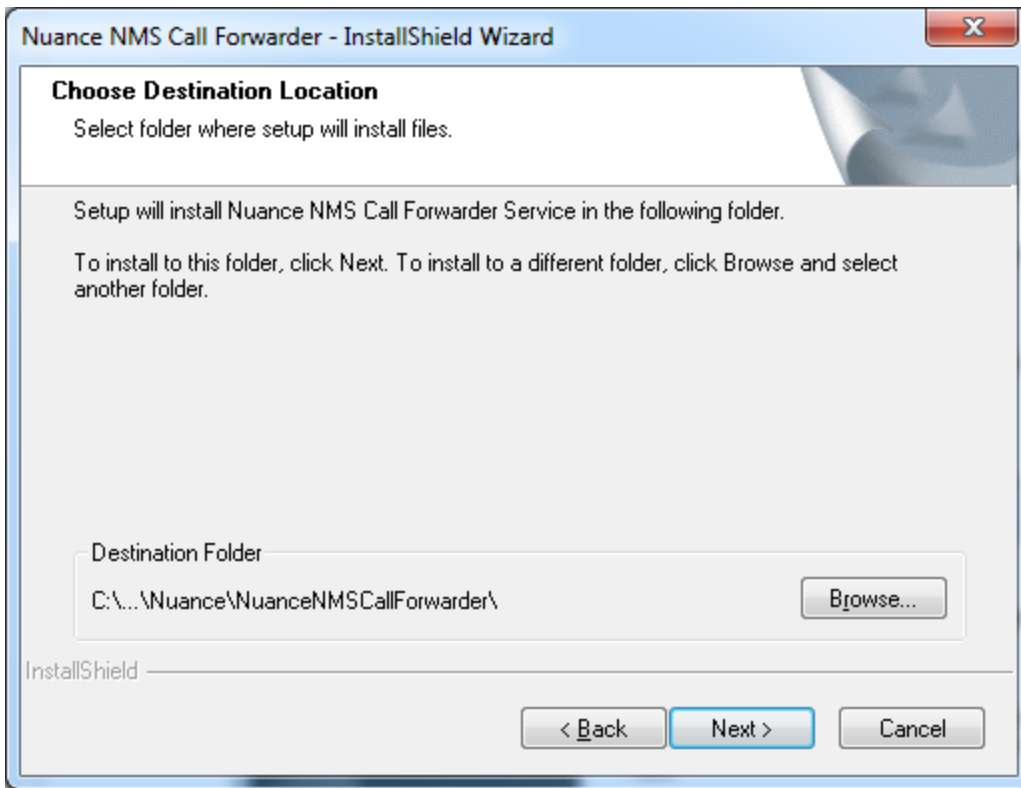
- The organization token created in your cloud organization, and used to install the Profile Optimizer. You need to enter it during the Call Forwarder installation.

After you have your organization token, complete the following steps to install the Call Forwarder:

1. Find the **NMSCallForwarder.EXE** file, which ships with the NMS software, and run it on the machine where you are installing the Call Forwarder. The Install Shield Wizard opens. Click **Next** to continue:



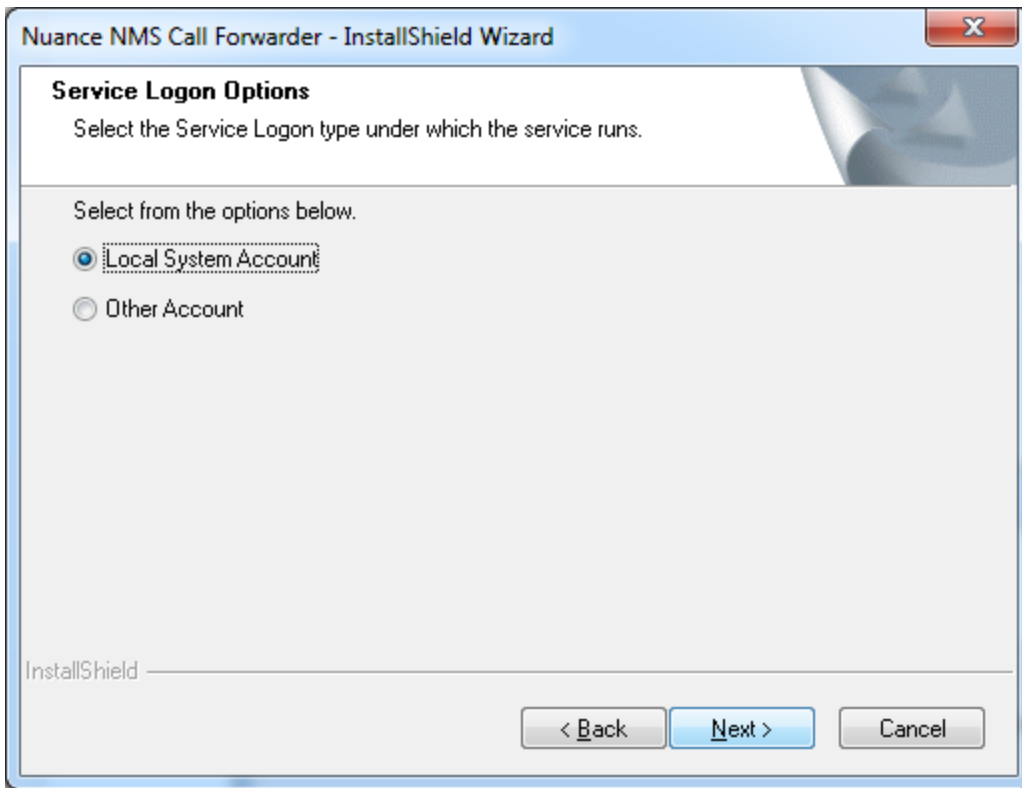
2. Set the location where the Call Forwarder will be installed, then click **Next** to continue:



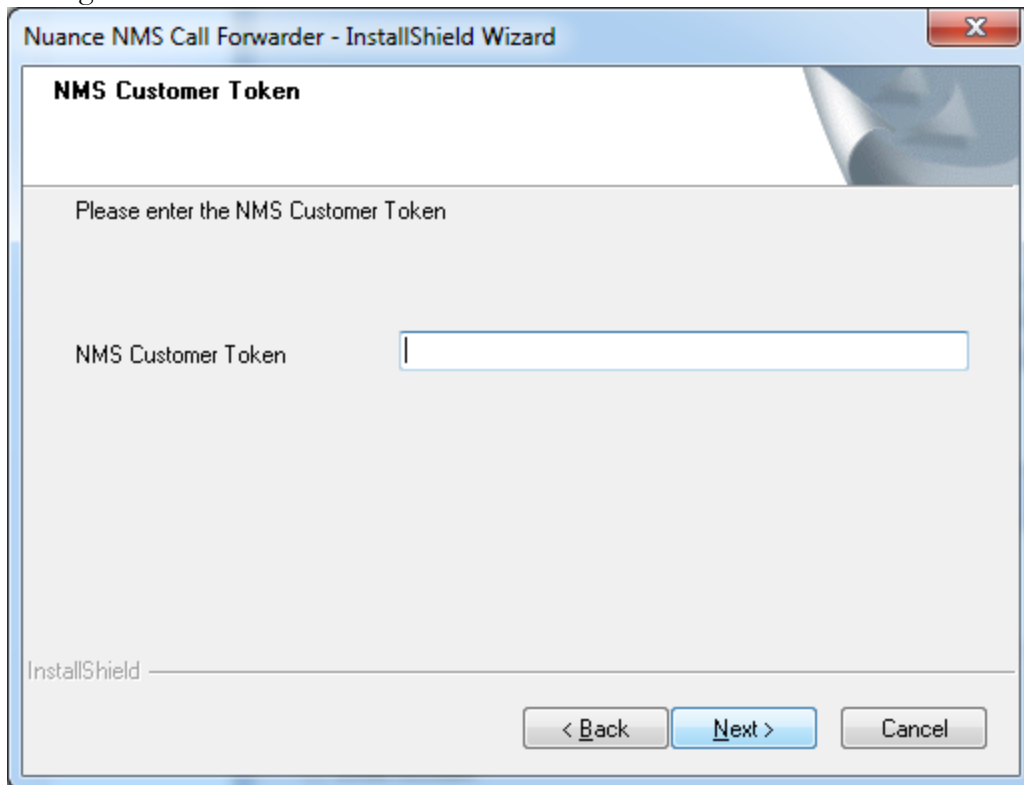
3. The Service Logon Options dialog appears. If your network requires a domain account for authentication tests, select the **Other Accounts** radio button and specify the domain, otherwise accept the default: **Local System Account**.

