

**CITRIX**<sup>®</sup> XenApp

**CITRIX**<sup>®</sup> XenDesktop

 **Windows**  
Remote Desktop Services

 **Microsoft VDI**

 **vmware**  
Horizon View

 **Linux**



## PHILIPS SPEECH EXTENSION DRIVERS

### GENERATION 12.4

Build No. 3.8.380.14

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**Technical Documentation**  
**Advanced Configuration**

For Certified MDC Partners and Support technicians

**PHILIPS**

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<b>PHILIPS SPEECH EXTENSION DRIVERS .....</b>	<b>1</b>
<b>1. Important .....</b>	<b>5</b>
1.1. Objective .....	5
1.2. Disclaimer and notices.....	5
<b>2. Introduction .....</b>	<b>6</b>
2.1. What's new? .....	6
2.2. Feature overview .....	8
2.3. Supported Windows, Citrix and VMware View platforms.....	9
2.4. Supported Linux platforms .....	10
2.5. Supported hardware .....	10
2.6. Remote Device Manager .....	11
2.7. Known issues .....	12
2.7.1. General .....	12
2.7.2. IGEL UDx-720 .....	12
2.7.3. eLux: dictation files are not deleted from the DPM after download .....	13
2.7.4. Igel UD 5 RDP session .....	14
2.7.5. VMware Horizon View .....	14
2.7.6. USB 3.0 ports on Linux clients are not supported .....	14
<b>3. Installation .....</b>	<b>15</b>
3.1. System architecture.....	15
3.2. Installation on Windows systems .....	16
3.2.1. Installation on the Windows server / virtual desktop .....	16
3.2.2. Installation on the Windows client .....	16
3.2.3. Drivers installation matrix – Microsoft WTS / Remote Desktop Services .....	18
3.2.4. Drivers installation matrix – Citrix XenApp / XenDesktop.....	18
3.2.5. Drivers installation matrix – VMware Horizon View .....	19
3.3. Installation on Unicon eLux RP clients (Citrix/RDP) .....	19
3.4. Installation on Ubuntu clients (Citrix/RDP) .....	20
3.5. Installation on Igel Universal Desktop clients (Citrix/RDP) .....	21
3.5.1. Citrix on Igel clients.....	21
3.5.2. Microsoft WTS / Remote Desktop Services on Igel clients .....	22
3.6. Installation on HP ThinPro clients (Citrix).....	23
3.7. Installation on Stratodesk noTouch clients (Citrix/RDP) .....	26
3.7.1. Citrix on Stratodesk noTouch clients .....	26
3.7.2. Microsoft WTS / Remote Desktop Services on Stratodesk noTouch clients.....	27
<b>4. General configuration on Linux clients.....</b>	<b>28</b>
4.1. DPM and SpeechAir drive mapping on Citrix clients .....	28
4.2. Foot Control button assignment on Linux clients.....	29
4.2.1. Default Foot Control configuration and commands .....	29
4.2.2. Foot Control configuration file.....	30
4.2.3. Foot Control button assignment on Igel clients .....	30
<b>5. Windows server / virtual desktop and client driver setup .....</b>	<b>31</b>
5.1. General information .....	31
5.2. Installation of the server / virtual desktop drivers .....	31
5.2.1. Start .....	31
5.2.2. Citrix selection .....	32
5.2.3. Microsoft WTS / Remote Desktop Services selection .....	33
5.2.4. VMware Horizon View selection .....	34

5.2.5.	Finish installation .....	35
5.3.	Client installation .....	36
5.3.1.	Start .....	36
5.3.2.	Citrix .....	37
5.3.3.	Microsoft WTS / Remote Desktop Services .....	39
5.3.4.	VMware Horizon View .....	41
5.3.5.	Finish installation .....	42
5.4.	Command line installation – silent setup .....	43
<b>6.</b>	<b>Trouble shooting Linux .....</b>	<b>44</b>
<b>7.</b>	<b>Trouble shooting Windows .....</b>	<b>46</b>
<b>8.</b>	<b>Appendix.....</b>	<b>48</b>
8.1.	Installation Desktop Experience.....	48
8.1.1.	Microsoft Windows Server 2012R2 .....	48
8.1.2.	Microsoft Windows Server 2008R2 .....	53

## 1. Important

### 1.1. Objective

This document describes the installation of the Philips Speech Extension Drivers for the usage with

- Microsoft Windows Terminal Services / Remote Desktop Services
- Citrix XenApp / XenDesktop
- VMware Horizon View

### 1.2. Disclaimer and notices

Speech Processing Solutions has carried out extensive testing with most popular configurations. However, since computer add-ons and device drivers change very rapidly, we are unable to guarantee conflict-free operation.

## 2. Introduction

The Philips Speech drivers provide audio and control support for Philips applications and integrations on Windows and Linux client platforms in remote desktop environments. Control support is provided for Philips SpeechMike III, SpeechMike Premium and SpeechMike Air, Foot Control, Digital Pocket Memo 8000 and SpeechAir 1100 series.

\*\*\*\*\*

**IMPORTANT:** if you want to upgrade from a previous version of the extension drivers, your current version has to be G12 (3.2.321.01) or higher!

Please follow this upgrade path to ensure trouble free operation:

- 1) Upgrade all Windows clients to version 3.8.380.14, and all Linux based thin clients to version G12.4
- 2) After you are done with the client upgrades, update the dictation software and extension drivers on the server(s) to version 3.8.380.14

**Note:** the server drivers 3.8.380.14 are not compatible with previous versions of the client drivers, therefore it is essential to upgrade all clients first before upgrading the server(s)!

\*\*\*\*\*

### 2.1. What's new?

#### G12.4 (3.8.380.14):

- Support of new Philips dictation hardware:
  - SpeechMike Premium Touch series
  - SpeechAir PSP1100 series
  - Foot Control ACC2300 series
- Support of Windows 10 (64-bit)
- Support of XenApp / XenDesktop 7.11
- Support of VMware Horizon RDSH:
  - VMware Server Extensions now can also be installed on Windows Server operating systems
  - DPM/SpeechAir folder mapping is now also supported for VMware Horizon
- The content of all mobile dictation devices (DPM and SpeechAir) are now mounted to C:\SPSMOUNT\
- Support of eLux RP5
- RDP-support on eLux clients
- Support of 3<sup>rd</sup> party USB audio devices for playback
- Support of IGEL UD3-LX50 thin client
- As Dell/Wyse does not continue maintaining their OS "Wyse enhanced SUSE", a new G12.4 drivers add-on cannot be provided for this platform

#### G12.3 (3.5.350.05):

- Support of new thin client operating systems:
  - HP ThinPro (Citrix)
  - Wyse enhanced SUSE (Citrix)
  - Stratodesk noTouch (Citrix/WTS)
- Support of the Speed/Tone functionality in SpeechExec Player/Recorder on Linux thin clients

#### G12.2 (3.3.331.09):

- Windows extensions for VMware Horizon View
- Support of the Remote Device Manager in remote environments (Windows + Linux clients)

- Support of RDP 8.1 (UDP and TCP)
- On virtual desktops all required registry entries are now set automatically during the installation process
- Support of the latest Linux client operating systems
  - Igel Universal Desktop (4.13.210 / 5.04.100)
  - Unicon eLux 4.6.0
  - Ubuntu 14.0.4
- Support of XenApp 7.6 and XenDesktop 7.6

#### **G12.1.1 (3.3.330.12):**



- Support of feature parameters in the administrative setup (via command line)
- Support of XenDesktop / XenApp 7.5
- Support of the latest thin client operating systems
  - Igel Universal Desktop (4.13.210 / 5.03.190)
  - Unicon eLux 4.5.0
- Fixed G5 compatibility issue on x64 WTS clients
- Citrix server drivers can be installed on virtual desktop operating systems (XenDesktop)

#### **G12.1 (3.2.322.16):**

- Support of Windows Server 2012R2
- Support of XenDesktop 7.1
- Compatibility of Windows client drivers G12.1 with server drivers G5 to allow an incremental upgrade from G5 to G12.1
- Server drivers can be installed on virtual desktop operating systems to allow connections to virtual machines running on a Hyper-V server (RDP only)
- Support of the barcode event mode feature
- Support of the Foot Control Wizard on Windows clients
- Minimizing the worklist to the system tray now also works in remote environments
- Linux drivers: bugfix record standby mode

## 2.2. Feature overview

The following tables are covering the supported functions in remote environments:

Client platform			
Windows 			
SpeechMike	Digital Pocket Memo	SpeechAir	Foot Control
Buttons	Buttons	Configuration	Buttons
LED	LED	Firmware Update	Configuration
Audio	Audio	File Handling	
Configuration	Configuration		
Firmware Update	Firmware Update		
	File Handling		
Linux 			
SpeechMike	Digital Pocket Memo	SpeechAir	Foot Control
Buttons	Buttons	Configuration	Buttons
LED	LED	Firmware Update	Configuration *
Audio	Audio	File Handling	
Configuration	Configuration		
Firmware Update	Firmware Update		
	File Handling		

\* On Linux by editing configuration files. Linux distributions vary from vendor to vendor and it usually requires significant effort to come to a fully working system. This effort cannot be provided by Speech Processing Solutions.



## 2.3. Supported Windows, Citrix and VMware View platforms

With this version of the Philips Speech driver extensions for WTS/Citrix/VMware View you are able to have environments, which consist of the following components:

### Windows Terminal Server

Windows Server 2008R2
Windows Server 2012R2

### Citrix

Citrix Presentation Server 4.5
XenApp 5
XenApp 6
XenApp 6.5
XenDesktop 7.11
XenDesktop 7.11

### VMware

VMware Horizon View 7
-----------------------

### Virtual Desktops (Microsoft Remote Desktop / Citrix XenDesktop / VMware View)

Windows 7 SP1 (32/64-bit)
Windows 8.1 (32/64-bit)
Windows 10 (64-bit)

### Clients

Windows 7 SP1 (32/64-bit)
Windows 7 Embedded (Thin client platform)
Windows 8 Embedded (Thin client platform)
Windows 8.1 (32/64-bit)
Windows 10 (64-bit)
Linux Clients based on Kernel 2.6.32 or higher
Citrix ICA Client for Windows Desktop or Linux >=12.x
VMware Horizon Client >=3.1.0

**Note:** non-professional versions of Microsoft Windows (e.g. Windows Home) are NOT supported!

## 2.4. Supported Linux platforms

The following devices and operating systems were used in Philips internal tests, the compatibility with other devices is assumed based on information from the firmware vendor, for an overview of compatible devices please visit the according firmware vendor websites.

The Linux drivers can be found in the sub folders of folder **\2\_LinuxDrivers\**

Hardware	Operating System	Version	Driver Folder	Supported Terminal System	Website
<b>HP</b>					
HP t520	<b>HP ThinPro</b>	<b>5.1.0</b> <sup>1)</sup>	\HPThinPro\	Citrix	<a href="http://www.hp.com">http://www.hp.com</a>
<b>Igel</b>					
UD3-LX50 UD5-LX50	<b>Igel Universal Desktop</b>	<b>5.10.520</b> <sup>2)</sup>	<i>Full integrated</i>	Citrix/WTS	<a href="http://www.igel.com">http://www.igel.com</a>
<b>Stratodesk</b>					
HP t520	<b>noTouch</b>	<b>2.40.1275</b> <sup>3)</sup>	<i>Full integrated</i>	Citrix/WTS	<a href="http://www.stratodesk.com">http://www.stratodesk.com</a>
<b>Ubuntu</b>					
Desktop PC	<b>Ubuntu</b>	<b>16.04</b>	\Ubuntu\	Citrix	<a href="http://www.ubuntu.com">http://www.ubuntu.com</a>
<b>Unicon</b>					
Nextreme-IV	<b>eLux RP</b>	<b>5.4.1</b>	\Unicon\	Citrix/WTS	<a href="http://www.mylux.com">http://www.mylux.com</a>

<sup>1)</sup> Due to limitations of the HP ThinPro system, SpeechAir is not supported on HP ThinPro

<sup>2)</sup> The new G12.4 drivers are implemented in Igel UD 5.10.520 and higher.

<sup>3)</sup> The new G12.4 drivers are implemented in Stratodesk noTouch 2.40.1275 and higher.

For more Information regarding thin clients contact your thin client supplier or service provider.

## 2.5. Supported hardware

Device Category	Device Type
SpeechAir	PSP1100
Digital Pocket Memo 4	DPM8000
	DPM8200
	DPM8500
	DPM8500
Digital Pocket Memo 3	LFH9620
	LFH9600
	LFH9520
	LFH9500
SpeechMike Premium Touch	SMP3810
	SMP3800
	SMP3710
	SMP3700
SpeechMike Premium	LFH3610
	LFH3600
	LFH3520
	LFH3510

	LFH3500
SpeechMike 3	LFH3310 LFH3300 LFH3220 LFH3210 LFH3200
SpeechMike Air	LFH3020 LFH3010 LFH3000
Foot Control	ACC2330 ACC2320 ACC2310 LFH2330 LFH2320 LFH2310

## 2.6. Remote Device Manager

Philips extension drivers G12.2 or higher allow to run the Philips Remote Device Manager **updater client** on terminal servers and virtual desktops. For the extension drivers installation instructions see [chapter 3 Installation](#).



## 2.7. Known issues

### 2.7.1. General

ID	Description
<b>9139</b>	DPM authors with either small letters (author) or mixed upper and lower case letters (Author) cannot be downloaded automatically in a WTS session. <b>Workaround:</b> please define Authors in the DPM with capital letters only (AUTHOR). That will assure the automatic DPM download in SpeechExec.
	The following functions are not available on any platform: <ul style="list-style-type: none"><li>• Recording notification beep</li><li>• Recording standby beep</li><li>• Playback of .wma file format</li><li>• Playback of .mp3 VBR file format</li><li>• Changing the preferred playback device for playback through SpeechExec</li><li>• Some limitations in the SpeechMike configuration wizard</li></ul>

### 2.7.2. IGEL UDx-720

ID	Description
<b>9137</b>	On an IGEL UD3-720 and UD5-720 device recording in quality play (dication.ds2) does not work. There are indications that the cause for that behavior is in the built in audio mixer of the operating system, which takes too much CPU performance

**Note:** as only UD3 and UD5 were physically available during release testing it might turn out that other devices face the same issue.

### 2.7.3. eLux: dictation files are not deleted from the DPM after download

On eLux systems it might happen, that dictation files remain on the DPM device, even if “delete files on the DPM after download is finished” is enabled. The background for this is that on eLux operating systems it takes up to 20 seconds until the files are deleted from a mass storage device. This behavior is eLux specific and beyond the control of our software and drivers.

#### **Work around 1:**

Wait about 20 seconds before unplugging the device after the dictation download is finished

#### **Work around 2:**

Define a hotkey to sync and unmount the plugged in mass storage devices manually:

- 1) Open **Scout Enterprise** and go to **Advanced settings of device / Advanced file entries**
- 2) Add the following entries:

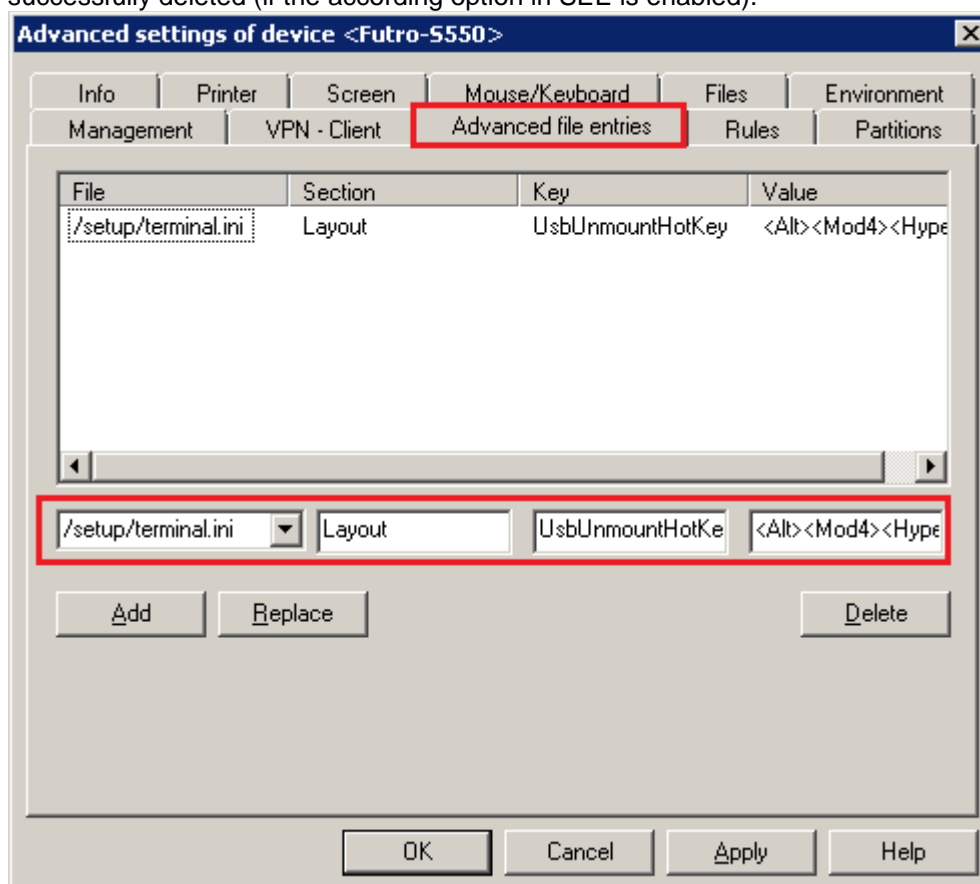
**File:** /setup/terminal.ini

**Section:** Layout

**Key:** UsbUnmountHotKey

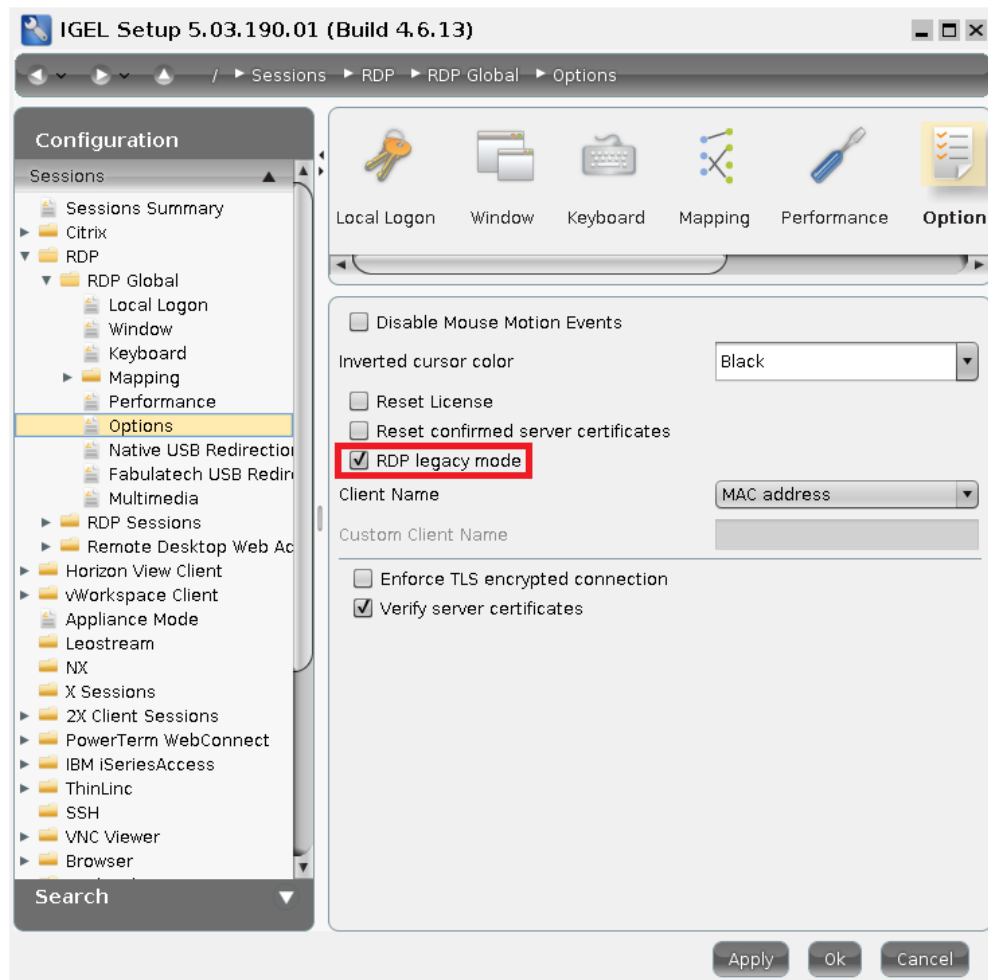
**Value:** <Alt><Mod4><Hyper>s

In this example, pressing **<Alt>+<Windows>+<s>** on the client would sync and unmount the plugged in mass storage devices, and as a consequence the dictation files would be successfully deleted (if the according option in SEE is enabled).



