



NetIQ Advanced Authentication Framework

Smartphone Authentication Provider Installation Guide

Version 5.1.0

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Introduction

About This Document


Purpose of the Document


This Smartphone 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 Smartphone type of authentication.

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.

 **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

Smartphone Authentication Dispatcher

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

- Microsoft Windows Server 2008 R2 SP1/ Microsoft Windows Server 2012

Smartphone Authentication Provider

The following system requirements should be fulfilled:

- Microsoft Windows 7 (x64/x86) SP1/ Microsoft Windows 8 (x86/x64);
- Microsoft Windows 2008 Server R2 SP1/ Microsoft Windows 2003 Server (x64/x86) SP2/ Microsoft Windows 2003 Server R2 (x64/x86) SP2/ Microsoft Windows Server 2012;
- Smartphone authentication provider should be installed on the computer with already installed NetIQ Advanced Authentication Framework;
- NetIQ Password Filter should be obligatory installed on all Domain Controllers in the domain.



Smartphone authentication provider should be installed on **every** Authenticore Server.

NetIQ Smartphone Authenticator

NetIQ mobile application requires iOS 6 or higher.

Installing and Removing Smartphone Authentication Provider

NetIQ Advanced Authentication Framework™ package includes Smartphone authentication provider, which allows you to control authentication with the help of NetIQ Smartphone Authenticator.






Installation of Server Components

Installation of Smartphone Authentication Dispatcher

Smartphone Authentication Dispatcher is designed to provide connection between the NetIQ Smartphone Authenticator and Smartphone authentication provider. Smartphone Authentication Dispatcher receives HTTP requests from a mobile device that is running the mobile part of NetIQ. Also it serves requests from Smartphone authentication provider.

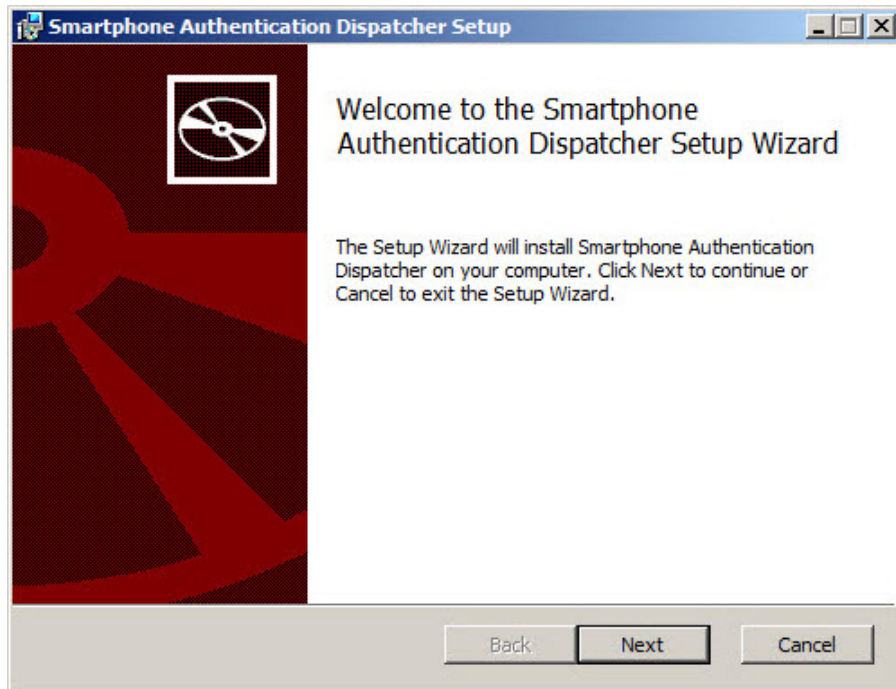
Moreover Smartphone Authentication Dispatcher transfers Push Notifications to mobile devices that are running NetIQ Smartphone Authenticator through the special proxy-server (proxy.authasas.com).

Smartphone Authentication Dispatcher monitors the status of authentication and provides special APIs for BSP (and other exterior applications). It performs a range of tests that verify data authenticity.

