MyID Enterprise
Version 12.13

System Interrogation Utility

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Conventions used in this document

- Lists:

  - Numbered lists are used to show the steps involved in completing a task when the order is important.

  - Bulleted lists are used when the order is unimportant or to show alternatives.

- **Bold** is used for menu items and for labels.

  For example:

  - Record a valid email address in **'From' email address**.

  - Select **Save** from the **File** menu.

- *Italic* is used for emphasis:

  For example:

  - Copy the file *before* starting the installation.

  - Do *not* remove the files before you have backed them up.

- ***Bold and italic*** hyperlinks are used to identify the titles of other documents.

  For example: "See the ***Release Notes*** for further information."

  Unless otherwise explicitly stated, all referenced documentation is available on the product installation media.

- A `fixed width` font is used where the identification of spaces is important, including filenames, example SQL queries and any entries made directly into configuration files or the database.

- **Notes** are used to provide further information, including any prerequisites or configuration additional to the standard specifications.

  For example:

  Note: This issue only occurs if updating from a previous version.

- Warnings are used to indicate where failure to follow a particular instruction may result in either loss of data or the need to manually configure elements of the system.

  For example:

  Warning: You must take a backup of your database before making any changes to it.

Contents

1   Introduction

This document contains information on the MyID System Interrogation Utility (SIU) for MyID$^{®}$.

The SIU is a support tool for determining whether the prerequisites stated in the MyID *Installation and Configuration Guide* have been satisfied.

Important: You can run the SIU independently, but its tests are also incorporated into the MyID Installation Assistant, which runs the appropriate tests at the relevant points of the installation process. The MyID Installation Assistant provides a simpler and more user-friendly way to run the SIU tests. This document describes running the SIU independently; for information on running the tests as part of the MyID Installation Assistant, see the *MyID Installation Assistant* section in the *Installation and Configuration Guide*.

The SIU files are provided in the following folder in the MyID installation package:

```
\Support Tools\MyIDInstallationAssistant\SIU\
```

Note: Running the SIU tests does not eliminate the need to consult the core product documentation provided with MyID.

The SIU performs a series of automated tests on the hardware, software, and configuration of the computers of a MyID installation. You are recommended to run the utility both before and after the installation of MyID to verify the following:

- That MyID can be installed on the computers.

- The computers have been configured correctly for use with MyID.

- The upgrade path from MyID 10.x to the current version.

The SIU supports the following system configurations:

- Single-tier and split-tier environments; for example:

    - All tiers (web, application, database) on a single server.

    - Web and application on a common server, with database on a separate server.

    - Web, application, and database, all on separate servers.

- Local testing on a single computer.

- Testing multiple MyID computers on a single domain simultaneously.

- Multiple instances of MyID clients, web servers, application servers, databases and domain controllers, on a single domain.

The SIU is provided in a highly configurable and extensible form as a PowerShell module. You can use it interactively or non-interactively, using a human-readable configuration file (examples are included). For local testing, you must edit the configuration file on each computer separately. For remote testing, you must edit the configuration file only on one master MyID computer on the domain; this computer is used to run all the tests remotely.

Test results are exported into verbose and redacted HTML 5 reports. The results include a reference to the appropriate section of the core product documentation, so that you can rectify any failures easily.

Note: This version of SIU is compatible with the current version of MyID. The SIU will be released with each recent version of MyID, so that it matches the prerequisites in the core product documentation for that version.

For prerequisites and details of installing the SIU, see the readme provided with the SIU release.

2   Running the SIU

Note: If you are running the SIU through remote access, you must make sure that port 5985 is open. The function `Test-RemoteComputersPort` tests that port 5985 is open; if it is not, it reports `Ping to $computer on port 5985 failed`.

To run the SIU, from each of the computers under test (local testing only), or from the master computer under test (remote testing only):

1. From the `Scripts` subfolder, start the `Start-SIUInteractively.bat` batch file. If prompted, either click **Yes** at the User Account Control prompt or enter your credentials to start the SIU.

A form appears that displays the contents of the `SIU-Config.txt` configuration file, if it already exists.

2. If the form is blank, click one of the buttons to load an example configuration file:

    -   **Client Local Example** – As **Split Tier Local Example below, but including a client** computer.

    -   **Single Tier Local Example** – For single-tier MyID installation, run locally on a single computer.

