



ActivIdentity® ActivClient™ for Windows

Installation Guide

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Chapter 1: Introduction

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This guide explains how to install, customize and deploy ActivClient on user workstations in a Microsoft Windows environment.

It also describes the ActivIdentity Device Installer and provides installation instructions.

About ActivClient

ActivClient is the latest smart card and USB token middleware from ActivIdentity that allows enterprise and government customers to easily use smart cards and USB tokens for a wide variety of desktop, network security and productivity applications.

ActivClient enables the use of PKI certificates and keys and one-time passwords on a smart card or USB token to secure:

- Desktop applications
- Network logon
- Remote access
- Web logon
- E-mail
- Electronic transactions

Getting Started

ActivClient 7.0.2 is available in two editions:

- ActivClient 32-bit
- ActivClient 64-bit

The distribution contains:

- A launch program that starts the appropriate setup file according to the detected platform processor type (32 or 64-bit).
- ActivIdentity Device Installer 2.3 setup files (32 and 64-bit), providing access to ActivIdentity smart card reader drivers.
- Documentation.
- Administrative Utilities - unsigned installation files, administrative templates, utilities and samples to customize and manage ActivClient deployments.

This document is for:

- System administrators
- Operators/end users
- People with knowledge of Microsoft® Windows® operating systems as well as some understanding of Public Key Infrastructure

ActivClient Components

The ActivClient setup consists of several components that you can enable or disable for installation, depending on the scope of your deployment.

The 'typical' setup depends on the existing products (and their versions) detected on the machine - the components are enabled or disabled accordingly.

OTP Services

The OTP services are installed as part of the ActivClient base services node. They are available only with smart cards configured with OTP capability.

[Table 1.1](#) provides an overview of the components. For complete details, see ["Components and Sub-Components" on page 10](#).

TABLE 1.1: ActivClient Components

Component	Description
Digital Certificate Services	<ul style="list-style-type: none">Provides smart card support for Digital Certificate Services.Is installed by default.
Common Services	This feature provides ActivClient core components required by all ActivClient Services.

Chapter 2: Installation

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- 5 [Prerequisites](#)
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This chapter explains how to install ActivClient locally.

For information regarding remote installation, refer to *ActivIdentity ActivClient for Windows Administration Guide*.

Prerequisites

Your system must meet 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:
 - Microsoft Windows Vista SP2 (32 and 64-bit editions)
 - Microsoft Windows 7 SP1 (32 and 64-bit editions)
 - Microsoft Windows 8 (32 and 64-bit editions)
 - Microsoft Windows Server 2008 SP2 including Server Core (32 and 64-bit editions)
 - Microsoft Windows Server 2008 R2 SP1 including Server Core (64-bit editions)
 - Microsoft Windows Server 2012 including Server Core (64-bit editions)

For more information, refer to the *ActivIdentity ActivClient for Windows Overview*.

Install ActivClient

1. Insert your ActivClient CD-ROM.

If the ActivClient Installer does not appear automatically, run the *setup.exe* from the distribution.

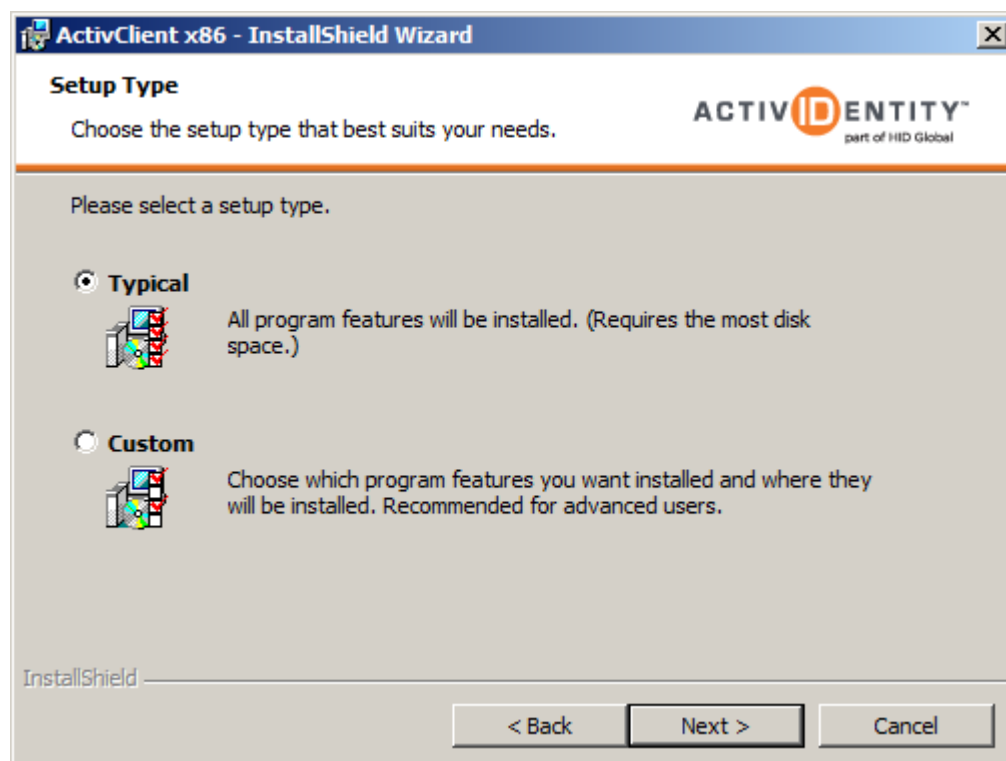
The ActivClient installer starts for the relevant platform (32-bit or 64-bit) and the Welcome to the InstallShield Wizard is displayed.