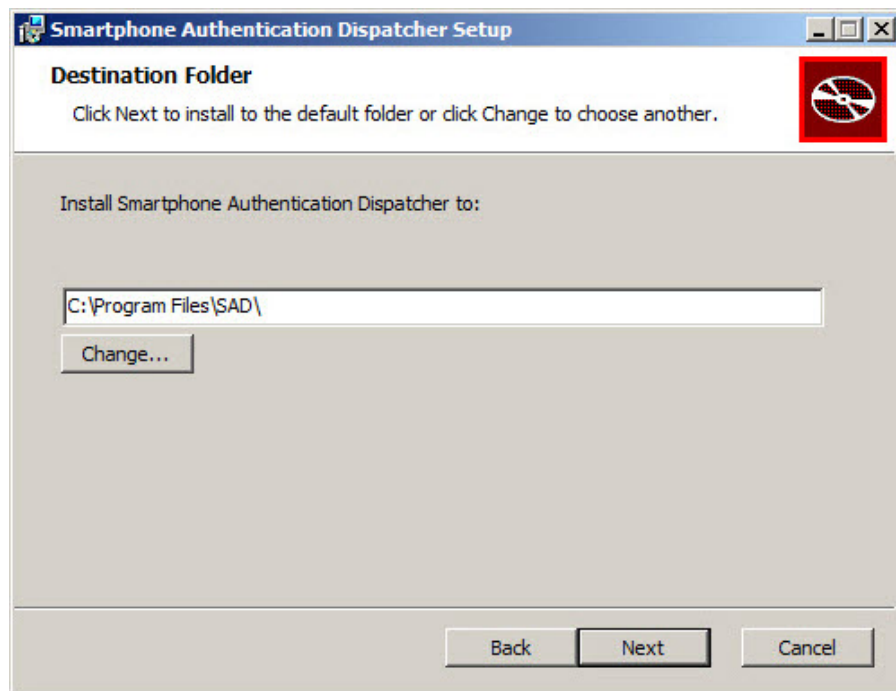
-  Only one Smartphone Authentication Dispatcher can be installed in an environment.
-  Before the installation of Smartphone Authentication Dispatcher make sure that .NET Framework 4.5 is installed on your computer.
-  Smartphone Authentication Dispatcher should have the Internet access (it should have an access to proxy.authasas.com via https protocol, port 443).
-  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.
-  Smartphone Authentication Dispatcher can be installed on the server only.

To install Smartphone Authentication Dispatcher:

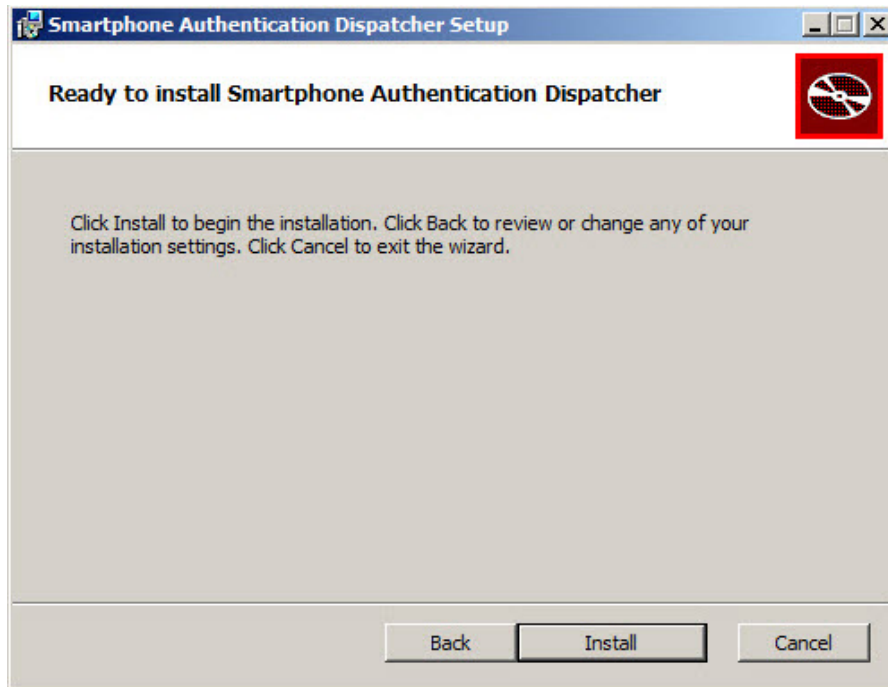
1. Run **SaDispatcher.msi**. The **Smartphone Authentication Dispatcher Setup** window will be displayed.



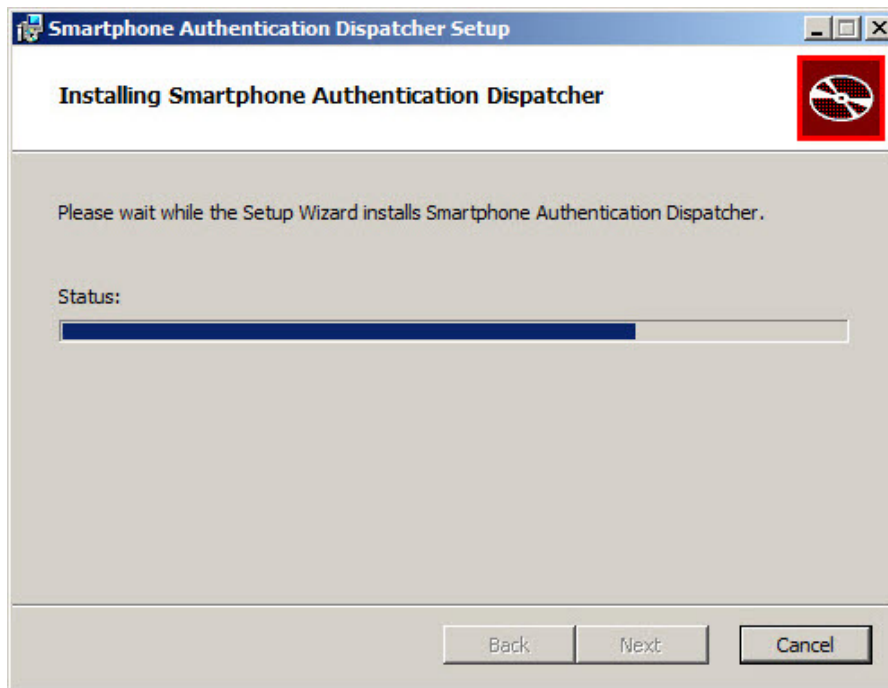
2. Click **Next** to install to the default folder or click **Change** to choose another.



