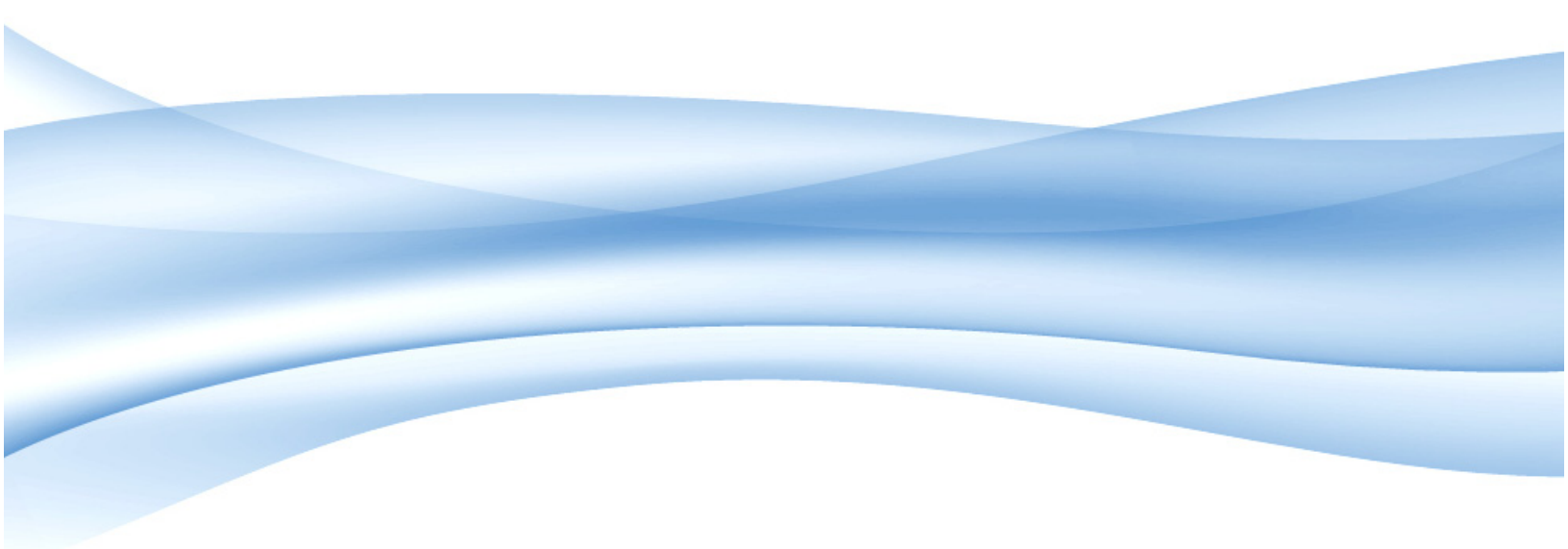


ActivClient CAC 64-bit edition

Installation Guide

Product Version: 6.1



Actividentity®

The trusted choice for identity assurance

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ActivClient CAC 64-bit edition

Installation Guide

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Chapter 1: Introduction

About this Guide

You are going to learn about the following topics:

- Install/Uninstall ActivClient
- Customize the installation
- Deploy ActivClient
- ActivIdentity Device Installer

Audience

- Network or system administrators
- IT support staff
- End users

Assumed knowledge and prerequisites

This document assumes the audience has a good computer knowledge and some understanding of Public Key Infrastructure.

Other documents

This Guide is part of ActivClient set of documents including:

- ActivClient CAC Quick Start
- ActivClient CAC Overview
- ActivClient CAC User Guide
- ActivClient CAC Installation Guide (this document)

Chapter 2: Install/Uninstall ActivClient

This section discusses the following topics:

- ["Installing ActivClient" on page 8](#)
- ["Uninstalling ActivClient" on page 11](#)
- ["Uninstalling ActivClient" on page 11](#)

Installing ActivClient

You are going to learn how to locally install ActivClient. For information regarding remote installation, refer to *ActivClient Customization and Deployment Guide*.

To install ActivClient

Prerequisites

Make sure your system meets the following minimum requirements:

- You have access to ActivClient distribution through either the network or the ActivClient CD-ROM.
- You have local administrative rights on your workstation.
- Your workstation is configured with a supported operating system: Windows Vista 64-bit or Windows Server 2003 64-bit. For more information, refer to *ActivClient CAC Overview*.

