RA System Configuration Guide

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# Audience

The document is aimed at IT Managers, IT Administrators, suppliers of desktop build and support services, and any other person who has responsibility for installation, configuration, support and management of the Identity Agent.

# NHS Digital Identity Agent

Latest NHS Digital Identity Agent is always NHS Digital DIR website:

<http://nww.hscic.gov.uk/dir/downloads/>

# Software & documentation

All software and administrative documentation can be downloaded from <http://nww.hscic.gov.uk/dir/downloads>

The latest Warranted Environment Specification (WES) can be downloaded from   
<https://digital.nhs.uk/services/spine/spine-technical-information-warranted-environment-specification-wes>

The latest path to live (PTL) certificates can be downloaded from  
<https://digital.nhs.uk/services/path-to-live-environments>

# IA Installation Checklist

There is more to logging into Spine than just installing the IA. There are other components to install and these need to be installed in the correct order as some programs copy files to locations in previous programs and others update registry settings which need to be done in the correct order

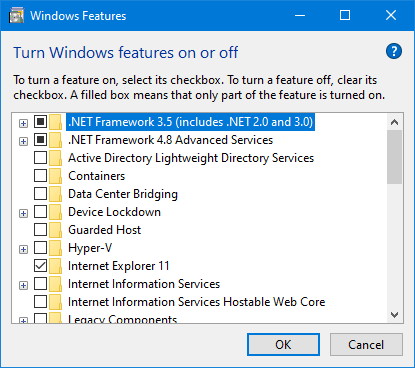
More detailed information can be found in the IA documentation set on the DIR site.

The programs listed below need to be installed in the order given

## Java (JRE)

This must be 32bit only regardless of machine architecture and is needed for any Smartcard management activities. If you are testing other components, this may not be needed for them, but if not installed before the IA, there is manual file copying needed. Be aware of this if you decide to skip Java. The latest version can be downloaded from Java.com

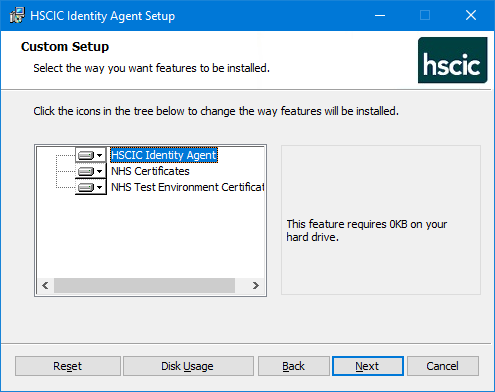
## .Net 3.5.

This is needed for the software set below. By default, Windows 10 does not install the older versions of .Net, but you cannot proceed without them  
Open Control Panel  
Programs and Features  
Turn Windows features on or off  
Check the box for .NET 3.5  


## Gemalto middleware

This is needed period and the IA cannot access the Smartcard without it. This is machine architecture specific

## Identity Agent.

There is only one architecture type (32bit) and this can be installed on either 32bit or 64bit machines. Unless there are specific reasons or project requirements, install the latest version from the DIR site.   
**IMPORTANT NOTE:** By default, the IA **does not** install the certificates required for the test platforms. Ensure the options look like below if installed for use with the test platforms  
  
Certain test platforms require newer certificates than the IA contains and these can be downloaded from <https://digital.nhs.uk/services/path-to-live-environments>  
Ensure the certificates are placed into the correct stores, do not follow the defaults  
RootCA. Place into Trusted Root Certification Authorities  
SubCA. Place into Intermediate Certification Authorities

## Oberthur middleware

Machine architecture specific. This is needed only for Smartcard management activities on Oberthur (series 8 Smartcards). If you will not be managing the cards, this is not needed. The user can change their passcode and renew the Smartcard certificates without this installed

## Smartcard reader drivers

Older versions of Windows correctly installed the drivers for the ubiquitous 3121 card reader, but for some reason, Windows 10 installs the wrong drivers. Check in device manager and if you see a 3021, you need to update the drivers. Again, these are on the DIR site. There are two versions of the reader and the correct drivers need to be installed. Full information is on the DIR site