2. Click **Next**.

The **License Agreement** page is displayed.

3. 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.



4. Leave the setup type at the default setting (Typical), and click **Next**.

If you want to customize the feature installation, select **Custom** and go to ["Components and Sub-Components" on page 10](#).

5. Click **Install**.

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

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

Post-Installation Steps

- In order to benefit from all ActivClient features immediately, we recommend that you restart your workstation after the installation is complete.
- The smart card reader that you use requires a reader driver. This driver might be present in your Microsoft Windows system, or you might need to install it. Contact your reader vendor for information.

If you use an ActivIdentity reader, and if the reader is not recognized automatically, or if the driver is not installed by Microsoft Windows Update, you might install it using the ActivIdentity Device Installer. See [Appendix A, "Smart Card Reader Drivers," on page 17](#) for more details.

- In order to use ActivClient with Microsoft Outlook installed AFTER ActivClient, you must register ActivClient to the application using the Add/Remove or Repair action on the **Microsoft Outlook Usability Enhancements** feature. See ["Customize ActivClient After Installation" on page 13](#).
- If you installed the **Firefox and Thunderbird configuration** sub-component, the next time you start Firefox, you will be prompted to allow the installation of the ActivClient Security Module. Select the option and then click **Continue**.
- If a recent version of Firefox™ (3.5 or later) or Thunderbird™ (3.0 or later) was installed on your workstation before ActivClient installation, then ActivClient is automatically registered in these applications.

In order to use ActivClient with a version of Firefox earlier than 3.5, or a version of Thunderbird earlier than 3.0, you need to register ActivClient to these applications. See [Appendix B, "Firefox and Thunderbird Support," on page 21](#).

- In order to use ActivClient with Firefox (3.5 or later) or Thunderbird (3.0 or later) installed AFTER ActivClient, you must register ActivClient to these applications using the Add/Remove or Repair action on the **Firefox and Thunderbird support** feature. See ["Customize ActivClient After Installation" on page 13](#).

Upgrading ActivClient

ActivClient 7.0.2 setup allows you to upgrade automatically from the following versions:

- ActivClient 6.1 (SP1 and SP2) (32-bit and 64-bit editions)
- ActivClient CAC 6.1 (SP1 and SP2) (32-bit and 64-bit editions) (the CAC configuration must be installed)
- ActivClient 6.2 (32-bit and 64-bit editions)
- ActivClient CAC 6.2 (32-bit and 64-bit editions) (the CAC configuration must be installed)
- ActivClient 7.0 (32-bit and 64-bit editions)
- ActivClient 7.0.1 (32-bit and 64-bit editions)

The ActivClient setup automatically detects the previous version and performs the upgrade. You do not need to uninstall the previous version.

Customized Settings

If you had customized the previous ActivClient 6.x version by specifying which components to install, the equivalent components will be installed during the upgrade. For example, if you had installed the ActivClient 6.x CSP, the ActivClient 7.x Mini Driver will be installed.

If you had customized the previous ActivClient 6.x version by updating some configuration options, this customization is not upgraded automatically. See the *ActivIdentity ActivClient for Windows Administration Guide* for details.

If you are upgrading from ActivClient 7.x, all previous customization is preserved during the upgrade to this ActivClient version.

New Features

The new features of ActivClient (that is, those that are not included in version you are upgrading from) are installed according to the typical setup.

For further information concerning the new features, see the ActivClient Readme file in the **Documentation** folder on the distribution CD-ROM.

Prerequisites

- See the ActivClient installation "[Prerequisites](#)" on [page 5](#).
- A previous ActivClient version is installed (see the list on [page 7](#)).

Upgrade ActivClient

1. Insert your ActivClient CD-ROM.

If the ActivClient Installer does not appear automatically, run the *setup.exe* from the distribution.

The ActivClient installer starts for the relevant platform (32-bit or 64-bit) and the Welcome to the InstallShield Wizard is displayed.

2. Click **Next**.

3. 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

4. Click **Install**.

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

Once the setup completed, the InstallShield Wizard Completed page is displayed.

5. Click **Finish**.

6. Select the **Show the readme file** option to automatically view the ActivClient Readme file.

Uninstalling ActivClient

Prerequisites

Before uninstalling ActivClient, it is recommended that you:

- Close Firefox or Thunderbird if one of them is running.
- If you use a version of Firefox earlier than 3.5, or a version of Thunderbird earlier than 3.0, you should manually unregister ActivClient from these applications. See [Appendix B, "Firefox and Thunderbird Support," on page 21](#).
- Remove all smart cards from smart card readers.

Uninstall ActivClient

1. From the **Control Panel** menu, click **Programs** and then **Programs and Features**.
2. Select **ActivClient** from the program list and click **Uninstall**.
3. A confirmation message is displayed.
4. Confirm your choice and click **Yes**.
5. Click **Yes** when asked to restart your machine.