Note: If you have a 32-bit operating system with Windows 2000 SP4, Windows XP SP1 or SP2, Windows Vista or Windows Server 2003, use ActivClient 6.1 (32-bit edition). Contact your ActivIdentity reseller for a copy of ActivClient (32-bit edition).

1. Insert your ActivClient CD-ROM. If the ActivClient Installer page does not appear automatically, run start.exe from the CD-ROM.
2. Click on **Quick Install** from the **Welcome Page** to start the installation procedure.

–Or–

Run Setup.exe located in the \Product folder of the CD-ROM.

Your system is updated automatically with:

- Microsoft Visual C++ 2005 run-time libraries (32-bit)
- Microsoft Visual C++ 2005 run-time libraries (64-bit)

The Welcome to the InstallShield Wizard is displayed.

3. Click **Next**.

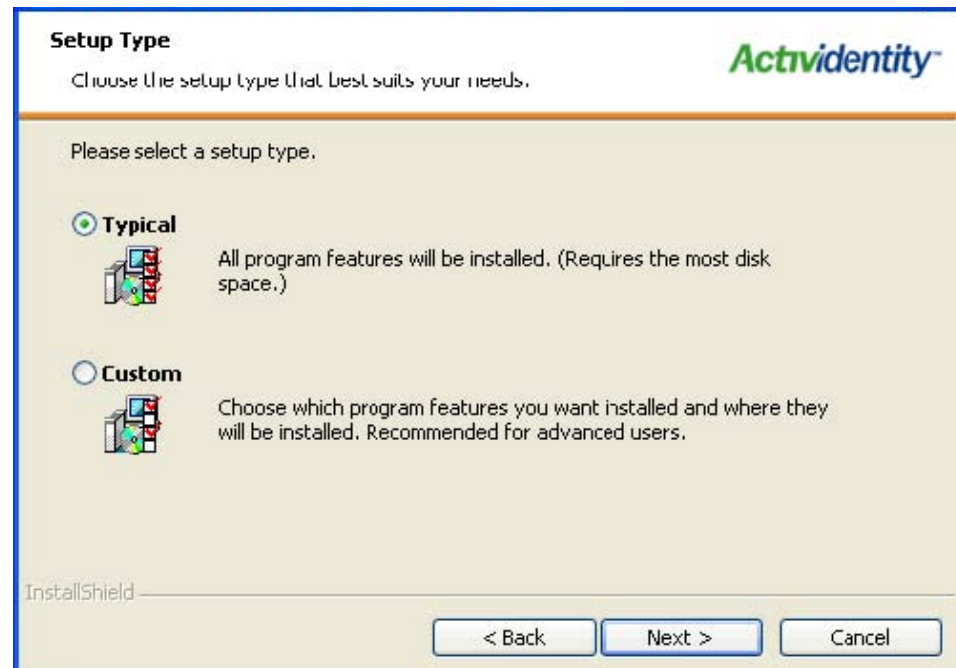
The **License Agreement** page is displayed.

4. Read the license agreement then do one of the following:

- If you wish to proceed with the execution of the License Agreement, select **I accept the terms in the license agreement**, and click **Next**.
- If you do not wish to proceed with the execution of the License Agreement, select **Cancel** to quit the setup.

The **Setup Type** page is displayed.

5. Leave the setup type at the default setting (Typical), and click **Next**. If you want to choose which feature to install click **Custom** and see "[Customizing ActivClient installation](#)" on page 12.



6. Click **Install** on the **Ready To Install the Program** page.

The **Setup Progress** page is displayed. The progress may take several minutes.

7. Once the setup is completed, the **InstallShield Wizard Completed** page is displayed. Click **Finish**.
8. Select the **Show the readme file** check box to automatically view ActivClient Readme file.

- Note:**
- In order to benefit from all ActivClient features right away, it is suggested you restart your workstation after the installation is complete.
 - If you use an Actividentity smart card reader or ActivKey USB token, the device driver may be already available on your system, or you may need to install it using the Actividentity Device Installer. See Appendix A: ["Actividentity Device Installer" on page 21](#) for more details.
 - In order to use ActivClient 64-bit edition with Firefox, Thunderbird, Mozilla or Netscape, you need to register ActivClient to these applications. See Appendix B: ["Firefox, Thunderbird, Mozilla and Netscape support" on page 26](#)

Uninstalling ActivClient

To uninstall ActivClient

Prerequisites

Prior to uninstalling ActivClient, it is recommended to do the following:

- If you are using ActivClient 64-bit edition with Firefox, Thunderbird, Mozilla or Netscape, unregister the ActivClient module from these applications before uninstalling ActivClient. See Appendix B: ["Firefox, Thunderbird, Mozilla and Netscape support" on page 26](#).
- Remove all smart cards from smart card readers.