# Other tools, on the DIR site

## Registry Editor.

This tool will allow simple and easy configuration of the registry settings for the IA to authenticate against different environments and many IA features. There are two versions of the editor. One requires admin rights to function as the tool updates the HKLM area of the registry. The other will run without admin rights but requires a non-admin user to have full control over the IA tree in the registry. This can be done by your local ICT

## CIS Diagnostic tool.

This tool will gather lots of diagnostic information about the PC build to aid in fault finding. It generates two files. A HTML one which is just an overview and a .txt file which is the one needed for detailed diagnostics

## OT Cache Clearance Tool

When using Series 8 (Oberthur) Smartcards, the user’s machine can cache the certificates contained on the Smartcard for ease of access. This can cause a potential issue when the user renews their Smartcard in a machine other than their own as this cache may not be updated with the new Smartcard content. When an attempt to use the Smartcard in this machine, the certificates on the card and in the cache do not match and cause the error “There was a problem reading your Smartcard” to be presented to the user.

The Cache Clearance tool purges the cache and forces the Middleware to rebuild the cache by reading the Smartcard content again, this should remove this issue.

# Supported Operating Systems

The following operating systems are warranted for use:

* + - * Windows 7 SP1 (x86 and x64)
      * Windows 8.1 (x86 and x64)
      * Windows 10 (x64) – Excluding Windows 10(x64)-IOT
      * Windows Server 2008 R2 SP1
      * Windows Server 2012 R2

# Troubleshooting

## Identity Agent generic issue

#### Problem Area

Various issues reading the Smartcard

#### Guidance

#### Windows application generic issue, due to not regularly restart of client machine.

#### Resolution

Some time we have seen Restart Identity Agent helps.

## Java(JRE)

#### Problem Area

Java security exception when trying to access URS or perform CMS operations

#### Guidance

If the Java security is set too high, and/or the site is not in the allowed sites for Java, the user may be blocked from accessing the site. This issue affects the PTL environments more than live.

#### Resolution

Add a security exception to Java. From Control Panel / Java, click on the Security tab, then Edit Site List. Click on Add and put the URL you require in here, e.g. For Integration (INT) add <https://wfe.int.iam.spine2.ncrs.nhs.uk/urswebapp/>. NOTE: the “/” at the end is important or you will still get the security error.

## Browsers

#### Problem Area

Java out of date and other Java errors when accessing CMS functions

#### Guidance

The user may get an error similar to below when trying to perform CMS activities



#### Resolution

Add the site to Internet Explorer trusted sites.

Click on settings, Internet Options, Security, Trusted Sites and finally Sites. Click the add button to add the relevant environment to your trusted site list.

If these settings are controlled by local policy and you are unable to make the change, contact your local ICT department and get them to add the site.

## GATicket.jar

#### Problem Area

After apparently successful authentication, when loading the Spine Portal / CIS Dashboard / first screen of any Spine application, the user may receive the following error, or similar:

**RuntimeException**

java.lang.NoClassDefFoundError: com/gemplus/gemauth/api/GATicket

This is particularly likely if the user has just upgraded their Java version.

#### Guidance

After installing any Identity Agent, the GATicket.jar file should be distributed to the following directory:

**c:\program files\java\< Java version>\lib\ext\x86\** (BTIA13 only)

or

**c:\program files\java\< Java version>\lib\ext** (or **Program Files (x86)** on 64-bit machines)

where **<Java version>** is the active 32-bit Java version.

If the user upgrades their Java version, then the new Java version’s directory structure will not automatically take in this file.

#### Resolution

If GATicket.jar is missing from the relevant Java directory structure, either copy it in from the previous Java version’s directory, or from:

**C:\Program Files\Gemalto\GAC** (BTIA13)

**C:\Program Files\HSCIC\Identity Agent** (or **Program Files (x86)** on 64-bit machines) for HSCIC IA v2 or NHSD IA v2.

If the file cannot be found, remove and reinstall the Identity Agent.

