

TELIA ACE

INSTALLATION MANUAL

ACE CLIENTS

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Note that the information in this document is subject to change.

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1 Introduction

This function design describes how the installation programs for ACE clients works at installation, upgrade and uninstallation.

1.1	Terms and abbreviations
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Term	Description
Client	Refers to the ACE Admin, ACE Agent, ACE Pulse, and ACE Report client applications.
ACE Configuration Utility	Configuration tool that can be installed with a client.
ACE Connector for Skype	Application used when Lync or Skype for Business are used to handle calls in ACE
ACE Interact	Web based agent client for handling contacts in ACE
Registered protocol handler	Allows web applications to send data to desktop applications
TeliaEdgeAgentPop	A registered protocol handler that allows ACE Interact to communicate with ACE Screenpop
ACEConnectorForSkype	A registered protocol handler that allows ACE Interact to communicate with ACE Connector for Skype
InstallShield (IS)	Package tool. Packs files and creates a self-extracting program that will distribute the files according to the configuration.
MSI	Microsoft Installer file.
UAC	User Account Control – a Microsoft security infrastructure

1.2 Appendixes

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1.3 References

- Ref [1] Telia ACE Installed Components
- Ref [2] Operation Manual Telia ACE
- Ref [3] Microsoft Developer Network http://msdn.microsoft.com
- Ref [4] Telia ACE Interface Specification Screen Pop Interface

1.4 Revisions

Rev	Date	Signature	Comment
1.0	2018-06-21	MaTh	Approved for ACE 12.0
			- Rebranded for ACE
2.0	2018-10-23	MaTh	Approved for ACE 13.0
			 Updated with installation info for ACE Connector for Skype for use with ACE Interact
2.1	2019-02-07	MaTh, SoLa	Some extra text added regarding screenpop in ACE Interact
3.0	2020-03-23	PeBe	Revision for ACE 17 and 18.
			Single sign-on with ADFS now requires .NET 4.7.2. or higher on the client workstation.
4.0	2021-02-05	PeBe	Revision for ACE 21. Installation program for ACE Report does no longer contain the .NET Framework (it is however still a prerequisite).

2 MSI installation

Note: Special instructions apply to the installation of ACE Report. See section 3.

You can install an ACE client in two ways:

- 1. Run the MSI installation program in its basic design. Customer unique configurations are made afterwards using Configuration Utility.
- 2. An MSI transform is constructed based on the original MSI installation program, including all configurations. In order to have all the configurations transferred to an MSI transform, you configure all relevant and customer unique information in Configuration Utility and then export what you have configured to a registry file, that you can later attach when constructing an MSI transform. Which keys that shall be exported per client is described in *Telia ACE Installed Components*.

You find an example of registry files in section 0.

2.1 Run MSI installation

By right-clicking on the MSI file for the client and selecting **Properties**, you can see which version of the client that will be installed.

🛃 ACE Agent.msi Pr	operties	X		
General Compatibility Security Custom Details Previous Versions				
Property	Value	•		
Description				
Title	ACE Agent			
Subject	ACE Agent			
Categories				
Tags	Installer,MSI,Database			
Comments	Installs ACE Agent 12.0.0.12			
Origin		=		
Authors	Telia Sverige AB			
Revision number	{4DBBAB7A-B5E6-4FA4-B0AE-41196C79			
Content created	2018-06-13 16:30			
Program name	InstallShield® 2018 - Professional Edition			
File				
Name	ACE Agentmsi			
Item type	Windows Installer Package			
Folder path	C:\callguide\installationer\Bygg installatio			
Date created	2018-06-13 14:30			
Date modified	2018-06-13 14:30			
Size	8,88 MB			
Attributes	А	-		
Remove Properties and Personal Information				
	OK Cancel Ap	ply		

In the release notes for each respective client and version you find a description of which versions of dll:s, if any, that come along in the installation.

You run the installation program (in English) by double-clicking on the MSI file created for the installation.

2.1.1 New installation

This is where you see which version of the client that will be installed.

Reference Agent - InstallShield Wizard			
	Welcome to the InstallShield Wizard for ACE Agent		
	The InstallShield(R) Wizard will install ACE Agent 12.0.0.12 on your computer. To continue, click Next.		
	WARNING: This program is protected by copyright law and international treaties.		
	< Back Next > Cancel		

Select whether the client shall be installed for all using this computer or just for the one installing.