1. From the Start, Settings, Control Panel menu, go to the **Add/Remove Programs** window.

2. Select ActivClient and click **Remove**.

A confirmation message is displayed.

3. Confirm your choice and click **Yes**.

4. Click **Yes** when asked to restart your machine.

Chapter 3: Customize ActivClient installation

This section discusses the following topics:

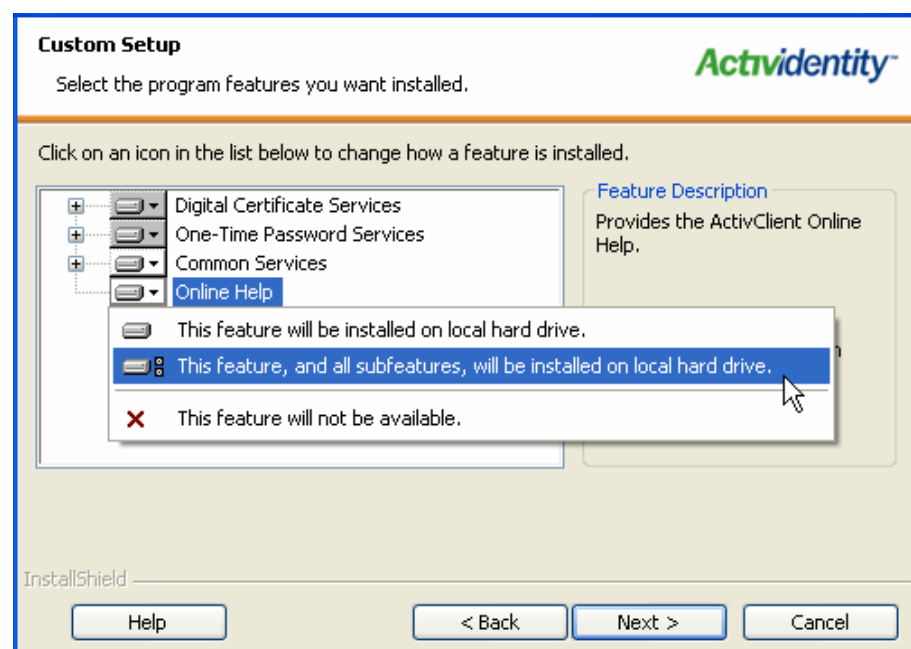
- "Customizing ActivClient installation" on page 12
- "Components and sub-components" on page 14
- "Adding/removing components and sub-components" on page 16