When ActivClient is uninstalled, the ActivClient policy settings remain on the workstation. For instructions on how to uninstall them, see the *ActivIdentity ActivClient for Windows Administration Guide*.

Chapter 3: Customize the Installation

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- 10 [Components and Sub-Components](#)
- 12 [Customize ActivClient During Installation](#)
- 13 [Customize ActivClient After Installation](#)

This chapter explains how to customize the ActivClient installation by adding or removing components and sub-components during or after setup.

Components and Sub-Components

When you perform a "typical" setup, ActivClient automatically determines which components to install based on your workstation environment. You can also decide to select which components (and sub-components) to install or not install using a Custom setup.

[Table 3.1](#) lists all components and sub-components.

TABLE 3.1: ActivClient Setup Components

Component	Description
Digital Certificate Services	<ul style="list-style-type: none"> Provides smart card support for Digital Certificate Services. Is installed by default. <p>Includes the following sub-components:</p> <p>Microsoft Smart Card Mini Driver Support</p> <ul style="list-style-type: none"> Provides smart card support for applications relying on Microsoft cryptographic framework (such as Windows PKI Login, Internet Explorer, EFS or Outlook). Is installed by default. <p>Microsoft Outlook Usability Enhancements</p> <ul style="list-style-type: none"> Eases the configuration and use of digital certificates in Microsoft Outlook. Is installed by default if Microsoft Outlook 2007 SP2 (or later) is detected. <p>PKCS#11 Support</p> <ul style="list-style-type: none"> Provides smart card support for applications relying on the PKCS#11 API. Is installed by default. <p>Includes the following sub-component:</p> <p>Firefox and Thunderbird configuration</p> <ul style="list-style-type: none"> Registers PKCS#11 for SSL client authentication and e-mail signing and decryption in Firefox and Thunderbird. Is installed by default if either Firefox 3.5 (or later) or Thunderbird 3.0 (or later) are detected. <p>Note:</p> <ul style="list-style-type: none"> During setup, you must close Firefox and Thunderbird. Before installing this feature, a user account must have been created in Thunderbird.

Note

When you install the ActivClient Mini Driver, the ActivIdentity certificate is automatically added to the Trusted Publishers store of your workstation.

TABLE 3.1: ActivClient Setup Components

Component	Description
Common Services	<p>This feature provides the ActivClient core components required by all ActivClient services: It is installed by default and cannot be unselected.</p> <p>Includes the following sub-components:</p> <p>User Console</p> <ul style="list-style-type: none"> Provides a management console for your smart card and credentials. Is installed by default. <p>PIN Initialization Tool</p> <ul style="list-style-type: none"> Enables end users to initialize and reformat their smart card and PIN code. Is installed by default. <p>Troubleshooting</p> <ul style="list-style-type: none"> Provides information to diagnose ActivClient issues. Is installed by default. <p>Auto-Update Service</p> <ul style="list-style-type: none"> Provides support for ActivClient software automatic updates. Is not installed by default. <p>Card auto-update service with ActivID CMS</p> <ul style="list-style-type: none"> Provides support for automatically updating smart cards managed by ActivID Card Management System. Is not installed by default. <p>US Department of Defense configuration</p> <ul style="list-style-type: none"> ActivClient configuration for US Department of Defense Common Access Cards. Is not installed by default. <p>Configuration Management</p> <ul style="list-style-type: none"> Provides the ActivClient administrative templates to configure the policy settings. Is not installed by default. <p>Online Help</p> <ul style="list-style-type: none"> Provides ActivClient Online Help. Is installed by default.