🖟 ACE Agent - InstallShield Wizard	×
Customer Information Please enter your information.	
User Name:	
FirstName LastName	
Organization:	
Telia Company	
Install this application for:	
Anyone who uses this computer (all users)	
Only for me (TeliaSonera)	
TestellChield	
- Back N	ext > Cancel

As default the client is installed in Windows program folder. However, you have the option of changing to any folder.

💦 ACE Ager	nt - InstallShield Wizard	X
Destinatio	on Folder t to install to this folder, or click Change to install to a different folder.	
	Install ACE Agent to: C:\Program Files (x86)\ACE\	Change
InstallShield -		
	< Back Next >	Cancel

If you choose "Complete" setup, the client is installed with all available languages, ACE Configuration Utility and a component for single sign-on. The latter requires you to have .NET Framework 4.7.2 (or newer) installed.

If you choose "Custom" setup, you can choose what to install, you can e.g. skip languages that will not be needed. For further information about settings for which language to be used by the application, see *Operation Manual Telia ACE*



When a component has been selected, you see a description together with information about the disk space required for this component.

🖟 ACE Agent - InstallShield Wizard	X
Custom Setup Select the program features you want installed.	
Click on an icon in the list below to change how a feature is inst Agent ACE Agent Agent ACE Agent Single Sign On Swedish Finnish Norwegian Janish German French ACE Configuration Utility Swedish	alled. Feature Description Include if single sign on is required. Requires .NET Framework 4.5. This feature requires 0KB on your hard drive.
Install to: C:\Program Files (x86)\ACE\ InstallShield Help Space < Back	Change Next > Cancel

By clicking on the arrow next to a component, you see a menu where you can choose not to install the component, unless it is a mandatory component.

🖟 ACE Agent - InstallShield Wizard	X
Custom Setup Select the program features you want installed.	
Click on an icon in the list below to change how a feature is insta	alled.
Agent ACE Agent	Feature Description Include if single sign on is
 This feature will be installed on local had a subfeatures, will be This feature, and all subfeatures, will be 	ard drive. e installed on local hard drive.
This feature will be installed when requ	iired.
This feature will not be available.	
Swedish	
Install to: C:\Program Files (x86)\ACE\	Change
InstallShield Help Space < Back	Next > Cancel

2021-04-12

🖟 ACE Agent - InstallShield Wizard	X		
Custom Setup Select the program features you want installed.			
Click on an icon in the list below to change how a feature is insta	alled.		
	Feature Description		
Single Sign On Swedish Finnish Norwegian	Used to configure settings for ACE clients, e.g. connections and log settings.		
German German French ACE Configuration Utility Swedish	This feature requires OKB on your hard drive. It has 0 of 1 subfeatures selected. The subfeatures require OKB on your hard drive.		
Install to:			
Te stall Chield	Change		
Help Space < Back	Next > Cancel		

When all settings are complete, all files required for each respective component are installed.

Reference Agent - InstallShield Wizard	×
Ready to Install the Program The wizard is ready to begin installation.	
Click Install to begin the installation.	
If you want to review or change any of your installation settings, click Back. Click Cancel to the wizard.	exit
InstallShield < Back Install Ca	incel

Clicking **Install** will bring up the progress bar window and probably a User Account Control confirmation window as well, depending on computer settings.

🖟 ACE Ager	nt - InstallShield Wizard
Installing A	ACE Agent ram features you selected are being installed.
17	Please wait while the InstallShield Wizard installs ACE Agent. This may take several minutes.
	Status:
	Registering product
InstallShield –	
	< Back Next > Cancel

When the installation is finished, configurations must be made in ACE Configuration Utility or directly in Windows Registry to be able to run the client.



2.1.2 Modify, repair, uninstall

By running the same installation file (.msi) once more you have the option of

- modifying the existing installation, e.g. add a language you skipped at the original installation,
- repairing a corrupt installation,
- uninstalling the client. Note that files that have been installed by the installation program and that are shared by other programs will not be uninstalled in case they are still required by the other programs.

2.1.3 Upgrade

A new version of a client comes in a new .msi file. If you double-click on this file, the previous installation will be removed automatically during the install.

