

NetIQ Advanced Authentication Framework

Universal Card Authentication Provider Installation Guide

Version 5.1.0

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Introduction

About This Document

Purpose of the Document

This Universal Card Authentication Provider Installation Guide is intended for all user categories and describes how to use the client part of NetlQ Advanced Authentication Framework solution. In particular, it gives instructions as for how to install Universal Card authentication provider.

For more general information on NetlQ Advanced Authentication Framework[™] and the authentication software you are about to use, see NetlQ Advanced Authentication Framework – Client User's Guide.

Information on managing other types of authenticators is given in separate guides.

Document Conventions

Warning. This sign indicates requirements or restrictions that should be observed to prevent undesirable effects.

Binportant notes. This sign indicates important information you need to know to use the product successfully.

Notes. This sign indicates supplementary information you may need in some cases.

Tips. This sign indicates recommendations.

- Terms are italicized, e.g.: Authenticator.
- Names of GUI elements such as dialogs, menu items, buttons are put in bold type, e.g.: the **Logon** window.

System Requirements

Before installing the product, check that the following system requirements are fulfilled:

- Microsoft Windows 7 (x64/x86) SP1
- Microsoft Windows Server 2008 R2 SP1/Microsoft Windows Server 2012
- Universal Card authentication provider should be installed on the computer with already installed NetlQ Advanced Authentication Framework

😵 This authentication provider should be installed on **every** Authenticore Server.

List of Card Readers and Smart Cards Supported By Universal Card Authentication Provider

Universal Card authentication provider supports both contact and contactless devices.

Contact card readers

All PC/SC compliant card readers along with I2C, PKCS #11 and CSP compliant contact smart cards.

Contact smart cards

Any contact smart cards which already have a certificate on them. CSP of the card must be installed on the machine to be able to communicate with the card.

Contactless card readers

- HID OMNIKEY 4121 CV
- HID OMNIKEY 5021 CL
- HID OMNIKEY 5321 serie
- HID OMNIKEY 5325 serie
- HID OMNIKEY 5326 DFR
- HID OMNIKEY 5427 CK
- RFIDeas pcProx serie
- LEGIC AIR ID serie
- LEGIC LM3000 (by Smarfid plugin)
- LEGIC LE-762-1N (by Smarfid plugin)
- Windows 8 supported NFC readers
- CCID compliant readers

Contactless smart cards

- HID iClass serie
- HID Prox serie
- MIFARE Classic 1K/4K
- MIFARE Ultra Light
- MIFARE Ultra Light C
- MIFARE Plus
- MIFARE DESFire 0.6
- MIFARE DESFire EV1
- iCLASS SE/SR

- MIFARE SE
- MIFARE DESFire
- MIFARE DESFire EV1 SE
- AWID
- Cardax
- CASI-RUSCO
- Deister
- DIGITAG
- EM 410x
- Farpointe Data
- GProx II
- HiTag 1, S & 2
- Indala (Motorola)
- ioProx (Kantech)
- Keri NXT
- Keri Nexwatch (Honeywell)
- Pyramid
- Radio Key
- ReadyKey Pro
- Secura Key
- Rosslare
- Advant CSN (Legic)
- eTag CSN
- I-Code CSN
- I-tag CSN
- ISO 14443A CSN1
- ISO 15693 CSN
- my-d CSN
- Tag-It CSN
- NFC

Installing and Removing Universal Card Authentication Provider

NetlQ Advanced Authentication Framework[™] package includes **Universal Card authentication provider**, which allows you to use card reading devices for authentication.

Installing Universal Card Authentication Provider

The start of installation may be frozen for a time up to 1 minute in the case of offline mode. This delay occurs due to check of digital signature of component.

To install Universal Card Authentication Provider:

1. Run the .msi file. **Universal Card Authentication Provider** will be automatically installed on your computer.



2. Restart your system for the configuration changes made to Universal Card authentication provider to take effect. Click **Yes** to restart the system immediately or **No** if you plan to restart it later manually.

Sor LEGIC reader, it is required to install Universal Card authentication provider using the command line:

msiexec /i UniversalCardBsp.msi TOKEN="XXX" KEY="YYY", where

- XXX Token value (HEX <= 12 byte)
- YYY 3Des Key (HEX 16 byte)

Both values are specific for LEGIC readers.

