NetIQ Advanced Authentication Framework

Universal Card Authentication Provider Installation Guide

Version 5.1.0

Table of Contents

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 NetIQ Advanced Authentication Framework solution. In particular, it gives instructions as for how to install Universal Card authentication provider.

For more general information on NetIQ Advanced Authentication Framework™ and the authentication software you are about to use, see NetIQ 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.

✴️ **Important notes.** This sign indicates important information you need to know to use the product successfully.

ℹ️ **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 NetIQ 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

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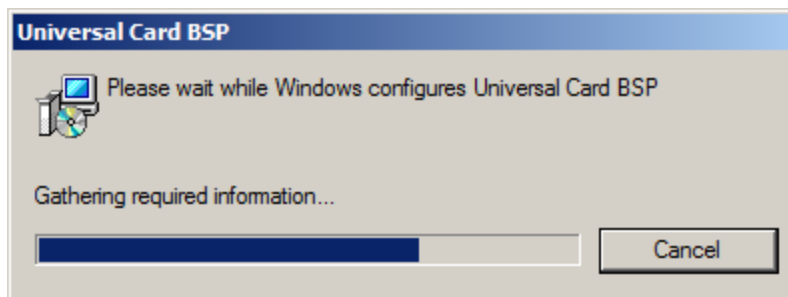
2. Restart your system for the configuration changes made to Universal Card authentication provider to take effect. Click **Yes** to restart the system immediately or **No** if you plan to restart it later manually.

⊗ For 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.

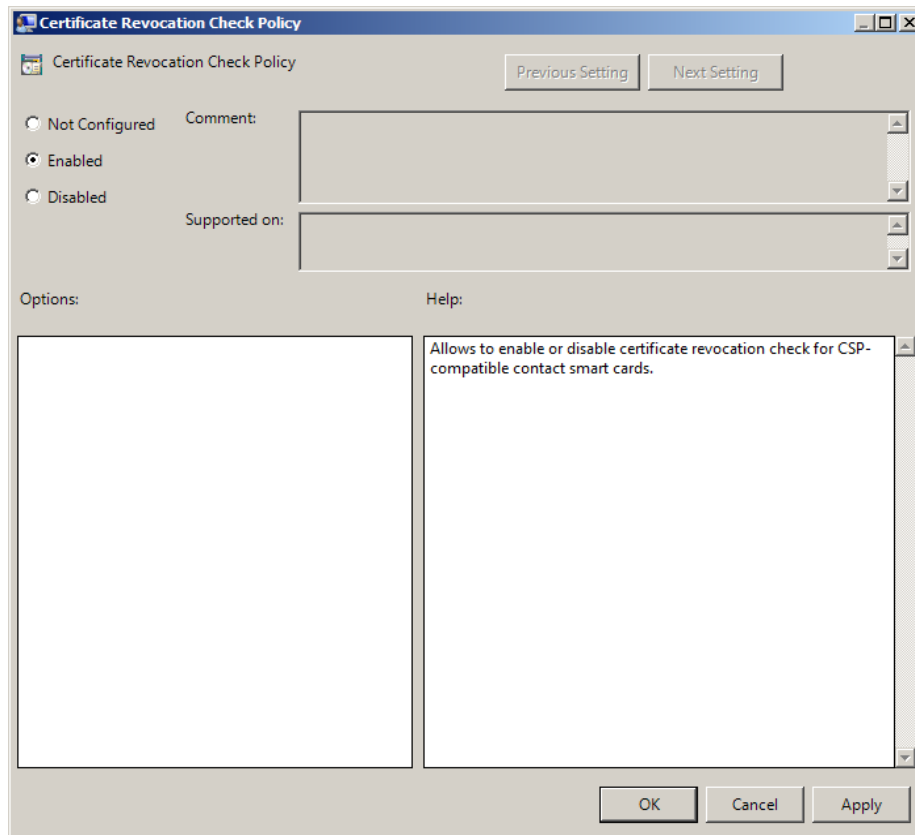The **Smart Card Authentication Policy** section includes the following policies:

- Certificate Revocation Check Policy
- OMNIKEY Smart Card Selection Policy
- Smart Card Selection Policy
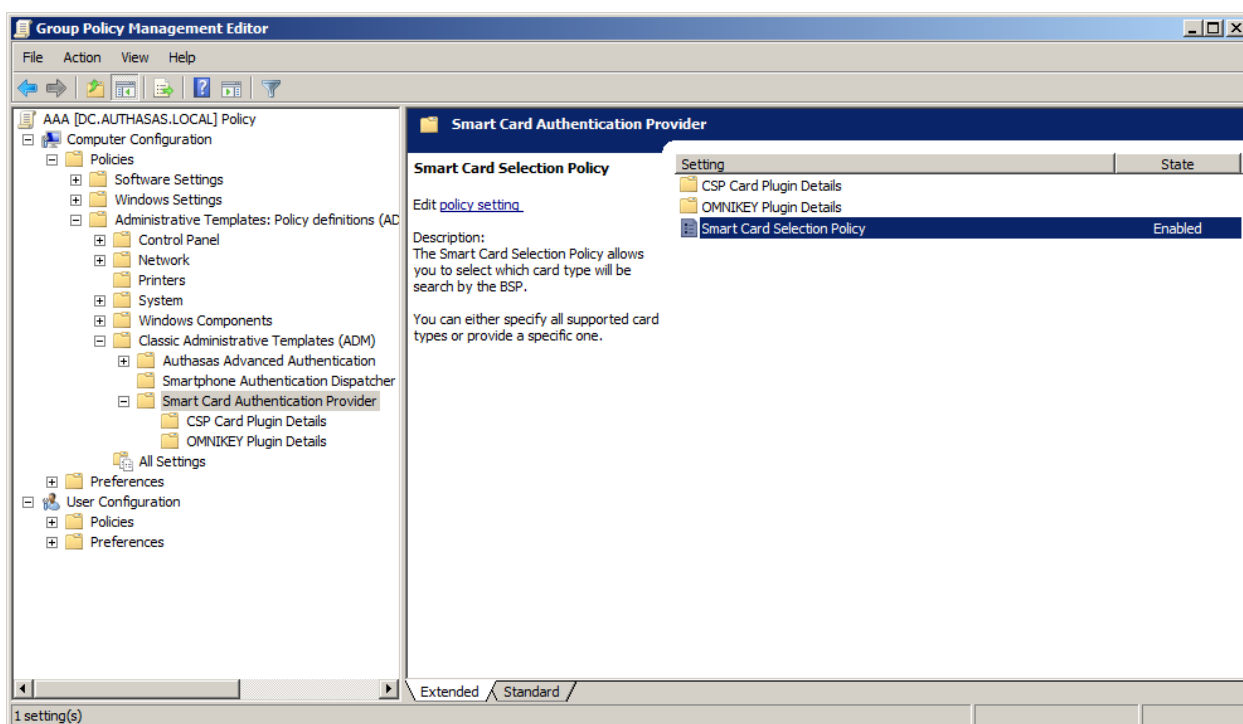
![star icon] After the configuration of **Smart Card authentication provider** policies, it is required to restart the service or the workstation.