### 2.7.4. Igel UD 5 RDP session

When opening an RDP session on an Igel UD 5.x client it might happen, that DPM related functions do not work properly. This problem is related to the Igel RDP client 2.1, to resolve this issue, open the Igel setup, go to **RDP – RDP Global – Options** and enable “RDP legacy mode”.



### 2.7.5. VMware Horizon View

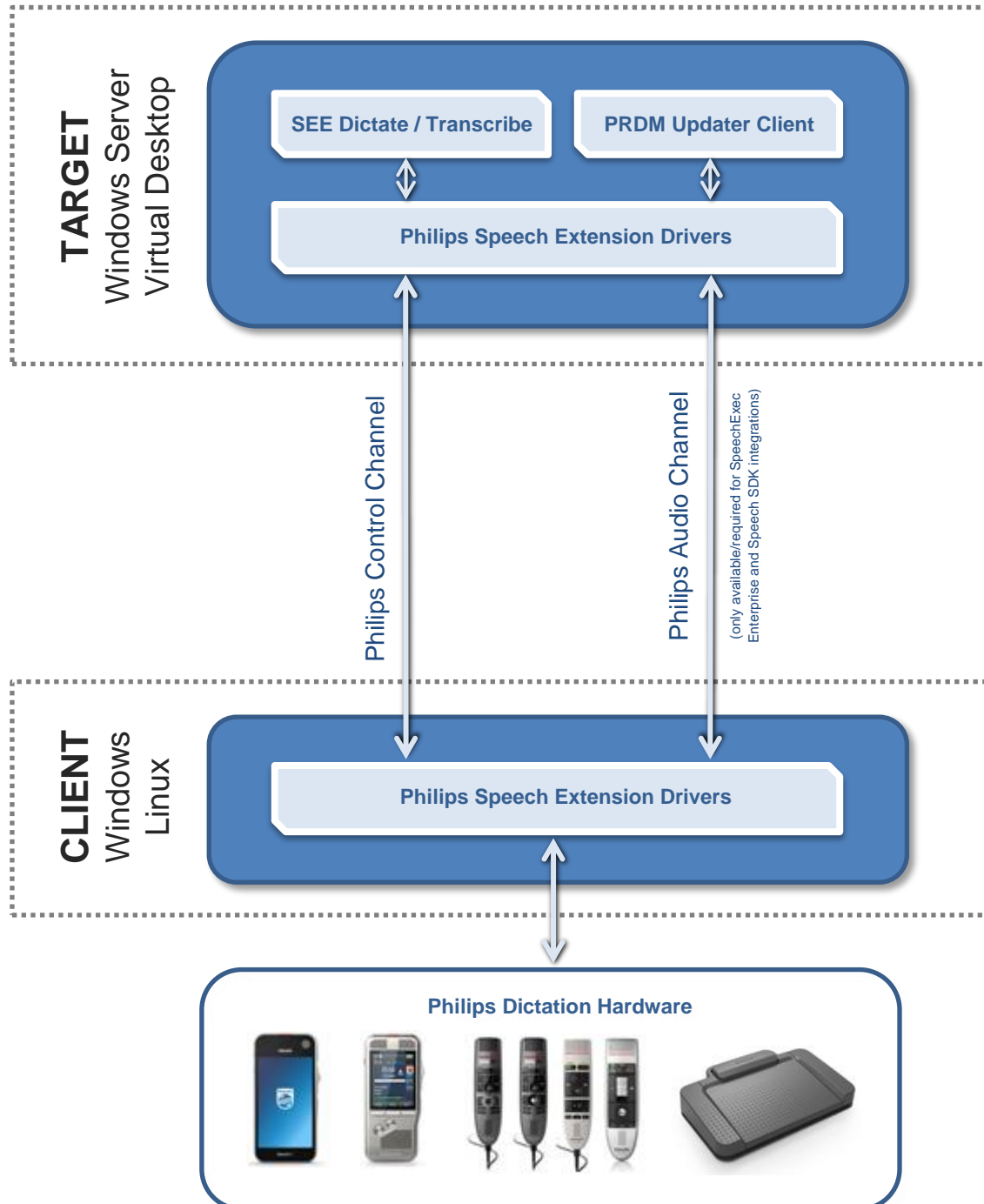
- SpeechMike firmware update is currently not supported in a VMware Horizon View environment.
- Using a Digital Pocket Memo device as a USB microphone is currently not supported in a VMware Horizon View environment.

### 2.7.6. USB 3.0 ports on Linux clients are not supported

As audio USB devices plugged into USB 3.0 ports on Linux clients can lead to malfunction, USB 3.0 ports are **not supported** on clients where Linux based operating systems are running. Please use USB 2.0 ports for your dictation devices.

### 3. Installation

#### 3.1. System architecture



## 3.2. Installation on Windows systems

### 3.2.1. Installation on the Windows server / virtual desktop

**Please remove all older Philips Speech Drivers before installing the new version.**

1. Install SpeechExec Enterprise if not installed yet.
2. Install the following components:
  - \1\_WindowsDrivers\PhilipsSpeechDriversSetup.exe
  - \3\_SpeechExecEnterprise\_patch\DPMControl.msi
  - \3\_SpeechExecEnterprise\_patch\SmExAudio.msi
  - \3\_SpeechExecEnterprise\_patch\SpMikeCtrl.msi

**Note:** The user must be allowed to start the **PSPDispatcher.exe** located in the Windows System folder (32-bit). The dispatcher starts up automatically with the dictation software.

#### 3.2.1.1. When to use the 32-bit and the 64-bit driver on server / virtual desktop side

It depends on what application you want to use. In case of 32-bit applications (for example, SpeechExec Enterprise or Remote Device Manager Updater Client), the 32-bit driver setup is required, **regardless** of the server / virtual desktop operating system.

The 64-bit driver setup is **solely** used if a 64-bit application is used on the server / virtual desktop (for example, the 64-bit Hardware SDK test app).

### 3.2.2. Installation on the Windows client

**Please remove all older Philips Speech Drivers before installing a new version.**

1. If you want to use Citrix please make sure an ICA Client version 12.x or newer is installed **BEFORE** you install the Philips drivers.

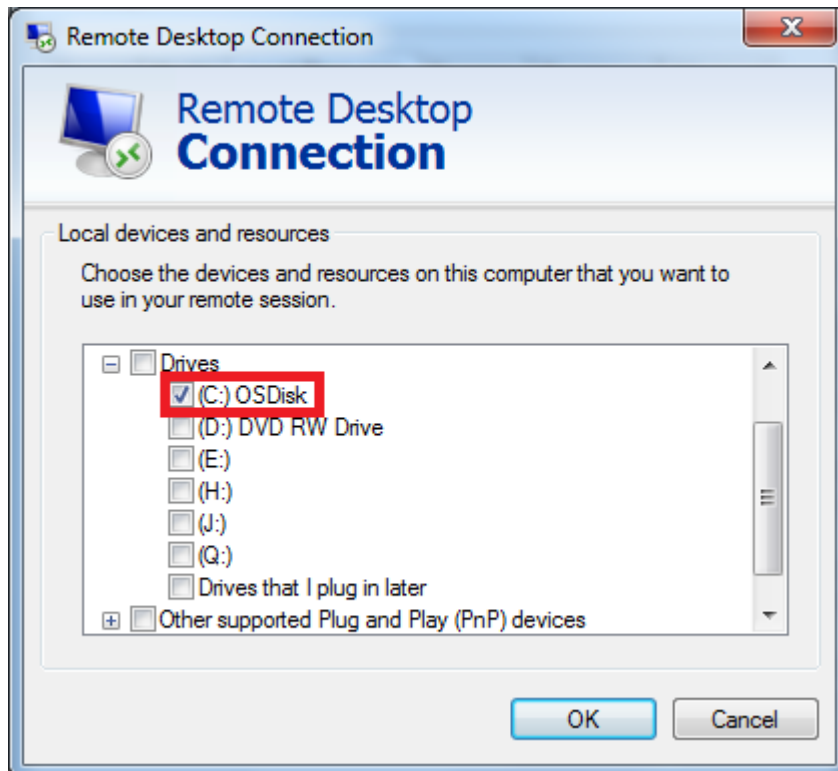
**Note:** if you upgrade or reinstall the ICA Client, you have to reinstall the extension drivers on the client as some relevant registry settings get changed during the ICA Client upgrade/installation process.

2. For Microsoft WTS/RDS on Windows 32-bit clients and Citrix/VMware on Windows 32- or 64-bit clients run \1\_WindowsDrivers\PhilipsSpeechDriversSetup.exe with the according parameters.

For Microsoft WTS/RDS on Windows 64-bit clients run  
\1\_WindowsDrivers\PhilipsSpeechDrivers64Setup.exe with the according parameters.



**Note:** If you want to use DPM or SpeechAir devices in a Microsoft WTS/RDS environment, please ensure that the local client drive "C" is checkmarked in the Remote Desktop Connection settings (Show Options - Local Resources - More...):



#### 3.2.2.1. When to use the 32-bit and the 64-bit driver on client side?

In a Citrix and VMware environment, the 32-bit driver setup is required.

In a Microsoft WTS / Remote Desktop Services environment, the client operating system and the driver setup must be identical; it means that the 32-bit operating system requires a 32-bit setup, similarly, the 64-bit operating system requires a 64-bit setup.

### 3.2.3. Drivers installation matrix – Microsoft WTS / Remote Desktop Services

MS WTS/RDS	Server / Virtual Desktop x86	Server / Virtual Desktop x64
Installation SpeechExec Enterprise Dictate/Transcribe <i>and/or</i> RDM Updater Client	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi
Client		
Client x86	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe
Client x64	\1_WindowsDrivers\ PhilipsSpeechDrivers64Setup.exe	\1_WindowsDrivers\ PhilipsSpeechDrivers64Setup.exe

### 3.2.4. Drivers installation matrix – Citrix XenApp / XenDesktop

Citrix	Server / Virtual Desktop x86	Server / Virtual Desktop x64
Installation SpeechExec Enterprise Dictate/Transcribe <i>and/or</i> RDM Updater Client	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi
Client		
Client x86	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe
Client x64	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe

### 3.2.5. Drivers installation matrix – VMware Horizon View

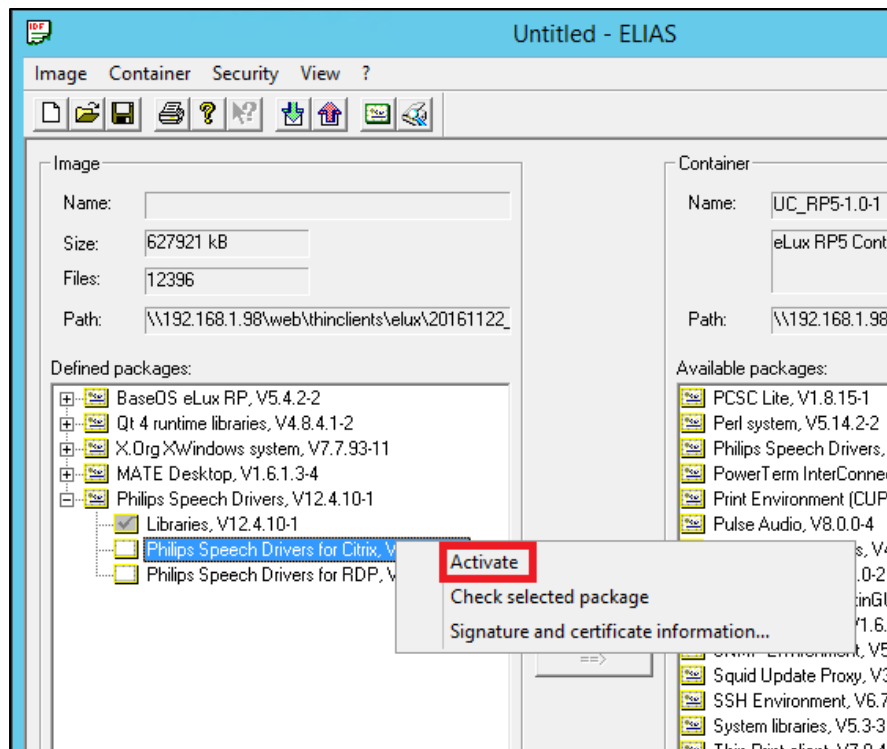
VMware	Server / Virtual Desktop x86	Server / Virtual Desktop x64
Installation SpeechExec Enterprise Dictate/Transcribe <i>and/or</i> RDM Updater Client	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe  \3_SpeechExecEnterprise_patch\ DPMControl.msi  \3_SpeechExecEnterprise_patch\ SmExAudio.msi  \3_SpeechExecEnterprise_patch\ SpMikeCtrl.msi
Client		
Client x86	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe
Client x64	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe	\1_WindowsDrivers\ PhilipsSpeechDriversSetup.exe

### 3.3. Installation on Unicon eLux RP clients (Citrix/RDP)

The necessary packages can be found in the folder \2\_LinuxDrivers\Unicon\ or on the eLux website [www.mylux.com](http://www.mylux.com)

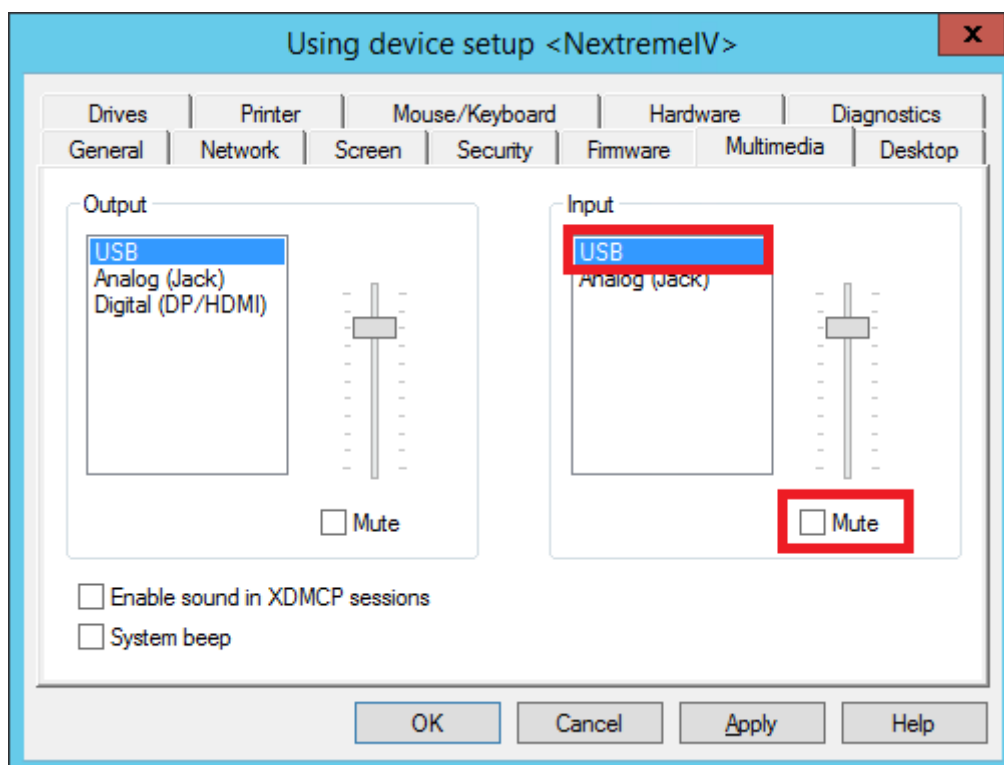
**Please remove all older Philips Speech Drivers before installing the new version.**

1. Start the ELIAS tool (can be downloaded from [www.mylux.com](http://www.mylux.com)) and create a new image.
2. Import the Philips driver package.
3. Add the Philips driver package to the “Defined packages” area.
4. Right-click and activate the protocol you want to use, all additionally required packages (for example, the ICA client) will be added automatically:



5. Upgrade the thin clients with the new image.

In Scout Enterprise, ensure that Input USB devices are not muted:



### 3.4. Installation on Ubuntu clients (Citrix/RDP)

1. Make sure an ICA Client (version 12.x or newer) is installed
2. The Ubuntu driver can be found in the folder  
`\\2_LinuxDrivers\\Ubuntu\\PhilipsSpeechDriversLinuxSetupUbuntu.sh`

Copy the file to the Ubuntu client and install the Philips Extension Drivers for Citrix by entering:

```
bash PhilipsSpeechDriversLinuxSetupUbuntu.sh--default_hiddev_dir  
/dev/usb/ --default_joydev_dir /dev/input/ -ica_dir  
/usr/lib/ICAClient
```

in the terminal.

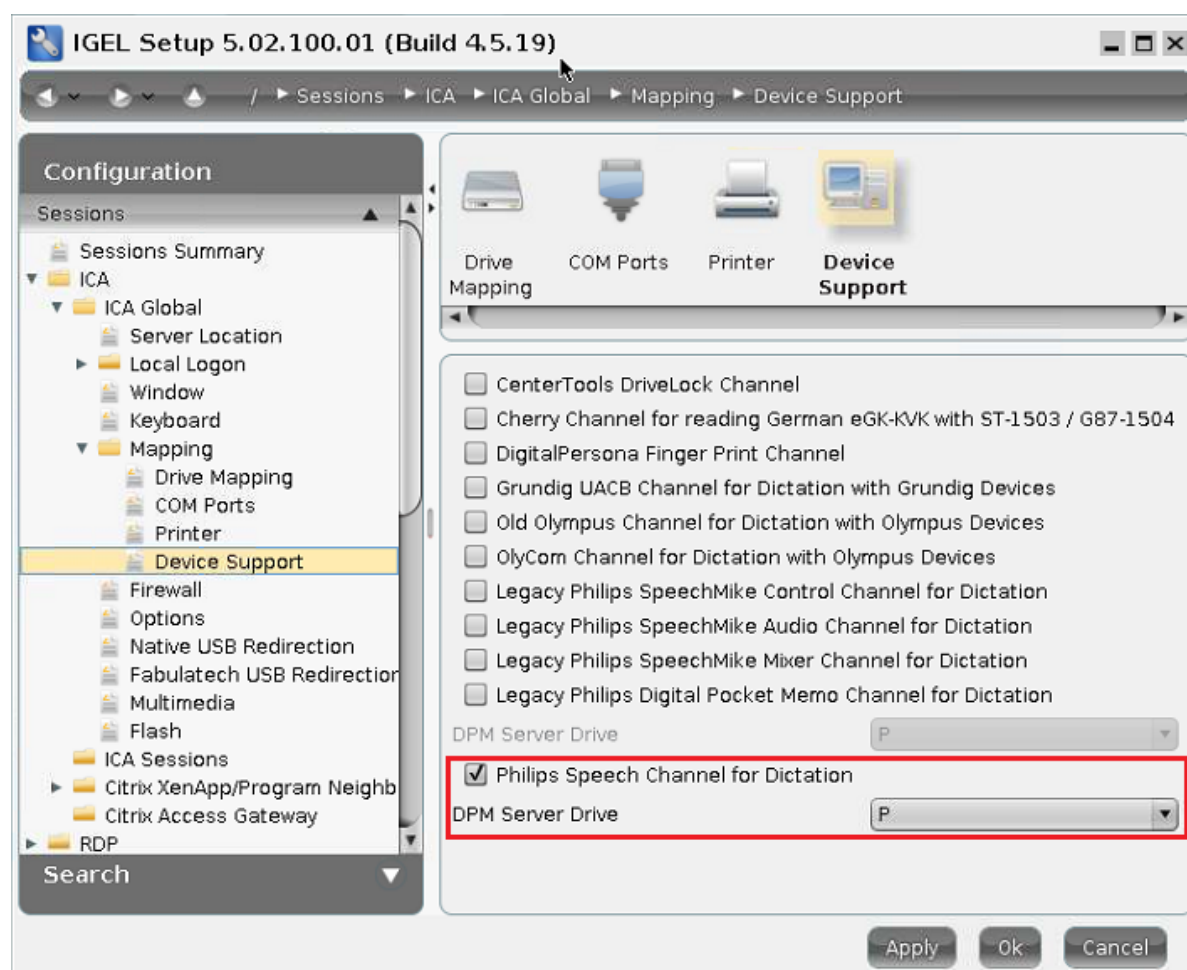
**Please note:** this script was prepared for Ubuntu 16.04, it might have problems on other versions.