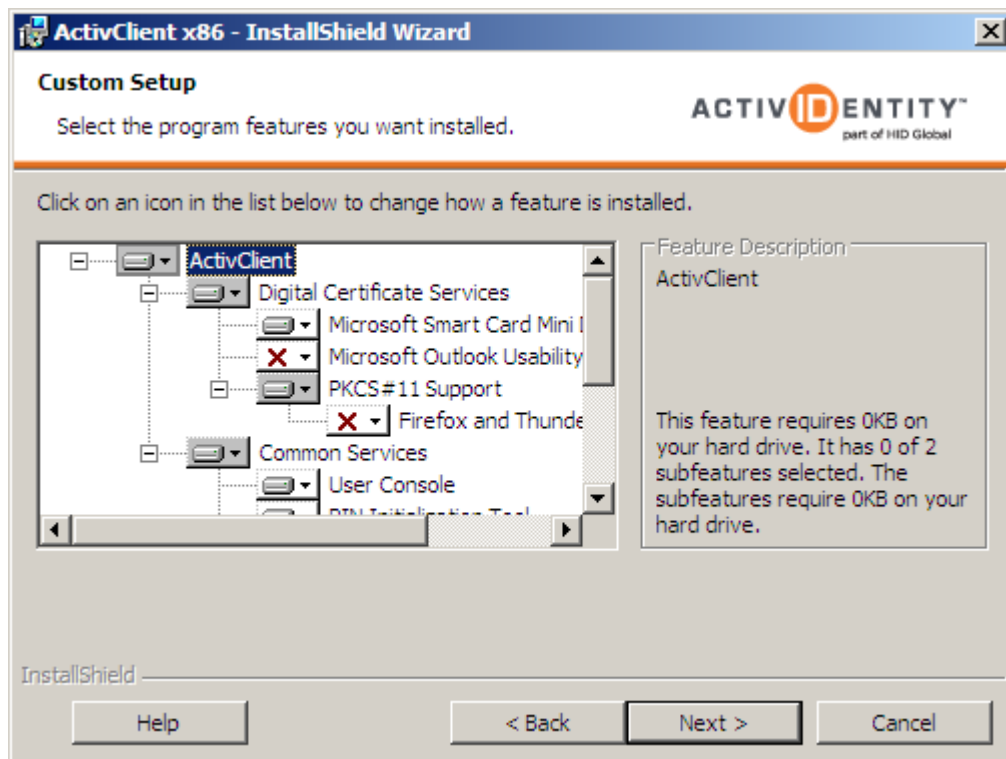
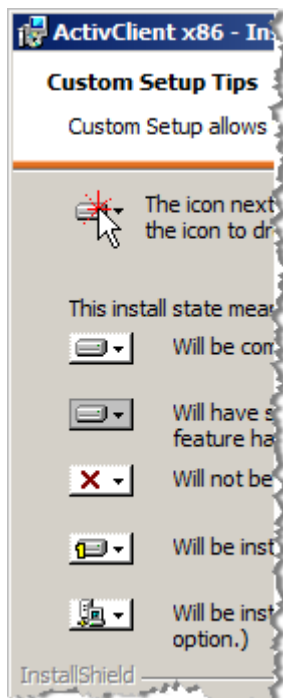
Customize ActivClient During Installation

1. Follow steps 1 to 4 of the standard installation procedure described in ["Install ActivClient" on page 5](#).
2. When the Setup Type page is displayed, select **Custom**, and then click **Next**.

The Custom Setup page is displayed.

Custom Setup Tips

Click on the **Help** button to use the **Custom Setup Tips** to help you install program features.



3. Select the program features you want to install from the list using the appropriate option from the right-click menu:

To...	Then...
Install or add a component	Click the icon for the component and then click the appropriate installation option in the displayed list.
Remove a component	Click the icon for the component and then click X in the displayed list.

For the complete list of available components and subcomponents, see ["Components and Sub-Components" on page 10](#).

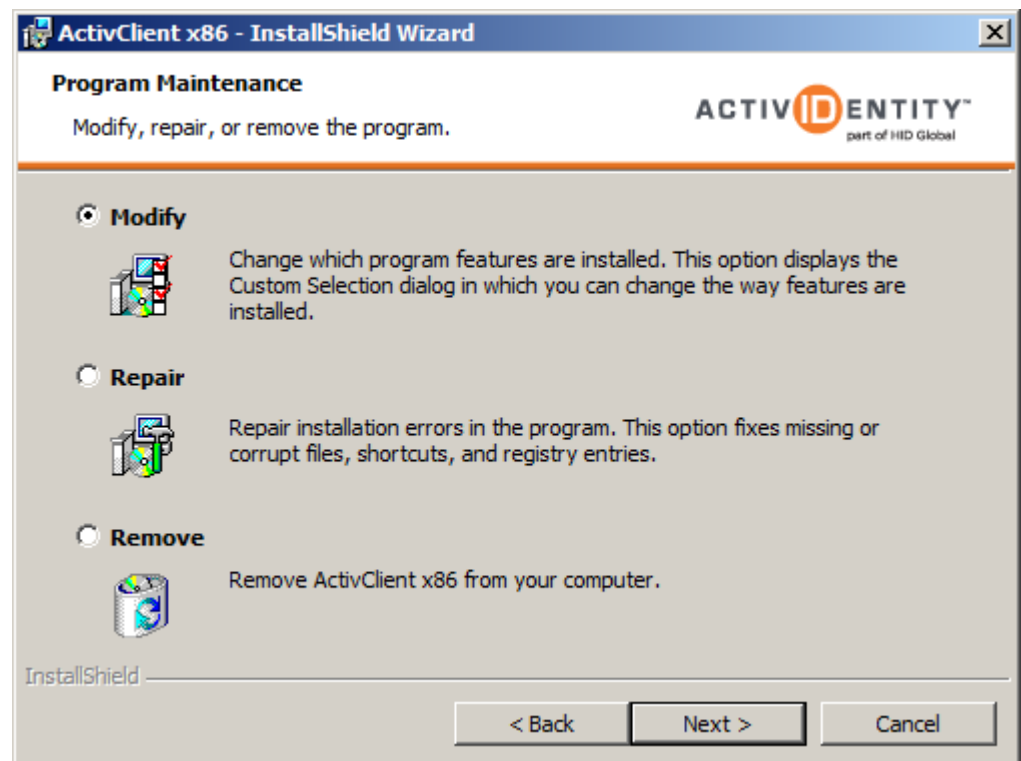
4. Click **Next** to proceed. The **Ready to Install the Program** page is displayed.

5. Click **Install**.
6. When the **InstallShield Wizard Completed** page is displayed, click **Finish**.
7. Select the **Show the readme file** option to automatically view the readme file.
8. To benefit from all ActivClient's features, it is recommended that you reboot your machine after installation is complete.