Log out, and back in.

## TicketApiDll.dll

#### Problem Area

After apparently successful authentication, when loading the Spine Portal / CIS Dashboard / first screen of any Spine application, the user may receive the error:

**‘You have been logged out of the application’**

or a similar error, depending on the Spine application accessed.

This is particularly likely if the user has just upgraded their Identity Agent.

#### Guidance

Despite uninstalling an older Identity Agent (such as any of the BT versions), the file TicketAPIDll.dll may be left behind in a Java directory, for example:

**c:\program files\java\jre6\lib\ext\** (or **Program Files (x86)** on 64-bit machines)

or

**c:\program files\java\jre6\lib\ext\x86\** (or **Program Files (x86)** on 64-bit machines)

This is an old version of this file, yet HSCIC Identity Agents will still try and use it and fail. Instead the Identity Agent should be trying to use the latest version of TicketAPIDll.dll, found in:

**C:\Windows\System32** (or **SysWow64** on 64-bit machines)

#### Resolution

Delete any versions of TicketAPIDll.dll from the above **Java** directory structures. Leave the version found in System 32 / SysWow64 in place.

If the file cannot be found, reinstall the Identity Agent.

Log out, and back in.

## Smartcard Reader Driver

#### Problem Area

Problems reading Smartcards on authentication, a typical error being ‘There was a problem reading your Smartcard’.

#### Guidance

Although in many cases the default Microsoft Smartcard reader driver (WUDF) will suffice, it is advisable to download the driver specific to the type of Smartcard reader under use (see section [Smartcard Reader](#_Smartcard_Reader) for help in determining the type of Smartcard reader the user has).

#### Resolution

Download and install the correct Smartcard reader driver from the [DIR site](http://nww.hscic.gov.uk/dir/downloads/).

## Smartcard Reader

#### Problem Area

Problems reading Smartcards on authentication, a typical error being ‘There was a problem reading your Smartcard’.

#### Guidance

The Smartcard readers typically used by the live estate include:

* HP, Lenovo, and Dell (Broadcom) laptop internal
* 3121 Omnikey external USB contact
* 5321 Omnikey external USB contactless

Although in many cases the default Microsoft Smartcard reader driver (WUDF) will suffice, it is advisable to download the driver specific to the type of Smartcard reader under use.

There are currently two different versions of the Omnikey 3121 card reader in circulation. The newer version has a blue peel off for the adhesive tab and says “Made in Mexico” on the label. These readers require the correct NHS drivers from the [DIR site](http://nww.hscic.gov.uk/dir/downloads/).

#### Resolution

Download and install the correct Smartcard reader driver from the [DIR site](http://nww.hscic.gov.uk/dir/downloads/).

## Recommendation to RAA & RAM

**Note: All users performing CMS activities are recommended to set the following value in the Identity Agent registry.  
CardRemovalCheck = False**

#### 64bit Registry Path:

HKLM Registry Path for CardRemovalCheck flag : HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\HSCIC\Identity Agent

HKCU Registry Path for CardRemovalCheck flag : HKEY\_CURRENT\_USER\SOFTWARE\HSCIC\Identity Agent

Policy Registry Path for CardRemovalCheck flag : HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\HSCIC\Identity Agent

#### 32bit Registry Path:

HKLM Registry Path for CardRemovalCheck flag : HKEY\_LOCAL\_MACHINE\SOFTWARE\HSCIC\Identity Agent

HKCU Registry Path for CardRemovalCheck flag : HKEY\_CURRENT\_USER\SOFTWARE\HSCIC\Identity Agent

Policy Registry Path for CardRemovalCheck flag : HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\HSCIC\Identity Agent

Detailed documentation available in Identity Agent Admin guide.

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For further information, feedback, and questions please visit:

<https://www.networks.nhs.uk/nhs-networks/identity-agent>

or sign up to our Slack channel:

[https://identityagent.slack.com](https://identityagent.slack.com/)