## 3.5. Installation on Igel Universal Desktop clients (Citrix/RDP)

The Igel Universal Desktop operating system already has the Philips extension drivers implemented, they just have to be enabled in the configuration menu.

### 3.5.1. Citrix on Igel clients

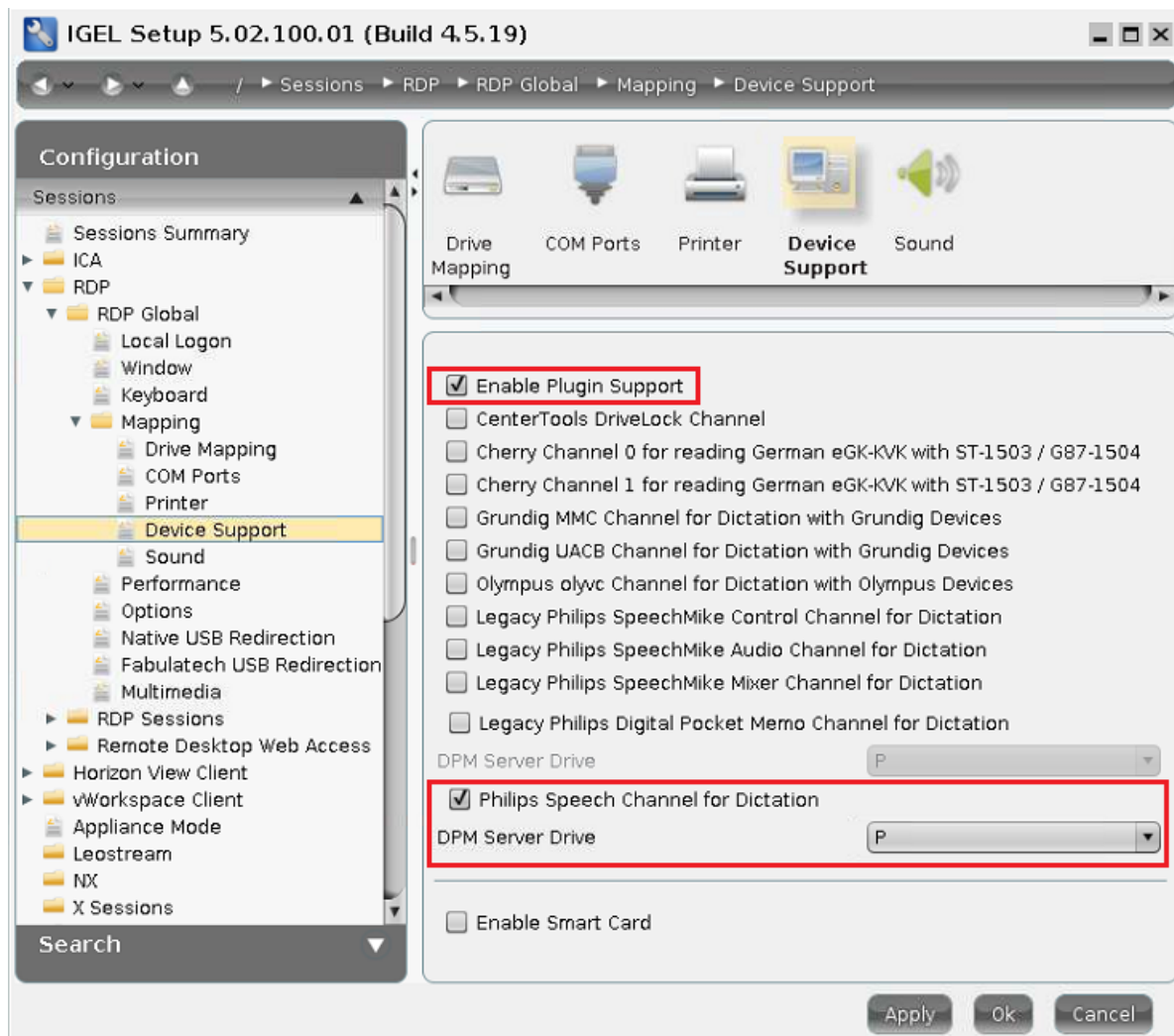
Go to **IGEL Setup / ICA / ICA Global / Mapping / Device Support** and checkmark **"Philips Speech Channel for Dictation"**.



**Note:** the **"Legacy Philips"** drivers contain the old G5 driver architecture which is NOT compatible with the latest server drivers. It is NOT allowed to have both driver versions selected at the same time (it's also not allowed to enable G5 for Citrix and G12 for RDP and vice versa simultaneously).

### 3.5.2. Microsoft WTS / Remote Desktop Services on Igel clients

Go to **IGEL Setup / RDP / RDP Global / Mapping / Device Support** and checkmark **“Enable Plugin Support”** and **“Philips Speech Channel for Dictation”**.



**Note:** the “**Legacy Philips**” drivers contain the old G5 driver architecture which is NOT compatible with the latest server drivers. It is NOT allowed to have both driver versions selected at the same time (it’s also not allowed to enable G5 for Citrix and G12 for RDP and vice versa simultaneously).

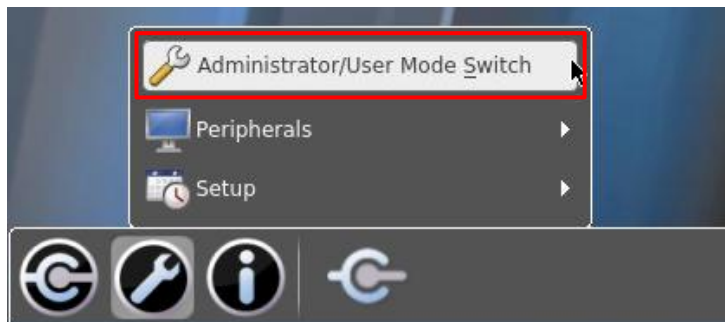
### 3.6. Installation on HP ThinPro clients (Citrix)

1. Copy the files

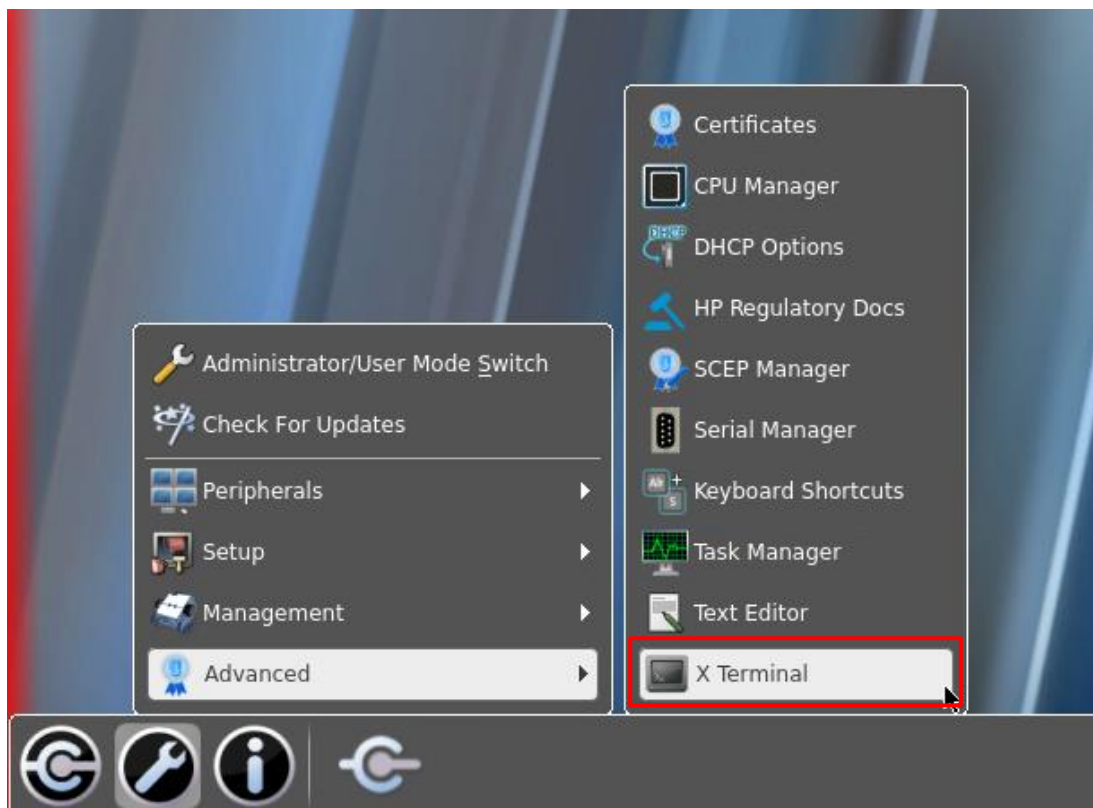
- **PhilipsSpeechDrivers-<version>**
- **sh, joydev-3.8.13-hp\_i386.deb**
- **DPMMountd.conf**

from the \2\_LinuxDrivers\HP\ folder to a USB flash drive and plug it into the HP ThinPro client.

2. On the HP ThinPro device, click **Control Panel** and switch to **Administrator Mode**:



3. After that, navigate to **Control panel – Advanced** and open **X Terminal**:





4. In the Terminal, enter **fsunlock** to allow modifying the files and folders on the ThinPro device:

```
root@HPc8cbb8193c60:/writable/home/user# fsunlock
```

5. Copy the drivers **PhilipsSpeechDrivers-<version>.sh** and **joydev-3.8.13-hp\_i386.deb** from your USB flash drive to the **/tmp** directory (in the following example, the name of the USB flash drive is *SanDiskCruzer\_sdb1*):

```
root@HPc8cbb8193c60:/writable/home/user# cp /media/SanDiskCruzer_sdb1/* /tmp
```

6. Navigate to the **/tmp** folder and install the JOYDEV driver, which is required for the **Philips Foot Control** devices, by entering:

```
dpkg -i joydev-3.8.13-hp_i386.deb
```

```
root@HPc8cbb8193c60:/tmp# dpkg -i joydev-3.8.13-hp_i386.deb
```

7. Install the Philips Extension Drivers for Citrix by entering:

```
bash PhilipsSpeechDrivers-<version>.sh --default_hiddev_dir /dev/usb/  
--default_joydev_dir /dev/input/ -ica_dir /usr/lib/ICAClient
```

```
root@HPc8cbb8193c60:/tmp# bash PhilipsSpeechDrivers-12.2.7.sh --default_hiddev_d  
ir /dev/usb/ --default_joydev_dir /dev/input/ -ica_dir /usr/lib/ICAClient  
Philips Speech Drivers Setup v12.2.7  
unpacking...done  
SETUP_ICA_DIR: /usr/lib/ICAClient  
SETUP_HID_DIR: /dev/usb/  
SETUP_JOY_DIR: /dev/input/  
SETUP_DPM_DIR: P:\  
SETUP_DPM_LOCALPATH: /tmp/PhilipsDPM  
SETUP_BIN_DIR: /usr/local/bin  
SETUP_LIB_DIR: /usr/lib  
DPMMountd: no process found  
creating udev rule file: /etc/udev/rules.d/40-permissions.rules  
Updating udev settings for SpeechMike II devices  
Thinwire3.0, Clipboard, ClientDrive, ClientPrinterQueue, ClientAudio, ClientComm  
, FlashV2, TWI, ZL_FONT, ZLC, ICACTL, SmartCard, UserExperience, MultiMedia, Gen  
ericUSB, HDXRTME, PSPDPM, SpeechMike, SpeechMikeAudio, SpeechMikeMixer, PSPHID  
Starting Philips DPM Handler  
root@HPc8cbb8193c60:/tmp#
```

8. Copy **DPMMountd.conf** to the **/etc/init/** directory and change its permission to **644**:

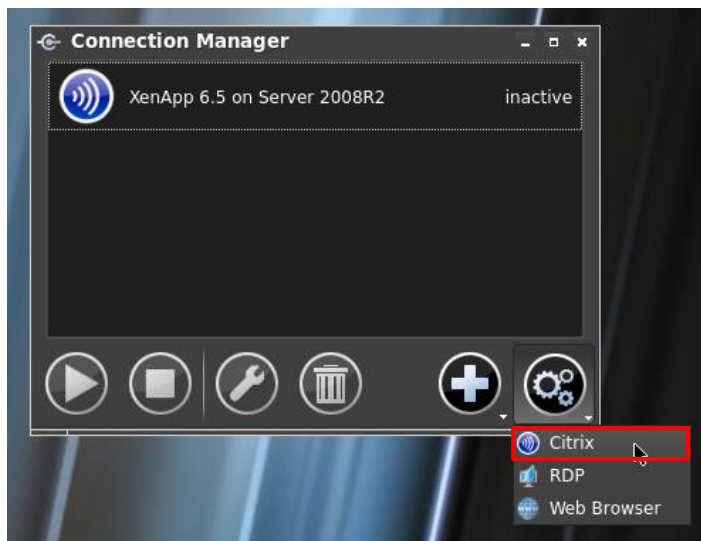
```
root@HPc8cbb8193c60:~# cp /media/SanDiskCruzer_sdb1/DPMMountd.conf /etc/init/  
root@HPc8cbb8193c60:~# chmod 644 /etc/init/DPMMountd.conf
```

9. Lock the file system again by entering **fslock**:

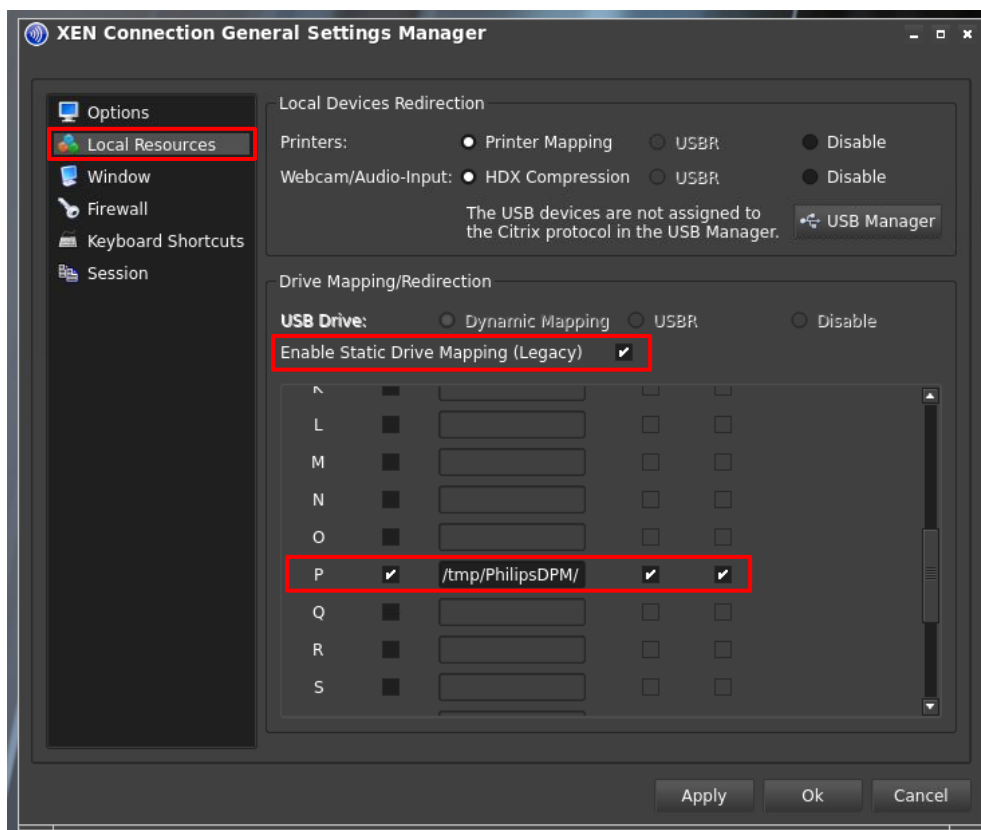
```
root@HPc8cbb8193c60:/tmp# fslock
```



10. To enable the dictation file download functionality of the **Philips Digital Pocket Memo** devices, the following steps are required: open the **Connection Manager**, navigate to the **Citrix** settings...



11. ...select **Local Resources** on the left, checkmark **Enable Static Drive Mapping (Legacy)**, checkmark all boxes in the line of letter **P** and enter **/tmp/PhilipsDPM/** in case you are using a DPM, or map drive S: to **/tmp/PhilipsSpeechAir/** for SpeechAir devices.



**Please note, that a factory reset on the ThinPro thin client removes all the drivers, so you would have to install them again!**

### 3.7. Installation on Stratodesk noTouch clients (Citrix/RDP)

The Stratodesk noTouch operating system already has the Philips extension drivers implemented, they just have to be enabled in the configuration menu.

#### 3.7.1. Citrix on Stratodesk noTouch clients

Go to **System configuration / Connections / <your Citrix connection> / Citrix / Dictation device/SpeechMike driver** and select “Philips G12”:

The screenshot shows a window titled "System configuration" with a list of settings. The "Dictation device/SpeechMike driver" setting is highlighted with a red rectangle and is set to "Philips G12".

printers in mapping	on
Auto-connected printer (e.g. lp_par or lp_usb)	
Driver for auto-connected printer (e.g. HP LaserJet 2100)	
Map local serial/COM ports	on
Map CDC/ACM as serial port	off
Smartcard login	no setting
Map local drives	on
Include system-defined drives in mapping	auto
Dynamic local drive mapping	on
<b>Dictation device/SpeechMike driver</b>	<b>Philips G12</b>
Cherry eHealth card driver	off
Keyboard mapping file	linux
Extended Unicode Keyboard Support (EUKS)	Use EUKS whenever possible
Keyboard layout	
Transparent key pass-through	Server within Full Screen Sessions only
Use local input method	on
Send Ctrl-V (Paste) on middle button	on

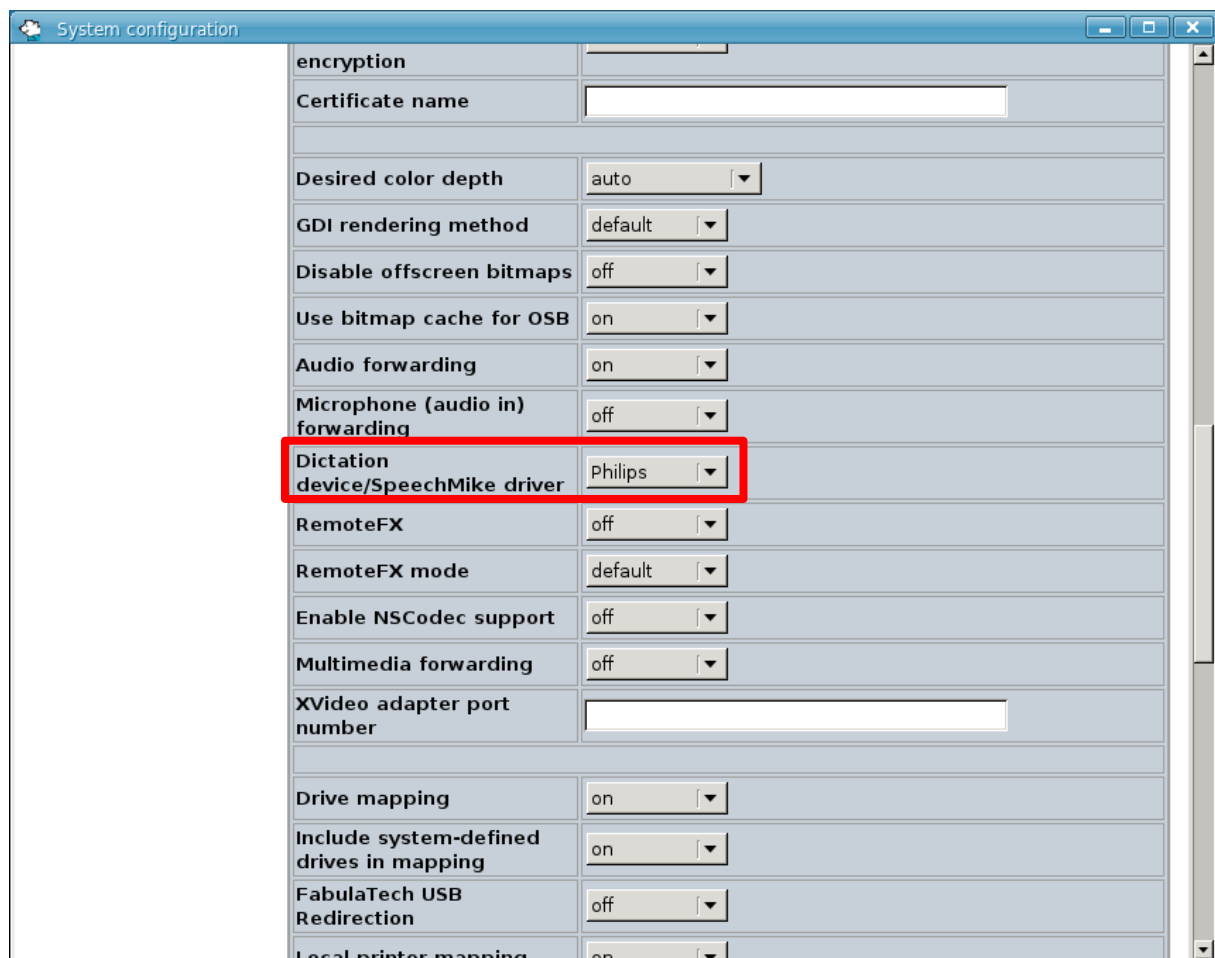
### 3.7.2. Microsoft WTS / Remote Desktop Services on Stratodesk noTouch clients

Go to **System configuration / Connections / <your FreeRDP connection> / FreeRDP** and...