If you specify a domain account, you can reinstall the Profile Optimizer at a later time to change this value, or to use the local system account.

Click **Next** to continue:

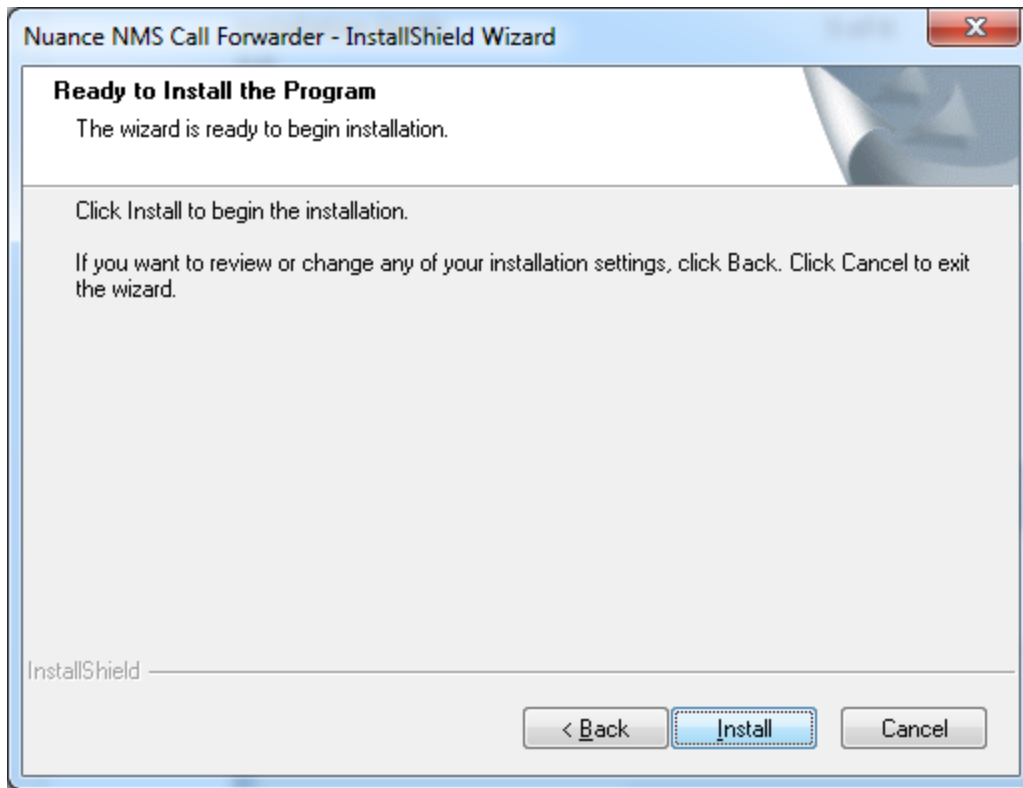


4. Enter the organization token in the **NMS Customer Token** field and click **Next** to con-



tinue:

5. Click **Install** to install the Call Forwarder:



## Install and Configure Dragon Medical 360 | Network Edition Clients

Follow the instructions in the "Installing the Dragon Medical Client" chapter of the DM360 Network Edition Installation Guide to install the latest Dragon Medical clients and configure them to use either NMS in the cloud or the Call Forwarder.

# Upgrade to NMS in the cloud

To move your on-premise Dragon Medical 360 | Network Edition to the Nuance cloud, you must perform an upgrade and migration process. This process is described below.

## Preconditions

- You have an on-premise NMS installation of Dragon Medical 360 | Network Edition.
- The NMS server is version 2.0.XXX or greater (should be 2.0.535, but earlier versions may be compatible).
- The cloud NMS server is version NMS 3.0 or greater.
- Dragon client Dragon Medical version 10.1 Service Pack 3 or higher.

---

## Note:

If you are upgrading from a version of DM360 Network Edition that is not Service Pack 3 or higher, you must first upgrade to Service Pack 3. See the *DM360 Network Edition SP 3 Installation Guide* for more information.

Upgrading Dragon Medical 360 | Network Edition to NMS in the cloud involves the following ordered steps:

1. [Create an organization in the NMS cloud](#)
2. [Move data from the on-premise NMS server to the cloud NMS server](#)
3. [Upgrade the Profile Optimizer Server to the cloud](#)
4. [Install the NMS Call Forwarder \(Optional\)](#)
5. [Upgrade Dragon clients](#)
6. [Configure Dragon clients to communicate with NMS in the cloud](#)
7. [Configure Dragon clients to communicate with the new Call Forwarder server \(Optional\)](#)
8. [Uninstall the on-premise NMS server](#)

## Create an organization in the NMS cloud

A Nuance employee creates an Organization in the Nuance cloud NMS server for your organization.

### What the Nuance employee requires before performing this task:

- The Organization Id of your on-premise NMS Organization - obtainable from Order Management or the customer. The id is required to create licenses.
- The login and password you will use to manage your cloud NMS configuration. Unique logins are required; something unique such as an email address can be used as a login.

### The Nuance employee performs the following steps in the cloud Nuance Management Console

To perform the following steps, work with Nuance technical support or your Nuance sales contact.

1. Creates a new organization in the cloud NMS with the same Organization Id as the on-premise NMS.
2. Use the login and password from the organization to create a user account in the new cloud organization.
3. Assign the user account to the “NMC Administrators” group.
4. Modify the “NMC Administrators” group to include the following necessary rights:
  - Product - Manage DM360 Network Edition
  - Dragon – Able to run DM360 Network tools
5. Create and import a single NMC license for this new organization and assign it to the user account created earlier.
6. On the **Organization Details** screen, in the **Organization Tokens** tab, create an organization token for the new organization. The customer enters this organization token when they install the Profile Optimizer and the Call Forwarder (if required).

## **Move data from the on-premise NMS server to the cloud NMS server**

In this stage, an administrator uses the cloud migration tool to move your data from the on-premise NMS server to the cloud NMS server.

### **What the administrator requires before performing this task:**

- The URL of the cloud Nuance Management Console.
- Login and password of user account created for your organization in the cloud.
- On-premise NMS server coordinates:
  - Server name
  - Login and password to the cloud NMS that has an NMS license and appropriate rights.
- On-premise NMS SQL server coordinates:
  - Server name
  - Login and password to the NMS SQL Server which provides full access to the NMS database (NuanceMC): Either the “sa” login and password, or Windows authentication which has full access to the NMS database.
- To be on a computer where:
  - You have rights to install an application.
  - The computer is on the same network with the Nuance Management Server.
  - The computer is on the same network with the NMS SQL Server
  - Port 443 must be open for outbound traffic. All communication from the Dragon client to the NMS is on SSL-encrypted REST endpoints on port 443.
  - Your organization has already been created in the cloud NMS with an organization ID that is the same as the organization ID for the organization on the on-premise NMS.
  - Your account has access rights to the Dragon user profile store(s).