3. Click **Install** to begin the installation. Click **Back** to review or change any of your installation settings. Click **Cancel** to exit the wizard.



4. Please wait while the Setup Wizard installs Smartphone Authentication Dispatcher.



5. Click the **Finish** button to exit the Setup Wizard.

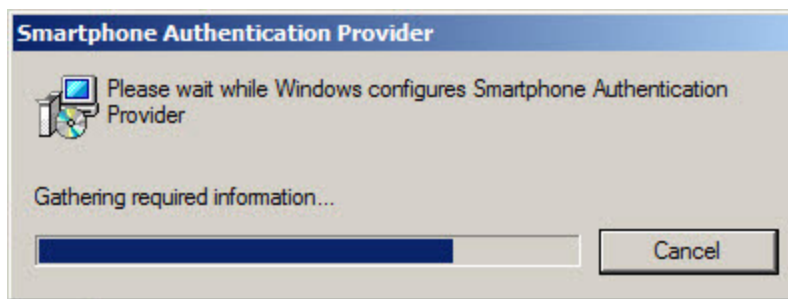


Installation of Smartphone Authentication Provider

Smartphone authentication provider connects to Smartphone authentication Dispatcher which can be installed on different machine. If both Smartphone authentication provider and Smartphone Authentication Dispatcher are installed on the same machine, it is possible to use rpc: 127.0.0.1:10114.

- ❌ 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.
- ❌ Smartphone authentication provider can be installed both on the server and on the client part of NetIQ.

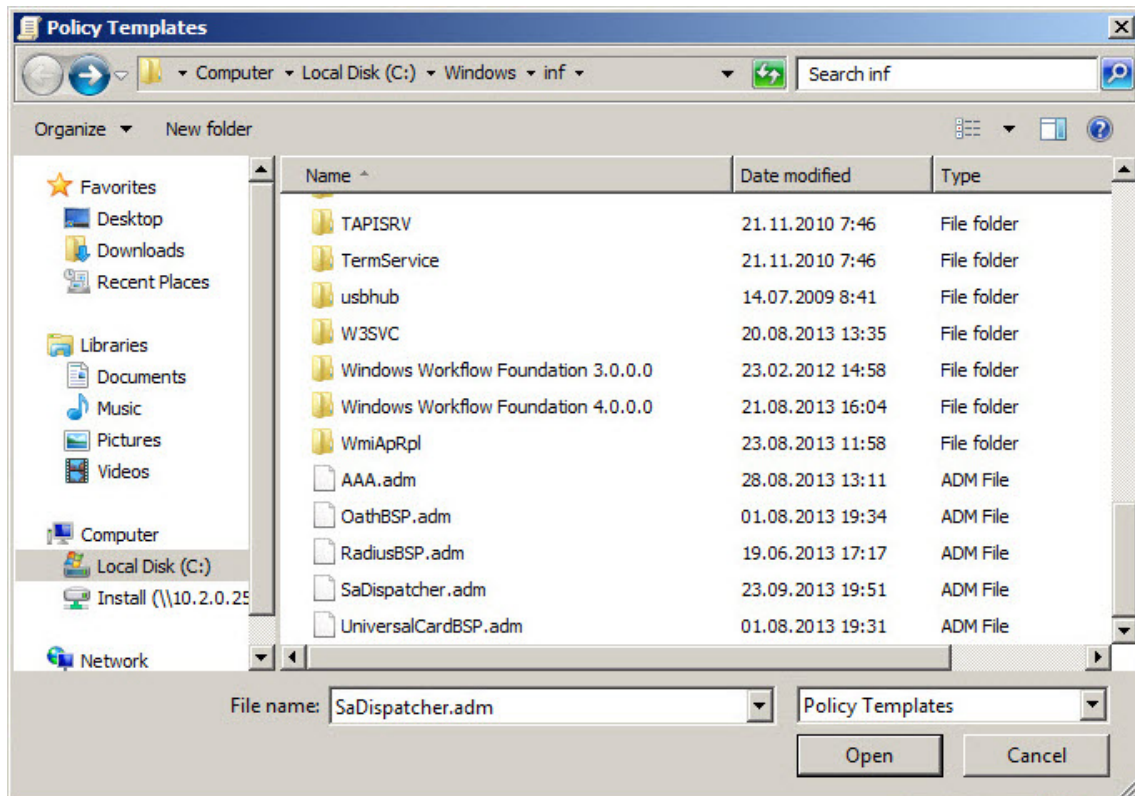
1. Run **SaProvider.msi**. Smartphone authentication provider will be automatically installed on your computer.