1. Ensure that the **version of the FreeRDP client** is **1.2**:



2. Scroll down to **Dictation device/SpeechMike driver** and select **"Philips"**:



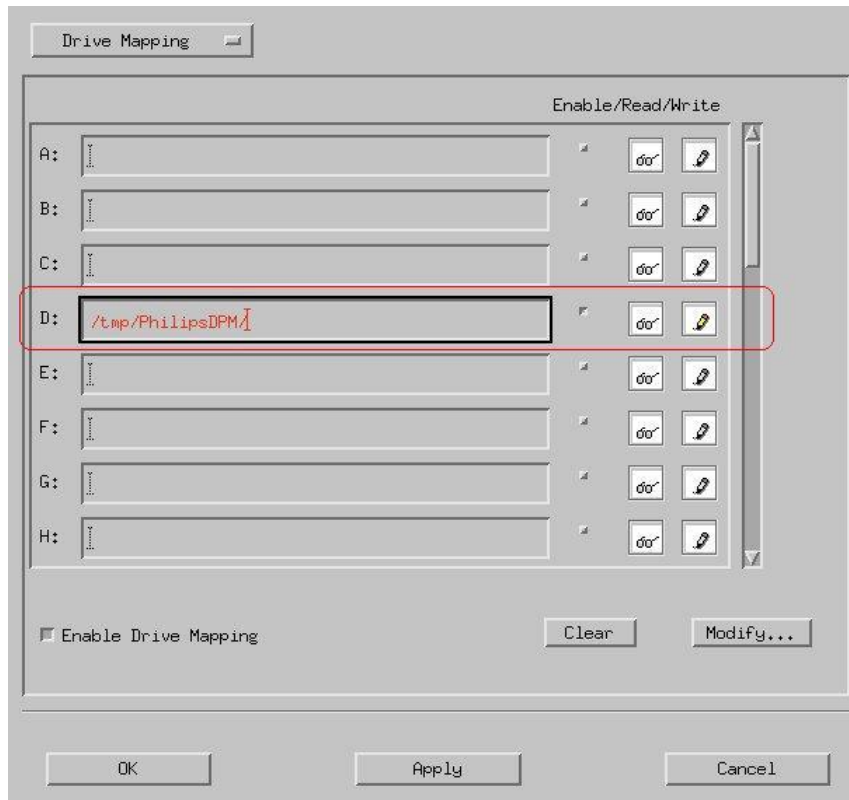
## 4. General configuration on Linux clients

### 4.1. DPM and SpeechAir drive mapping on Citrix clients

In order to change the drive mapping of the Session you have to change the following parts:

1. Change the drive mapping in the ICA client
2. Adapt the **Settings.ini** according to the desired drive letter.

Ad1) the screenshot below shows the ICA client drive mapping configuration for DPM.  
For the SpeechAir device it would be required to map drive S: to **/tmp/PhilipsSpeechAir/**



Ad2) Open the `/etc/PhilipsSpeech/Settings.ini` file with a text editor and change the “**DPM Server Path**” value according to your needs, for example:

```
DPM Server Path = D:\
```

## 4.2. Foot Control button assignment on Linux clients

### 4.2.1. Default Foot Control configuration and commands



Default values for Linux clients (Settings.ini file):

Button Function	Button	Value Decimal
<b>Fast rewind</b>	<b>1</b>	<b>12</b>
<b>Play (Press and Hold)</b>	<b>2</b>	<b>4</b>
<b>Fast forward</b>	<b>3</b>	<b>14</b>
<b>EOL</b>	<b>4</b>	<b>10</b>

### 4.2.2. Foot Control configuration file

Change the `/etc/PhilipsSpeech/Settings.ini` on the client according to your needs:

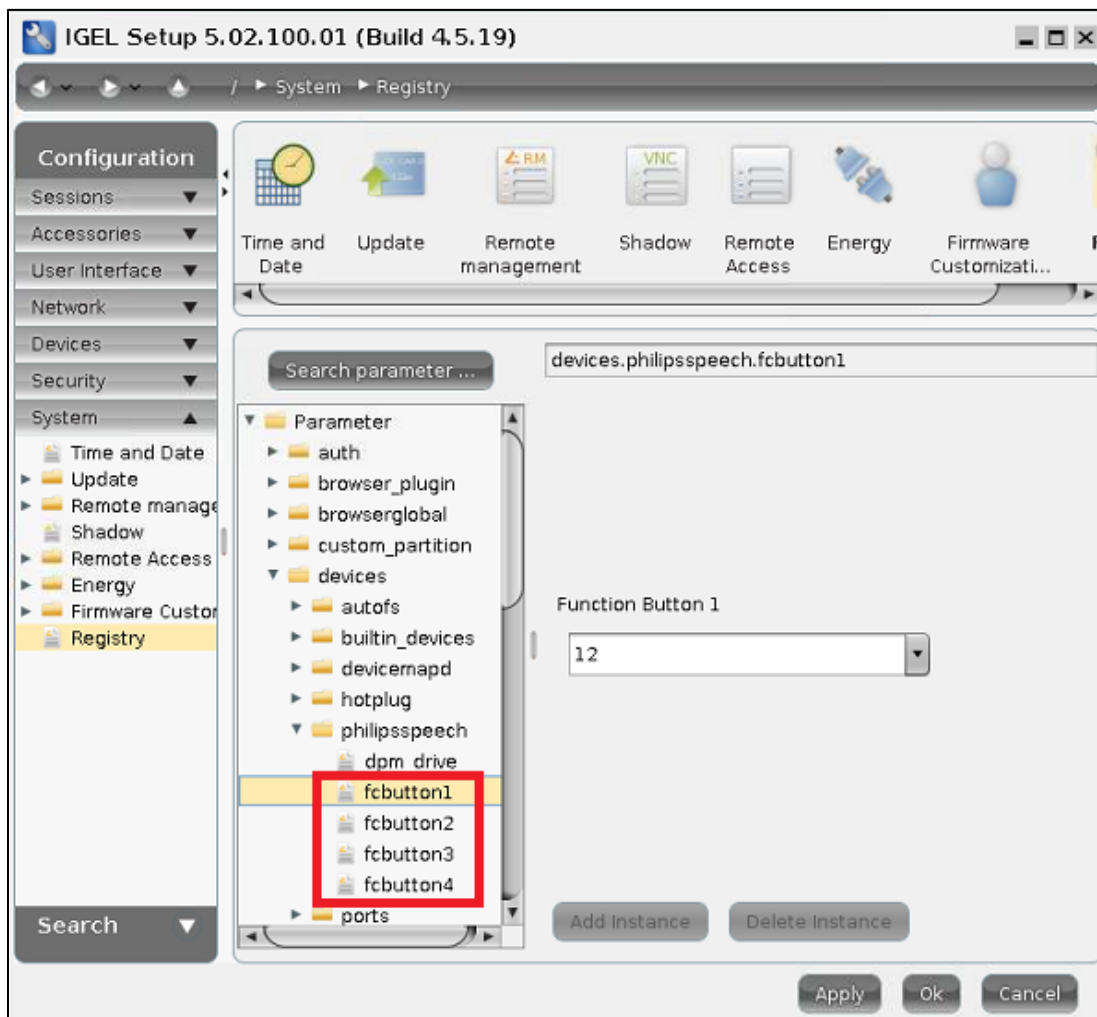
```
FCBUTTON1=  
FCBUTTON2=  
FCBUTTON3=  
FCBUTTON4=
```

Example: Default button settings:

```
FCBUTTON1=12  
FCBUTTON2=4  
FCBUTTON3=14  
FCBUTTON4=10
```

### 4.2.3. Foot Control button assignment on Igel clients

Go to **IGEL Setup / System / Registry / devices / philipsspeech** and change the settings according to your needs



## 5. Windows server / virtual desktop and client driver setup

### 5.1. General information

Philips Drivers have only one setup file which is **common for Windows servers / virtual desktops and Windows clients**.

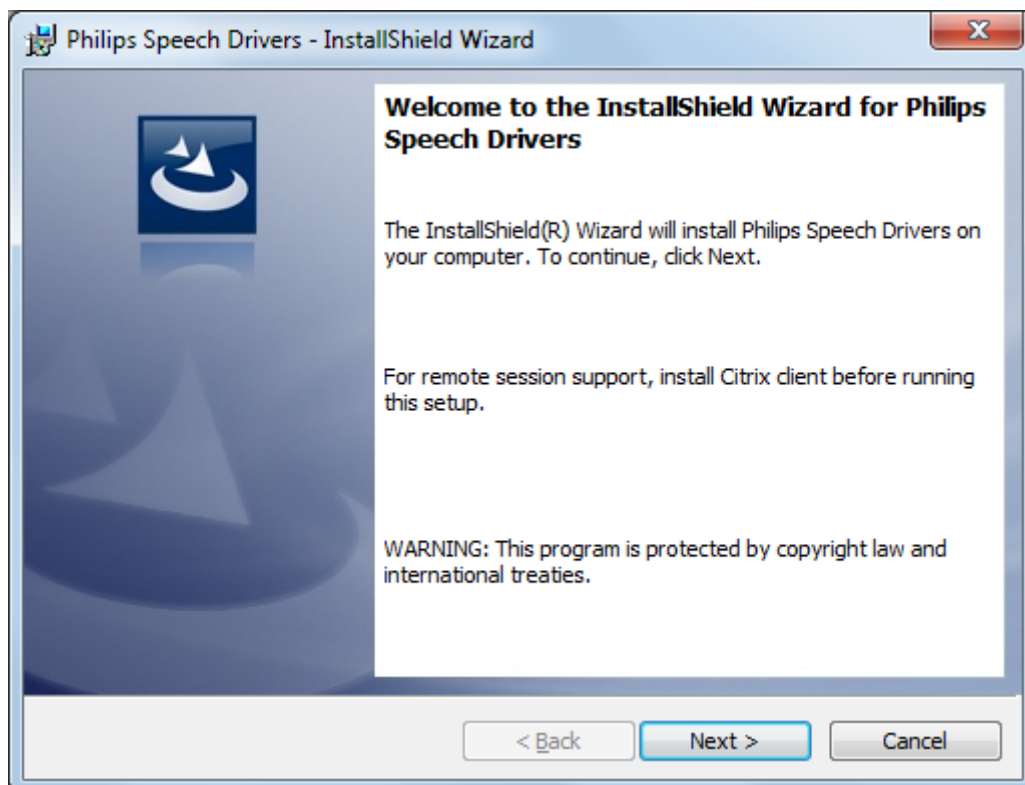
If you want to install the Citrix client extensions, install the Citrix ICA client software first, otherwise the according option in the install wizard will not be available.

### 5.2. Installation of the server / virtual desktop drivers

#### 5.2.1. Start

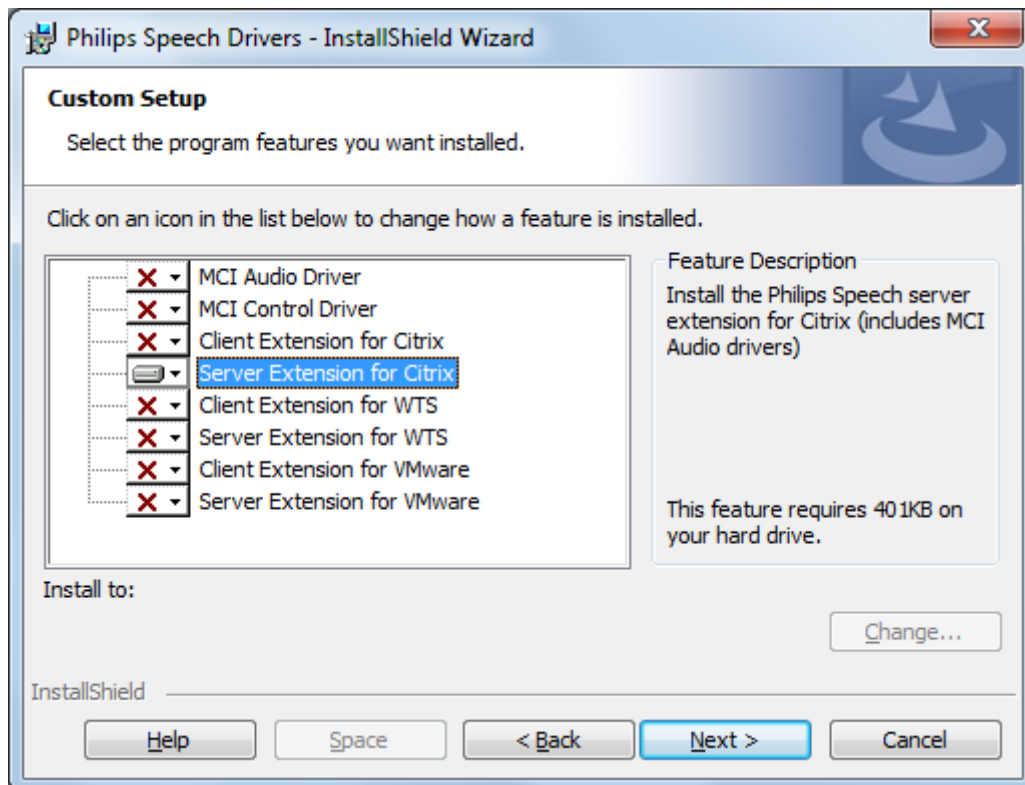
Start the PhilipsSpeechDriversSetup.exe

Click on **Next** Button



### 5.2.2. Citrix selection

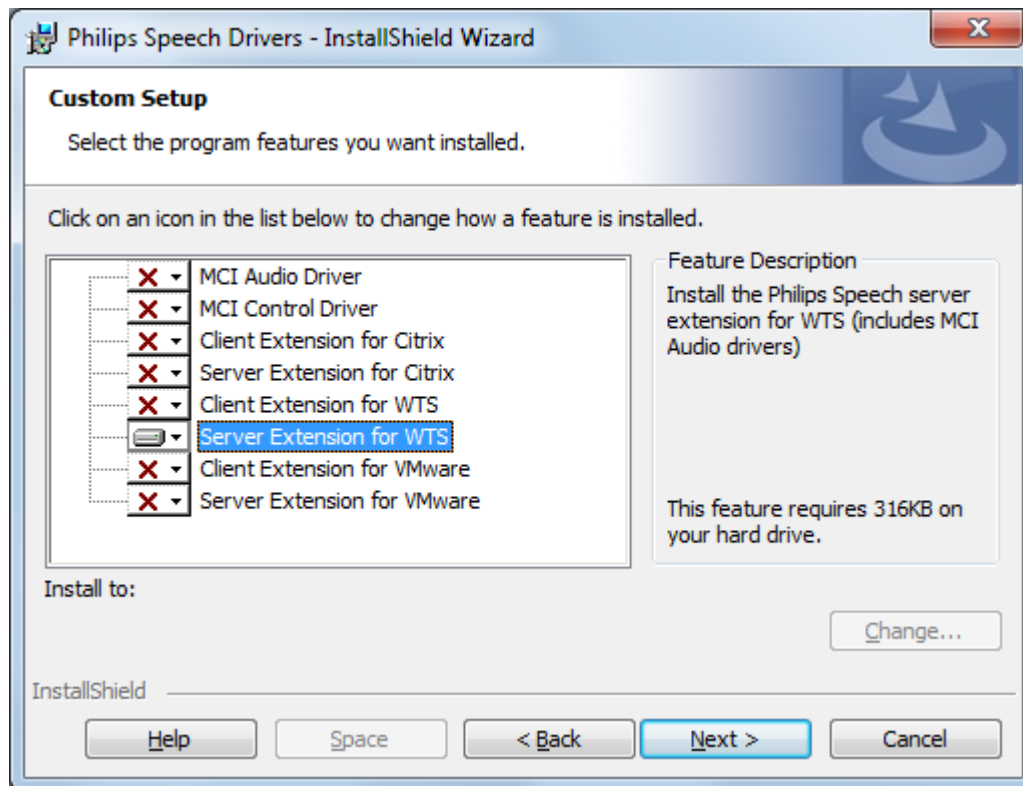
This chapter shows the Citrix server / virtual desktop installation settings.





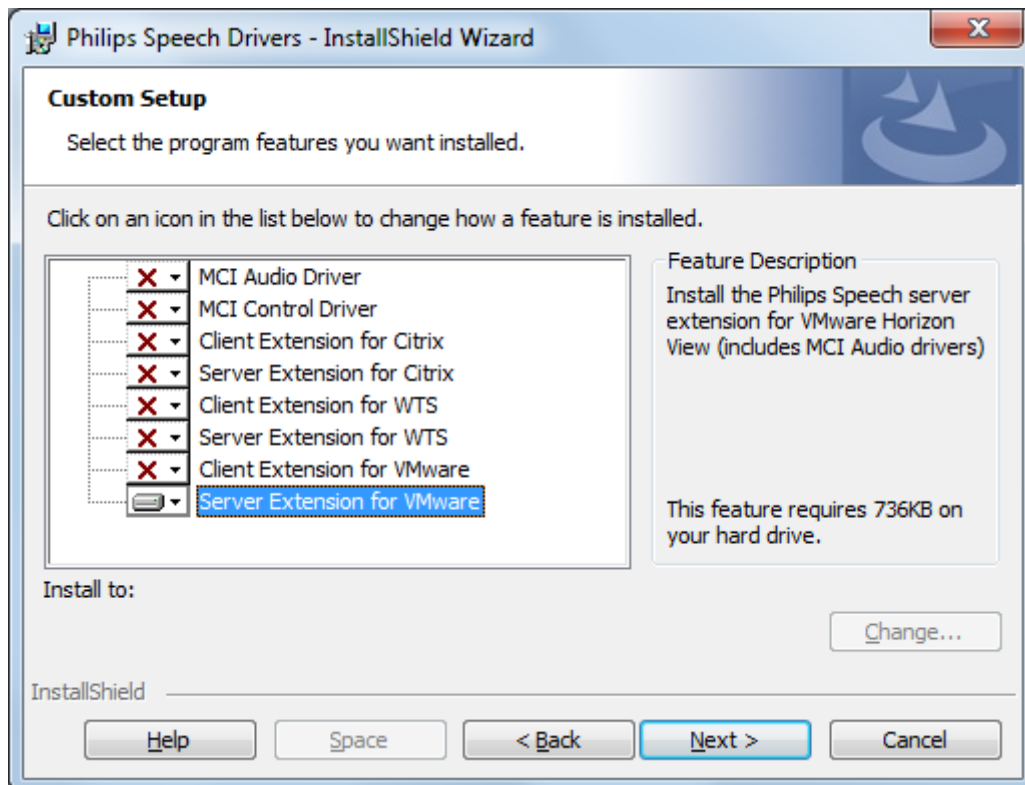
### 5.2.3. Microsoft WTS / Remote Desktop Services selection

Choose the option shown in the screenshot below, if you're using Microsoft WTS / Remote Desktop Services.