Customize ActivClient After Installation

After installing ActivClient, you can modify the ActivClient installation by adding or removing components.

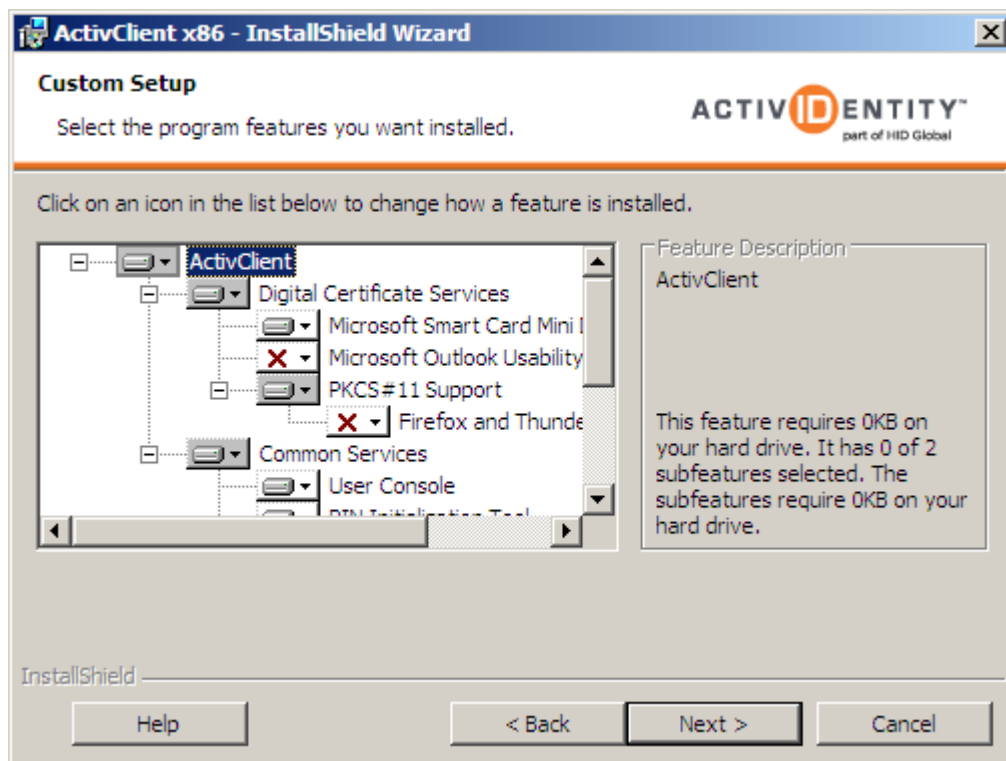
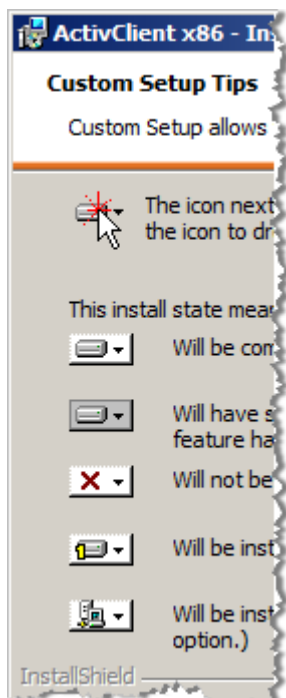
1. From the **Control Panel** menu, click **Programs** and then **Programs and Features**.
2. Select **ActivClient** from the program list and click **Change**.





3. In the Program Maintenance window, select **Modify** and click **Next**.

Custom Setup Tips

Click on the **Help** button to use the **Custom Setup Tips** to help you install program features.



4. Select the program features you want to install from the list using the appropriate option from the right-click menu:

To...	Then...
Install or add a component	Click the  icon for the component and then click the appropriate installation option in the displayed list.
Remove a component	Click the  icon for the component and then click X in the displayed list.

For the complete list of available components and subcomponents, see ["Components and Sub-Components" on page 10](#).

5. Click **Next** to proceed. The Ready to Install the Program page is displayed.
6. Click **Install**.
7. When the InstallShield Wizard Completed page is displayed, click **Finish**.
8. To benefit from all ActivClient's features, it is recommended that you reboot your machine after installation is complete.

Chapter 4: Deployment

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- 15 [Product Deployment](#)
- 15 [Policy Deployment](#)
- 16 [Administrative Tools](#)

This chapter provides an overview of the ActivClient deployment methods and policy options.

Product Deployment

You can deploy ActivClient by installing the product 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.

There are several methods to deploy ActivClient:

- Using the standard local installation (see ["Install ActivClient" on page 5](#)).
- Using software push using Active Directory Group Policy Objects.
- Using software push using Microsoft System Center Configuration Manager (formerly Systems Management Server - SMS).

The deployment procedures are explained in the *ActivIdentity ActivClient for Windows Administration Guide*.

Policy Deployment

You can deploy the ActivClient policies using the Active Directory Group Policy (GPO) and ActivClient administrative templates (ADMX and ADML) installed as part of the Configuration component and provided on the installation CD-ROM.