Customizing ActivClient installation

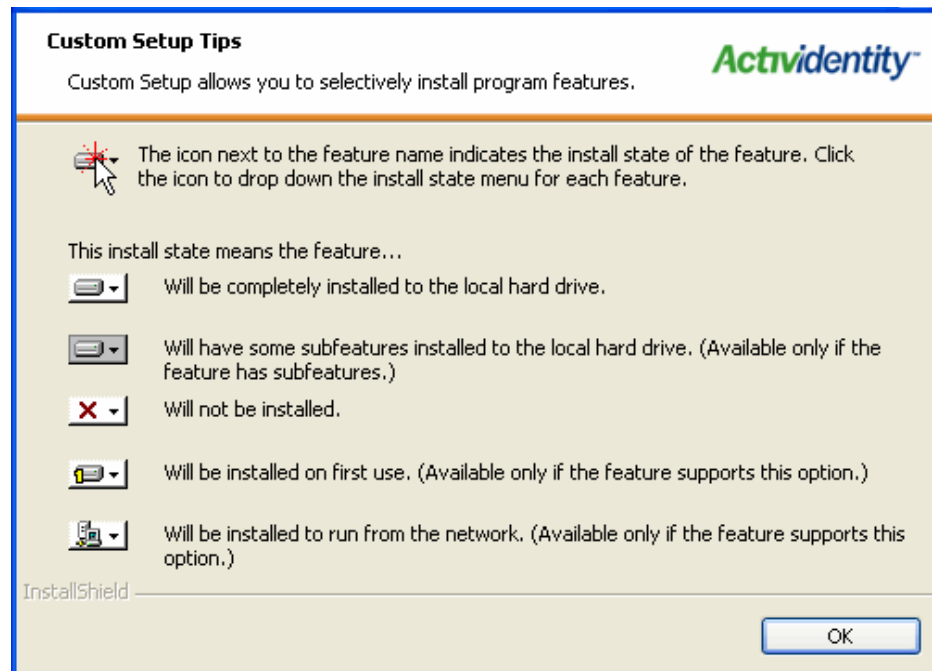
To customize ActivClient installation

1. Follow steps 1 to 4 from the previous procedure described in "[Installing ActivClient](#)" on page 8.
2. When the **Setup Type** page is displayed, select **Custom**, and then click **Next**.

The **Custom Setup** page is displayed.



3. Select the program feature you want to install from the list. Refer to the complete list of available components and subcomponents, see ["Components and sub-components" on page 14.](#)



Note: Use the **Custom Setup Tips** to help you install program features. To do this, click on the **Help** button. The **Custom Setup Tips** dialog box is displayed.

4. Click **Next** to go to next step. The **Ready to Install the Program** page is displayed.
5. Click **Install**.
6. When the **InstallShield Wizard Completed** page is displayed, click **Finish**.
7. Select the **Show the readme file** check box to automatically view the readme file.

Note: To benefit from all ActivClient's features, it is suggested to reboot your machine after installation is complete.

Important: In order to use ActivClient 64-bit edition with Firefox, Thunderbird, Mozilla or Netscape, you need to register ActivClient to these applications. See Appendix B: ["Firefox, Thunderbird, Mozilla and Netscape support" on page 26](#)

Components and sub-components

When you perform a "typical" setup, ActivClient determines automatically which components to install based on your workstation environment. However, you may decide to select which components (and sub-components) to install or not install using a Custom setup. The following section lists all components and sub-components.

Digital certificate services

This feature:

- Provides smart card support for Digital Certificate Services
- Is installed by default.
- Includes the following sub-components:

Microsoft CAPI support

This feature

- Provides smart card support for applications relying on Microsoft CAPI (such as Windows PKI Login, Internet Explorer, Microsoft Outlook, etc.).
- Is installed by default.

PKCS#11 support

This feature:

- Installs the ActivClient SDK PKCS#11 libraries for compatibility with some applications providing smart card support via the PKCS#11 API.
- Is installed by default.

One-Time Password services

This feature:

- Provides support for OTP services.
- Installs OTP support in ActivClient User Console, and ActivClient Agent.

Common services

This feature provides Activclient core components required by all Activclient Services:

User console

- Enables end-users to manage their smart card and credentials.
- Is installed by default.

PIN Initialization Tool

- Enables end-users to initialize and reformat their smart card and PIN code.
- Is installed by default.

PIN Change Tool

- Enables changing the smart card PIN code.
- Is installed by default.

ActivClient Agent

- Displays smart card and smart card reader status on the workstation's taskbar.
- Is installed by default.

Advanced Configuration Manager

- Provides ActivClient configuration options for administrators.
- Is installed by default.

Troubleshooting and Advanced Diagnostics

- Provides tools to troubleshoot and diagnose ActivClient issues.
- Is installed by default.

Auto-Update Service

- Provides support for ActivClient software automatic updates if configured in your company.
- Is not installed by default.

Online Help

- Provides ActivClient Online help.
- Is installed by default.

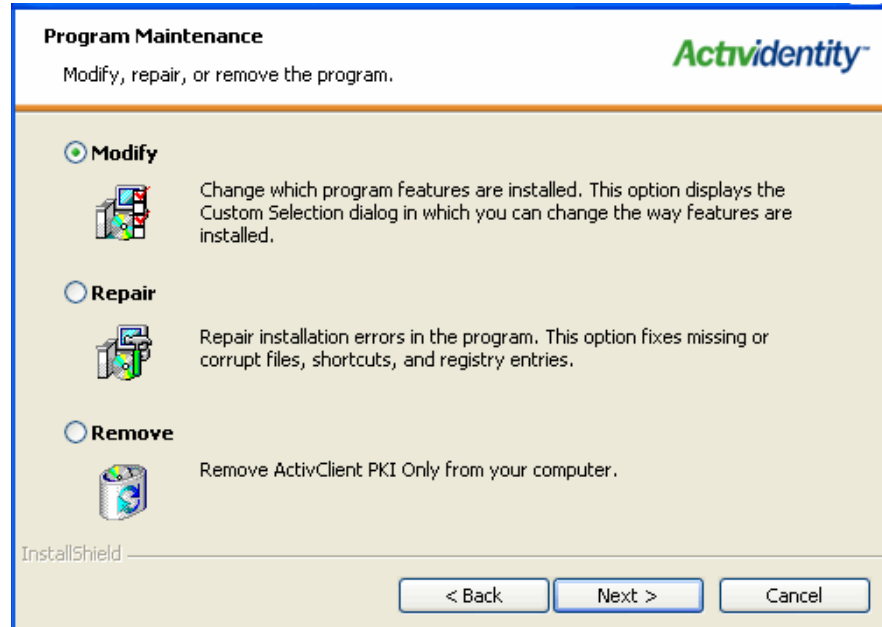
Adding/removing components and sub-components