Certificate Revocation Check Policy

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

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
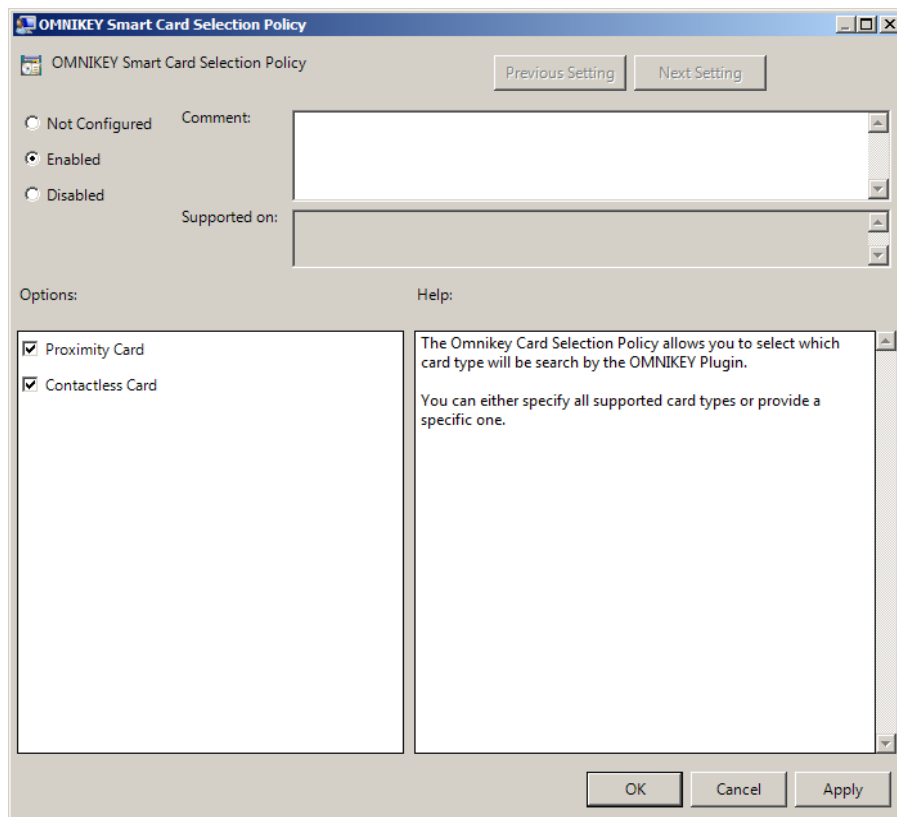**CertRevocationCheckEnabled**:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that the policy is enabled

⊗ 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: 0x00000001 (1)
- description: 1 means that Contactless Card is enabled

OmnikeyCardPolicyEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that the policy is enabled
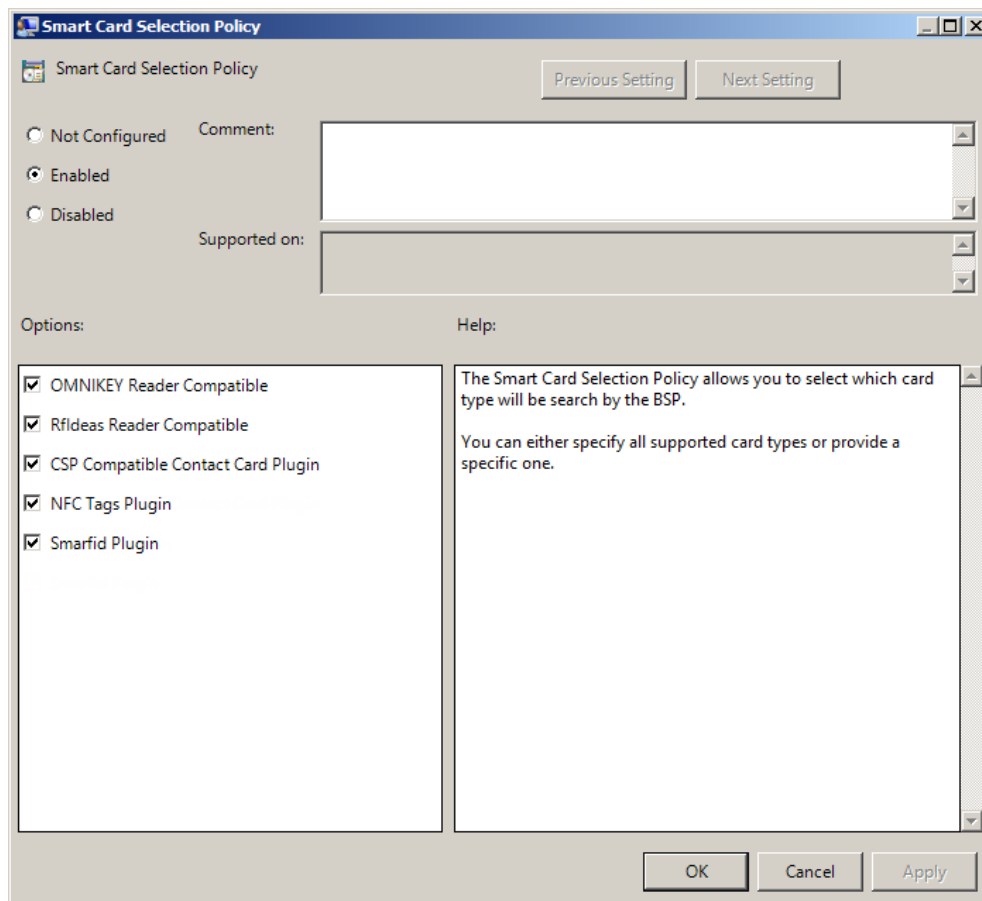
ProximityCardEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that Proximity Card is enabled

⊗ 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.