### **Using the cloud NMC, perform the following steps:**

1. Perform the steps in [Migrate data from an existing on-premise NMS server to the cloud NMS server](#).
2. Once the migration is complete, the cloud migration tool informs you of any issues that need to be resolved. A common issue is that there is a conflict between the on-premise login and a cloud login for a user. You must change the user login for the user. The migration tool will give you the opportunity to change the user name.
3. Once you change the login user name, you must inform the user of the name change or they will not be able to log into DM360 Network Edition after the data migration.

After you upgrade a user account or a Dragon client to Nuance Management Server (NMS) in the cloud, users must log into the system using the Dragon client in connected mode. This action authenticates the user with the NMS and allows them to later use Dragon in disconnected mode.

The user cannot use Dragon in disconnected mode until they first login to Dragon in connected mode.

## **Upgrade the Profile Optimizer Server to the cloud**

What you require before you begin:

- The organization token created in your cloud Organization. The token is required during the Profile Optimizer installation.

Upgrade by uninstalling (Add/Remove Programs) and re-installing the Profile Optimizer.

**Note:** Uninstalling does not remove the database. Upgrade all speech nodes. For details, see the following sections in the DM360 Network Edition Installation guide:

1. Determining whether Speech Nodes are busy running optimizations
2. Halting Speech Nodes
3. Uninstalling Profile Optimizer Server and Speech Nodes
4. Uninstalling the old and installing the new Dragon SDK Client
5. Installing new version of Profile Optimizer Server and Speech Nodes

## **Install the NMS Call Forwarder (Optional)**

If you want to use LDAP or Active Directory Single Sign On for your authentication, you must install the NMS Call Forwarder on a server that is accessible to both the cloud NMS and your Dragon Clients. If you want to use Dragon's native authentication, you can skip this step.

The cloud NMS cannot test LDAP credentials inside your organization. The NMS forwarder fills this gap by testing LDAP credentials. If they pass verification, the forwarder sends the credentials to NMS in the cloud for processing. All requests from DM360 Network Edition go through the call forwarder.

The NMS call forwarder is installed on premise. No SQL Server or configuration is required.



## Deciding where to Install the Call Forwarder

You install the Call Forwarder on a server that is accessible to both the NMS and to the Dragon Clients. You can either re-purpose your existing NMS server for this or use another server.

If you install the Call Forwarder on your existing NMS server:

- Advantages: You will not need to change the Call Forwarder server address in all the Dragon clients, because they are already configured to point to the NMS server.
- Disadvantages: Possibly using a server just for the call forwarder.

If you install Call Forwarder on a separate server:

- Advantages: You don't need to use a whole server just for the call forwarder.
- Disadvantages: Dragon clients will need to be reconfigured to point to the new server as a target.

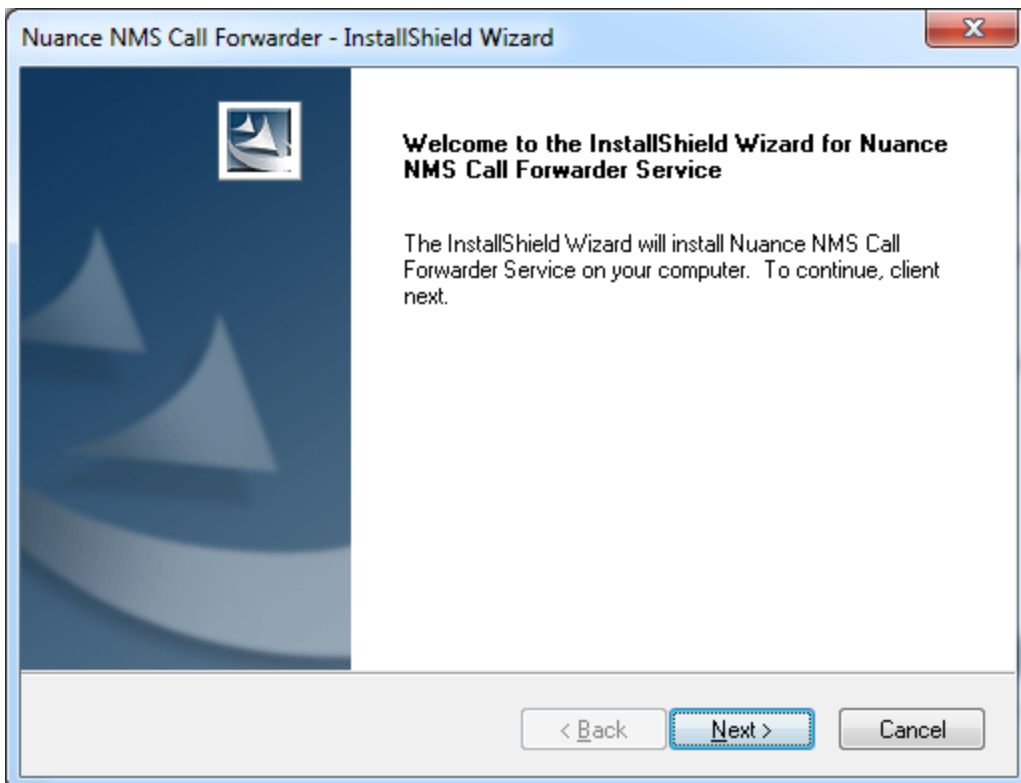
## Installing the Call Forwarder

What you require before you begin:

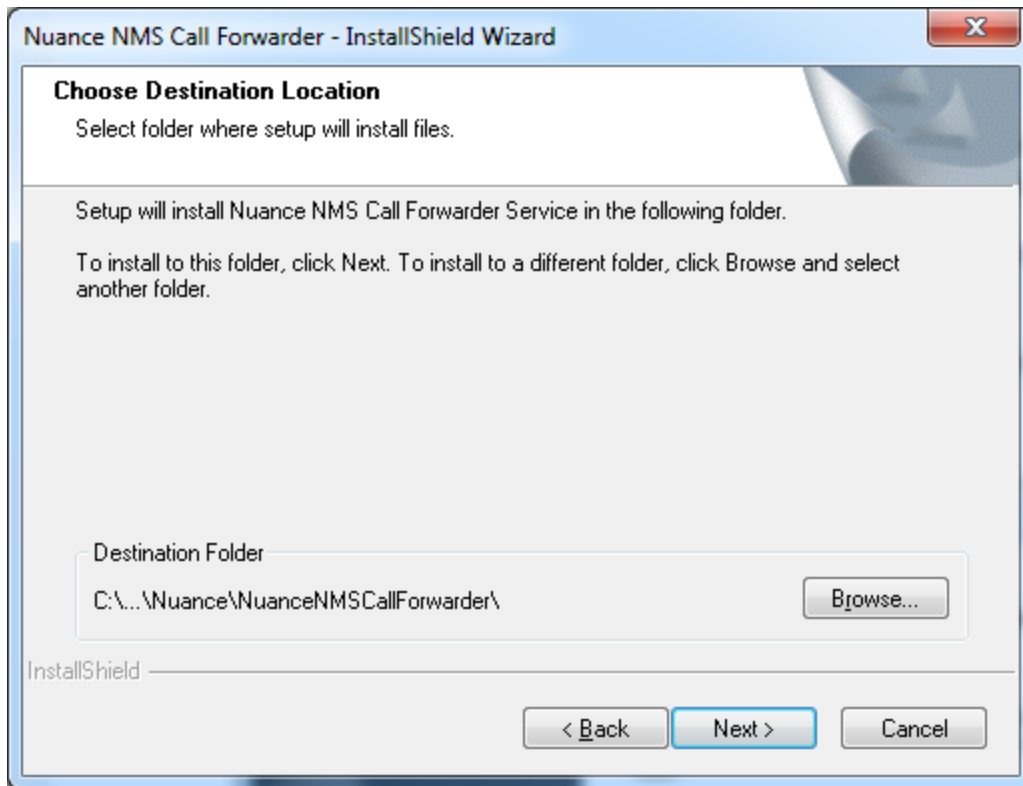
- The organization token created in your cloud organization, and used to install the Profile Optimizer. You need to enter it during the Call Forwarder installation.