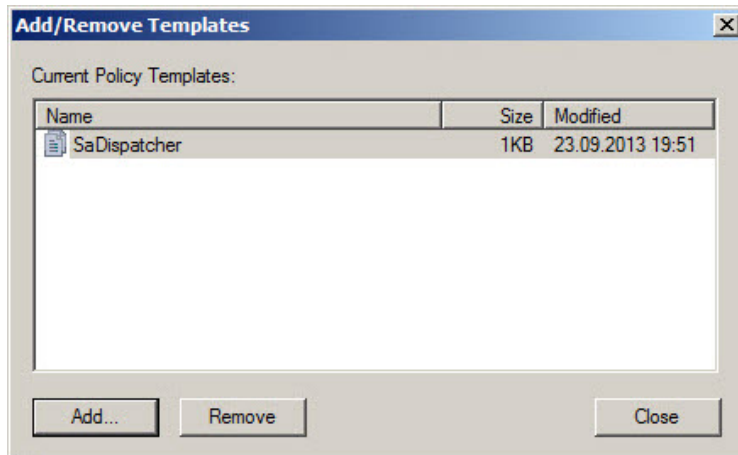
2. You should restart your system for the configuration changes made to Smartphone authentication provider to take effect. Click **Yes** to restart the system immediately or **No** if you plan to restart it later manually.

Configuration of Smartphone Authentication Dispatcher via Group Policy

1. After the installation of both server components (**SaDispatcher.msi** and **SaProvider.msi**), **SaDispatcher.adm** policy template will be added to the **inf** folder (**Computer > Local Disk (C:) > Windows > inf**).

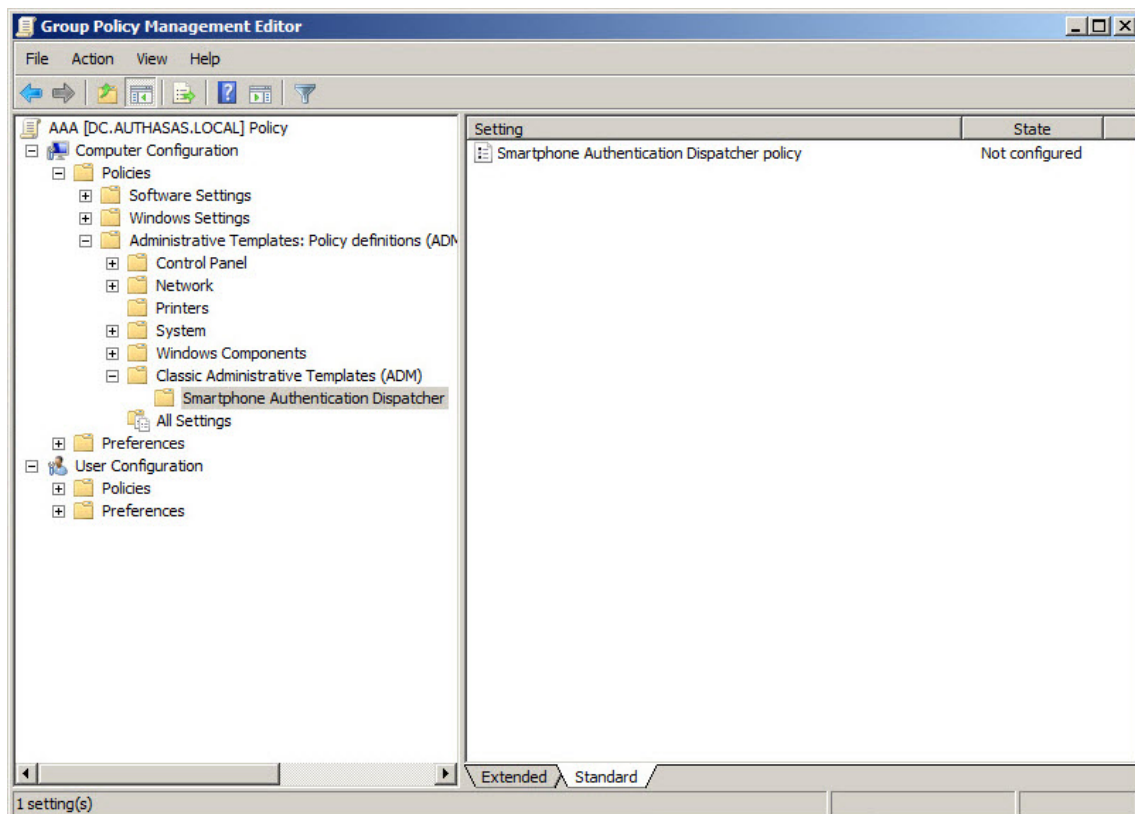


2. In **GPME**, under **Computer Configuration > Policies** right-click **Administrative Templates: Policy definitions (ADMX files)...** and select **Add/Remove Templates**.
3. In the **Add/Remove Templates** dialog, click **Add**.
4. Select and open **SaDispatcher.adm** policy template. Click **Close**.