You can modify the default values for:

- PIN Management
- PIN Caching Service
- Certificate Availability
- Outlook Enhancements
- User Console
- PIN Initialization Tool
- Notification area icon
- Notifications management
- Logon Window
- Software Auto-Update
- Smart Card Auto-Update
- Smart Card
- Smart Card Readers

- Advanced Diagnostics
- Logging

The policy definition and deployment procedures are explained in the *ActivIdentity ActivClient for Windows Administration Guide*.

Administrative Tools

For further information on the following tools, see the *ActivIdentity ActivClient for Windows Administration Guide*:

- Policy definition
- Setup customization
- Setup deployment
- Remote session customization
- Administrative commands
- Upgrading and updating
- Uninstallation
- Troubleshooting tools and strategy

The **Admin** folder of the ActivClient distribution CD-ROM includes additional tools and information for administrators, such as:

- Active Directory templates - ADMX/ADML formats
- Samples for ActivClient software auto-update
- Unsigned setups for ActivClient and ActivIdentity Device Installer.
- ...

For the complete list, see the *ActivIdentity ActivClient for Windows Administration Guide*.

Appendix A: Smart Card Reader Drivers

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- 17 [ActivIdentity Devices](#)
- 19 [OMNIKEY® Devices](#)

This appendix describes how to install drivers for the ActivIdentity smart card readers or ActivKey USB Key, and the HID Global OMNIKEY smart card readers.

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

ActivIdentity Devices

Most ActivIdentity smart card readers are CCID compliant and are supported automatically using the Microsoft CCID driver included in Microsoft Windows (Windows Vista, Windows 7, Windows 8, Windows Server 2008, Windows Server 2008 R2 and Windows Server 2012).

Specific ActivIdentity smart card readers are not CCID compliant and require the installation of a reader driver.

- ActivIdentity USB Reader v2 - CCID reader, supported automatically in Microsoft Windows.
- ActivIdentity USB Reader v3 - CCID reader, supported automatically in Microsoft Windows.
- ActivIdentity PCMCIA Reader v2 - requires the installation of a reader driver:
 - You can download the driver from Microsoft Windows Update if your workstation or server is configured to download drivers automatically from Windows Update during the plug-and-play process.
 - You can also install the driver using the ActivIdentity Device Installer (see "[ActivIdentity Device Installer](#)" on page 17).
- ActivKey SIM - CCID reader, supported automatically in Microsoft Windows.

Note

For reader troubleshooting purposes, ActivIdentity provides the ActivDiag utility; it is available in the ActivIdentity Device Installer.

ActivIdentity Device Installer

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

If you use an ActivIdentity PCMCIA Reader v2, you can install its driver using the ActivIdentity Device Installer.

Prerequisites

Your system must meet 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:
 - Microsoft Windows Vista (SP1 and SP2) (32 and 64-bit editions)
 - Microsoft Windows 7 (no SP and SP1) (32 and 64-bit editions)
 - Microsoft Windows Server 2008 including Server Core (no SP and SP2) (32 and 64-bit editions)
 - Microsoft Windows Server 2008 R2 including Server Core (no SP and SP1) (64-bit editions)

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

2. Run the ActivIdentity Device Installer .msi file corresponding to your platform:

- *ActivIdentity Device Installer x86 2.3.msi* file for 32-bit platforms.
- *ActivIdentity Device Installer x64 2.3.msi* file for 64-bit platforms.

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**. The Custom setup page is displayed.

The available features depend on your platform.

The ActivDiag Tool diagnoses and reports any software or hardware problems for troubleshooting purposes.

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

The Setup Progress page is displayed. The progress might take several minutes.

Once the setup has completed, the InstallShield Wizard Completed page is displayed.

7. If an ActivIdentity smart card reader is already connected to your workstation, disconnect and reconnect the device from your workstation. Wait for the "Your new hardware is installed and ready to use" notification message to display and click **Finish**.

8. Select the **Show the readme file** option to automatically view the ActivIdentity Device Installer Readme file.
9. Click **Yes** when asked to restart your machine.

OMNIKEY® Devices

If you have purchased OMNIKEY readers from ActivIdentity or from HID Global, it is recommended to install the reader drivers. For convenience, the drivers are included on the ActivClient distribution.

It is also recommended that you check for the latest drivers on the HID Global web site:

https://www.hidglobal.com/drivers?field_brand_tid=24

Prerequisites

Your system must meet 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:
 - Microsoft Windows Vista (SP1 and SP2) (32 and 64-bit editions)
 - Microsoft Windows 7 (no SP and SP1) (32 and 64-bit editions)
 - Microsoft Windows 8 (32 and 64-bit editions)
 - Microsoft Windows Server 2008 including Server Core (no SP and SP2) (32 and 64-bit editions)
 - Microsoft Windows Server 2008 R2 including Server Core (no SP and SP1) (64-bit editions)
 - Microsoft Windows Server 2012 including Server Core (64-bit editions)

Note

For reader troubleshooting purposes, HID Global provides the OMNIKEY Workbench Tool; it is available on the ActivClient CDROM, in the

Extras\ActivIdentity Device Installer\OMNIKEY Workbench folder.

Use:

- *HID OMNIKEY Workbench V1.4.0.1 x86.exe* for 32-bit platforms.
- *HID OMNIKEY Workbench V1.4.0.1 x64.exe* for 64-bit platforms.