After you have your organization token, complete the following steps to install the Call Forwarder:

1. Find the **NMSCallForwarder.EXE** file, which ships with the NMS software, and run it on the machine where you are installing the Call Forwarder. The Install Shield Wizard opens. Click **Next** to continue:



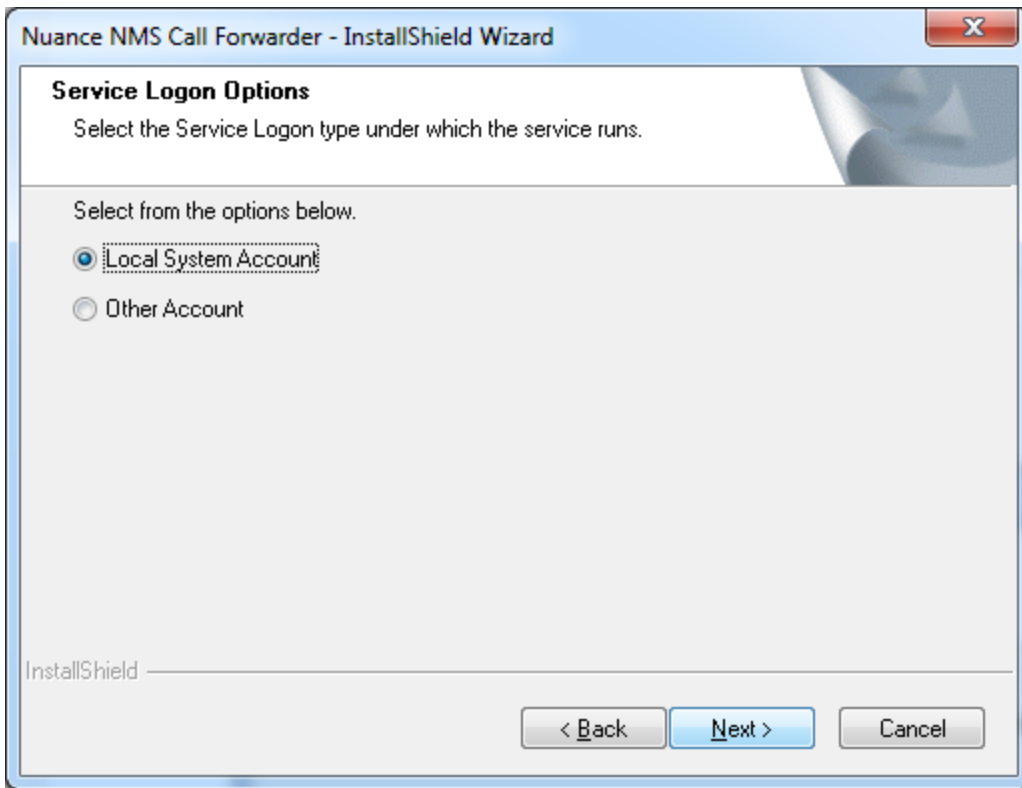
2. Set the location where the Call Forwarder will be installed, then click **Next** to continue:



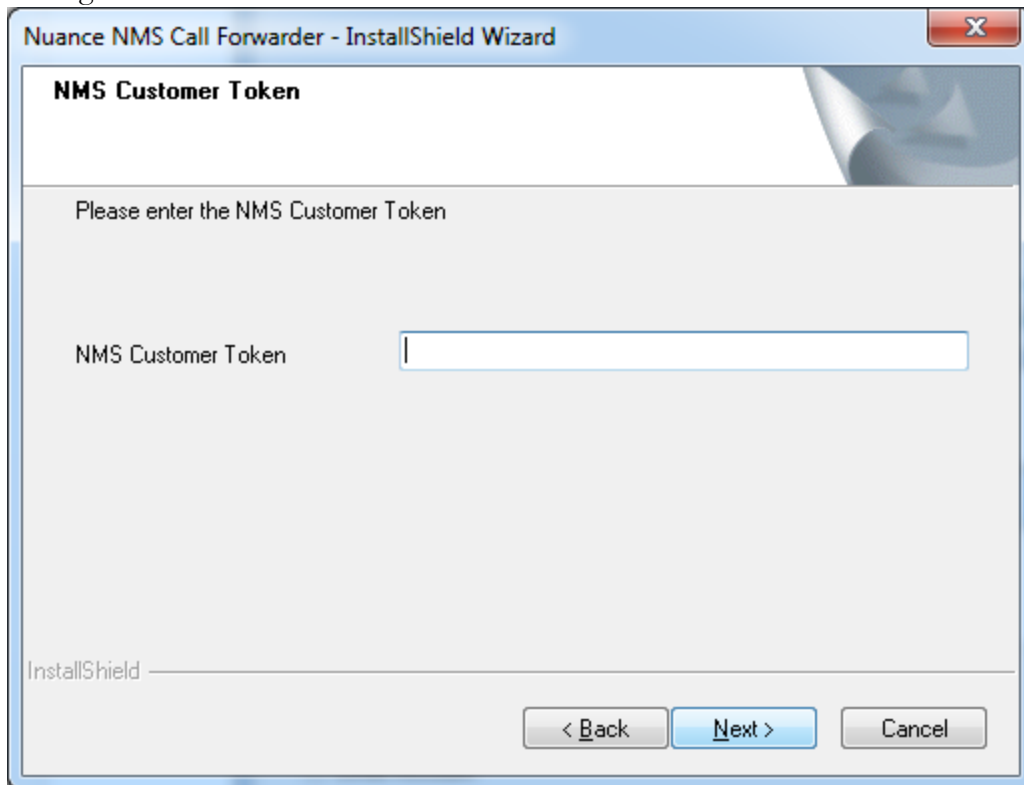
3. The Service Logon Options dialog appears. If your network requires a domain account for authentication tests, select the **Other Accounts** radio button and specify the domain, otherwise accept the default: **Local System Account**.

If you specify a domain account, you can reinstall the Profile Optimizer at a later time to change this value, or to use the local system account.

Click **Next** to continue:

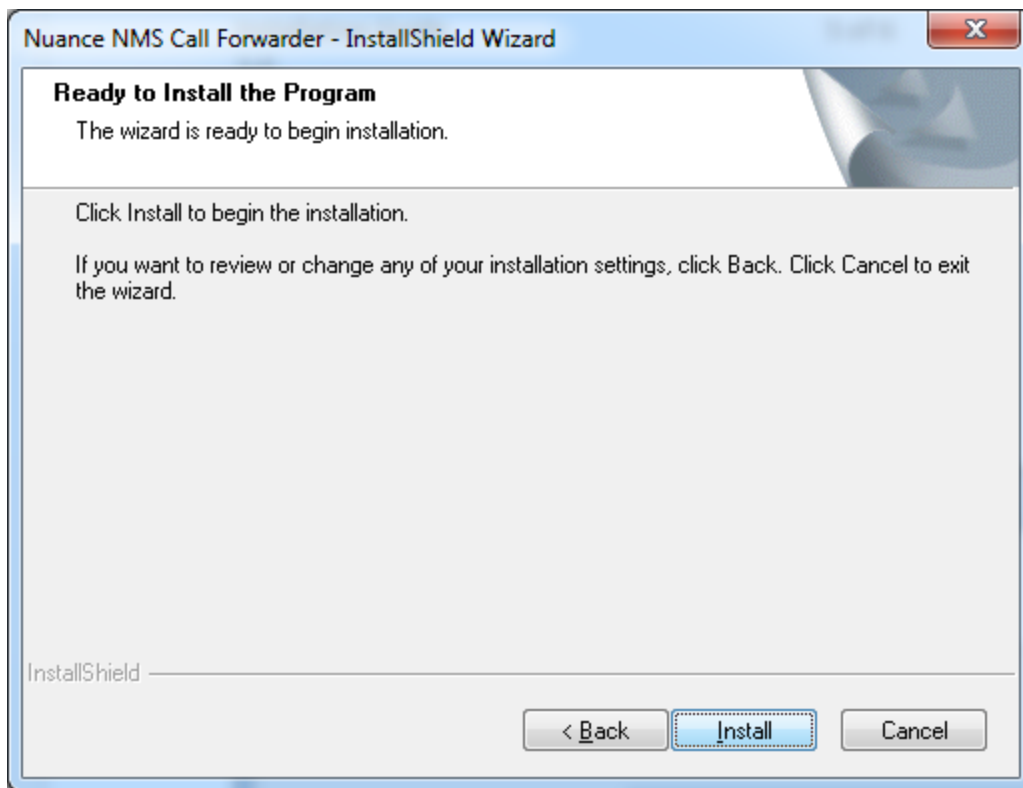


4. Enter the organization token in the **NMS Customer Token** field and click **Next** to con-



tinue:

5. Click **Install** to install the Call Forwarder:



## **Upgrade Dragon clients**

You can keep your Dragon clients at Dragon Medical version 10.1 Service Pack 3 and they will still work with Dragon Medical 360 | Network Edition.

However, to utilize the newest features, enhancements, and fixes, you eventually must upgrade the Dragon clients to Dragon Medical 360 | Network Edition.

1. Upgrade vSync on a Citrix server to Dragon Medical 360 | Network Edition without uninstalling the previous vSync software. You can upgrade vSync on a Citrix server without having to upgrade all the Dragon clients in your network.

The vSync plug-in for Citrix Servers in Dragon Medical 360 | Network Edition is compatible with the following versions of the Dragon client: Service Pack 3 and Service Pack 3.5.

However, to utilize the newest features, enhancements, and fixes, you eventually must upgrade the Dragon clients to Dragon Medical 360 | Network Edition.

Before you upgrade the Dragon client, you must upgrade vSync on your Citrix servers.

2. Upgrade the Dragon Client to Dragon Medical 360 | Network Edition without uninstalling the previous Dragon Client software. See chapter 7 in the DM360 Network Edition Installation Guide for more information.

## Configure Dragon clients to communicate with NMS in the cloud

To perform these steps, your Dragon clients must be Dragon Medical version 10.1 Service Pack 3 or higher.

Change the Dragon Client configurations to point to the cloud NMS server instead of the local NMS server.

1. Start the Dragon client.
2. On the Dragon Login window, click **Options**.
3. On the **Options** window, next to the **Server** field, click **Change...**
4. The Change Server dialog appears. In **Address** field, the type the IP address or network name of the Nuance Management Server in the cloud.
5. Click **OK**.

If issues are being experienced with a user profile, you can check the **Delete my profile and create new** checkbox to have the system delete your user profile from the Nuance Management Server and delete the local cache user profile from the client computer.

## Configure Dragon clients to communicate with the new Call Fowarder server

To perform these steps, your Dragon clients must be Service Pack 3 or higher.

If you installed the call forwarder, you must configure the Dragon Client to point to the new server you installed the Call Fowarder on.

1. Start the Dragon client.
2. On the Dragon Login window, click **Options**.
3. On the **Options** window, in the **Address** field, type the IP address or network name of the server that the call forwarder is installed on.
4. Click **OK**.

## Uninstall the on-premise NMS server

---

**Note:** After you uninstall the on-premise NMS server, you cannot re-migrate users to the cloud. Be sure that Dragon in the cloud is working, and that all of your users have been migrated before uninstalling the on-premise NMS server.

---

Once you have confirmed you are able to use Dragon in the cloud, you can uninstall the on-premise NMS Server. Use Add/Remove Programs to uninstall Nuance Management Server.

1. Click **Start > Control Panel** and open **Add/Remove Programs**.
2. Find *NMS Server* in the list and click the **Remove** button.

## Setting the NMS download location

1. In the Nuance Management Console, in the **Organizations** section, click **Organization Overview**.
2. In the **Organizations** section of the ribbon, click **Details**.
3. On the **Products** tab, expand the **DM360 Network Edition** section.
4. In the **Downloads** section, select **Download from cloud**.
5. Click **OK**.

# Move data from an existing on-premise NMS server to the cloud NMS server

You use the cloud migration tool to move data from your on-site NMS server to the NMS server in the cloud. This data includes:

- Organization data
- Sites data
- Groups data
- Users data
- Licenses (and assignments)
- Speech Recognition objects
- All object settings and options

An administrator runs the tool as the last step in migrating data to the Cloud NMS.

After you upgrade a user account or a Dragon client to Nuance Management Server (NMS) in the cloud, users must log into the system using the Dragon client in connected mode. This action authenticates the user with the NMS and allows them to later use Dragon in disconnected mode.

The user cannot use Dragon in disconnected mode until they first login to Dragon in connected mode.

## Notes:

- The Cloud Migration tool migrates Dragon specific settings from the on-premise NMS to the cloud NMS. For details, see [Migrating Dragon settings to the cloud NMS](#).
- If the Cloud Migration tool finds identical objects in the on-premise NMS and the cloud NMS, the tool merges the two objects into one and includes the merged object in the cloud NMS. For details, see [Migrating identical objects to the cloud NMS](#).
- If the NMC detects that the tool is not installed, you are prompted to install it.
- If the NMC detects that the tool is not current, you are prompted to update it.
- Once the tool installation or upgrade is complete, the NMS launches the tool

## Migrating Dragon settings to the cloud NMS

When the Cloud Migration tool migrates data to the cloud NMS, the tool merges Dragon settings from the on-premise NMS to the cloud NMS as follows:

### Sites

The Cloud Migration tool merges all Dragon specific settings, including all site specific Speech Recognition objects and Dragon Medical 360 | Network Edition site settings.

## **Groups**

The Cloud Migration tool merges all Dragon specific settings, including all group specific Speech Recognition objects and Dragon Medical 360 | Network Edition US/UK group settings. Group security rights and access rules remain the same as they are in the cloud NMS.

## **User accounts**

The Cloud Migration tool merges all Dragon specific settings, including include all user account specific Speech Recognition objects, Dragon Medical 360 | Network Edition US/UK user account settings, Dragon Profile Folder Names, and NTLM authentication credentials. System and token credentials are not merged.

All licenses granted to an on-premise user account are granted to the identical user account in the cloud.

After migrating to the NMS cloud, the user account is a member of all the same groups it was a member of in both the on-premise NMS and the cloud NMS.

## **Migrating identical objects to the cloud NMS**

When the Cloud Migration tool migrates data to the cloud NMS, if the cloud NMS and the on-premise NMS both contain “identical” objects, the tool merges the objects as follows:

### **Sites**

If a site in the on-premise NMS has the same name as a site in the cloud NMS, the Cloud Migration tool considers the sites to be identical.

### **Groups**

If a group in the on-premise NMS has the same name and role as a group in the cloud NMS, and both groups are members of a sites with the same name, the Cloud Migration tool considers the groups to be identical.

### **User accounts**

If a user account in the on-premise NMS has the same login ID as a user account in the cloud NMS, and both user accounts are members of the same organization, the Cloud Migration tool considers the user accounts to be identical.