After installing ActivClient, you may want to modify the way ActivClient is installed.

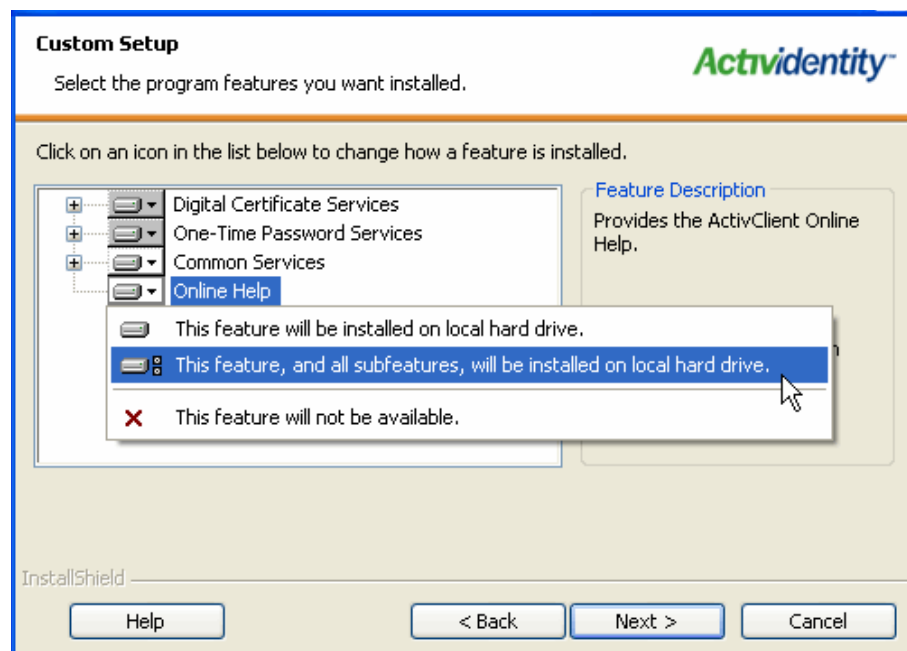
To add/remove components and sub-components

Follow these steps to add or remove components and subcomponents:



1. From the **Start, Settings, Control Panel** menu, go to the **Add/Remove Programs** window.
2. Select and click **Change**.
3. From the **Program Maintenance** window, select **Modify**.



4. From the displayed list, select the program feature you want to modify.



5. Choose how a feature is installed by selecting the appropriate option from the right click menu.

To...	Then...
Install or add a component.	Click the  icon to the left of the component's name and then click the appropriate installation option in the list that is displayed.
Remove a component.	Click the  icon to the left of the component's name and then click X in the list that is displayed.

Note: Use the **Custom Setup Tips** to help you install program features. To do this, click on the Help button located in the **Custom Setup** dialog box. The **Custom Setup Tips** dialog box is displayed.

6. Click **Next** to go to next step.

The **Ready to Install the Program** page is displayed.

7. Click **Install**.

8. When the **InstallShield Wizard Completed** page is displayed, click **Finish**.

The components or sub-components you selected have been added or removed.

Note: To benefit from all ActivClient's features, it is suggested to reboot your machine after installation is complete.

Important: In order to use ActivClient 64-bit edition with Firefox, Thunderbird, Mozilla or Netscape, you need to register ActivClient to these applications. See Appendix B: ["Firefox, Thunderbird, Mozilla and Netscape support" on page 26](#)

Chapter 4: Deploy ActivClient

This section discusses the following topics:

- ["Deploying ActivClient" on page 19](#)
- ["About ActivClient Resource Kit" on page 19](#)

Deploying ActivClient

Deploying ActivClient consists in installing ActivClient remotely for a set of users or computers. This dramatically reduces the total cost of ownership of ActivClient because administrators are not required to perform installation in person at every workstation. Users do not require information on how to install the product, thereby eliminating on-site installation support and associated help-desk calls.