If **TOKEN/KEY** parameters are not specified or specified with invalid values, the LEGIC reader will not be detected by Universal Card authentication provider.

Removing Universal Card Authentication Provider

In this chapter:

- Microsoft Windows 7/Microsoft Windows Server 2008
- Microsoft Windows 8/Microsoft Windows Server 2012

Microsoft Windows 7/Microsoft Windows Server 2008 R2

- 1. In the Start menu, select Control panel and then double-click Programs and Features.
- 2. Select Universal Card Authentication Provider and click Uninstall.
- 3. Confirm the removal.
- 4. Wait a few seconds until the removal is completed.

Microsoft Windows 8.1/10/ Windows Server 2012/2012 R2

- 1. Right click the Start button, select Programs and Features.
- 2. Select Universal Card Authentication Provider and click Uninstall.
- 3. Confirm the removal.
- 4. Wait a few seconds until the removal is completed.

Smart Card Authentication Provider Policies

After the installation of Universal Card BSP, **Smart Card authentication provider** policies will be successfully added.

The Smart Card Authentication Policy section includes the following policies:

- <u>Certificate Revocation Check Policy</u>
- OMNIKEY Smart Card Selection Policy
- Smart Card Selection Policy



After the configuration of **Smart Card authentication provider** policies, it is required to restart the service or the workstation.

Certificate Revocation Check Policy

The **Certificate Revocation Check Policy** allows to enable or disable certificate revocation check for CSP-compatible contact smart cards.

🔙 Certificate Revoca	ation Check Policy	/×	:
Certificate Revoca	ation Check Policy	Previous Setting Next Setting	
Not Configured Enabled	Comment:	×	
O Disabled	Supported on:	ے ۸ ۲	
Options:		Help:	
		Allows to enable or disable certificate revocation check for CSP- compatible contact smart cards.	1
		OK Cancel Apply	

To access the **Certificate Revocation** policy in the **Group Policy Management Editor** console, expand the following path: **Computer Configuration - > Policies - > Administrative Templates -> Smart Card Authentication Provider**.

Registry settings:

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\NetIQ\BSP\UniversalCardBSP\CSPCardPlugin **CertRevocationCheckEnabled**:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that the policy is enabled

After the **Certificate Revocation Check Policy** is applied, it is necessary to restart computer for the new values to take effect.

OMNIKEY Smart Card Selection Policy

The **OMNIKEY Smart Card Selection Policy** allows you to select which card type will be searched by the OMNIKEY Plugin. You can either specify all supported card types or provide a specific one.



To access the OMNIKEY Smart Card Selection Policy policy in the Group Policy Management Editor console, expand the following path: Computer Configuration -> Policies -> Administrative Templates -> Smart Card Authentication Provider.

Registry settings:

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\NetIQ\BSP\UniversalCardBSP\OmnikeyPlugin **ContactlessCardEnabled**:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that Contactless Card is enabled

OmnikeyCardPolicyEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that the policy is enabled

ProximityCardEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that Proximity Card is enabled

After the **OMNIKEY Smart Card Selection Policy** is applied, it is necessary to restart computer for the new values to take effect.

Smart Card Selection Policy

The **Smart Card Selection Policy** allows you to select which which Smart Card readers plugins will be enabled in the authentication provider.

If **Smartfid Plugin** is enabled, the **RfIdeas Reader Compatible** must be disabled to avoid conflict of plugins.

🔙 Smart Card Selecti	on Policy						_	
Smart Card Selecti	on Policy		Previous S	etting	Next	Setting		
 Not Configured Enabled Disabled 	Comment:							A P A
Options:		Help:						
 OMNIKEY Reader C Rfldeas Reader Con CSP Compatible Co NFC Tags Plugin Smarfid Plugin 	Compatible npatible untact Card Plugin	The Smart type will b You can ei specific or	Card Selectid e search by tl ther specify a le.	on Policy he BSP. all suppo	r allows y	ou to selec	t which card	×
				C	Ж	Cancel	Apply	/

To access the Smart Card Selection Policy in the Group Policy Management Editor console, expand the following path: Computer Configuration - > Policies - > Administrative Templates -> Smart Card Authentication Provider.