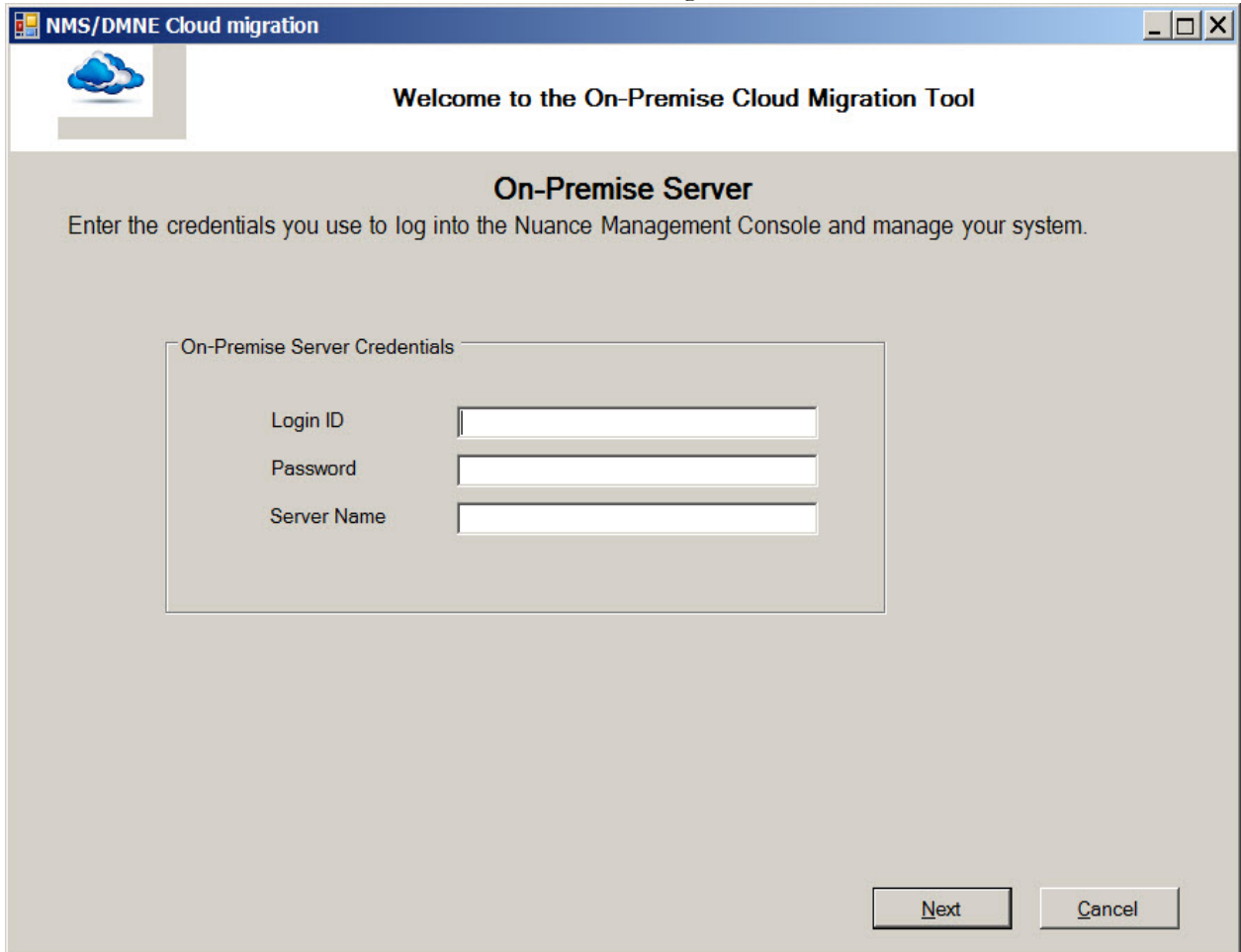
## **Steps for upgrading data to the cloud NMS server**

### **Preconditions to be met before running the Cloud Migration tool**

- Microsoft .NET 4.0 or higher on the client workstation where you will run the tool
- An existing on premise NMS configuration.
- An Organization in the NMS cloud, created by Nuance, with:
  - The same Organization Id as the on-premise NMS server.
  - A user credential that has the rights to add all the data to NMS in the cloud.



1. In the Nuance Management Console, click **Utilities > Tools**.
2. On the **Tools** screen, click **Launch cloud migration tool**.
3. You are prompted to install the tool. Click **Yes** and follow the steps in the wizard to install the tool.
4. On the **On-Premise Server** screen, enter the following information and click **Next**:



The screenshot shows a window titled "NMS/DMNE Cloud migration" with a sub-header "Welcome to the On-Premise Cloud Migration Tool". Below this is a section titled "On-Premise Server" with the instruction "Enter the credentials you use to log into the Nuance Management Console and manage your system." A form titled "On-Premise Server Credentials" contains three input fields: "Login ID", "Password", and "Server Name". At the bottom right of the window are "Next" and "Cancel" buttons.

- **Login ID:** The login id for the on-premise NMS server.
  - **Password:** The password for the on-premise NMS server.
  - **Server Name:** The address of the on-premise NMS server.
5. On the **On-Premise SQL Server** screen, enter the following information and click **Next**. Note, if you are running the Cloud Migration tool on the on-premise NMS, the tool auto-

atically fills these fields:

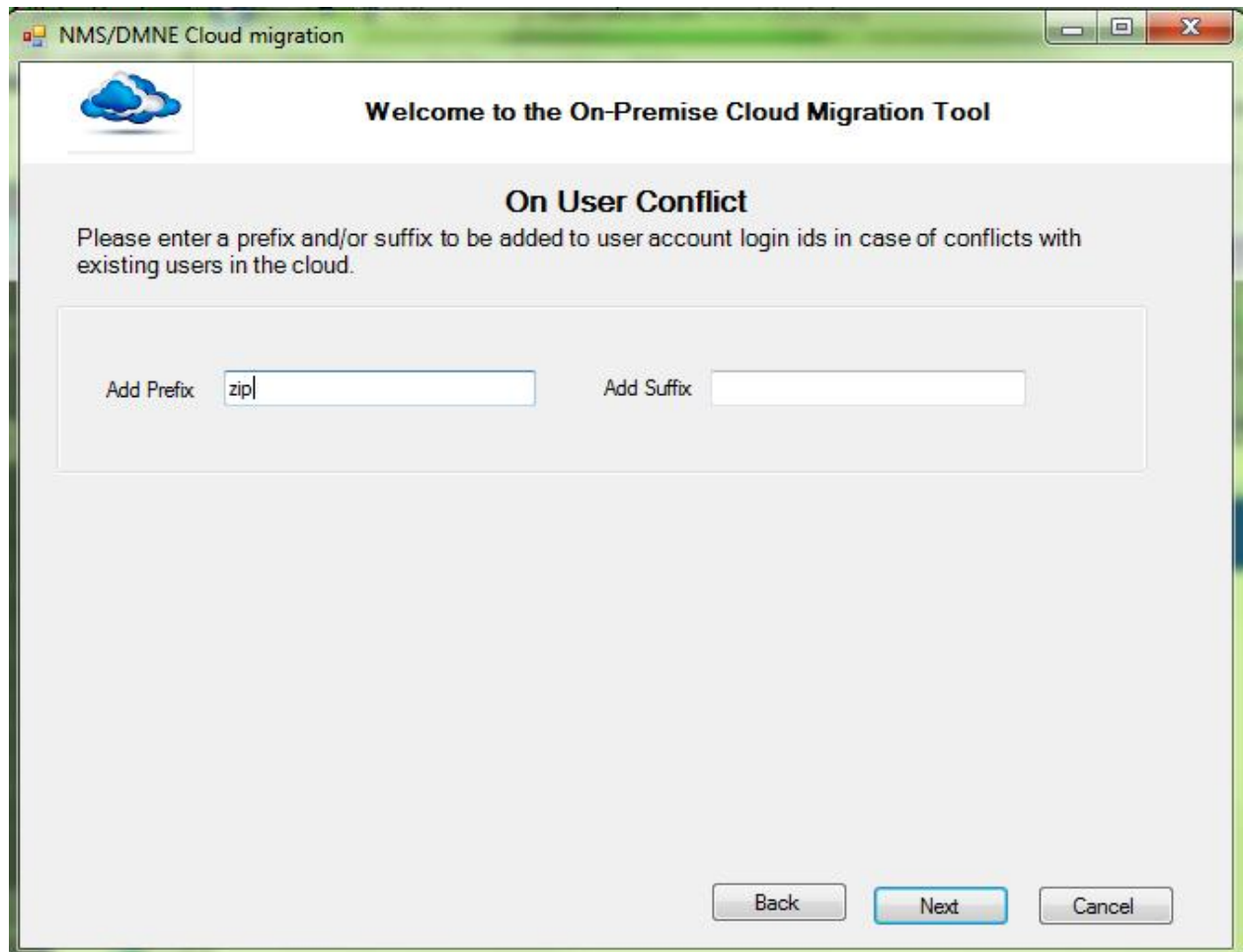
The screenshot shows a software window titled "NMS/DMNE Cloud migration". Inside, there's a cloud icon and the text "Welcome to the On-Premise Cloud Migration Tool". Below that, it says "On-Premise SQL Server" and "Enter the authentication details for On-Premise SQL Server". A form titled "SQL Server Credentials" has four fields: "Server Name" (text box), "Authentication" (dropdown menu), "Login" (text box), and "Password" (text box). At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