2.2 MSI transform

A transform is in itself an .msi file, replacing an existing msi installation. In its simplest form an msi installation is an .msi file, e.g. ACE Agent.msi. When you create a transform from ACE Agent.msi, you can replace ACE Agent.msi with the transform file, which is e.g. named SpecialAgent.msi.

Via the transform you can add unique configurations, for example, the transform can create extra registry keys and copy extra files to a specified search path.

2.2.1 Example - Building an MSI transform

In this section you find an example of how you, in InstallShield 2018 Spring, create an MSI transform that modifies an existing installation file of the .msi type.

1. In InstallShield, select File/New...



2. In the opened dialog, select the Windows Installer tab and select **Transform**. Give the transform a name and location on the computer for the transform.

New Project							X
Common Ins These proje InstallShield	tallScript Window oct types use the M	ws Installer 🛛	All Types ows Installer (MS	I) setup eng	ine, like projects	previously bu	ilt with
Basic MSI Project	Merge Module Project	QuickPatch Project	MSI Database	MSM Database	Transform	InstallScript MSI Project	
Visual Basi .NET Wizar	c C# .NET d Wizard	Visual C++ .NET Wizard	staller service to	drive the ent	ire installation.		
Project Name: Agent Registry	Transform		Project <u>L</u> an	guage		•	
Location:							
C:\InstallShiel	d 2018 Projects					•	Browse
<mark>√ C</mark> reate proje	ect file in 'Project	Name' subfold	er				
Help						ОК	Cancel

3. A dialog sequence is initiated. Click on **Next** in the first pane.



4. In the next pane you have to specify which MSI installation you want to transform. Pick an earlier created .msi file. Click on **Next**.

Open Transform Wizard	X
Transform Information Specify the name of the base MSI file	
Provide the name of the MSI file to which the transform will be applied.	
C:\InstallShield 2018 Projects\Agent Registry Transform\Agent Registry Transform.Mst	
B <u>a</u> se MSI File Name:	
C:\Users\Default\ACE Agent.msi	
	B <u>r</u> owse
< <u>B</u> ack <u>N</u> ext > Cancel	Help

5. In the following pane you must specify any further transforms that shall apply. Click on **Next**.

Open Transform Wizard				2	۲.
Additional Transforms Specify additional transforms to apply before editing the MSI file				ŀ]
Provide a list of additional transforms to be applied.	2	×	†	÷	
< Back Next > Cancel			Help)	

6. In the next pane you can specify if you want to create a so-called Response Transform. If you do so, a simulation of the installation is run. All the values you specify in the dialogs in this simulation will be saved and these values will be specified when you run the transform. You can also specify command line parameters to be sent to the .msi file when it is run.

Open Transform Wizard					
Create a Response Transform Select the checkbox to create a response transform.					
Choosing to create a response transform will launch the user interface of the msi after completing this wizard. The selections you make in the user interface will be saved to the new transform.					
Create response transform Specify the command line properties, separated by a semicolon (;), that will be passed to the Windows Installer package while creating the response transform.					
Command line properties (optional):					
< <u>B</u> ack Finish Cancel Help					

7. Click on **Finish** (when the simulated installation is done). A transform is now created. Below you see Project Assistant:



- 8. In Project Assistant a number of properties for the transform can be specified. During the Installation Architecture you specify the parts of the original installation that shall be included in the transform.
- 9. In case you want to modify what is to be installed, you tick **Yes** under "Do you want to customize your Installation Architecture?". If you e.g. do not want to install ACE Configuration Utility, you select the corresponding feature and click on the **Delete** button.



 Under Application Files you specify the files to be included in the transform. Here, as well, we are going to remove ACE Configuration Utility (unless it shall be installed). You do this by right-clicking on the folder with the files and selecting Delete:



11. To add a new file, you use the **Add Files** button. A dialog is opened, where you can point to a file:

<mark>ి</mark> Open				X
🚱 💬 📕 🕨 Computer 🕨 System (C:) 🕨	Windows > System32	• •	✓ Search System32	Q
Organize New folder			≣ ▼ □	0
Name	Date modified	Туре	Size	•
🕡 wextract.exe	2016-02-14 21:09	Application	136 KB	
where.exe	2009-07-14 03:14	Application	35 KB	
whoami.exe	2009-07-14 03:14	Application	42 KB	
🥩 wiaacmgr.exe	2009-07-14 03:14	Application	87 KB	
wimserv.exe	2010-11-21 04:24	Application	320 KB	
🔳 wininit.exe	2009-07-14 03:14	Application	94 KB	
winrs.exe	2016-12-09 03:50	Application	39 KB	
winrshost.exe	2016-12-09 03:50	Application	21 KB	
lange winver.exe	2009-07-14 03:14	Application	78 KB	
wlanext.exe	2009-07-14 03:14	Application	76 KB	
wowreg32.exe	2009-07-14 01:16	Application	14 KB	
WPDShextAutoplay.exe	2009-07-14 03:14	Application	30 KB	
🛃 write.exe	2009-07-14 03:14	Application	9 KB	
🕳 wscript.exe	2013-10-12 03:15	Application	139 KB	
😚 vsgraphicsremoteengine.exe	2015-02-26 17:32	Application	3 918 KB	
vsjitdebugger.exe	2015-07-07 00:51	Application	314 KB	
WSManHTTPConfig.exe	2016-12-09 03:51	Application	32 KB	
wsmprovhost.exe	2016-12-09 03:51	Application	36 KB	=
Vscadmin eve	2000-07-14 02:14	Application	112 KR	*
File name: whoami.exe		-	All Files (*.*)	•
			Open Cance	

12. When you have selected the file you must choose the way to send it along in the transform. Specify "In a new CAB file" and tick "Stream the new CAB file into the Windows Installer package" – the new file will be incorporated in the transform file.

Note: It seems that this choice only available after having created the msi package once, i.e., if this checkbox is grey, try executing steps 19+20. Then you should be able to tick the choice.

Select Media Location				
Choose where to place the new file(s) on the source media. If you are creating a CAB file, you can stream the file(s) into the package.				
File Location				
On the source media (uncompressed)				
In a new CAB file				
✓ Stream CAB into the Windows Installer package				
Extract COM information				
Help OK Cancel				

13. Under the Application Registry title, you can add registry keys that shall be created by the transform:



14. To record a file with registry entries (.reg), click on "Import a reg file". Then a dialog sequence is started, where you are allowed to point out a registry file. In the first dialog, select **Browse** and point at the file to be imported. Then click on **Next**:

🕙 Open				X
Computer + System (C	::) ▶ Users ▶ Default ▶	- € 9	Search Default	Q
Organize 🔻 New folder				
Name	Date modified 2016-05-24 13:02	Type File folder	Size	•
Downloads 📙 Favorites	2016-05-24 13:02 2016-05-24 13:02	File folder File folder		
Inks	2017-08-31 14:04 2016-05-24 13:02	File folder File folder		
My Music	2016-05-24 13:02 2016-05-24 13:02	File folder File folder		E
Wy Videos	2016-05-24 13:02 2016-10-20 05:03	File folder File folder		
Saved Games 🔊 connections.reg	2009-07-14 04:35 2018-04-18 14:32	File folder Registration Ent	tries 6 KB	
File <u>n</u> ame: connectio	ns.reg	▼ R	EG Files (*.reg)	-
			<u>O</u> pen Ca	ancel

15. In the next dialog you specify whether the imported registry keys shall be allowed to replace already existing keys:

Import REG File Wizard
Import Conflict Options Select a method for overwriting duplicate keys
While importing data from the Registry file, the wizard may encounter registry keys and values already present in this registry data.
Specify now the wizard should handle duplicate keys and invalid entries.
Overwrite the registry data
If conflicts exist, the wizard will overwrite the registry keys and values with any duplicate keys from the Registry (.reg) file.
Do not overwrite the registry data
If duplicate keys and values are encountered, the wizard will not overwrite the existing registry data.
Log all registry conflicts and errors to a file
C:\InstallShield 2018 Projects\15-28-0306-14-18.log
< Back Import Cancel Help

16. Click on the **Import** button. The registry file is imported. In the next dialog, click on **Finish**:

Import REG File Wizard	X
Finishing Registry Import The wizard will finish importing your registry data in a moment	FI
REG File Import Complete	
B	
Import complete	
Click Finish to close the wizard	
< <u>B</u> ack Finish Cancel Hel	lp

17. To verify that the registry keys have been correctly imported, you can tick the **Yes** radio button and inspect the content of the tree view with registry keys:

Agent Registry Transform (ACE Agent.msi) - InstallShield [Direct MST Mode]		
:]];];];];];];];];];];];];];];];];];];]	-	
File Edit View Go Project Build Tools Window Help		
Start Page Project Assistant Installation Designer		Project Assistant 🐖
Application Registry Enter you applications registry information here. Some applications registry team to determine what entries your application may reg Do you went to configure the registry data that your applic	ed in the Windows Registry. Consult with your product development uirre. costion will install?	
Destination computer's Registry view	Destination computer's Registry data	
 Create an application path. Create an application path. Create an application path. Create an application registry data we placetant registry data we placeta	Name Data	
Application Information Requirements Architecture	Application Application Application Files Shortcuts Registry	Installation Interview
Ready		CAP NUM SCRL "#

18. Under the Installation Interview header you can specify the dialogs that shall be seen by the user. To reduce the number of choices, you tick **No** for all dialogs:

🖸 Agent Registry Transform (ACE Agent.msi) - InstallShield (Direct MST Mode)	- 🗆 <mark>- X</mark>
:〕️️ ↓ り (2) □ ↑ ↓ ← → # ③ ⊕ 迷 益 以 ! 汤 ℡ 健 🛛 🥹 .	
File Edit View Go Project Build Tools Window Help	
Start Page Project Assistant Installation Designer Project	Assistant 🐖
Installation Interview Beyecity the dialogs that are shown by your installation. The Installation Interview is the collection of dialogs that your users will see at run time when they run your installation. By answering these simple questions you can configure the more common elements of the Installation Interview.	
Do you want to display a License Agreement Dialog?	
Yes Custom images on dialogs.	
Other Places Browse	
Diplogs Do you used to expert their Company Name and Hear Name?	
Hote 1 lake	
Should 1 let users modify the Do you want your users to be able to modify the installation location of your application?	
installation location? (Pyes No White is license agreement	
dialog? Do you want users to be able to selectively install only certain parts of your application? White is a "externatively installable" Vest ⊂ Mes	
installation?	
Apprection unstallation Application Application Application installation information Requirements Architecture Files Shortods Registry Interview	
Ready CAP	NUM SCRL

19. To create the very transform file, you select File/Save As...

🕙 Agent Registry Transform - InstallShield [Bas								
🗄 🕒 🖌 । २ ९ । 🗖 🗖 । 🕈 🖊 🔶 । ।								
	File	Edit	View	Go	Project	Build		
		New			Ctrl+	N e		
8	\bigcirc	Open			Ctrl+O			
		Close						
	H	Save			Ctrl+	S		
		Save As						

20. In the opened dialog you select the .msi file type and specify a name for the transform:

Save As							
🕒 🗢 📕 « Sys	tem (C:) 🕨 Transforms 🕨	Agent Registry Transfo	rm 👻 🐓	Search Ag	ent Registry T	9	
Organize 🔹 Nev	v folder					0	
Name	A	Date modified	Туре	Size			
	N	o items match your sear	ch.				
File name: Agent Registry Transform.msi						_	
Save as type:	Windows Installer Packag	jes (*.msi)				•	
) Hide Folders				Save	Cancel		

21. Click on **Save** and the transform is created! To install via the transform you can now double-click on the .msi file:

🕞 💭 🗸 « Transforms 🕨 Agent Registry	Transform	✓ ← Search Ag	ent Registry Transf	Х fo Р
Organize 🔹 👘 Install 🔹 New folder			· · · · ·	0
Name	Date modified	Туре	Size	
Registry Transform.msi	2018-06-14 15:46	Windows Installer	9 102 KB	