5. The policy is successfully added. Policy settings are available for editing only when the policy is activated. To activate a policy:


- In **Group Policy Management Editor**, double-click the policy name.
- In the properties dialog, click **Enabled**.



6. **Smartphone Authentication Dispatcher** policy allows you to configure Dispatcher API interfaces. It has the following options:

- Protocol and address of Dispatcher interface that intended for serving SaProvider requests. Supported protocols are 'rpc', 'http' and 'https'.
- Protocol and address of Dispatcher interface that intended for serving MOBILE requests. Supports 'http' protocol only. It is the "endpoint" which will accept connections from mobile devices.
- URL to load into mobile devices during enrollment. This URL will be used by device to access to the Dispatcher from 3G/WI-FI. This adress will be encoded into QR code, scanned by mobile device and used by it to connect to Smartphone authentication Dispatcher.

To save changes, click the **Apply** button.

 The changes take effect after group policy refresh and restart of Smartphone Authentication Dispatcher.

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\BioAPI\BSP\SaDispatcher

parameters: DispBspInterface (REG_SZ), DispExternalMobileInterface (REG_SZ), DispMobileInterface (REG_SZ)

values: rpc:<IPAddressForBSPConnections>:<port>


http://<IPAddressForMobileConnections>:<port>/


http://<ExternalIPForMobileConnections>:<port>

rpc:<IPAddressForBSPConnections>:<port> is protocol and address of Dispatcher interface that are intended for serving SaProvider requests.

http://<IPAddressForMobileConnections>:<port>/ is protocol and address of Dispatcher interface that are intended for serving mobile requests.

http://<ExternalIPForMobileConnections>:<port> is URL to load into mobile devices during enrollment.

 Values that are specified in <> should be filled in.

 These settings should be applied on Authenticore Server and workstations.

Removing Smartphone Authentication Provider

In this chapter:

- [Microsoft Windows 7/Microsoft Windows Server 2008](#)
- [Microsoft Windows Server 2003](#)
- [Microsoft Windows 8/Microsoft Windows Server 2012](#)

Microsoft Windows 7/Microsoft Windows Server 2008

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


Microsoft Windows Server 2003


1. In the **Start** menu, select **Settings > Control Panel > Add or Remove Programs**.
2. Select **Smartphone Authentication Dispatcher** and click **Remove**.
3. Confirm the removal.
4. Select **Smartphone Authentication Provider** and click **Remove**.
5. Confirm the removal.

Microsoft Windows 8/Microsoft Windows Server 2012


1. In the **Search** menu, select **Apps > Control Panel > Programs > Programs and Features**.
2. Select **Smartphone Authentication Dispatcher** and click **Uninstall**.
3. Confirm the removal.
4. Wait a few seconds until the removal is completed.
5. Select **Smartphone Authentication Provider** and click **Uninstall**.
6. Confirm the removal.
7. Wait a few seconds until the removal is completed.

Installing and Removing Smartphone Authentication Provider via Group Policy

 It is recommended for Microsoft Windows Server 2003 users to install **Group Policy Management Console**.

 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.

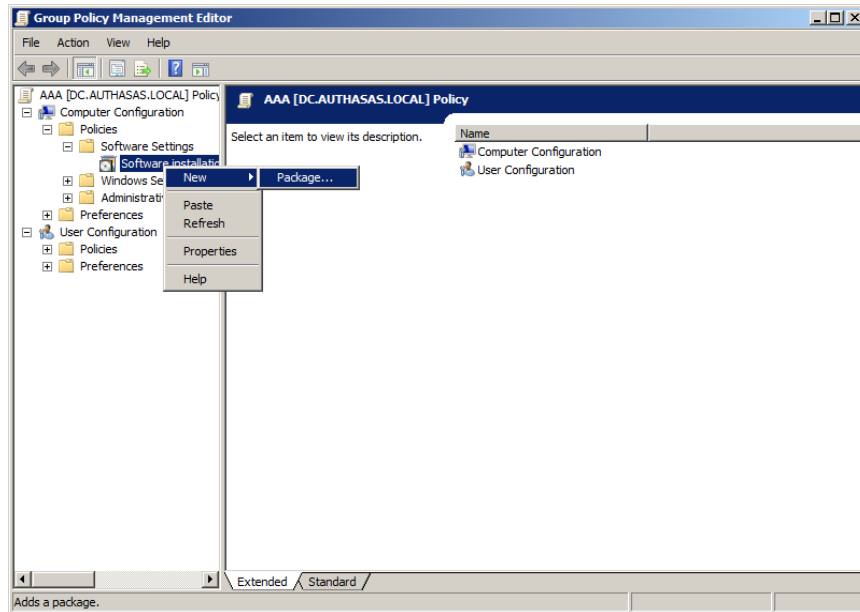
To create new **Group Policy** and configure it:

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 Smartphone Authentication Provider via Group Policy

To install Smartphone 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**.