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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: 0x00000001 (1)
- description: 1 means that the policy is enabled

CSPCardPluginEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that CSP Contact Card Plugin is enabled

NfcPluginEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that NFC Tags Plugin is enabled

OmnikeyPluginEnabled:
- type: REG_DWORD
- value: 0x00000001 (1)
- description: 1 means that OMNIKEY Reader is enabled

RfIdeasPluginEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that RfIdeas Reader is enabled

SmartfidPluginEnabled:
- value type: REG_DWORD
- value data: 0x00000001 (1)
- description: 1 means that LEGIC Reader is enabled

⊛ Currently **NFC Tags Plugin** is available in beta state.

⊛ **NFC 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 NetIQ 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.

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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**.
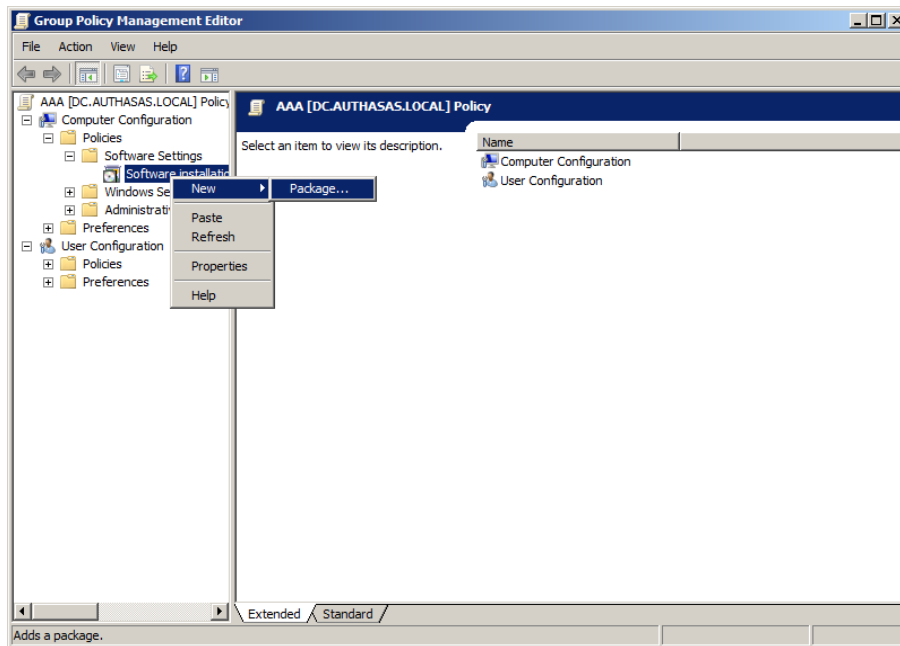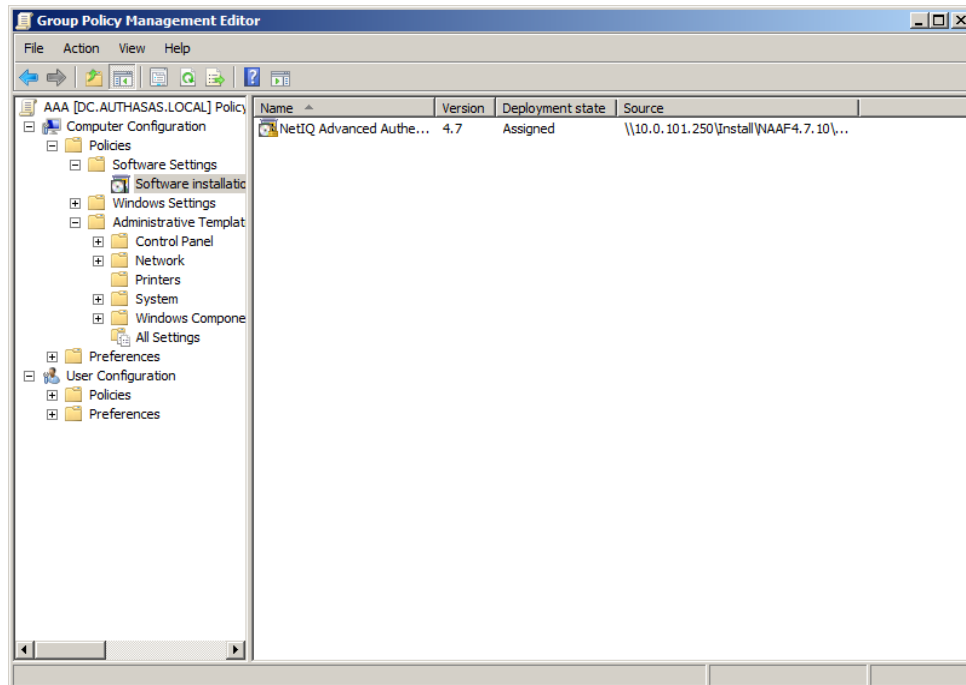