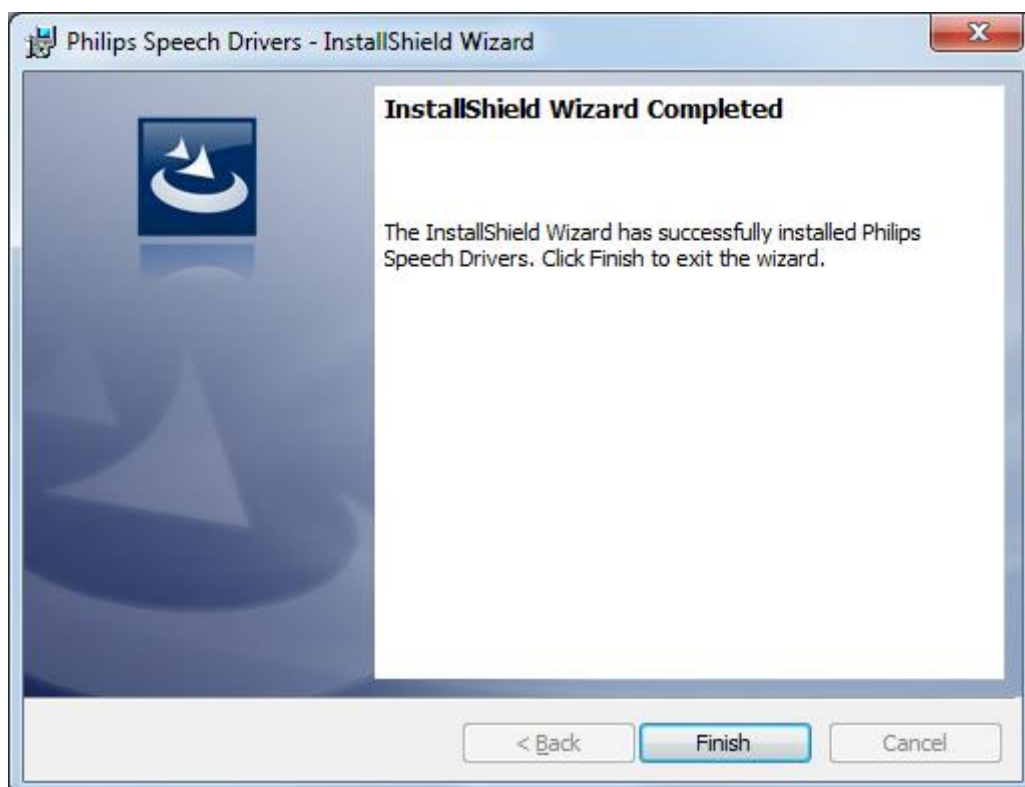
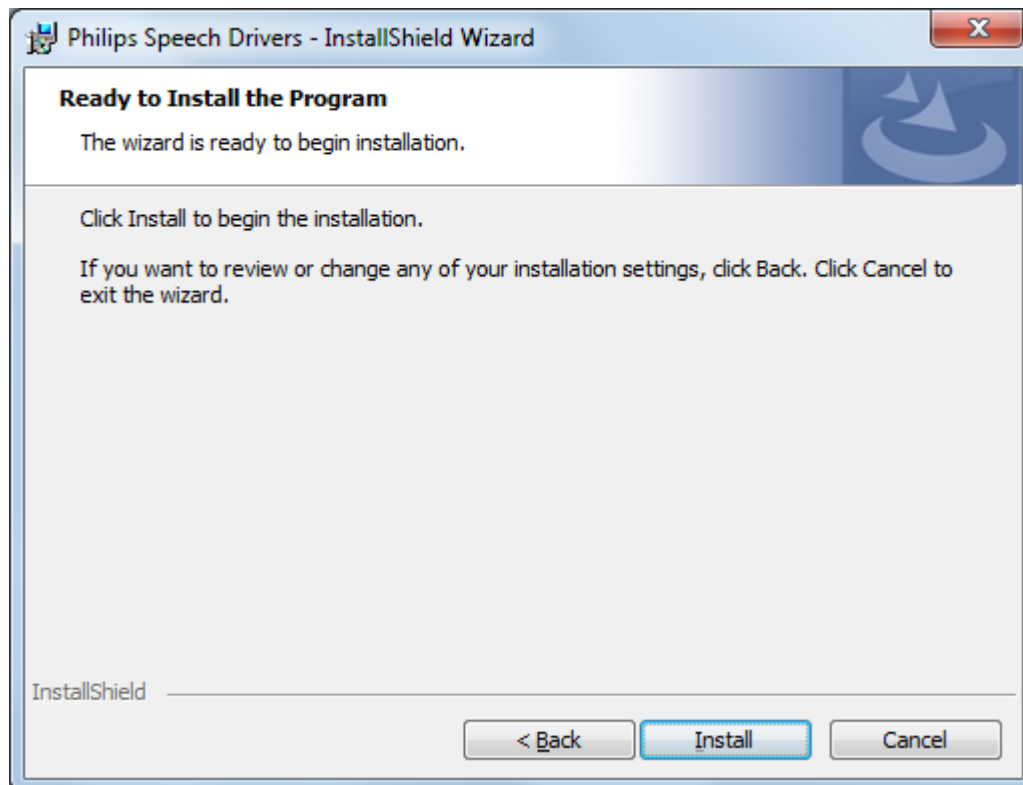
#### 5.2.4. VMware Horizon View selection

Choose the option shown in the screenshot below, if you're using VMware Horizon View.



### 5.2.5. Finish installation

Click on button **Install**



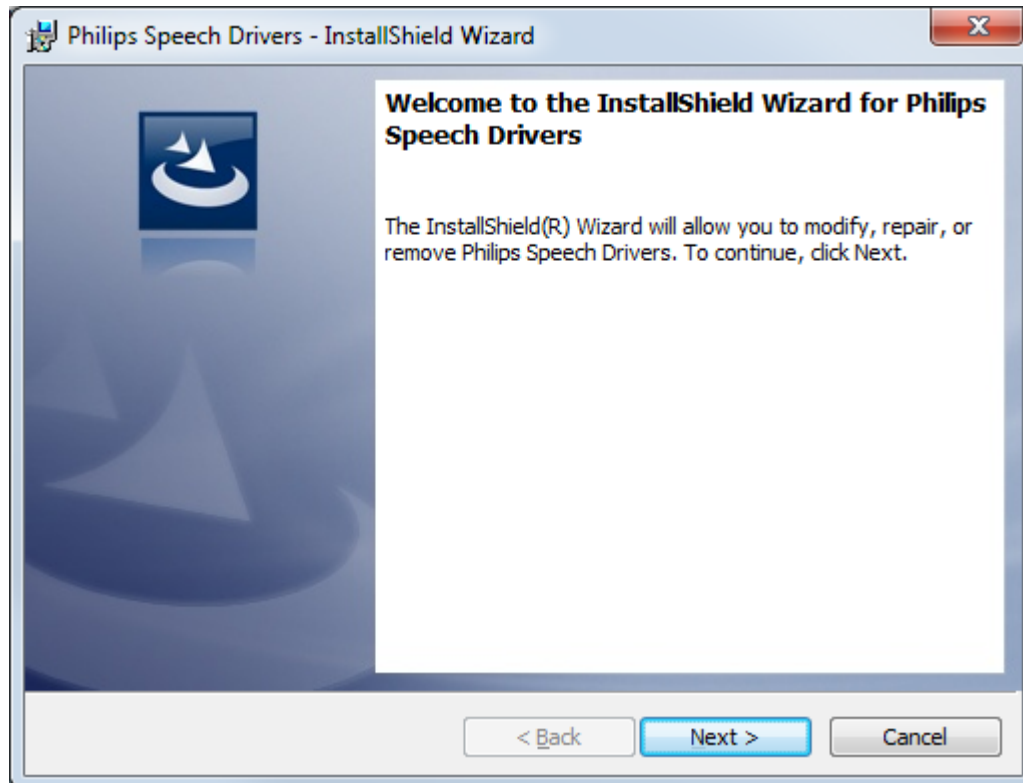
InstallShield wizard has successfully installed the Philips Speech drivers - click **Finish**. If asked, please perform a restart for the configuration changes made by Philips Speech Drivers to take effect.

## 5.3. Client installation

If you want to use CITRIX please make sure that ICA Client version 12.x or newer is installed BEFORE you install the Philips drivers

### 5.3.1. Start

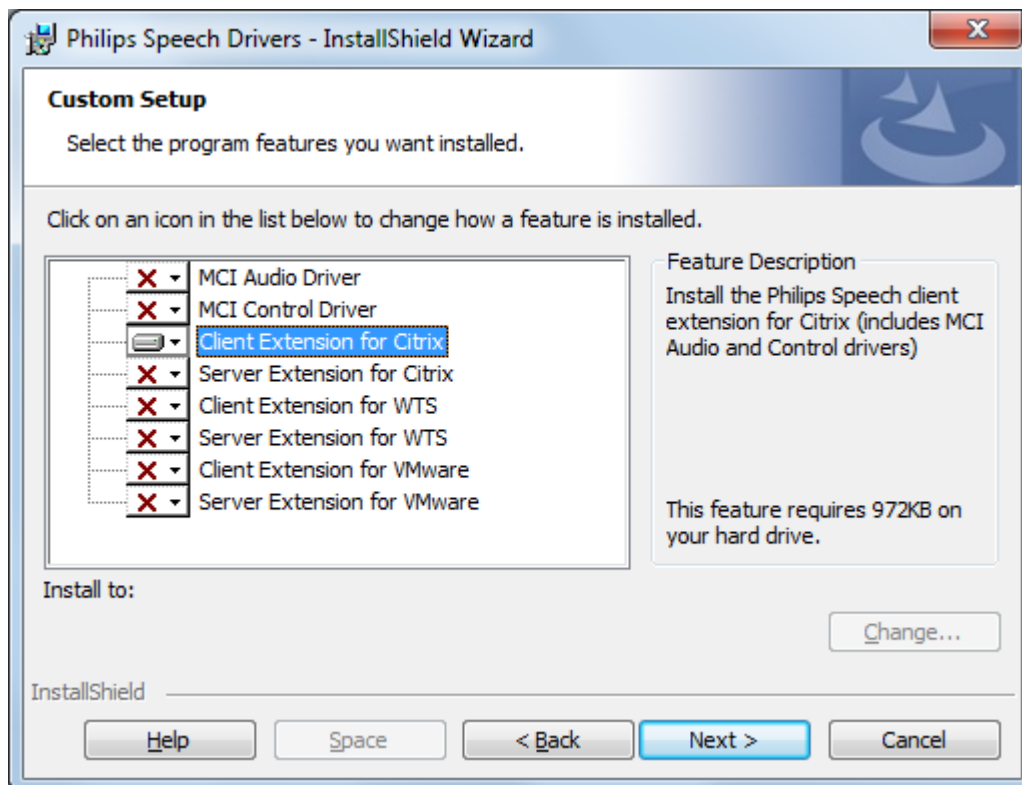
Start the PhilipsSpeechDriversSetup[x64].exe



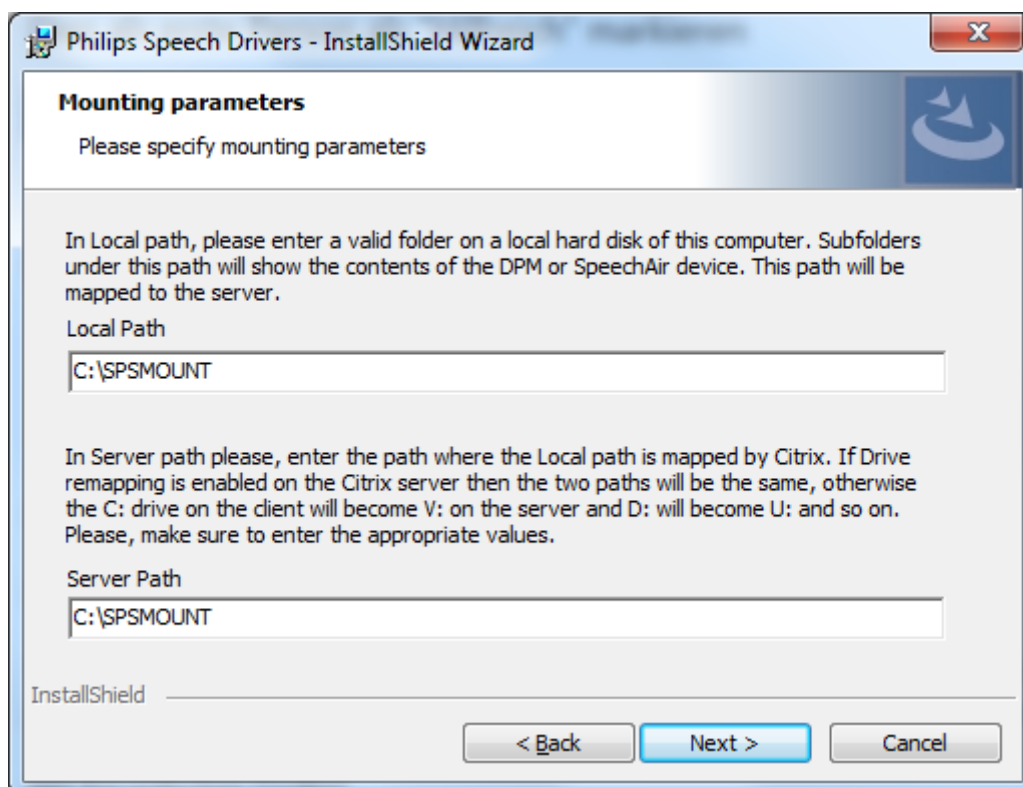
Click **Next**

### 5.3.2. Citrix

This chapter shows the CITRIX client installation settings.



Select the options as displayed in the screenshot and click **Next**.



- For the “Local Path” please enter a valid folder on local hard disk of this computer - this path will show the contents of the DPM or SpeechAir device.
- In the “Server Path” please enter the path where the DPM or SpeechAir Path appears in the Citrix Session.
- If drive remapping is enabled on the Citrix server then the two paths will be the same, otherwise the C: drive on the client will become the V: drive on the server, the D: will become U: and so on.

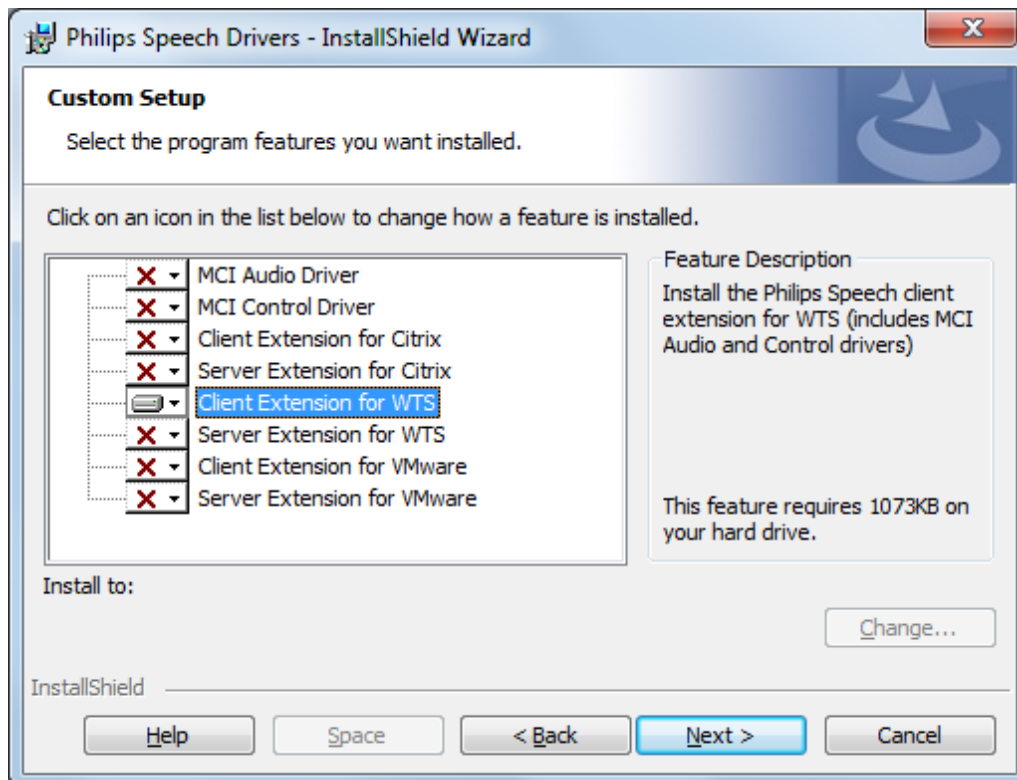
The Path settings can be changed later by reinstalling the Drivers.

**Note:**

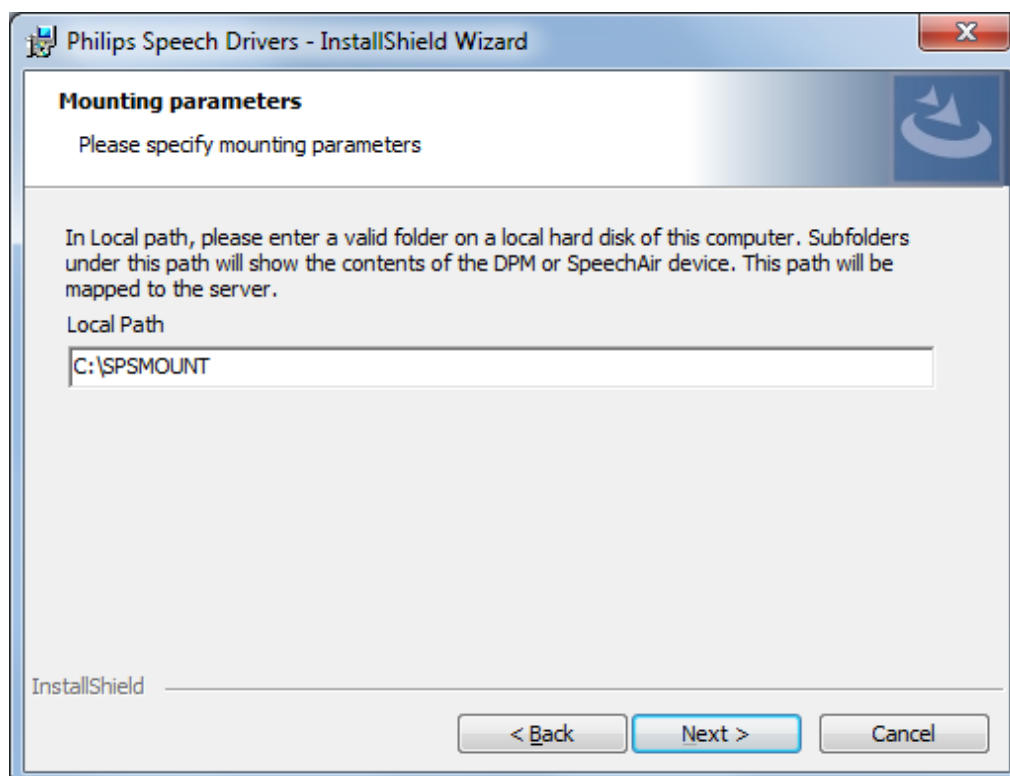
Please be aware that the drive letter defined for “Server Path” gets released in case you remove the “DPM Mounter Service”. If a real physical hard drive is defined for “Server Path” this would mean that you have to reallocate the drive letter for the relevant drive in the operating system.

### 5.3.3. Microsoft WTS / Remote Desktop Services

This chapter shows the Microsoft WTS / Remote Desktop Services client installation settings.



Select the options as displayed in the screenshot and click **Next**.