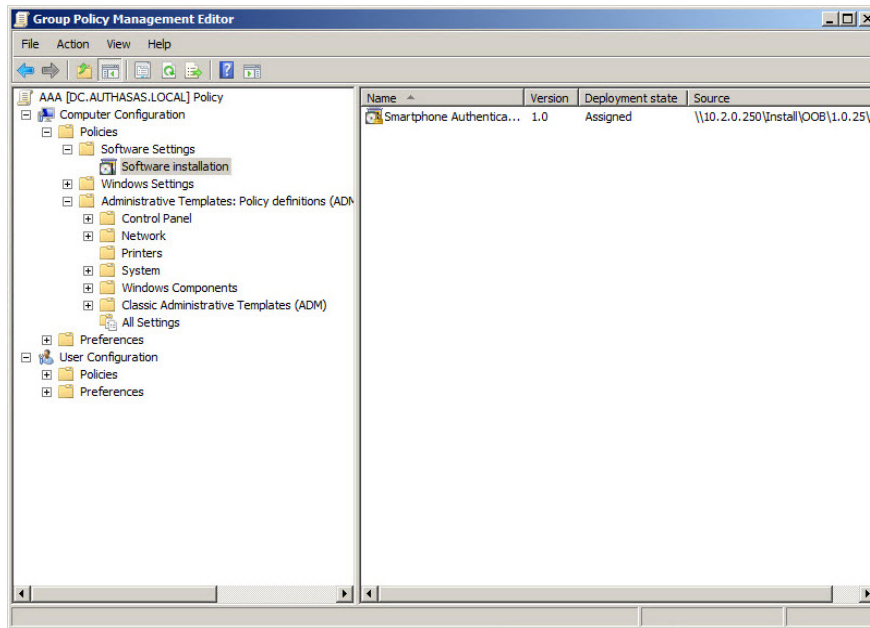


2. Specify the network path to the installer package.

 The directory you are willing to install should be located on network drive.

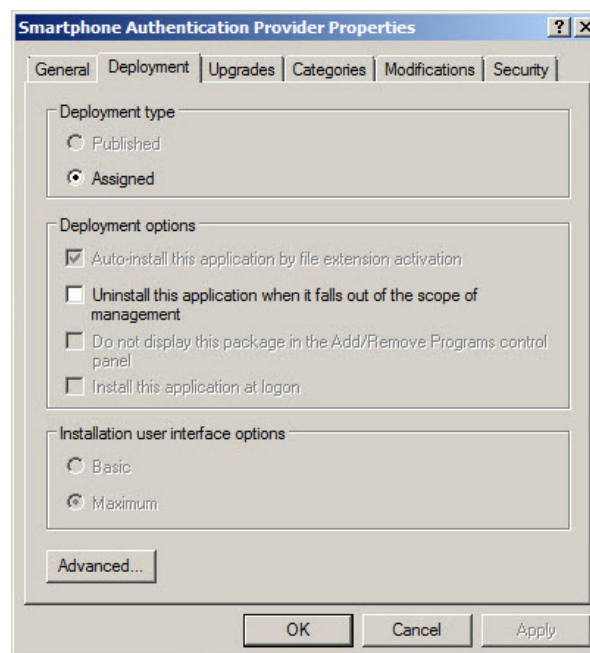
3. In the **Deploy Software** dialog, select **Assigned** and click **OK**.

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

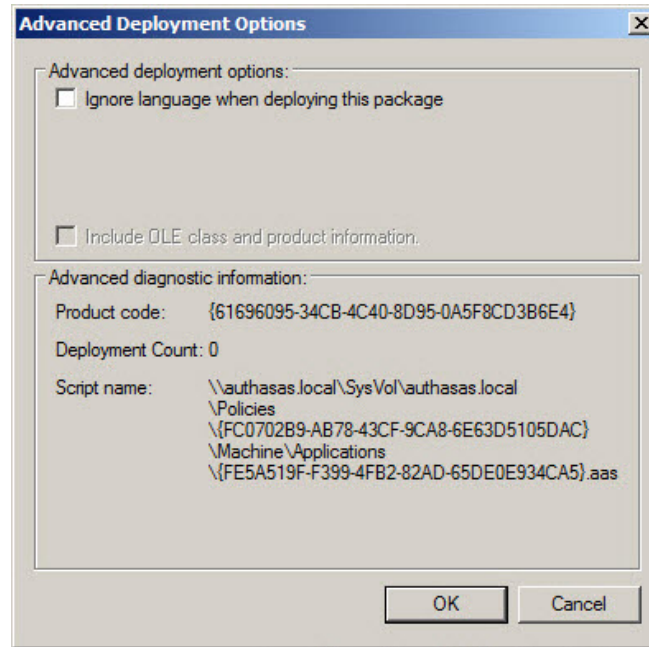


5. Open package properties:

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** check box. If you do not select this check box, 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).