2. Specify the network path to the installer package.

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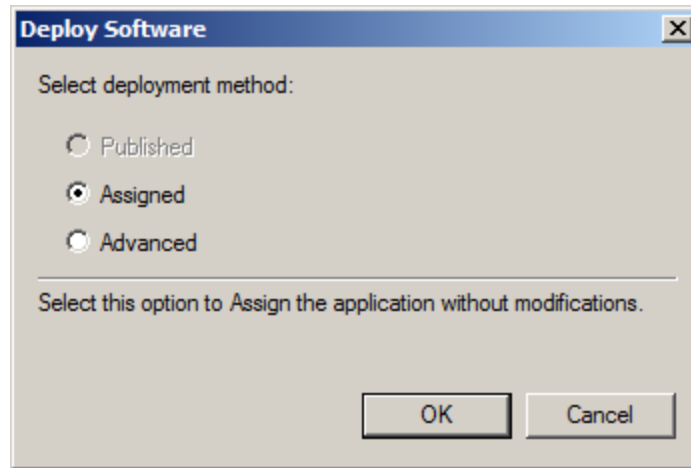
4. The installer package name, version, state and path are displayed in **Group Policy Management Editor**.

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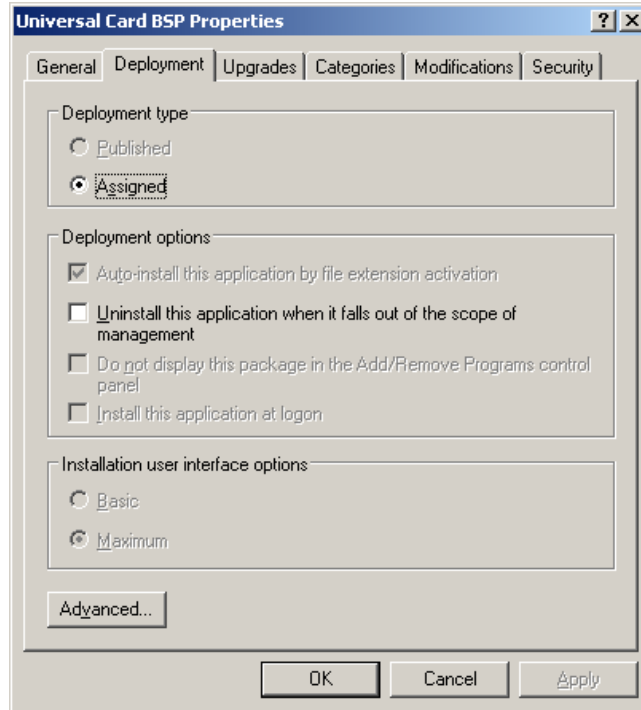
b. On the **Deployment** tab: click the **Advanced** button and select the **Ignore language when deploying this package**option. If you don't set this option, the package will be installed only on OS with package's language.
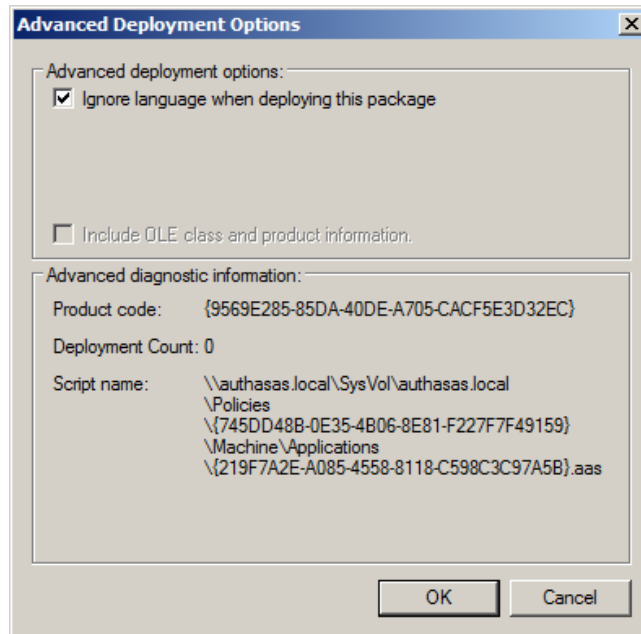