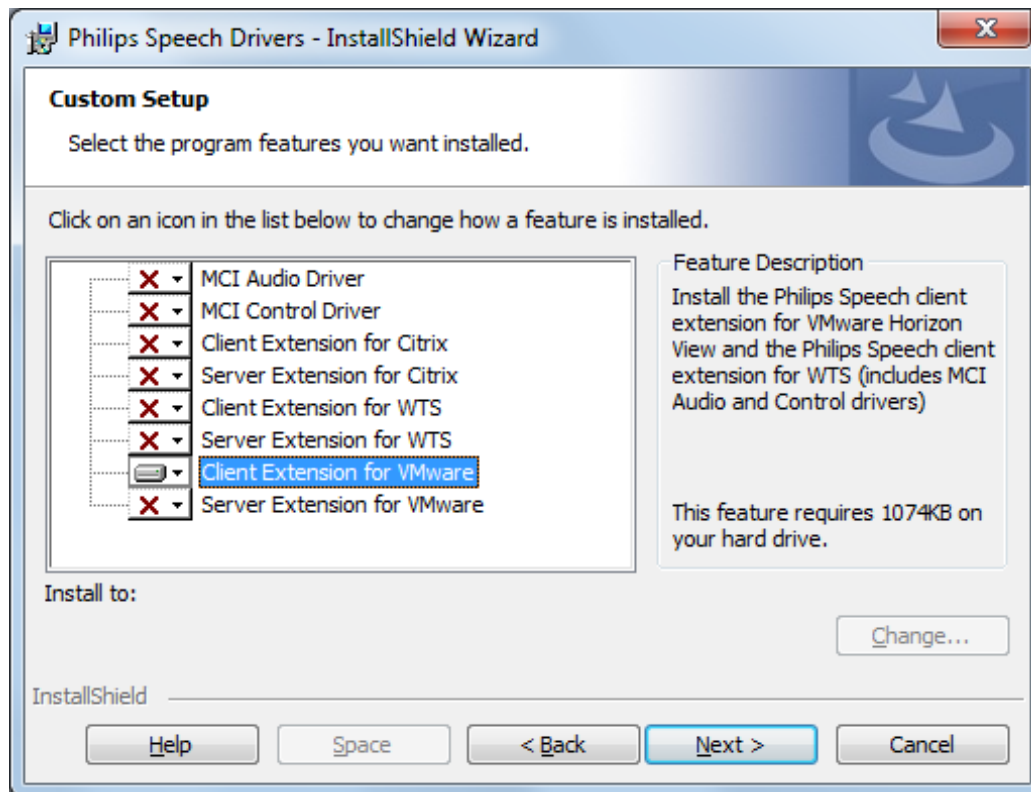
For the Local Path please enter a valid folder on local hard disk of this computer – this path will show the contents of the DPM or SpeechAir device. The Local Path can be changed later by reinstalling the Drivers.

**Note:** Drive Mapping only works for NTFS file systems. (e.g. FAT will fail)

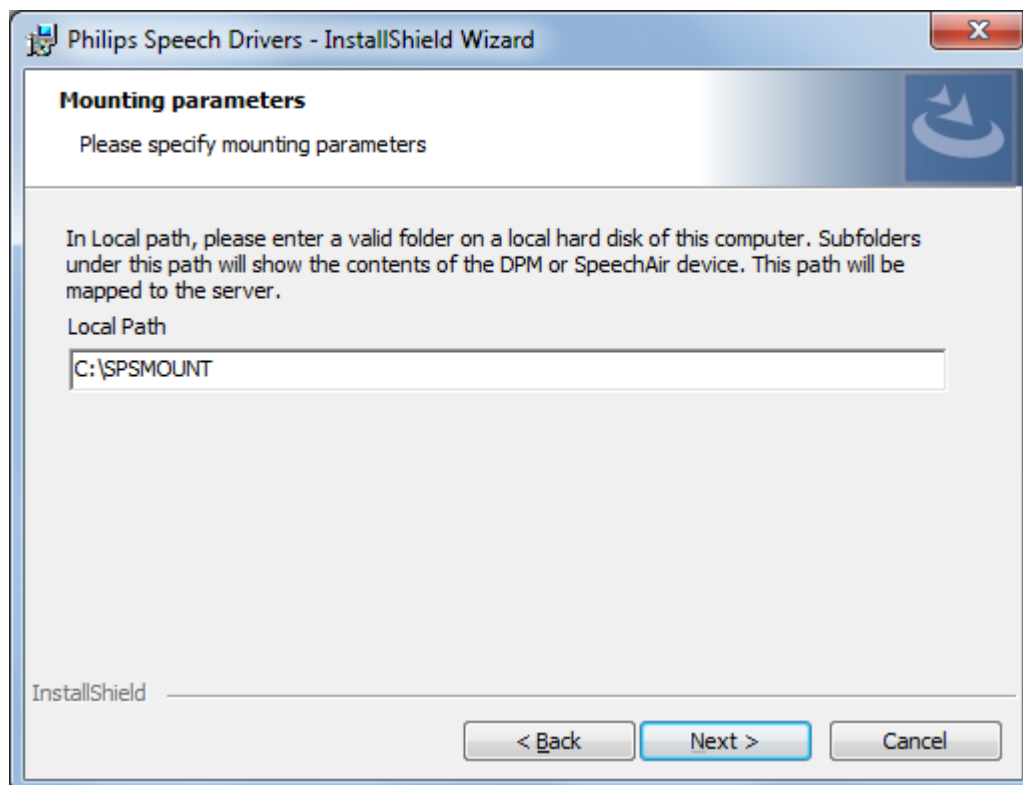


### 5.3.4. VMware Horizon View

This chapter shows the VMware Horizon View client installation settings.

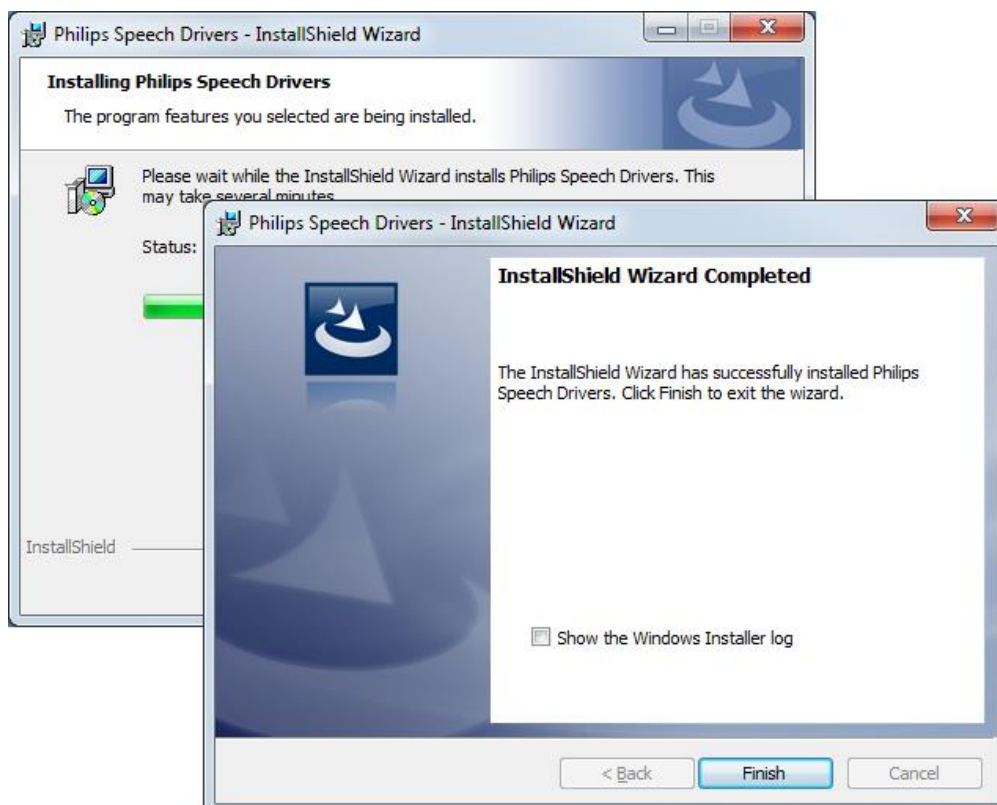
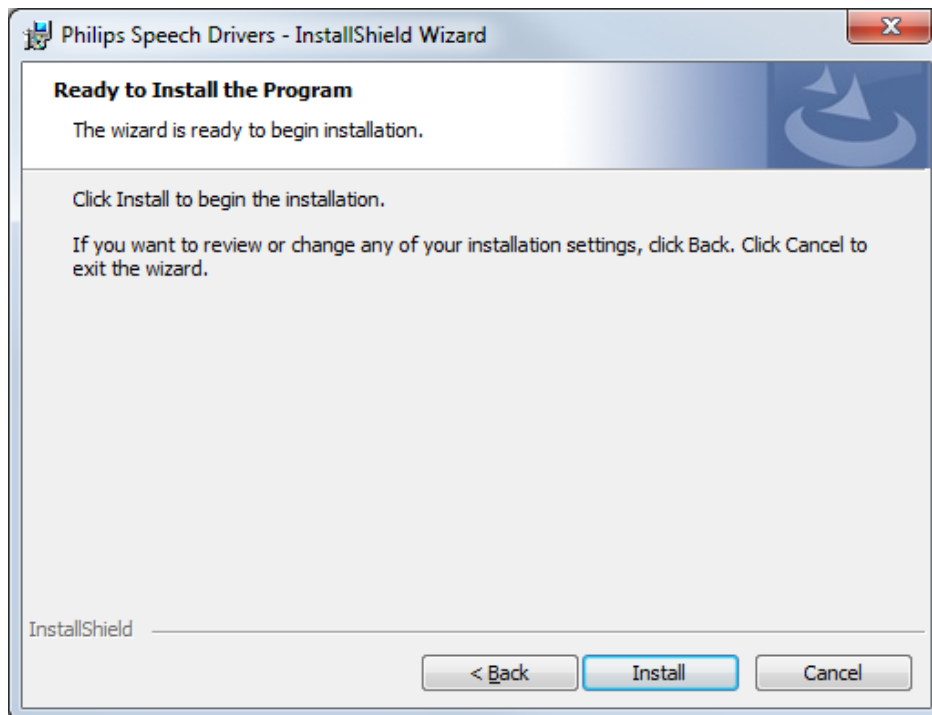


Select the options as displayed in the screenshot and click **Next**.



### 5.3.5. Finish installation

If all the settings were correct click **Install**



The InstallShield Wizard has successfully installed the Philips Speech Drivers on your computer. Click button **FINISH** to exit the wizard.

## 5.4. Command line installation – silent setup

You can use the following setup types:

**Normal** (interactive) **setup**: PhilipsSpeechDriversSetup.exe [exe\_parameters] /V"<MSI parameters>"

**Administrative setup**: PhilipsSpeechDriversSetup.exe /a

**Logged setup**: PhilipsSpeechDriversSetup.exe /V"/l\*v c:\setuplog.txt"

### Basic Setup.exe parameters:

The most important parameters passed directly to PhilipsDeviceControlCenterSetup.EXE (indicated as [exe\_parameters] in the command-line above):

- /a: Administrative installation
- /x: Uninstall mode
- /v: Pass arguments to MSISExec (MSI parameters, see Setup project parameters (MSI parameters))

**Important:** Parameter names and values are case-sensitive!

**Feature parameter names and possible values:**

MCIAUDIO	YES   NO
MCICONTROL	YES   NO
CITRIXCLIENTEXTENSION	YES   NO
CITRIXSERVEREXTENSION	YES   NO
WTSCIENTEXTENSION	YES   NO
WTSSERVEREXTENSION	YES   NO
VMWARECLIENTEXTENSION	YES   NO
VMWARESERVEREXTENSION	YES   NO

The default values depend on the operating system version and the installed components:

- MCIAUDIO and MCICONTROL is installed for non-server operating systems
- CITRIXCLIENTEXTENSION can be installed only if Citrix client is already installed
- CITRIXSERVEREXTENSION, WTSSERVEREXTENSION and VMWARESERVEREXTENSION cannot be installed on the same computer

### **Example**

PhilipsSpeechDriversSetup.exe /V"/qn MCIAUDIO=NO"

## 6. Trouble shooting Linux

The following components have to be installed on Linux clients.

Binary	Path	Control/ DPM	Audio	Mixer	Description
DPMMountd	bin	X			DPMMounter daemon
libCtxHIDManagaerRemote.so	lib	X			Control channel lib
libCtxMixerAlsa.so	lib			X	Mixer lib
libCtxSbExtAlsa.so	lib		X		Sound lib
libpsqp.so	syslib		X		QP library
libpspusb.so	syslib	X	X	X	Philips USB lib
VDPSPAUD.dll	ICA client		X		Citix VirtualDriver for Audio
VDPSPHID.dll	ICA client	X			Citix VirtualDriver for Control
VDPSPMIX.dll	ICA client			X	Citix VirtualDriver for Mixer
PSPDeviceTest	bin				libpspusb test tool
PSPDiag	bin				simplified test tool for pspusblb
PSPDPMEventMonitor	bin				DPMMountd test tool

### Path details:

bin: standard bin directory (/usr/bin/)  
lib: same as LIB\_DIR setting in module.ini, or in standard lib directory  
syslib: standard lib directory (/usr/lib/)  
ICA client: base directory of Citrix ICA client (/usr/lib/ICAClient)

**Module.ini** in ICA client dir/config/

[PSPHID]	Control	
LIB_DIR=/usr/lib/ICAClient	Control	directory where libCtxHIDManagerRemote.so is located
LIB_NAME=libCtxSpmike.so	Control	
DriverName = VDPSPHID.dll	Control	
[SpeechMikeAudio]	Audio	
DriverName = VDPSPAUD.dll	Audio	
LIB_DIR=/usr/lib/ICAClient	Audio	directory where libCtxSbExt.so is located
LIB_NAME=libCtxSbExtAlsa.so	Audio	
LIB_NAME=libCtxSbExt.so	Audio	
FORCE_PCM=0	Audio	Disable(1) or enable(0-default) ds2 codec. Use this on computers with slow CPU
[SpeechMikeMixer]	Mixer	
DriverName = VDPSPMIX.dll	Mixer	
LIB_DIR=/usr/lib/ICAClient	Mixer	directory where libCtxMixer.so is located
LIB_NAME=libCtxMixerAlsa.so	Mixer	

### Logging:

**Warning:** Enabling logging can extremely slow down performance and can cause the system to hang.

ini file	path	module
pspusblb.ini	current working directory	libpspusblb
pspaud.ini	current working directory	citrix audio
psphid.ini	current working directory	citrix control
pspmix.ini	current working directory	citrix mixer

current working directory = the directory where you start the application from

### Example (psphid.ini):

```
# Enable or Disable
Enable=y
# Filename for LOG file
FileName=./psphid.log
# enable/disable log function entries/exits
LogFunction=y
# enable/disable log variables
LogVariable=y
# enable/disable log comments
LogComment=y
# enable/disable log events
LogEvent=y
# enable/disable log errors
LogError=y
```

## 7. Trouble shooting Windows

The following components should be installed by PhilipsSpeechDriversSetup.exe:

					SpeechExec Enterprise			
					SpeechExec SDK			
					SmExAudio			DPMCtrl
Binary	Path	Local	Client	Server	Control	Audio	Mixer	DPM
PSPDispatcher.exe	SYSTEM 32 bit always			X	X			X
XMCIPSPCT.dll	SYSTEM	X	X	X	X			
XMCIPSPA.dll	SYSTEM	X	X	X		X		
XPSPACIn.dll	ICA Client		X			CTX		
XPSPAPDRV.dll	SYSTEM	X	X	X		X		
XPSPAUDRV.dll	SYSTEM	X	X	X		X		
DPMMounterSvc.exe	SYSTEM		X					X
XPSPDDI.dll	SYSTEM	X	X	X		X		
XPSPDSS.dll	SYSTEM	X	X	X		X		
XPSPFIDRV.dll	SYSTEM	X	X	X		X		
XPSPLOG.dll	SYSTEM	X	X	X	X	X	X	X
XPSPMCIn.dll	ICA Client		X				CTX	
XPSPMP3.dll	SYSTEM	X	X	X		X		
XPSPSBEXT.dll	SYSTEM	X	X			X		
XPSPNCIn.dll	ICA Client		X		CTX			X
XPSPSBEXTCtxSrv.dll	SYSTEM			X		CTX		
XPSPWAVE.dll	SYSTEM	X	X	X		X		
XPSPWMA.dll	SYSTEM	X	X	X		X		
smcelp32.acm	SYSTEM	X	X	X		X		
XPSPSBEXTVMWareHorizonSrv.dll	SYSTEM			X	V	V	V	V
XPSPSbExtWtsCInt.dll	SYSTEM		X			W/V		
XPspSbExtWtsSrv.dll	SYSTEM			X		W		
XSpMikeCtxSrv.dll	SYSTEM			X	G5			
PSPWTSControlClient.dll	SYSTEM		X		W/V			
XPSPMixerWtsCInt.dll	SYSTEM		X				W/V	
XSpMikeWtsSrv.dll	SYSTEM			X	W			
XPSPCCIn.dll	ICA Client		X		G5			

### Remarks:

**SYSTEM:** System32 or SysWOW64

**CTX:** In case Citrix is used

**W:** In case WTS/RDS is used

**V:** In case VMware is used

**G5:** In case of 32 bit and Citrix the SpMikeCtrl.dll is compatible with the G5 Control client (32 bit SpeechMike SDK only)

**ICA Client:** The folder of the Citrix client, where the module.ini is, usually C:\Program Files (x86)\Citrix\ICA Client

On client machines DPMMounterSvc.exe should run as a windows service if DPM redirection is needed

Each component except xpsplog can log using an appropriate <component>.ini located in the same folder. E.g.: XMCIPSPCT.ini

Warning: Enabling logging can extremely slow down performance and can cause the system to hang.

Citrix client components are registered in:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\ICA

Client\Engine\Configuration\Advanced\Modules\ICA 3.0\VirtualDriverEx

MCI registry settings for all installations

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\MCI32

HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows NT\

CurrentVersion\MCI32

Name	Data	Remark
Xdictaudio	xmcipspwa.dll	
XDICTCtrl	XDICTCtrlAlias	
XDICTCtrlAlias	xmcipspct.dll	
XDICTCtrlSrv	xmcipspct.dll	

## 8. Appendix

### 8.1. Installation Desktop Experience

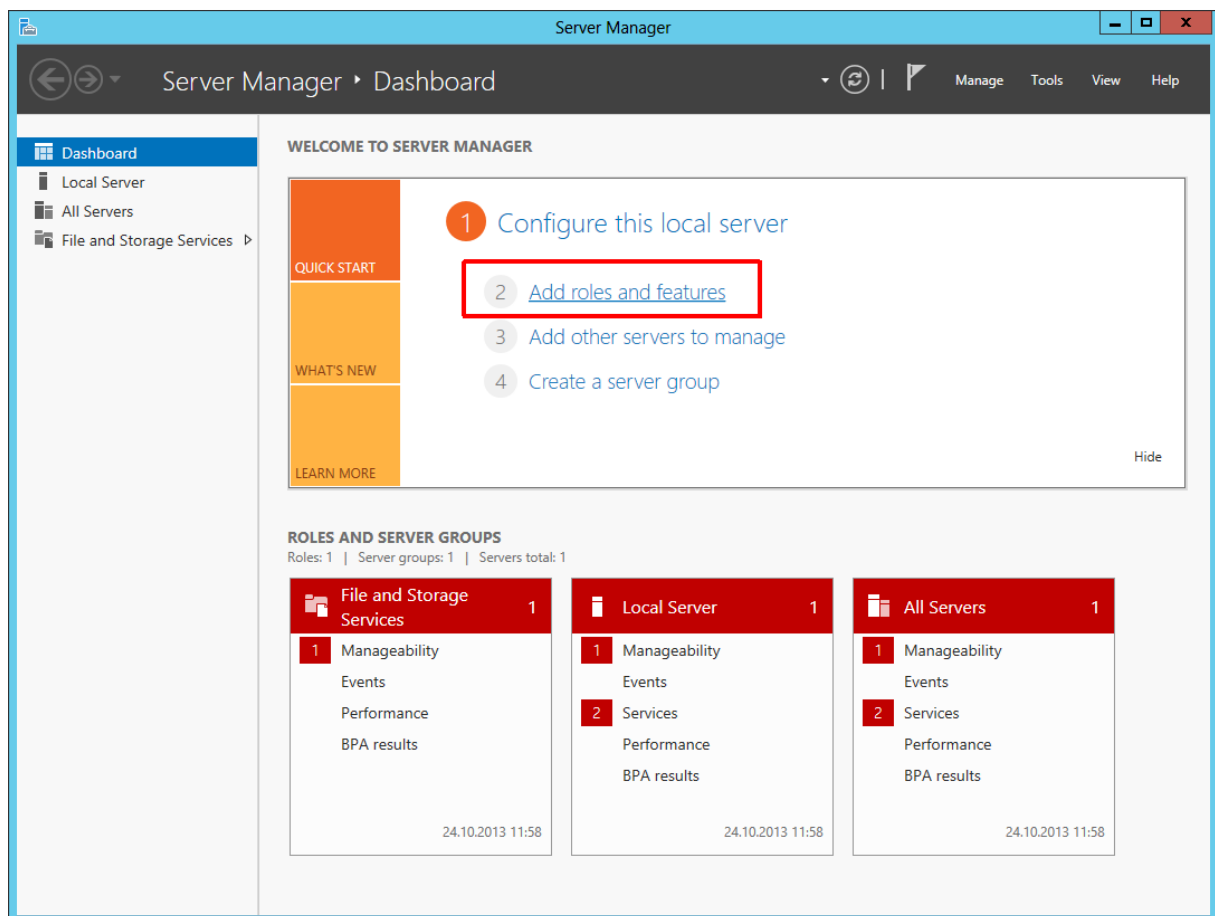
If your server operating system is Windows Server 2008R2 or Server 2012R2, it is required to enable the Desktop Experience feature on your Windows server.