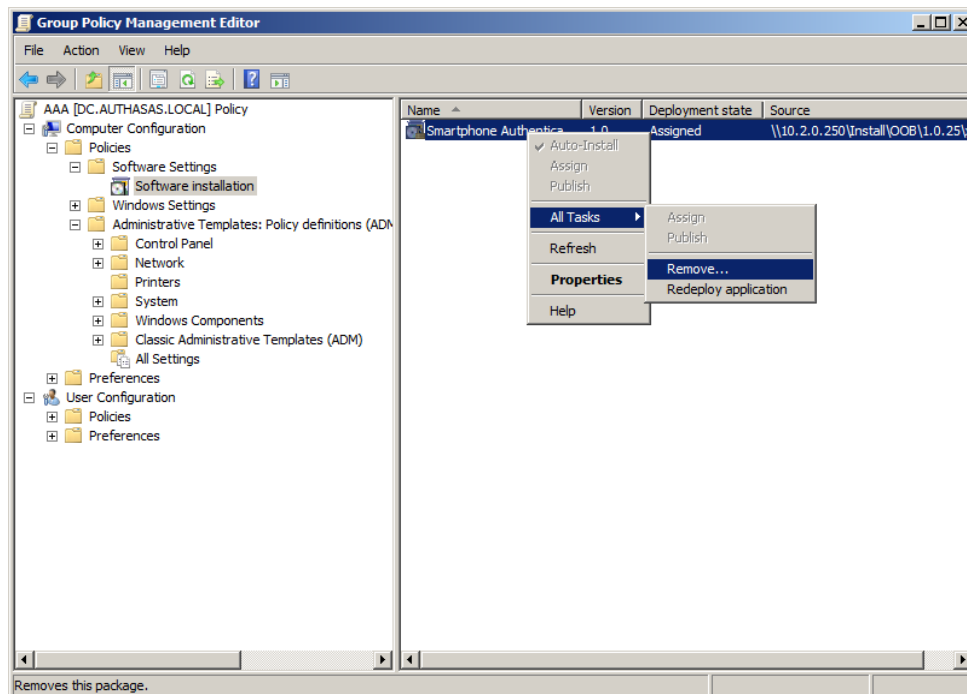
The assigned package is installed after you have updated the domain policy and restarted your computer. To update the domain policy immediately, use the `gpupdate /force` command.

Removing Smartphone Authentication Provider Components via Group Policy

To remove Smartphone 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.



3. In the **Remove Software** dialog, select **Immediately uninstall the software from users and computers** 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.

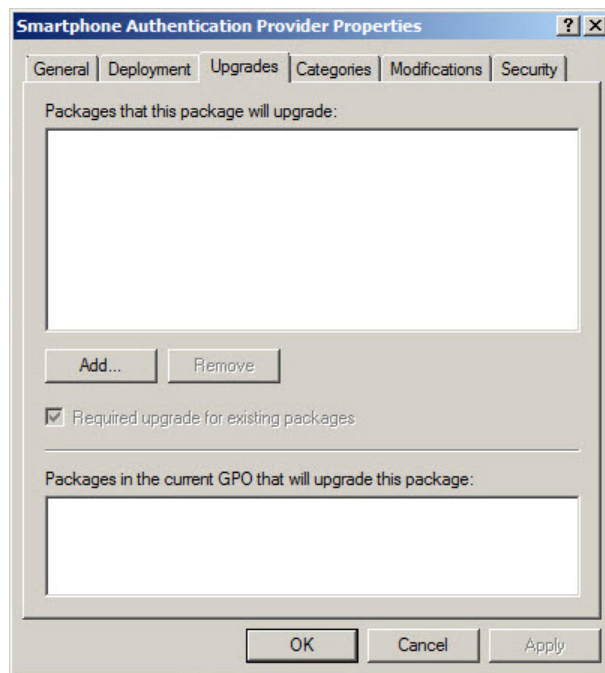
* If you have cleared the **Uninstall this application when it falls out of the scope of management** check box as it was recommended, software will not be uninstalled after selecting **Immediately uninstall the software from users and computers**. In this case, you will need to uninstall it via **Programs and Features/Add or remove programs**. Also see the [Removing Smartphone Authentication Provider](#) chapter.