c. Clear the **Make this 32-bit X86 application available to Win64 machines** check box (if this option is available).

6. Add appropriate 64-bit installer to this group policy object and use settings 5a)-5b).

17

⊛ 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.
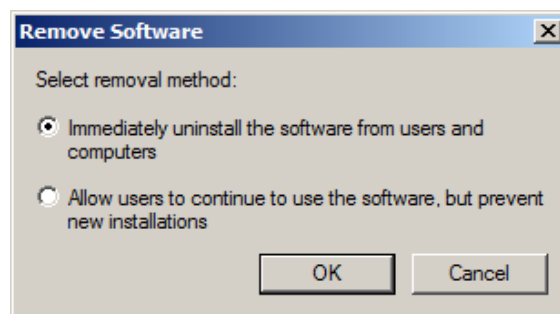
Removing Universal Card Authentication Provider via Group Policy

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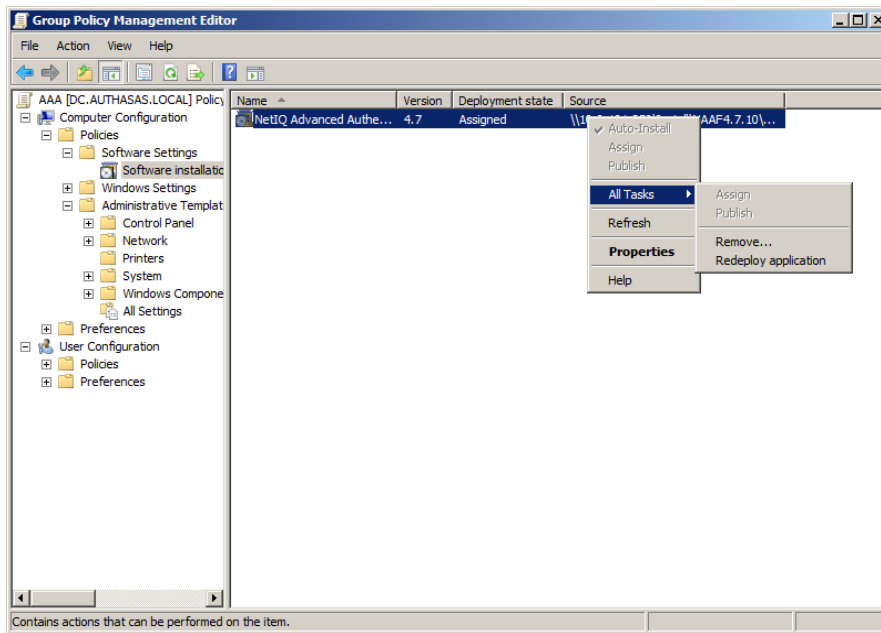
2. In the **Remove Software** dialog, select the **Immediately uninstall the software from users and computers** option and click **OK**.

⊗ 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.