Deployment procedure is explained in a specific manual called "*ActivClient Customization and Deployment Guide*" included in the "*ActivClient Resource Kit*".

About setup deployment

The "*Setup Deployment*" chapter of the "*Customization and Deployment Guide*" discusses the following topics:

- How to deploy ActivClient using Standard methods
- How to deploy ActivClient using Active directory
- How to deploy ActivClient using Systems Management Server (SMS)
- How to use administrative templates to push registry keys

About ActivClient Resource Kit

ActivClient Resource Kit is a different package from ActivClient. It includes:

- ActivClient Customization and Deployment Guide.
- ActivClient Localization Guide

Contact your ActivClient reseller for ordering information.

ActivClient Customization and Deployment Guide discusses the following topics:

- Product Customization
- Setup Customization
- Setup Deployment
- Remote session customization
- Administrative commands
- Upgrading and updating
- Uninstallation
- Troubleshooting Tools and Strategy

Appendix A: ActivIdentity Device Installer

This appendix discusses the following topics:

- ["About ActivIdentity Device Installer" on page 21](#)
- ["Do you need to use ActivIdentity Device Installer?" on page 21](#)
- ["Installing ActivIdentity device drivers" on page 22](#)
- ["Uninstalling ActivIdentity Device Installer" on page 25](#)

About ActivIdentity Device Installer

ActivIdentity Device Installer (AIDI) is a software package that allows installing the drivers for ActivIdentity smart card readers and USB tokens.

Do you need to use ActivIdentity Device Installer?

If you use an ActivIdentity smart card reader or ActivKey USB Token, you need an ActivIdentity driver for the device. You may find this driver:

- In Windows
- Via Windows Update
- In the ActivIdentity Device Installer 64-bit edition v2.0 available on the ActivClient 64-bit edition v6.1 distribution (in the Extras\ActivIdentity Device Installer folder).

If you use a third-party smart card reader, you need to get the relevant driver from the vendor (if the driver is not available in Windows or Windows Update).

The following table presents the devices for which ActivIdentity currently ships a driver. For each device and operating system, the table indicates if the driver is available in Windows (Win) or if ActivIdentity provides a driver for it in the ActivIdentity Device Installer (AIDI).

Table A-1: Drivers availability per operating system

OS	Win 2003 x64		Vista x64	
Devices	Win	AIDI	Win	AIDI
USB Reader v2	CCID	No	CCID	No
USB Reader v3	CCID	No	CCID	No
PCMCIA Reader v2	WU	No	WU	Yes
ActivKey v1 and v2	No	No	No	Yes
ActivKey SIM	CCID	No	CCID	No

CCID: Generic Microsoft CCID driver integrated natively in the OS (Windows Update procedure is not required).

WU: Windows Update process allows to install or update the drivers.

Installing ActivIdentity device drivers

You are going to learn how to install ActivIdentity device drivers using the ActivIdentity Device Installer.

To install ActivIdentity device drivers

Prerequisites

Make sure your system meets the following minimum requirements:

- You have access to the ActivClient distribution through either the network or the ActivClient CD-ROM.
- You have local administrative rights on your workstation.
- Your workstation is configured with Windows Vista 64-bit. For more information, refer to *ActivClient CAC Overview*.

Note: If you have a 32-bit operating system with Windows 2000 SP4, Windows XP SP1 or SP2, Windows Vista or Windows Server 2003, use ActivIdentity Device Installer (32-bit edition). Contact your ActivIdentity reseller for a copy of ActivIdentity Device Installer (32-bit edition).

1. On the ActivClient CD-ROM, go to the Extras\ActivIdentity Device Installer folder.
2. Run ActivIdentity Device Installer.msi.

The Welcome to the InstallShield Wizard is displayed.