Registry settings:

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\NetIQ\BSP\CardBSP

CardPolicyEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that the policy is enabled

CSPCardPluginEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that CSP Contact Card Plugin is enabled

NfcPluginEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that NFC Tags Plugin is enabled

OmnikeyPluginEnabled:

- type: REG_DWORD
- value: 0x0000001 (1)
- description: 1 means that OMNIKEY Reader is enabled

RfIdeasPluginEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that RfIdeas Reader is enabled

SmartfidPluginEnabled:

- value type: REG_DWORD
- value data: 0x0000001 (1)
- description: 1 means that LEGIC Reader is enabled

😵 Currently NFC Tags Plugin is available in beta state.

WFC Tags Plugin and **Smarfid Plugin** are disabled by default starting from Universal Card AP v1.0.126 (if not explicitly enabled in policies).

After the **Smart Card Selection Policy** is applied, it is necessary to restart computer for the new values to take effect.

Installing and Removing Universal Card Authentication Provider via Group Policy

To install/remove NetlQ Advanced Authentication Framework Modules, use:

- Group Policy Management Console (GPMC), which is installed by default on a Domain Controller. To open GPMC, click Start and select Administrative Tools > Group Policy Management.
- **Group Policy Management Editor (GPME)**, which can be opened from GPMC. To open GPME, under domain right-click the group policy object (GPO) you are using to install the software and select **Edit**.

It is highly recommended that you do not use **Default Group Policy**, because it is applicable to entire domain. It is not recommended to install/upgrade client components for all workstations at the same time.

- 1. Create new global security group and new group policy object.
- 2. Connect them:
 - a. Open created group policy object properties.
 - b. Go to the **Security** tab.
 - c. Clear the Apply Group Policy check box for the Authenticated Users group.
 - d. Add created group and select the **Apply Group Policy** check box for it.

Installing Universal Card Authentication Provider via Group Policy

To install Universal Card authentication provider using the group policy:

1. In GPME, in the selected GPO under **Computer configuration > Policies > Software Settings**, right-click **Software Installation** and select **New > Package**.



2. Specify the network path to the installer package.

 ${igodolsephi}$ The directory you are willing to install should be located on network drive.

3. In the **Deploy Software** dialog, select the **Assigned** option and click **OK**.



4. The installer package name, version, state and path are displayed in **Group Policy Management Editor**.

📕 Group Policy Management Edit	Dr				<u>_ ×</u>
File Action View Help					
🗢 🔿 🙍 🖬 🗎 🙆 😖	? 🖬				
AAA [DC.AUTHASAS.LOCAL] Policy AAA [DC.AUTHASAS.LOCAL] Policy Software settings Software settings Software settings Mindows Settings Administrative Templat Metwork Printers System System System System System System Preferences System Preferences Settings Preferences Preferences Preferences Preferences Preferences	Name NetIQ Advanced Authe	Version 4.7	Deployment state Assigned	Source \\10.0.101.250\Install\WAAF4.7.10\	
]				

- 5. Open package properties:
 - a. On the **Deployment** tab: clear the **Uninstall this application when it falls** out of the scope of management check box. It is done to prevent undesirable uninstallation in case of problems as well as for the upgrade to go properly.

Universal Card BSP Properties	? ×
General Deployment Upgrades Categories Modifications Security	
Deployment type	-
C <u>P</u> ublished	
□ Deployment options	
Auto-install this application by file extension activation	
Uninstall this application when it falls out of the scope of management	
Do not display this package in the Add/Remove Programs control panel	
Install this application at logon	
Installation user interface options	
O Basic	
€ <u>M</u> aximum	
Adyanced	
OK Cancel Apply	,

b. On the **Deployment** tab: click the **Advanced** button and select the **Ignore language when deploying this package**option. If you don't set this option, the package will be installed only on OS with package's language.