2.2.2 Example of a registry file for 32-bit Windows for desktop clients

The following is an example of a registry file where configurations for ACE Admin, ACE Agent, ACE Pulse are included. Note that text after "--" are comments. For more information on what registry keys to include see *Telia ACE Installed Components*.

```
Windows Registry Editor Version 5.00
-- Key to hard code language in ACE Agent
[HKEY LOCAL MACHINE\SOFTWARE\Borland\Locales]
"C:\Program\ACE\Agent\Agent.exe"="SV"
[HKEY LOCAL MACHINE\SOFTWARE\ACE]
"LatestUpdate"="20100323 10:31:22"
[HKEY LOCAL MACHINE\SOFTWARE\ACE\Connections]
"DefaultConnection"="Connection"
[HKEY LOCAL MACHINE\SOFTWARE\ACE\Connections\Connection
"TAPIDriver"="dAnswer - TAPI service"
"TAPIProvider"="dApc"
"DnStorage"="local machine"
"AutoUpdateEndpoints"=dword:0000001
"LocationName"=""
"ScreenPopConfigFile"="Rules.vbs"
[HKEY LOCAL MACHINE\SOFTWARE\ACE\Connections\Connection\xxx.x
XX.XXX.XXX]
"Port"=dword:00003977
[HKEY LOCAL MACHINE\SOFTWARE\ACE\Connections\Connection\yyy.y
yy.yyy.yyy]
"Port"=dword:00003977
-- Log settings for ACE clients
[HKEY LOCAL MACHINE\SOFTWARE\ACE\Logging]
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\ACE\Logging]
"LogSize"=dword:000001f4
"LogFilePath"="%ALLUSERSPROFILE%\\Application Data\\ACE"
"NoOfLogFiles"=dword:00000004
"LogLevel"="Debug"
```

2.2.3 Example of a registry file for 64-bit Windows for desktop clients

The following is an example of a registry file where configurations for ACE Admin, ACE Agent, ACE Pulse, are included. Note that text after "--" are comments. For more information on what registry keys to include see *Telia ACE Installed Components*.

Windows Registry Editor Version 5.00

```
-- Key to hard code language in ACE Agent
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Borland\Locales]
"C:\Program\ACE\Agent\Agent.exe"="SV"
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\ACE]
"LatestUpdate"="20100323 10:31:22"
```

[HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node\ACE\Connections]

```
"DefaultConnection"="Connection"
```

```
[HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node\ACE\Connections\Conn
ection
"TAPIDriver"="dAnswer - TAPI service"
"TAPIProvider"="dApc"
"DnStorage"="local machine"
"AutoUpdateEndpoints"=dword:0000001
"LocationName"=""
"ScreenPopConfigFile"="Rules.vbs"
[HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node\ACE\Connections\Conn
ection\xxx.xxx.xxx]
"Port"=dword:00003977
[HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node\ACE\Connections\Conn
ection\yyy.yyy.yyy.yyy]
"Port"=dword:00003977
-- Log settings for ACE clients
[HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node\ACE\Logging]
"LogSize"=dword:00001f4
"LogFilePath"="%ALLUSERSPROFILE%\\Application Data\\ACE"
"NoOfLogFiles"=dword:0000009
"LogLevel"="Debug"
```

3 ACE Report

A number of differences and limitations apply to the installation of ACE Report.

The installation program for ACE Report is not a single MSI file but in fact a folder structure with the following components:

- A folder with an installation program for the prerequisite component SAP Crystal Reports 32-bit runtime for Microsoft .NET Framework 4.0
- An MSI file for the installation of the ACE Report client
- A setup.exe installing prerequisites and ACE Report

To install correctly, use setup.exe, not the MSI file for ACE Report.

The MSI installation program for ACE Report differs from the installation programs for the other ACE clients:

The installation is built with Microsoft Visual Studio (as opposed to InstallShield) resulting in different style and behaviour in the installation dialogue.

It does not allow for any customization of the features installed. It is thus not possible to de-select installation of language support files or de-select installation of ACE Configuration Utility.

The information in this document regarding how to create an MSI transform has not been validated for ACE Report (or any of its prerequisite components).

When the installation is finished, configurations must be made in ACE Configuration Utility or directly in Windows Registry to be able to run the client.

4 ACE Screenpop used with ACE Interact

When ACE Screenpop should be used with ACE Interact a separate MSI installation program for ACE Screenpop is used. The installation program will install screenpop.exe and required registry settings as described in *Telia ACE Installed Components*. The path set in registry for the script file to be used is the *installation directory*/Screenpop.vbs. This script file, that is customer specific, is however not installed, see Telia ACE Interface Specification Screen Pop Interface.

If path for the script file is to be used, this can be set in screenpop.exe or directly in the registry, manually or via an MSI Transform.

You can for example configure all relevant keys in Microsoft Registry and export your configurations to a registry file that you later attach when constructing an MSI transform. Which keys that shall be exported is described in *Telia ACE Installed Components*.

You find an example of registry files in section 4.1.

In addition to Microsoft Registry settings for ACE Screenpop and TeliaEdgeAgentPop web browser configurations can be made to supress the question asking the users of ACE Interact to approve the use of the Registered Protocol Handler TeliaEdgeAgentPop the first time a screen pop takes place. These configurations are browser specific and are described in *Telia ACE Installed Components*.