- **Server Name:** The address of the on-premise SQL server.
  - **Authentication:** The authentication method to use to login to the SQL server.
  - **Login:** The login for the on-premise SQL server.
  - **Password:** The password for the on-premise SQL server.
6. On the **Cloud Server** screen, enter the following information and click **Next**. Note, the Cloud Migration tool will auto-populate the **Login ID** field and the **Server Name** field. You must provide the password information. Click **Next**.

The screenshot shows a window titled "NMS/DMNE Cloud migration" with a cloud icon in the top-left corner. The main heading is "Welcome to the On-Premise Cloud Migration Tool". Below this, the section is titled "Cloud Server" and contains the instruction "Enter the authentication details for Cloud Server". A box labeled "Cloud Server Credentials" contains three input fields: "Login ID", "Password", and "Server Name". At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

- **Login ID:** The login id for the cloud NMS server.
  - **Password:** The password for the cloud NMS server.
  - **Server Name:** The address of the cloud NMS server. This is usually something in the following format: `nms.nuancehdp.com`.
7. On the **On User Conflict** screen, set the tool to add a prefix, a suffix, or both to migrated user login names that conflict with user login names that already exist in the cloud NMS. Click

Next.



- **Add Prefix:** The prefix to add to the login name.
  - **Add Suffix:** The suffix to add to the login name.
8. On the **Confirmation** screen, verify that the displayed information is correct and click **Migrate**. The tool runs and moves data to NMS in the cloud.
  9. When the Cloud Migration Tool prompts you to close the tool, close the tool.
  10. To monitor the status of the migration process, log back into the Nuance Management Console using the same administrator account you used to run the Cloud Migration Tool.
  11. In the **Utilities** ribbon, click the **Messages** icon in the ribbon. A **Messages** screen opens below the ribbon, displaying a list of existing messages. The Nuance Management Console posts a new message about the migration process every 15 minutes. Once the migration process is complete, the Nuance Management Console posts a final message that contains information about any errors and user account login ID conflicts that occurred during the process.

## Messages

Messages

Select	Date/Time	Message Text
<input type="checkbox"/>	7/28/2014 4:49:30 PM	Organization zMonarch is migrated successfully. User with login melo is migrated with new login zipmelo User with login hipp is migrated with new login ziphipp

If there are conflicts between user Login IDs on the on-premise NMS and NMS in the cloud:

- If there is a user login ID conflict, the prefix and/or suffix you specified in the Cloud Migration Tool is added to the login ID and saved in the cloud NMS Server.
- If after adding the prefix and/or suffix there is still a conflict, NMS adds a random string of eight characters to the original login name and saves it.
- If the user is a Nuance Management Console administrator, they must update their NMS native login. All login resolutions should be done to the on premise user account that is migrated to the cloud. The administrator uses the cloud migration tool to change their NMS native user login.

## Logging existing and new users into NMS in the cloud

When a user logs into the Dragon client, Dragon queries NMS to get the user login information for the user. Dragon uses the login to find the user profile folder for the user.

In all versions of NMS, user logins must be unique. When moving a user from an on-premise NMS (on-premise, private system) to NMS in the cloud (system shared with other Nuance customers), the user's login may already exist in the cloud.

NMS introduces changes that make it easier to move users to NMS in the cloud. When you move a user to NMS in the cloud, and the user login already exists in the cloud, that user login will have to be changed as a part of the migration process. To avoid having to rename the user profile folder, NMS provides Dragon with the user profile folder name (instead of the user login). Dragon uses this information to find the profile folder for the user and log them into the system.

For a new user, the NMS generates a folder name using the format login\_GUID and returns this to Dragon. Dragon uses this value to create the profile folder for the new user. NMS only appends the GUID to the profile folder name, not to the user profile.

For example, for a new user profile "bob", the NMS generates the folder name: "bob\_35B5CB9B-922B-47FB-AA20-AE2E515D9802".

"bob" is the name of the profile and is stored in the folder "bob\_35B5CB9B-922B-47FB-AA20-AE2E515D9802".

When the user logs into Dragon, NMS authenticates the user's credentials and returns a unique name for Dragon to use to create the user's profile location.

After you upgrade a user account or a Dragon client to Nuance Management Server (NMS) in the cloud, users must log into the system using the Dragon client in connected mode. This action authenticates the user with the NMS and allows them to later use Dragon in disconnected mode.

The user cannot use Dragon in disconnected mode until they first login to Dragon in connected mode.

# Index

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## A

- access rights .....20, 126, 189
  - required for account to run services ..... 18
- access rights to master user profiles .....126, 189
- access rights to Speech Nodes .....126, 189
- access to master user profiles ..... 20
- Active Directory
  - creating custom client installer .....167
  - creating NMS user accounts .....223
  - support for client install .....153, 162
- Active Directory Services .....220
  - enabling .....220
- admin user account for Active Directory .....223
- administrative install of clients .....163
- advanced options
  - command line for client .....164
- Anti-virus recommendations
  - Dragon Medical Clients .....188
  - servers .....64, 89, 101
- assigning rights to start services ..... 99
- associating profiles with user accounts ..... 146
- associating user accounts with profiles ..... 146
- Automatic Updates
  - managing Windows .....23, 126, 189

## B

- backups
  - master user profiles .....209
  - NMS database .....206
  - NMS transaction logs .....206
  - Profile Optimizer database .....208
  - Profile Optimizer transaction logs .....208
- batch file provided for admin install ..... 163
- Bluetooth wireless microphone support ..... 7

## C

- certificates
  - installing Nuance ..... 92

## checklists

- converting local users .....37
- installing Dragon Medical clients .....39
- installing servers ..... 26
- setting up Active Directory Services ..... 31
- setting up master user profiles ..... 34
- SQL Server 2008 .....26
- starting servers .....33
- upgrading roaming users .....36
- verifying servers are running ..... 33

## clients

- access rights to .....20, 126, 189
- command line
  - starting clients on .....178