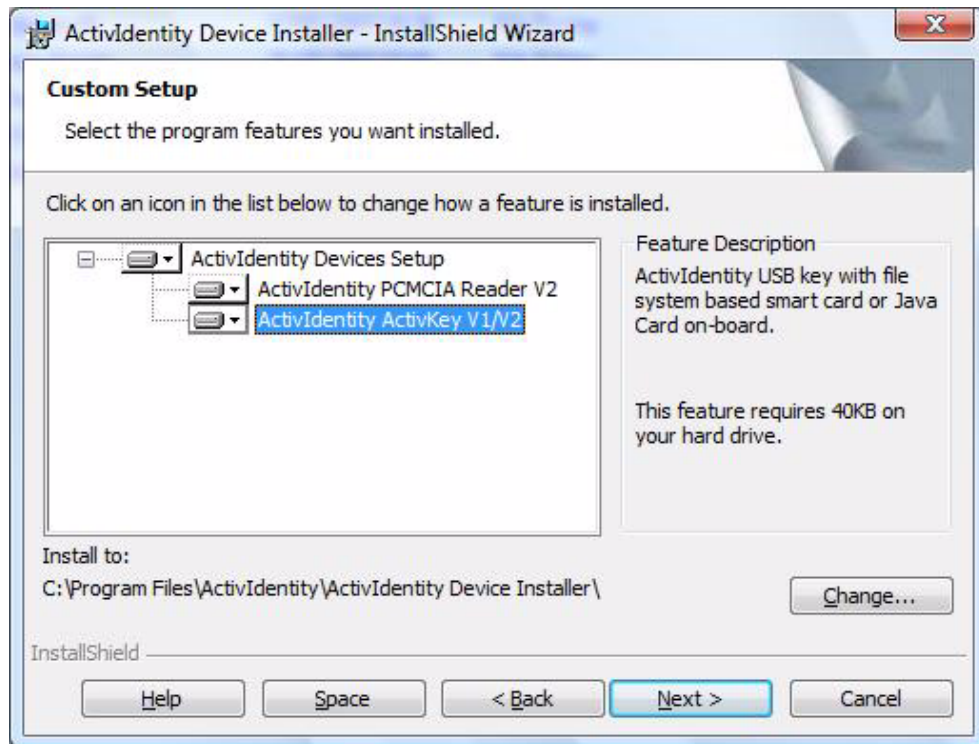
3. Click **Next**.

The **License Agreement** page is displayed.

4. Read the license agreement.
 - If you wish to proceed with the execution of the **License Agreement**, select **I accept the terms in the license agreement**, and click **Next**.
 - If you do not wish to proceed with the execution of the **License Agreement**, select **Cancel** to quit the setup.
5. Click **Install on the Ready To Install the Program** page.

The **Custom setup** page is displayed.

6. Select the reader driver for the devices you are using, and click **Next**.



The **Setup Progress** page is displayed. The progress may take several minutes.

7. Once the setup has completed, the **InstallShield Wizard Completed** page is displayed. If an ActivIdentity smart card reader or ActivKey product is already connected to your workstation, disconnect and reconnect the device from your workstation. In that case, wait for the "**Your new hardware is installed and ready to use**" notification message to appear and click on **Finish**.
8. Select the **Show the readme file** check box to automatically view the ActivIdentity Device Installer Readme file.
9. Click **Yes** when asked to restart your machine.

ActivIdentity device drivers have been installed.

Uninstalling ActivIdentity Device Installer

To uninstall ActivIdentity Device Installer

1. Go to the **Add/Remove Programs** window from the Start, Settings, Control Panel menu.
2. Select **ActivIdentity Device Installer** and click **Remove**.

A confirmation message is displayed.

3. Confirm your choice and click **Yes**.
4. Click **Yes** when asked to restart your machine.

ActivIdentity Device Installer has been uninstalled.

Appendix B: Firefox, Thunderbird, Mozilla and Netscape support

This appendix discusses the following topics:

- ["About Firefox, Thunderbird, Mozilla and Netscape support" on page 26](#)
- ["Installing the PKCS#11 library" on page 26](#)
- ["Uninstalling the PKCS#11 library" on page 27](#)

About Firefox, Thunderbird, Mozilla and Netscape support

ActivClient 64-bit supports Firefox, Thunderbird, Mozilla and Netscape for smart card services via the ActivClient PKCS#11 library. However, it is necessary to manually install the ActivClient PKCS#11 library for each user profile.

Installing the PKCS#11 library

To install the PKCS#11 library

Make sure the ActivClient PKCS#11 library has been installed during ActivClient setup.