1. On the ActivClient CD-ROM, go to the **Extras\ActivIdentity Device Installer\OMNIKEY Drivers** folder.
2. Based on the following table, run the installer applicable to the reader you are using.

TABLE A.1: Drivers for Microsoft Windows 7 and Earlier

Reader	Driver for Microsoft Windows 32-bit	Driver for Microsoft Windows 64-bit
OMNIKEY 3x21 series	HID_OMNIKEY3x21_x86_R1_2_6_5.exe	HID_OMNIKEY3x21_x64_R1_2_6_5.exe
OMNIKEY 4040	HID_OMNIKEY4040_x86_for_R1_2_8_0.exe	HID_OMNIKEY4040_x64_for_R1_2_8_0.exe
OMNIKEY 5x2x series	HID_OMNIKEY5x2x_x86_R1_2_9_2.exe	HID_OMNIKEY5x2x_x64_R1_2_9_2.exe
OMNIKEY 2061	OK2061BTx32_1.30.exe	OK2061BTx64_1.30.exe

Drivers for Microsoft Windows 8 are provided separately in the same **Extras\ActivIdentity Device Installer\OMNIKEY Drivers** folder.

TABLE A.2: Drivers for Microsoft Windows 8

Reader	Driver for Microsoft Windows 32-bit	Driver for Microsoft Windows 64-bit
OMNIKEY 3x21 series	OMNIKEY3x21_V1_2_12_12_W8_x86_Only.exe	OMNIKEY3x21_V1_2_12_12_W8_x64_Only.exe
OMNIKEY 5x2x series	OMNIKEY5x2x_V1_2_12_19_W8_x86_Only.exe	OMNIKEY5x2x_V1_2_12_19_W8_x64_Only.exe

3. Follow the instructions in the installation wizard.

Appendix B: Firefox and Thunderbird Support

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- 21 [About Firefox and Thunderbird Support](#)
- 21 [Install the PKCS#11 Library](#)
- 22 [Uninstall the PKCS#11 Library](#)

This appendix explains how to install the PKCS#11 library to support Mozilla Firefox and Thunderbird.

The PKCS#11 binary is automatically registered in Firefox if Firefox is installed before ActivClient and the version is later than 3.5.

About Firefox and Thunderbird Support

ActivClient supports Firefox and Thunderbird for smart card services via the ActivClient PKCS#11 library.

- ActivClient automatically installs the PKCS#11 library into Firefox/Thunderbird (for each user profile) during setup if Firefox 3.5 or later/Thunderbird 3.0 or later are installed before ActivClient is installed.
- If new profiles are created after ActivClient installation, the registration is also automatic.
- If you use a version of Firefox earlier than 3.5, or a version of Thunderbird earlier than 3.0, you need to register ActivClient to these applications manually as described below.

Install the PKCS#11 Library

This section describes how to configure Firefox or Thunderbird to use the ActivClient PKCS#11 library. This step is required only when the configuration is not performed automatically.

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

1. In Firefox or Thunderbird, go to **Tools, Options, Advanced** and then either the **Encryption** (Firefox) or **Certificates** (Thunderbird) tab.
2. Click **Security Devices**, and, in the Device Manager, click **Load**.
3. Enter a **Module Name** and browse to one of the following:
 - If you use ActivClient 32-bit, select the ActivClient PKCS#11 32-bit library:
`<Program Files>\ActivIdentity\ActivClient\acpkcs211.dll`
 - If you use ActivClient 64-bit and Firefox/Thunderbird 32-bit, select the ActivClient PKCS#11 32-bit library:
`<Program Files x86>\ActivIdentity\ActivClient\acpkcs211.dll`
 - If you use ActivClient 64-bit and Firefox/Thunderbird 64-bit, select the ActivClient PKCS#11 64-bit library:
`<Program Files>\ActivIdentity\ActivClient\acpkcs211.dll`
4. Click **Load**, and then click **OK**.
5. Repeat this operation for all user profiles.

Uninstall the PKCS#11 Library

When you uninstall ActivClient, the PKCS#11 library is automatically uninstalled from Firefox/Thunderbird if they are recent versions.

If you use a version of Firefox earlier than 3.5, or a version of Thunderbird earlier than 3.0, you should manually unregister ActivClient from these applications as described below.

1. In Firefox or Thunderbird, go to **Tools, Options, Advanced** and then either the **Encryption** (Firefox) or **Certificates** (Thunderbird) tab.
2. Click **Security Devices**, and, in the Device Manager, 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.

Appendix C: Terms and Acronyms

Appendix Contents

23	Terms
24	Acronyms

This appendix lists terms and acronyms used throughout the full set of the set of technical publications for this product. Not all terms and acronyms appear in all documents in the set.

Terms

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): Formally known as ActivCard Identity Management System (AIMS), CMS is a web-based, smart card, credential and application lifecycle management system. CMS augments and works in concert with an enterprise's primary identity management infrastructure components, including popular directory, database, and PKI components.

Cryptographic Service Provider (CSP): An independent software module that performs cryptography algorithms for authentication, encoding, and encryption.

Federal Information Processing Standard (FIPS 140-2): 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.