Upgrading Smartphone Authentication Provider Components via Group Policy

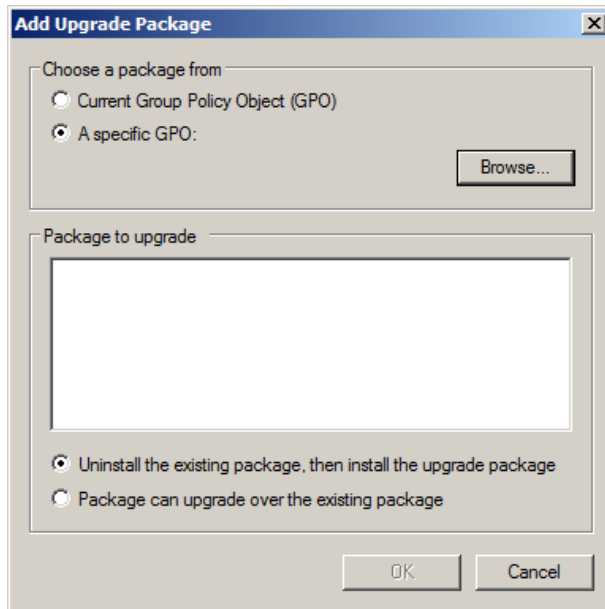
Option 1: You can add .msi package with new component version to an existing group policy object. However, this option does not prove to be good, because in case of any problems in new version of component, these problems spread on all computers in installation group.

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 **A specific GPO**.



5. Select a GPO which was used for installation of previous NetIQ Advanced Authentication Framework version.

6. Select .msi package name;

7. Select **Uninstall the existing package, then install the upgrade package.**

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

Collecting Information From Mobile Devices

While logging in using NetIQ Smartphone Authenticator, geo location data are being stored in NetIQ Advanced Authentication Framework backend with authentication data in Event log. The nature and data set may differ depending on the version of the mobile operating system.

To view information from mobile devices in Event Viewer:

1. Click the **Start** button.
2. Open **Control Panel** and select the **System and Security** section.
3. Open the **Administrative Tools** window and double-click **Event Viewer**.
4. Expand the **Applications and Services Logs** item.
5. Click **NetIQ Advanced Authentication Framework** and open the **Details** tab.

Information can be collected from mobile devices with the following mobile operating systems:

- [Android](#)
- [iOS](#)
- [Windows Phone](#)



GPS and GSM data can be stored only if these modules are supported by the mobile device. Sometimes geo location data may miss or may be incorrect.

Android

The following data can be stored from Android mobile devices:

- OS version
- Board
- Bootloader
- Brand
- CPU abi
- CPU abi2
- Device
- Display
- Fingerprint
- Hardware
- Host

- ID
- Manufacturer
- Model
- Product
- Serial
- Tags
- Type
- User
- Device ID
- Device software version
- Line number
- Network county ISO
- Network operator
- Network operator name
- Phone type
- Sim country ISO
- Sim operator
- Sim operator name
- Sim serial number
- Sim state
- Subscriber ID
- Voice mail alpha tag
- Voice mail number
- Location service type
- Location latitude
- Location longitude
- Time zone display name
- Time zone id

iOS

The following data can be stored from iOS mobile devices:

- Battery level
- Battery monitoring enable
- Battery state
- ID for vendor
- Localized model
- Multitasking supported
- Device name
- Device model

- System name
- System version
- Local time zone
- Timezone name
- Carrier name
- ISO country code
- Mobile country code
- Mobile network code
- Location longitude
- Location latitude

Windows Phone

The following data can be stored from Windows Phone mobile devices:

- Location status
- Location latitude
- Location longitude
- Application current memory usage
- Application memory usage limit
- Application peak memory usage
- Device firmware version
- Device hardware version
- Device manufacturer
- Device name
- Device total memory
- Is keyboard deployed
- Is keyboard present
- Application working set limit
- Device unique id
- Is application preinstalled
- Physical screen resolution height
- Physical screen resolution width
- Original mobile operator name
- Raw DPI X
- Raw DPI Y
- Timezone name

Troubleshooting

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

In this chapter:

- [Cannot Install Smartphone Authentication Provider](#)
- [Error "Can't enroll device: the remote server returned an error: NotFound" on Smartphone](#)

Cannot Install Smartphone Authentication Provider

Description:

Error appears when installing Smartphone authentication provider on your computer.

Cause:

- a. You have no space left on the disk.
- b. You are installing Smartphone authentication provider on the OS with the wrong bitness.
- c. You are installing Smartphone 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.

Error "Can't enroll device: the remote server returned an error: NotFound" on Smartphone

Description:

While scanning the QR code, the following error is displayed: "Can't enroll device: the remote server returned an error: NotFound". Unlike <localhost>:8757, <localIPAddress>:8757 and <publicIPAddress>:8757 cannot be accessed in browser, even though access is being checked on the same server.

Cause:

Probably you have configured the Direct Access on the server.

Solution:

Please, remove the feature and try again.

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