#### 8.1.1. Microsoft Windows Server 2012R2

**NOTE:**

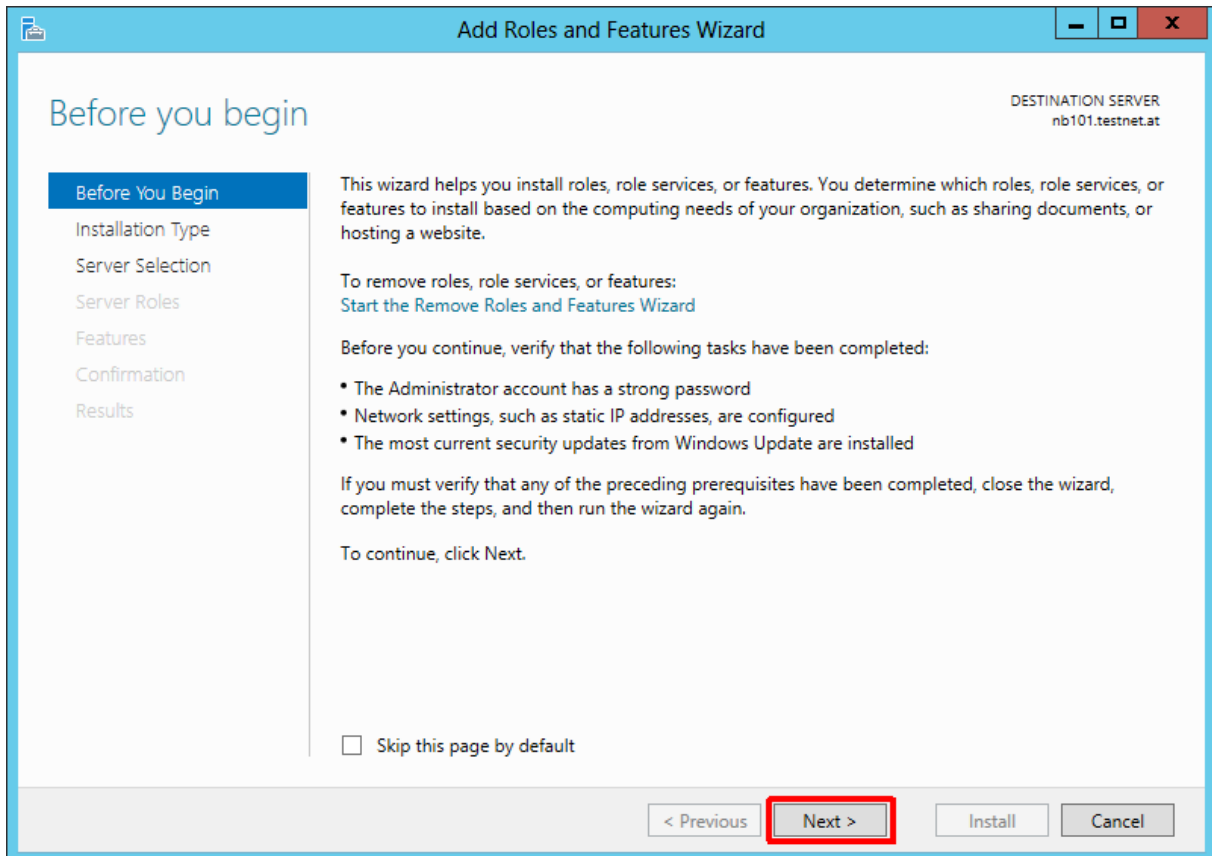
**The Server needs to be restarted after the installation completes.**

In the **Server manager**, select the 2<sup>nd</sup> option – **Add roles and features**

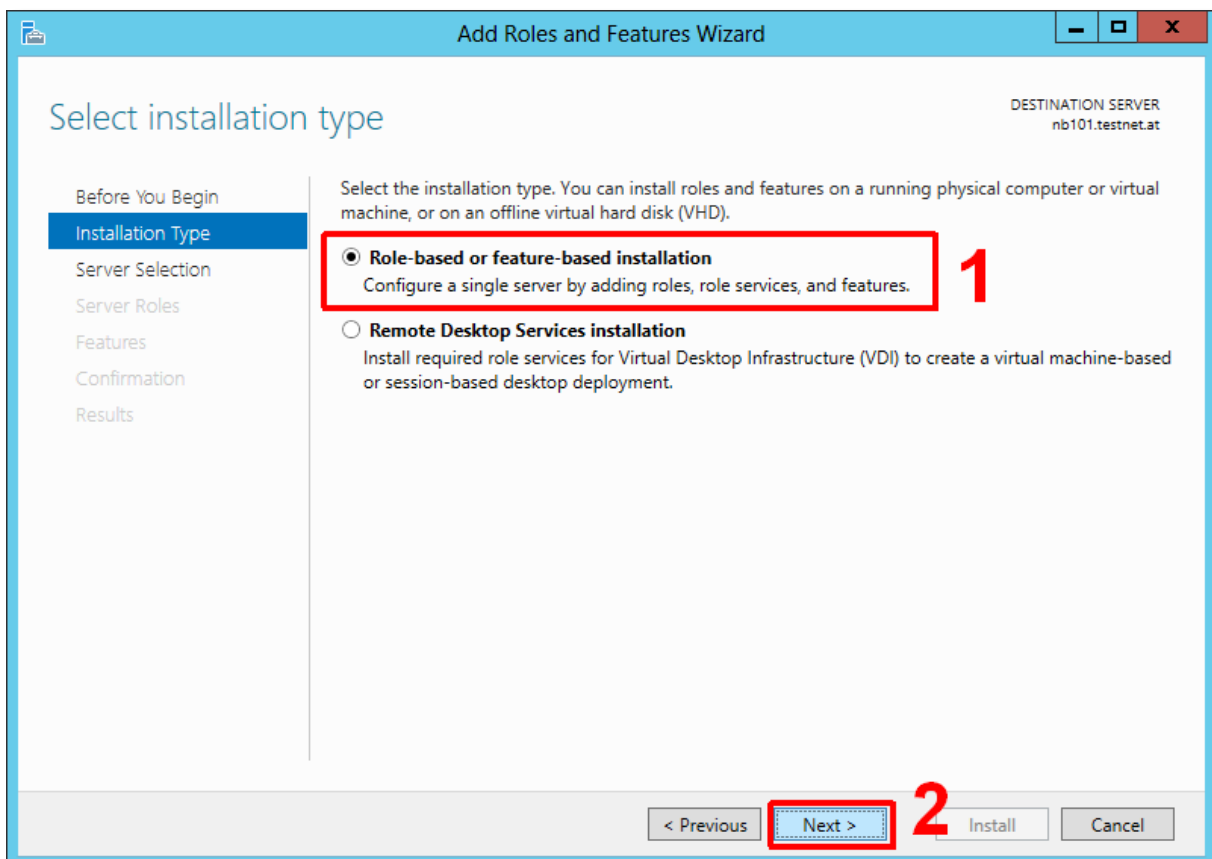




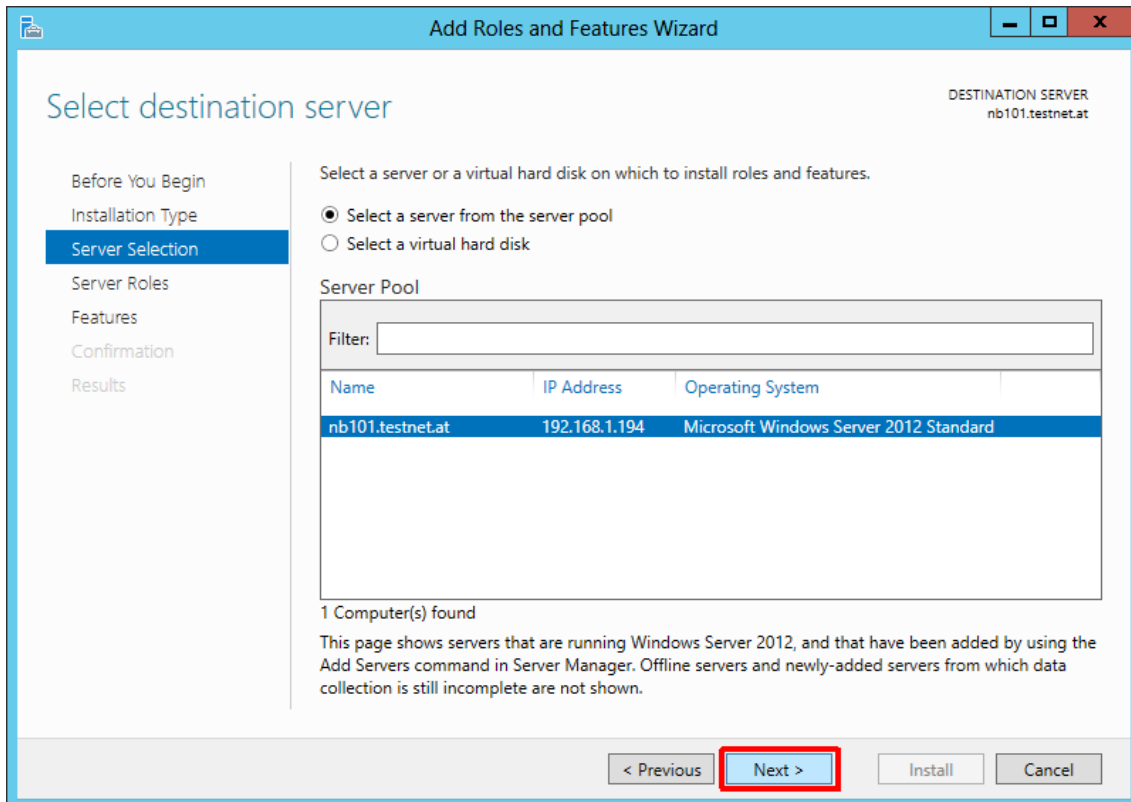
Click on **Next**



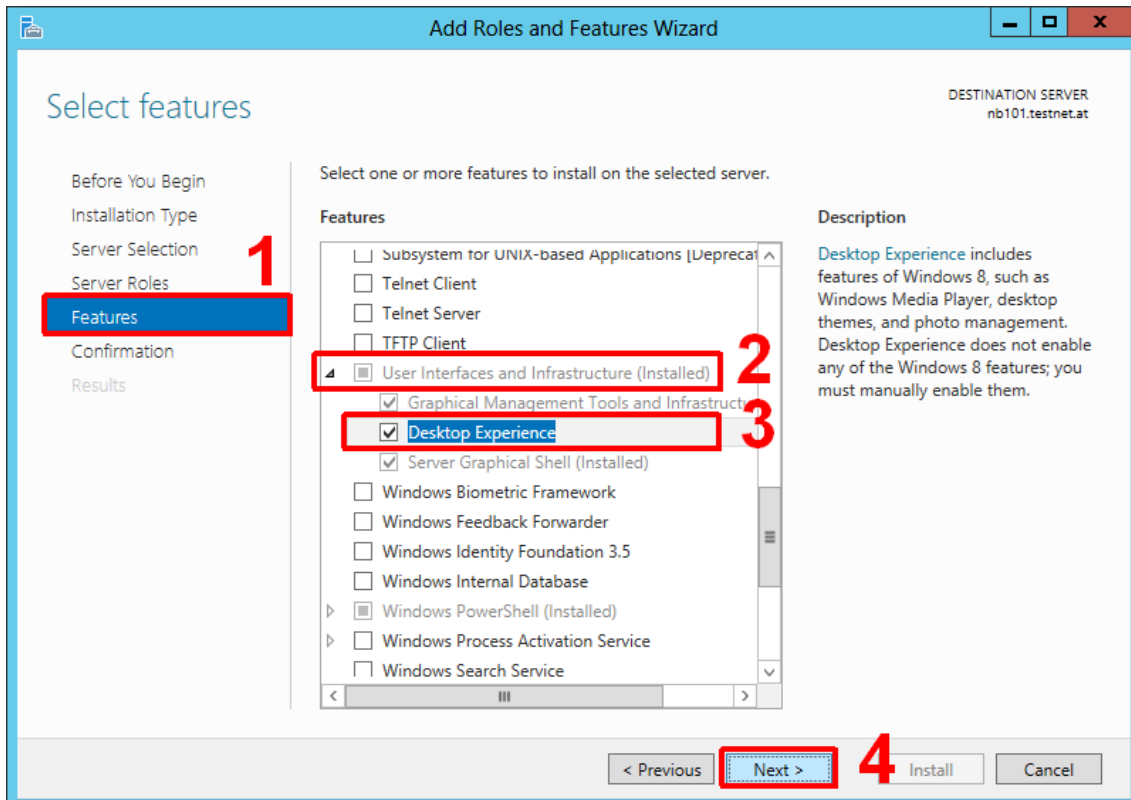
Select the first option [1] – **Role-based or feature-based installation** and click **Next** [2]



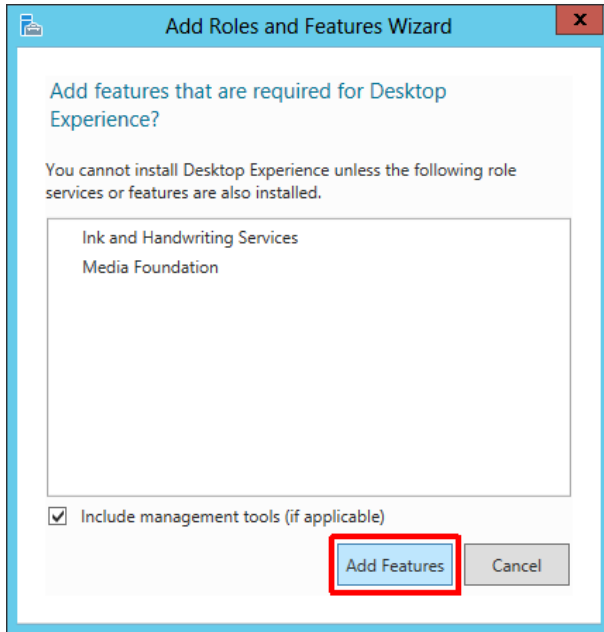
Click **Next**



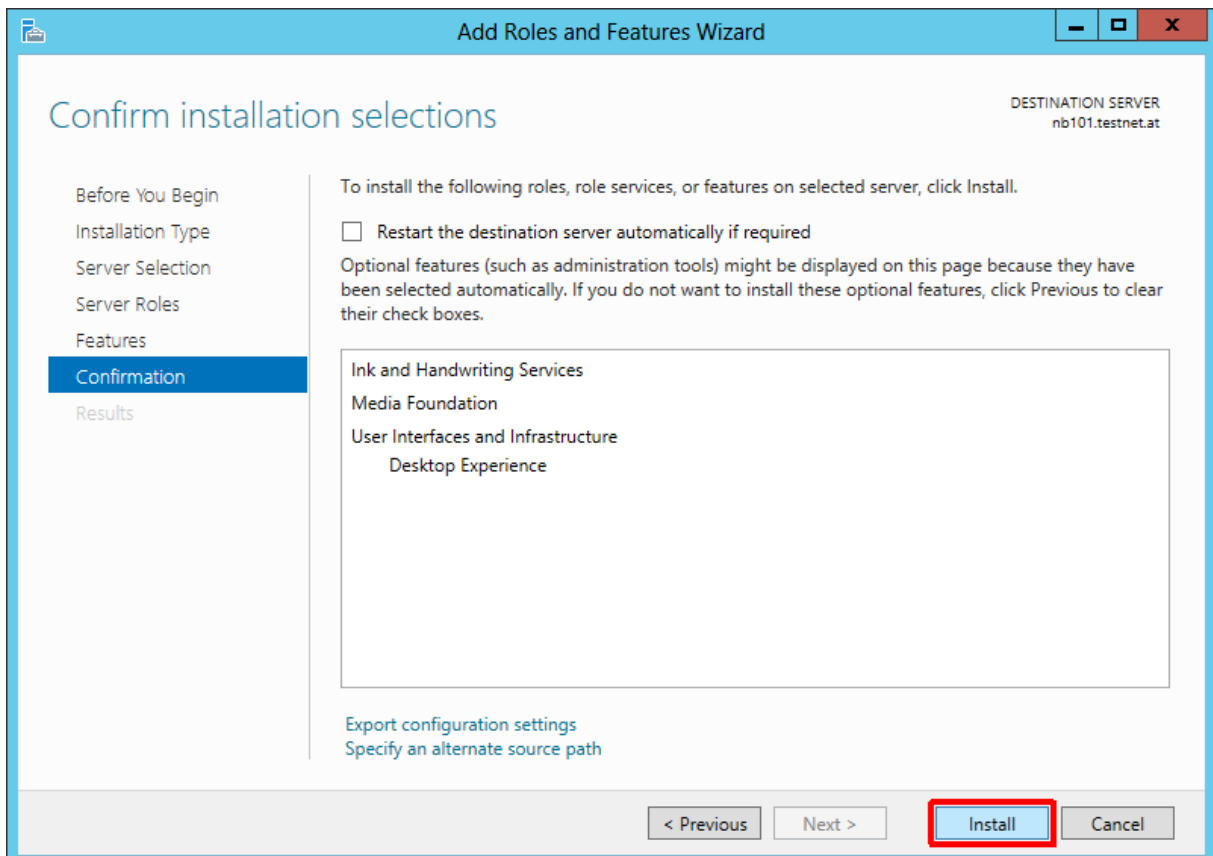
On the **Features** menu [1] select the – **User Interfaces and Infrastructure (installed)**[2] and activate **Desktop Experience** [3] and click finally click on **Next** [4]



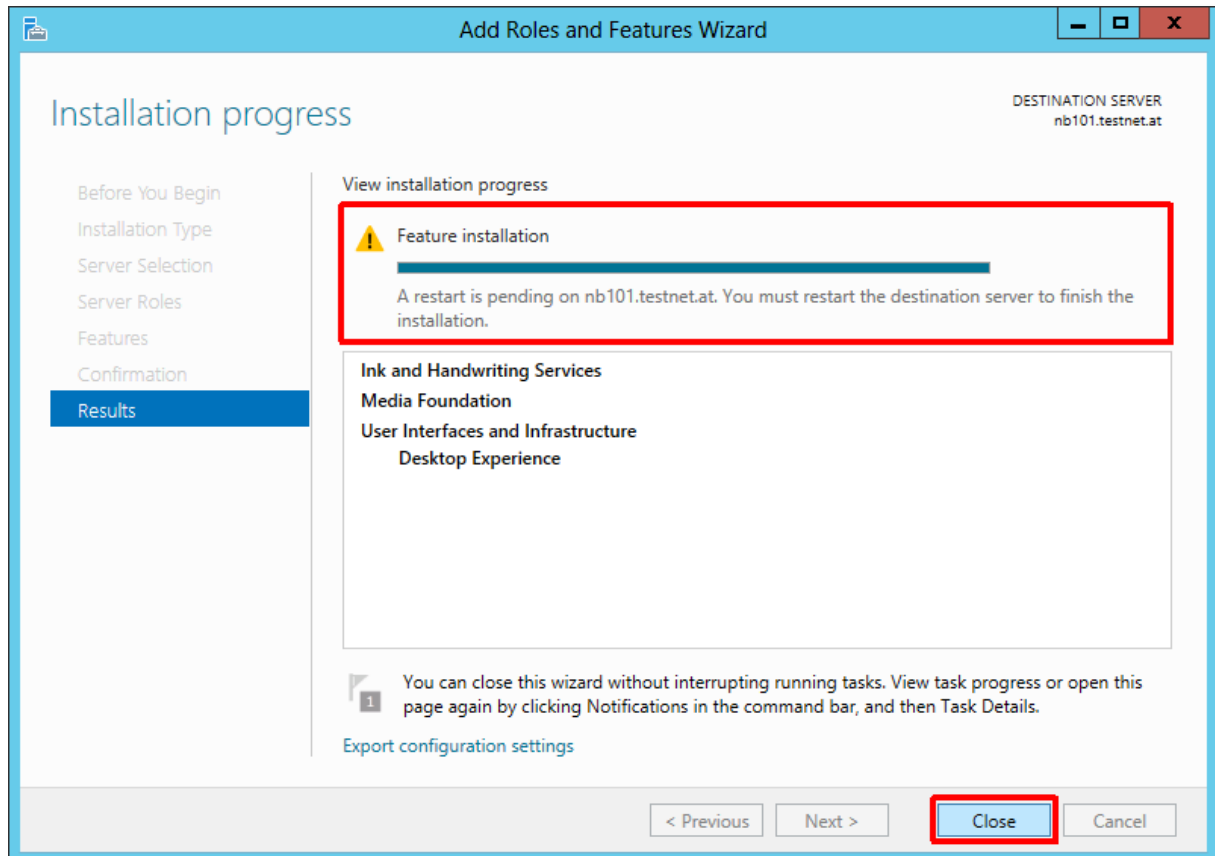
Required components will be installed – click **Add Features**