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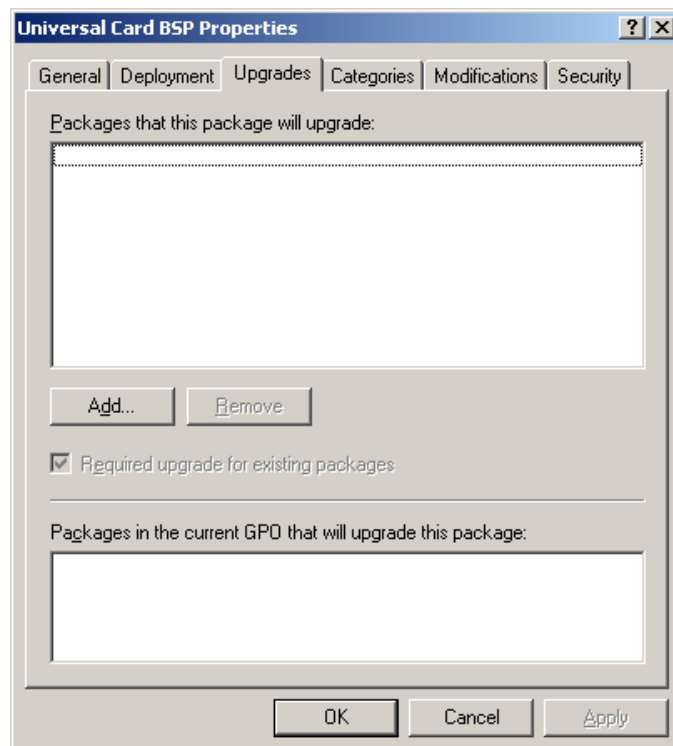
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selecting the **Immediately uninstall the software from users and computers**option. In this case, you will need to uninstall it via **Programs and Features/Add or remove programs**.

## 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.

3. Click the **Add** button.
4. In the **Add Upgrade Package** dialog select the **A specific GPO** option.
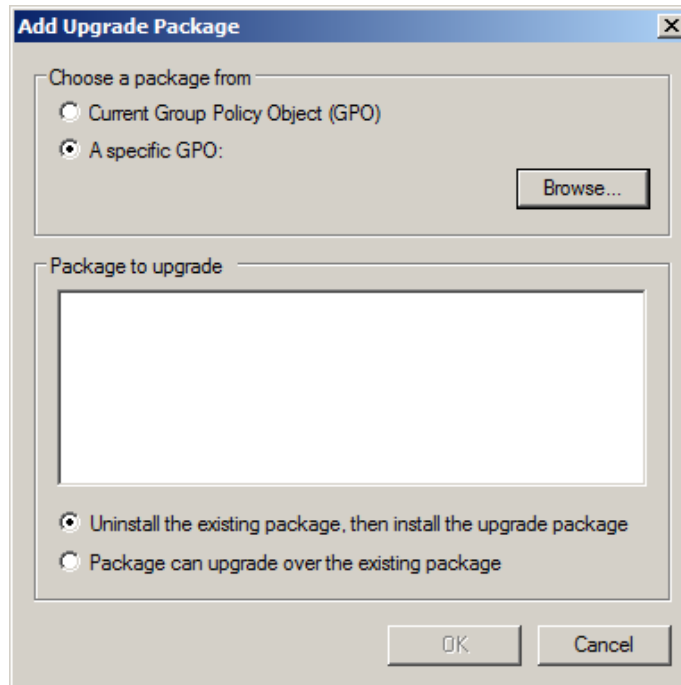
5. Select a GPO which was used for installation of previous NetIQ Advanced Authentication Framework version.
6. Select .msi package name.
7. Select the **Uninstall the existing package, then install the upgrade package** option.

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

Troubleshooting

ℹ 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 NetIQ 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 NetIQ Advanced Authentication Framework first.

Index

A

Authentication 1, 3-4, 7, 9, 11, 13-14, 22-23
Authenticator 3

C

Card 1, 3-5, 7-12, 14-15, 19, 21, 23
Client 3
Control panel 8
Create 14, 21

D

Data 6
Default 14
Domain 14

E

Error 23

G

GPMC 14
GPME 14-15, 19

K

Key 6-7

L

List 5
Logon 3

M

Microsoft Windows Server 2008 4

P

Package 15, 21
Policy 9-12, 14, 16

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