A	dvanced Deployr	nent Options	×
	Advanced deployr	nent options: ge when deploying this package	
	🗖 Include OLE	class and product information.	
	Advanced diagno:		
	Product code:	{9569E285-85DA-40DE-A705-CACF5E3D32EC}	
	Deployment Cour	it: 0	
	Script name:	\\authasas.local\SysVol\authasas.local \Policies \{745DD48B-0E35-4B06-8E81-F227F7F49159} \Machine\Applications \{219F7A2E-A085-4558-8118-C598C3C97A5B}.aas	i
		OK Cancel	

- c. Clear the **Make this 32-bit X86 application available to Win64 machines** check box (if this option is available).
- 6. Add appropriate 64-bit installer to this group policy object and use settings 5a)-5b).

So The assigned package is installed after you have updated the domain policy and restarted your computer. To update the domain policy immediately, use the gpupdate /force command.

Removing Universal Card Authentication Provider via Group Policy

To remove Universal Card authentication provider using the group policy:

1. In GPME, under **Computer Configuration > Software Settings > Software installation**, right-click the deployed package and select **All tasks > Remove**.

f Group Policy Management Editor					_	미凶
File Action View Help						
🗢 🔿 🔰 🖬 🖬 🖬 🖬						
AAA (DC:AUTHASAS.LOCAL) Police Computer Configuration Policies Software installatic Windows Settings Administrative Templat Monos Settings Administrative Templat System Policies Preferences System Preferences Preferences Preferences Preferences Preferences Preferences Preferences	ttQ Advanced Authe	Version 4.7	Deployment state Assigned	Source \\\ ↓ Auto-Instell Assign Publish All Tasks Refresh Properties Help	AAF4.7.10\ Assign Publish Remove Redeploy application	
Contains actions that can be performed on the it	tem.					

2. In the **Remove Software** dialog, select the **Immediately uninstall the software from users and computers** option and click **OK**.

Remove Software	×
Select removal method:	
 Immediately uninstall the software from users and computers 	
 Allow users to continue to use the software, but prevenew installations 	nt
OK Cancel	

The package is removed after you have updated the domain policy and restarted your computer. To update the domain policy immediately, use the gpupdate /force command.

Big If you have cleared the Uninstall this application when it falls out of the scope of management check box as it was recommended, software will not be uninstalled after

selecting the **Immediately uninstall the software from users and computers**option. In this case, you will need to uninstall it via **Programs and Features/Add or remove programs**.

Upgrading Universal Card Authentication Provider via Group Policy

Option 1: You can add .msi package with new component version to an existing group policy object. However, this option does not prove to be good, because in case of any problems in new version of component, these problems spread on all computers in installation group.

Option 2: The more reliable upgrading procedure implies creating new group policy object for new installers:

- 1. Create new installation group and new Group Policy Object (GPO), add a new .msi package in it.
- 2. After having configured software installation, go to the **Upgrades** tab of package properties.

Universal Card BSP Properties	? ×
General Deployment Upgrades Categories Modifications Security	
Packages that this package will upgrade:	
Add Remove	
Required upgrade for existing packages	
Packages in the current GPO that will upgrade this package:	
	-
OK Cancel Annie	

- 3. Click the Add button.
- 4. In the Add Upgrade Package dialog select the A specific GPO option.

Add Upgrade Package	×
Choose a package from Current Group Policy Object (GPO) A specific GPO: Browse	
Package to upgrade	
 Uninstall the existing package, then install the upgrade package 	
Package can upgrade over the existing package	
OK Cancel	

- 5. Select a GPO which was used for installation of previous NetlQ Advanced Authentication Framework version.
- 6. Select .msi package name.
- 7. Select the Uninstall the existing package, then install the upgrade package option.

😢 Make sure that your new GPO is above the old one in the GPO list.

Troubleshooting

1 This chapter provides solutions for known issues. If you encounter any problems that are not mentioned here, please contact the support service.

Cannot Install Universal Card Authentication Provider

Description:

Error appears when installing Universal Card authentication provider on your computer.

Cause:

- a. You have no space left on the disk.
- b. You are installing Universal Card authentication provider on the OS with the wrong bitness.
- c. You are installing Universal Card authentication provider before installing NetlQ Advanced Authentication Framework.

Solution:

- a. Free the amount of disk space needed for installation.
- b. Check your OS's bitness (x64/x86) and run the corresponding installer (x64/x86).
- c. Install NetlQ Advanced Authentication Framework first.

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