Federal Information Processing Standard 201 (FIPS 201): FIPS 201 is the standard for Personal Identity Verification (PIV) cards defined for US Government employees and contractors.

Mini Driver: Smart card middleware for the Microsoft platform that works with the Microsoft Base Smart Card CSP (Cryptographic Service Provider). The ActivClient Mini Driver replaces the ActivClient CSP available in previous versions. The Mini Driver architecture provides stronger cryptographic services.

My Digital ID Card (MDIDC): This CMS component allows end users to access the self-service CMS functions, which includes card and credential management.

One-Time Password (OTP): 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.

Personal Identification Number (PIN): Is used to authenticate to your smart card in order to perform actions such as Windows PKI logon, 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.

Symmetric Key Infrastructure (SKI): SKI keys are used to perform strong authentication on remote applications. SKI keys encrypt passwords in:

- 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 pre-loaded applets issued by the manufacturer.

Acronyms

CA: Certificate Authority

CAC: Common Access Card (for the United States Department of Defense)

CSP: Cryptographic Service Provider

FIPS: Federal Information Processing Standard

GAL: Global Address List

GP: GlobalPlatform.
Replaces OpenPlatform (OP)

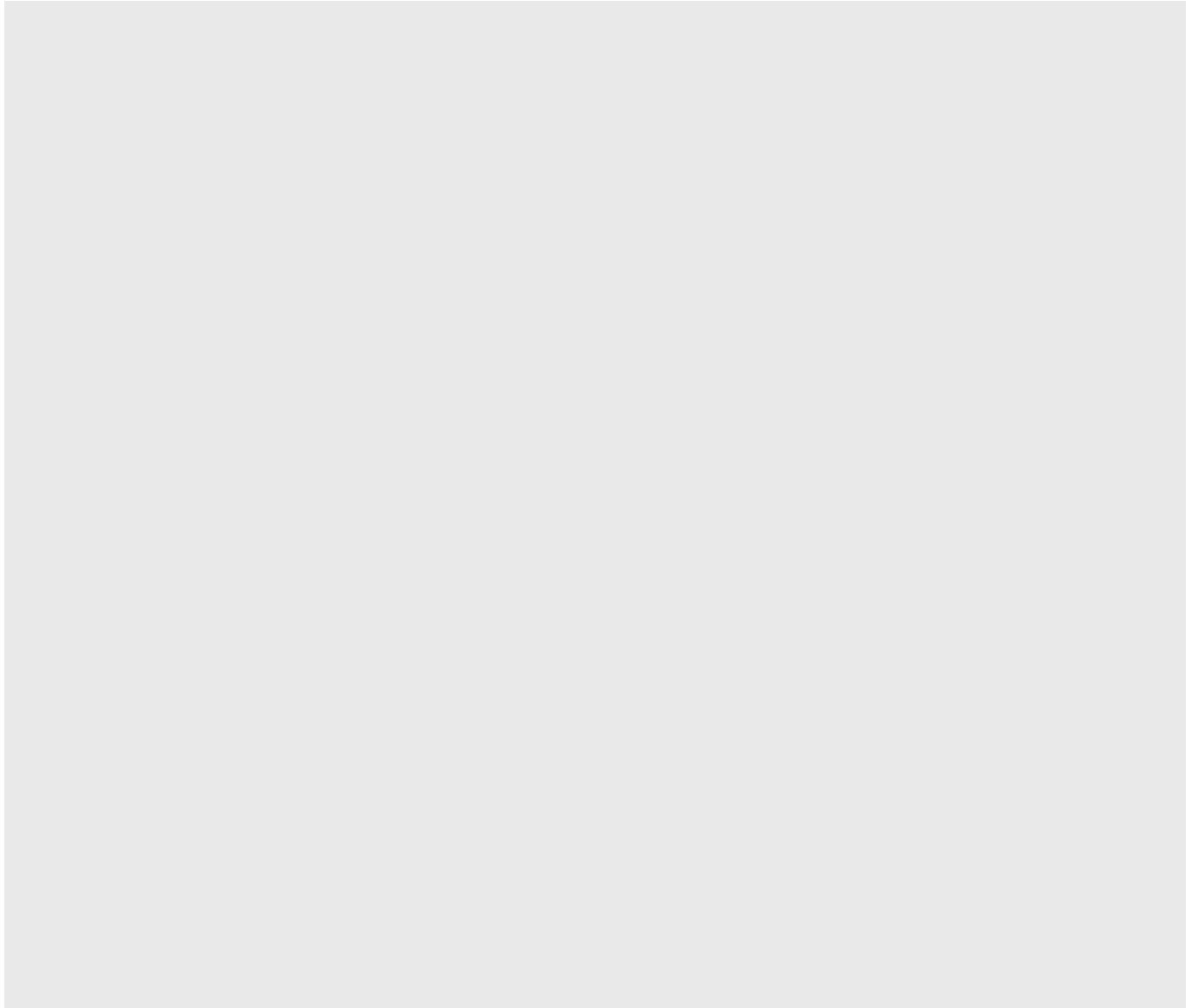
OTP: One-Time Password

PKI: Public Key Infrastructure

PIV: Personal Identity Verification.
Smart card issued by the United States government to federal employees and contractors.

RA: Registration Authority

SKI: Symmetric Key Infrastructure



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