## command line options

- client installation .....163-164, 166

## console

- downloading client software from ..... 154

## custom installer

- Active Directory .....167

## D

## database

- moving NMS Server .....216
- removing Profile Optimizer Server .....217

## database software

- installation checklist ..... 26
- installing required .....49

- deleting master user profiles .....209

## Dragon

- upgrading .....144
- versions 8.x and 9.x .....144

## Dragon client

- administrative install ..... 163
- overview of installing ..... 150

## Dragon clients

- see Dragon Medical Clients .....150

- Dragon logs ..... 210

Dragon Medical Clients	
administrative install .....	163
anti-virus recommendations .....	188
downloading software from console .....	154
installing outside console .....	155
logging in to .....	158
opening ports to access profiles .....	150
overvie of installing .....	150
pushing MSI isntall to .....	151, 160
setting NMS Server for .....	158
setting options through MSI .....	174
starting on command line .....	178
system requirements for .....	7, 128
Dragon Medical Enterprise Clients	
see Dragon Medical Clients .....	150
Dragon Medical SDK Client	
installing for Speech Nodes .....	74
dragon.log file	
sending data to .....	179
DVD	
installing client software from .....	155

**F**

features	
command line options for client .....	164
firewall in Windows Server 2008 .....	58

**H**

hardware/software requirements	
clients .....	7, 128
http settings for web server .....	121
https settings for web server .....	124

**I**

IIS web server	
installing 6.0 .....	109
INI files	
using nsdefaults in client MSI .....	176
installation checklists	
see Checklists .....	26
IPswitch	
see Load balancing .....	66, 230

**L**

load balancing	
NMS Servers, configuring switch .....	66, 230
local users	
migrating to this product .....	132
location of master user profiles	
choosing .....	104
logging in to clients .....	158
logging in to NMS Server .....	95
logs	
client and server .....	210
Dragon .....	210
finding Dragon .....	210
finding NMS service .....	211
NMS Server .....	211
Profile Optimizer Speech Node .....	210
sending install diagnostics to .....	179
viewing Dragon .....	210
viewing NMS service .....	211
viewing Speech Node service .....	210

**M**

manual	
downloading from server .....	154
mapping disk for mastser user profiles .....	106-107
master user profile backups .....	209
master user profile directory	
creating .....	106
master user profiles	
access rights to .....	20, 126, 189
choosing location .....	104
http settings .....	121
https settings .....	124
mapping disk .....	106
permissions .....	20, 126, 189
removing folder .....	209
restoring deleted .....	209
setting up access .....	107
setting up directory .....	106
setting up machine .....	106
SSL settings .....	124
Windows software .....	105



master user profiles directory  
 see master user profiles .....107

migrating local cache user profiles .....132

MSI command lines .....176

MSI installation  
 Active Directory support .....153, 162  
 Dragon ADDLOCAL options .....166  
 Dragon advanced options .....164  
 Dragon ADVERTISE properties .....166  
 Dragon feature options .....164  
 Dragon options .....163  
 options for pushing client .....152, 161  
 pushing to workstations .....151, 160  
 SCCM support .....152, 161  
 setting client options .....174  
 SMS support .....152, 161

MSI installer  
 downloading to workstation .....154-155

**N**

natspeak  
 options for starting client .....178  
 switch to set Dragon options .....186  
 switches for running Dragon .....186

natspeak options .....174, 186

network traffic switch  
 configuring for load balancing .....66, 230

NMC Console  
 access rights .....20, 126, 189  
 before installing .....44  
 logging in to server through .....95  
 prerequisite software to run .....92  
 see also installing NMS Server .....57

NMS database  
 access rights .....20, 126, 189

NMS database backups .....206

NMS Server  
 access rights .....20, 126, 189  
 accessing through NMC Console .....92  
 anti-virus recommendations .....64, 89, 101  
 before installing .....44  
 installing .NET Framework .....46  
 installing prerequisite software .....46  
 installing required database software .....49

installing required IIS features/roles .....46

installing required PowerShell feature .....49

installing server, console, database .....57-58

load balancing .....66, 230

logging in to .....95

moving database .....216

setup client to find .....158

NMS Server logs  
 see NMS service logs .....211

NMS service logs .....211

NMS SQL database  
 see NMS database .....20, 126, 189

NMS transaction log backups .....206

NMSapps account  
 requirements .....18

nsdefaults  
 summary of MSI options .....176  
 using in command line installation .....176

nsdefaults settings  
 establishing .....174

Nuance Certificates  
 installing .....92

Nuance folder permissions .....20, 126, 189

Nuance Management Console  
 see NMC Console .....44

Nuance Management Server  
 see NMS Server .....44

**O**

options  
 see natspeak .....186

**P**

password  
 required for account to run services .....18

permissions  
 Nuance folder .....20, 126, 189  
 required for account to install services .....18  
 required for account to run services .....18  
 setting on master user profiles .....20, 126, 189  
 setting on servers, clients .....20, 126, 189

ports  
 opening on client .....150

prerequisite software for NMS Server	
installing .....	46
prerequisite software for Profile Optimizer Server	
installing .....	71
prerequisite software for Speech Nodes	
installing .....	73
Profile Optimizer	
installing server and database .....	75
installing server, nodes, database .....	75
installing Speech Nodes only .....	84
repairing/ revising installation .....	83, 203
starting Speech Nodes .....	98
Profile Optimizer database	
access rights .....	20, 126, 189
Profile Optimizer database backups .....	208
Profile Optimizer logs	
see Speech Node service logs .....	210
Profile Optimizer Server	
access rights .....	20, 126, 189
anti-virus recommendations .....	64, 89, 101
before installing .....	70
installing .NET Framework .....	72
installing prerequisite software .....	71
installing required database software .....	49
removing database .....	217
Profile Optimizer transaction log backups .....	208
properties	
Active Directory client installer .....	168
ADDLOCAL for MSI install .....	166
ADVERTISE for MSI install .....	166

## **R**

rights	
requirements for account to install services .....	18
rights to start services .....	99

## **S**

SCCM support .....	152, 161
servers	
access rights to .....	20, 126, 189
service logs	
finding NMS .....	211
NMS service .....	211
Speech Node .....	210

viewing NMS .....	211
services	
giving rights to start .....	99
running Profile Optimizer .....	98
Windows user account to install .....	18
Windows user account to run under .....	18
sites	
master user profiles locations .....	104
SMS support .....	152, 161
software options for installing clients .....	152, 161
Speech Node service logs .....	210
Speech Nodes	
access rights .....	20, 126, 189
Dragon Medical SDK Client .....	74
installing on separate machine .....	84
installing on virtual machine .....	84
installing prerequisite software .....	73
permissions to access .....	20
starting .....	98
Windows Installer 3.1 .....	73
SQL Server	
database anti-virus recommendations .....	64, 89, 101
SQL Server 2008	
installing .....	49
SSL settings for web server .....	124
switches	
network traffic for load balancing .....	66, 230
see natspeak .....	186
system requirements for clients .....	7, 128

## **U**

upgrading DME .....	144
user account	
admin for Active Directory .....	223
NMS for Active Directory .....	223
Windows to install product services .....	18
Windows to run product services .....	18
user accounts	
associating with user profiles .....	146
migrating local to current product .....	132
user profiles	
associating with product users .....	146

**W**

web servers

- http settings ..... 121
- https settings ..... 124
- information for setup ..... 105
- installing IIS 6.0 ..... 109
- installing software ..... 108
- SSL settings ..... 124

Windows Automatic Updates

- managing ..... 23, 126, 189

Windows Installer 3.1

- installing for Speech Nodes ..... 73

Windows Server 2008 firewall ..... 58

Windows software required ..... 105

workstations

- installing clients on multiple ..... 151, 160