If you use Firefox, Thunderbird, Mozilla or Netscape, follow these steps:

1. Go to Tools, Options, Advanced and select **Security Devices**.
2. Click **Load**
3. Do one of the following:
 - If you use a 64-bit version of Firefox or Thunderbird, select the ActivClient PKCS#11 64-bit library: C:\Windows\System32\acpkcs201-ns.dll

- If you use a 32-bit version of Firefox, Thunderbird, Mozilla or Netscape, select the ActivClient PKCS#11 32-bit library:
C:\Windows\SysWOW64\acpkcs211.dll

4. Click **OK**.

5. Repeat this operation for all user profiles.

The PKCS#11 library has been installed.

Uninstalling the PKCS#11 library

To uninstall the PKCS#11 library

Before you uninstall ActivClient, you need to uninstall the ActivClient PKCS#11 library from Firefox, Thunderbird, Mozilla and Netscape. This is how to proceed if you use Firefox, Thunderbird, Mozilla or Netscape, follow these steps:

1. Go to Tools, Options, Advanced and select **Security Devices**.
2. Select ActivClient in the list of security modules and devices.
3. Click **Unload**.

If asked, confirm the deletion of the ActivClient module.

4. Click **OK**.

5. Repeat this operation for all user profiles.

The PKCS#11 library has been uninstalled.

Terms and Acronyms

This chapter presents terms and acronyms used in this publication.

Terminology

Terms	Definitions
Certificate Authority (CA)	The CA issues and manages security credentials and public keys for message encryption in a networked environment. As part of a Public Key Infrastructure (PKI), a CA checks with a registration authority (RA) to verify information provided by the requestor of a digital certificate. If the RA verifies the requestor's information, the CA issues a certificate.
ActivID Card Management System (CMS)	<p>Formally known as ActivCard Identity Management System (AIMS), CMS is a Web-based, smart card, credential and application lifecycle management system.</p> <p>CMS augments and works in concert with an enterprise's primary identity management infrastructure components, including popular directory, database, and PKI components.</p>
Cryptographic Service Provider	An independent software module that performs cryptography algorithms for authentication, encoding, and encryption.
Federal Information Processing Standard (FIPS)	FIPS 140-2 is the standard for crypto-module security. FIPS 140-2 level 3 adds additional requirements to FIPS 140-2 level 2. These requirements concern physical security and a trusted path for entering a Cryptographic Service Provider, such as a PIN. FIPS 140-2 level 3 uses local ports and the key pad to enforce such security.
GlobalPlatform	Replaces OpenPlatform (OP).
My Digital ID Card	This CMS component allows end users to access the self-service CMS functions, which includes card and credential management.
One-Time Password	A one-time password is a password used only once to authenticate to remote applications. One-Time Passwords are only present on smart cards issued with SKI credentials.
PIN	Personal Identification Number. Is used to authenticate to your smart card in order to perform actions such as Windows PKI login, remote access and email signature.
Public Key Infrastructure (PKI)	PKI describes the laws, policies, standards, and software that regulate or manipulate certificates and public and private keys.

Registration Authority (RA)	RA is an authority in a network that verifies user requests for a digital certificate and instructs the CA to issue it. An RA is part of a PKI, a networked system that enables companies and users to exchange information safely and securely.
SKI	<p>SKI (Symmetric Key Infrastructure) keys are used to perform strong authentication on remote applications. SKI keys encrypt passwords in:</p> <ul style="list-style-type: none"> • Synchronous mode (generates 1 password without any challenge. The server uses the same method to create a password than the smart card) • Asynchronous: encrypts a challenge
Standalone smart card	Smart card with uploaded applets issued by the manufacturer.

Acronyms

Acronyms	Definitions
CA	Certificate Authority.
CAC	Common Access Card (for the United States Department of Defense).
CSP	Cryptographic Service Provider.
FIPS	Federal Information Processing Standard.
GP	GlobalPlatform. Replaces OpenPlatform (OP).
OTP	One-Time Password.
PKI	Public Key Infrastructure.
PIV	Personal Identity Verification Card issued by the United States government to federal employees and contractors.
RA	Registration Authority.
SKI	Symmetric Key Infrastructure.

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Product: ActivClient CAC 64-bit edition

Document: ActivClient CAC Installation Guide

Document Reference: AC/x64/CAC/IG/06.2007/6.1

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If you would like a reply, please include your name, company, email address, and telephone number (optional).

If you find errors or have general suggestions for improvement, please indicate the chapter, section, title, and page number.

- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct/helpful?
- What did you like most/least about this publication?

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