Note: When performing a screenpop from ACE Interact only a subset of contact data keys is included in screenpop. For a list of contact data keys that are included see Ref [4].

4.1 Example of registry file for 64-bit Windows for ACE Screenpop with ACE Interact

The following is an example of a registry file where configurations for ACE Screenpop when used with ACE Interact are included. Note that text after "--" are comments. For more information on what registry keys to include see *Telia ACE Installed Components*.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\ACE\EdgeAgent]
"ScreenPopConfigFile"="C:\\Program Files
(x86)\\ACE\\ScreenPop\\Screenpop.vbs"
"ScreenPopPort"=dword:00000521
"LatestUpdate"="20170207 09:00:00"
```

```
[HKEY_CLASSES_ROOT\TeliaEdgeAgentPop]
@="URL:TeliaEdgeAgentPop Protocol"
"URL Protocol"="\"\""
```

```
[HKEY_CLASSES_ROOT\TeliaEdgeAgentPop\DefaultIcon]
@="ScreenPop.exe,1"
```

[HKEY_CLASSES_ROOT\TeliaEdgeAgentPop\shell]

[HKEY CLASSES ROOT\TeliaEdgeAgentPop\shell\open]

```
[HKEY_CLASSES_ROOT\TeliaEdgeAgentPop\shell\open\command]
@="\"C:\\Program Files (x86)\\ACE\\ScreenPop\\ScreenPop.exe\"
\"%1\""
```

5 ACE Connector for Skype

ACE Connector for Skype is installed by running an installation (setup) program. The installation program installs the pre-required Microsoft Lync 2010 SDK Runtime and .Net if not already installed on the computer. ACE Connector for Skype can be run with .NET 3.5 or.Net 4¹.

The installation program adds a shortcut to ACE Connector for Skype in the computer Start-menu.

The installation program will not automatically start ACE Connector for Skype after completed installation unless the computer is restarted. On subsequent user logins ACE Connector for Skype is automatically started since the installation program has added a shortcut to ACE Connector for Skype in the startup folder on the computer.

5.1 ACE Connector for Skype used with ACE Interact

The Installation program for ACE Connector for Skype will, in addition to installation of required files and shortcuts, add Microsoft Registry settings needed when using ACE Connector for Skype with ACE Interact.

The registry keys needed, including the Registered Protocol Handler ACEConnectorForSkype, are described in *Telia ACE Installed Components*.

These configurations can also be done manually or via an MSI Transform.

You can for example configure all relevant keys in Microsoft Registry and export your configurations to a registry file that you later attach when constructing an MSI transform.

You find an example of registry files in section 5.1.1.

In addition to Microsoft Registry settings for ACE Connector for Skype, web browser configurations can be made to supress the question asking the users of ACE Interact to approve the use of the Registered Protocol Handler ACEConnectorForSkype the first time a Skype call should be handled by ACE Interact. These configurations are browser specific and are described in *Telia ACE Installed Components*.

5.1.1 Example of registry file for 64-bit Windows for ACE Connector for Skype with ACE Interact

The following is an example of a registry file where configurations for ACE Connector for Skype when used with ACE Interact are included. For more information on what registry keys to include see *Telia ACE Installed Components*.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\ACE\ACEConnectorForS
kype]
```

```
"ACEConnectorForSkypePort"=dword:000024ee
```

```
[HKEY_CLASSES_ROOT\ACEConnectorForSkype]
"URL Protocol"="\"\""
@="URL: ACEConnectorForSkype Protocol"
```

```
[HKEY_CLASSES_ROOT\ACEConnectorForSkype\DefaultIcon]
@="\"ACEConnectorForSkype.exe,1\""
```

```
[HKEY_CLASSES_ROOT\ACEConnectorForSkype\shell]
```

¹ Later versions of .Net 4 are compatible, in-place updates on top of .NET 4 This means that applications built to target.NET 4 will continue running on .NET 4.x.y without change.

[HKEY_CLASSES_ROOT\ACEConnectorForSkype\shell\open]

[HKEY_CLASSES_ROOT\ACEConnectorForSkype\shell\open\command] @="\"C:\\Program Files (x86)\\ACE\\ACEConnectorForSkype\\ACEConnectorForSkype.exe\" \"%1\""