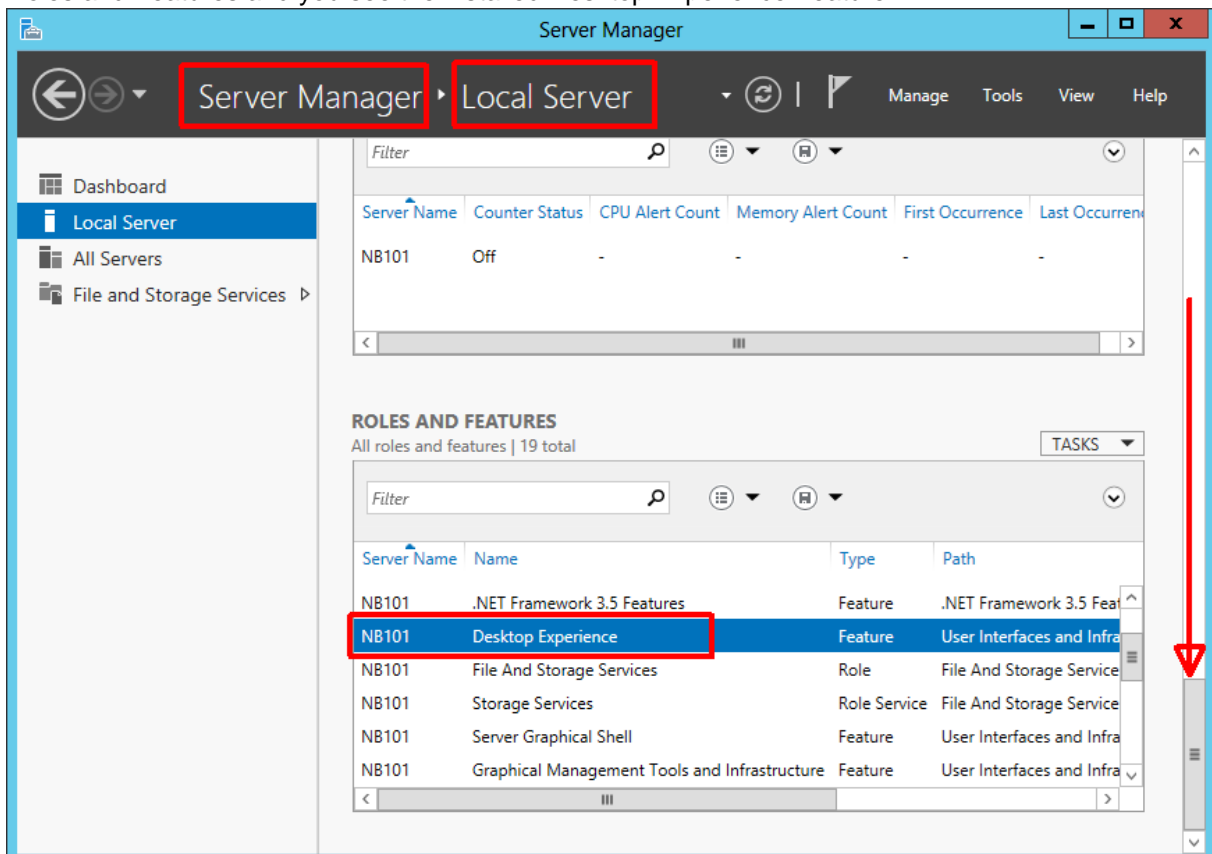
Finally click on **Install**



Installation is ready, click **Close** and **restart** your server.



After Restart please check the Installation – go to Server Manager, open Local Server, scroll down to Roles and Features and you see the installed Desktop Experience Feature.



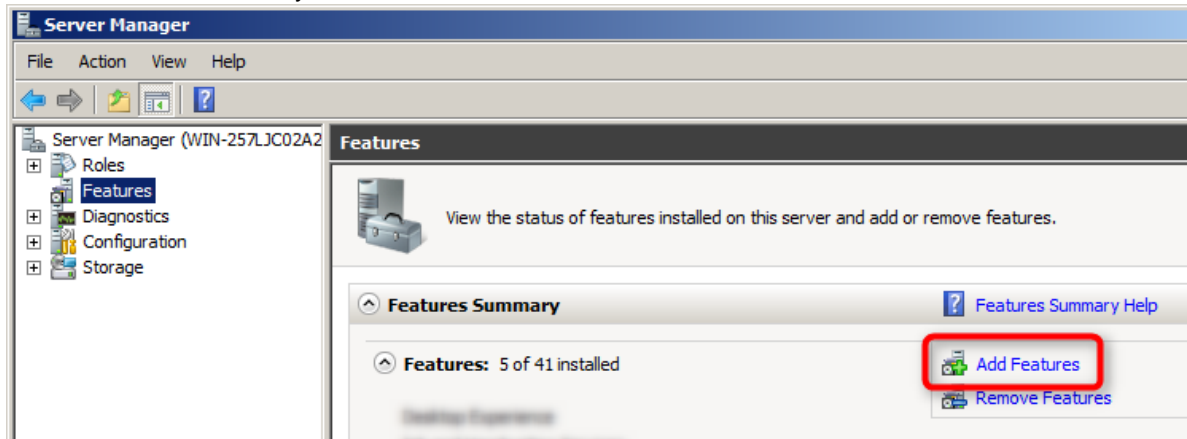
### 8.1.2. Microsoft Windows Server 2008R2

**NOTE:**

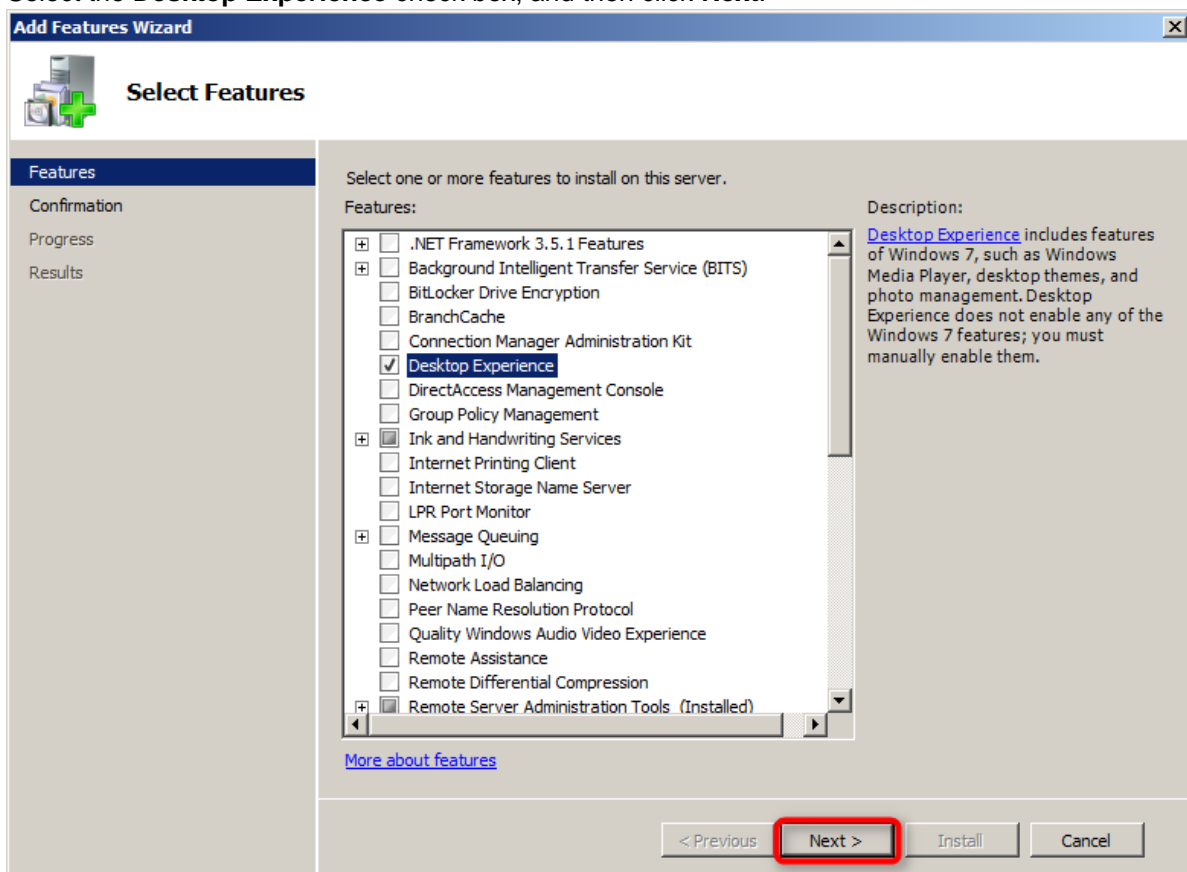
The Server needs to be restarted after the installation completes.

Open **Server Manager**: click **Start**, point to **Administrative Tools**, and click **Server Manager**.

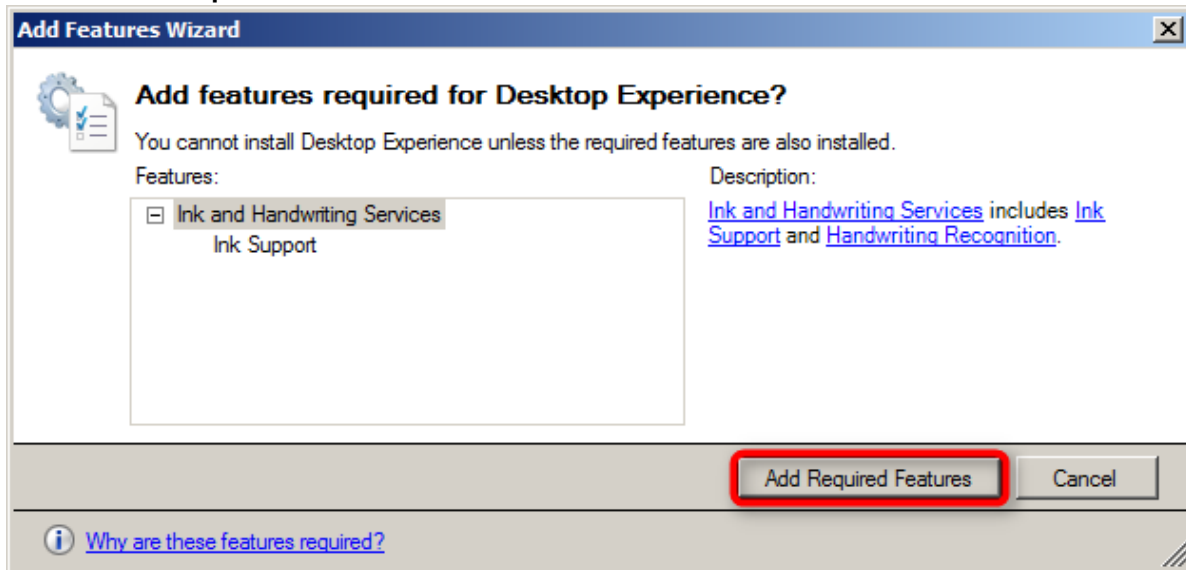
In the Features Summary section, click **Add Features**.



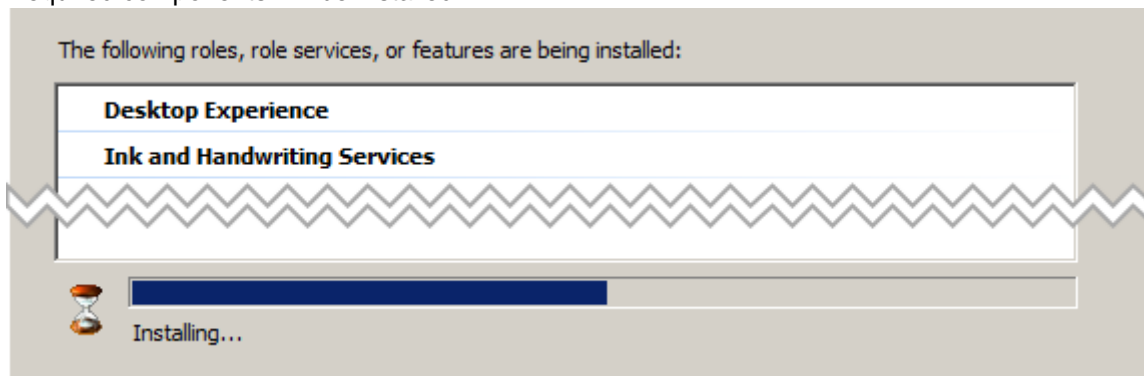
Select the **Desktop Experience** check box, and then click **Next**.



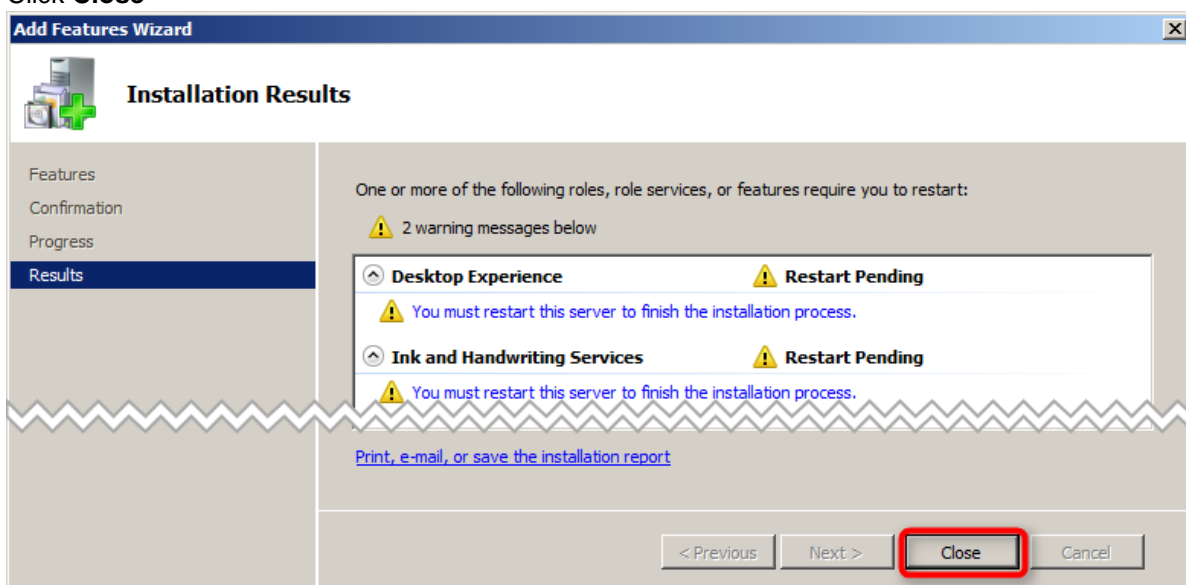
Click on **Add Required Features**



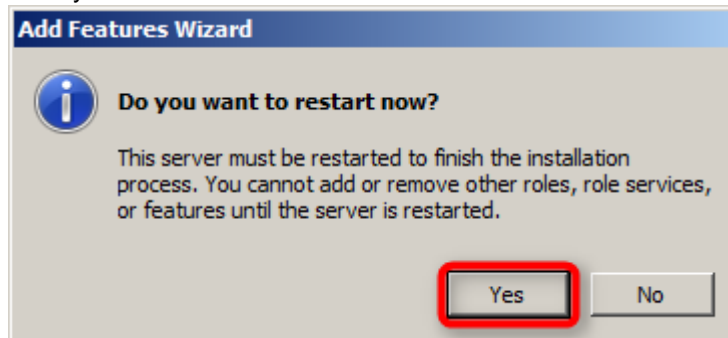
Required components will be installed.



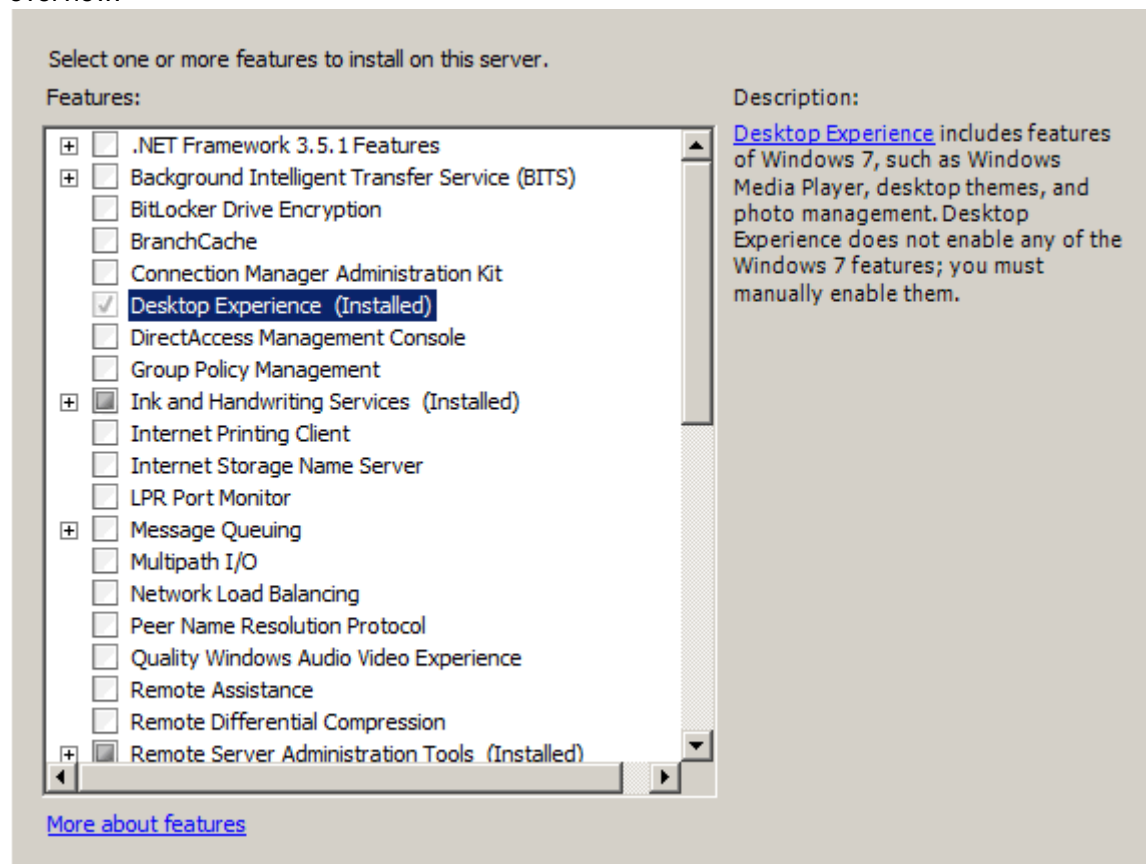
Click **Close**



Finally click on **Yes**



After a **restart** the according Desktop Experience feature is shown as “installed” in the features overview:



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