    -   **Split Tier Local Example** – For split-tier MyID installation, this instance of SIU will run locally on this computer only, with test coverage of this tier only. Other instances of SIU on the other tiers are needed to achieve full coverage.

    -   **Split Tier Remote Example** – For split-tier MyID installation, this instance of SIU will run remotely on multiple computers simultaneously, for full test coverage. You must enter the correct administrative credentials for the SIU to use on all computers or each tier when prompted. You must also have installed SIU on each computer with

support for SIU remote mode; see the installation instructions in the readme provided with the SIU release for details.

3. Edit the form as required (tooltips are available on the form).

   Mandatory fields on the form are indicated with an asterisk. The App Servers and Main DB fields are also mandatory if MyID is installed.

   Note: Blank fields on the form will cause the test coverage to be reduced significantly.

   The form performs no data validation, so any errors will be indicated after starting.

4. Set the **Operating Mode** options:

   • **Mode** – select one of the following:

      • **Local** – all tests are run on the same local PC.

      • **RemoteWithSameCredentials** – tests are run on the appropriate PC, all using the same user credentials. You provide the credentials when you select **Start**.

      • **RemoteWithDifferentCredentials** – tests are run on the appropriate PC, all using different user credentials. You provide the credentials when you select **Start**.

   • **Run As** – select one of the following:

      • **Installation User** – all tests are run as the MyID installation user.

      • **Installation User/MyID COM Plus User** – all tests are run as the MyID installation user, except test 259 (**Get BOL status**).

5. Set the **Computers** options:

   • **Clients** – provide the hostname or IP address for each client PC you want to use with MyID.

   • **Web Servers** – provide the hostname or IP address for each web server PC you want to use with MyID.

   • **App Servers** – provide the hostname or IP address for each application server PC you want to use with MyID.

   • **Databases** – provide the hostname or IP address for each database server you want to use with MyID.

   • **Domain Controllers** – provide the hostname or IP address for each domain controller you want to use with MyID.

6. Set the **Users** options:

   • **MyID COM Plus User** – select the username for the MyID COM+ user. This account is used to run the MyID components.

   • **IIS User** – select the username for the MyID IIS user. This account is used to run the MyID website.

   • **Web Service User** – select the username for the MyID web services user. This account is used to run the MyID web services.

- **Authentication WS User** – select the username for the MyID authentication user. This account is used to access the authentication database and access the authentication web service.

7. Set the **SQL Settings** options:

- **DB Type and Auth** – select one of the following:

  - **None** – if no database is used.

  - **SQL Server with Windows Auth (Mutual)** – select this option if you are using SQL Server with Windows authentication for the MyID database.

  - **SQL Azure with SQL Server Auth (NoAuth)** – select this option if you are using Microsoft Azure with SQL Server authentication for the MyID database. See the *Microsoft Azure Integration Guide* for details.

- **Main DB** – provide the name of the main MyID database; by default, this is `MyID`.

- **Auth DB** – provide the name of the MyID authentication database; by default, this is `MyIDAuth`.

- **Archive DB** – provide the name of the archive MyID database; by default, this is `MyID_Archive`.

8. Set the **IIS Settings** options:

- **IIS Protocol** – select one of the following:

  - **HTTP** – use HTTP for the connection to the MyID web server.

  - **HTTPS** – use HTTPS for the connection to the MyID web server.

  - **HTTPS + HTTP** – use both HTTP and HTTPS for the connection to the MyID web server.

- **IIS Website** – select the name of the website that hosts the MyID website. By default, this is **Default Web Site**.

9. Set the **Output** options:

- **Execute Test IDs** – to override the list of tests to be run, provide a comma-separated list of test IDs to be executed. Use leading zeroes to pad the test IDs to three digits. You can include ranges in this list. For example:

  `001-003, 005, 010-142`

- **Customer Name** – type your organization name.

- **Environment Type** – select one of the following:

  - **PreProduction** – for pre-production environments.

  - **Production** – for production environments.

- **Hide Unimportant Results** – omits tests that cannot be run, or cannot be tested, from the results.

10. The **Environment** options are automatically populated when you run the utility.

11. Select **Start**.

    This saves the `SIU-Config.txt` configuration file.

12. If you are testing remotely, you must enter the correct administrative credentials for the SIU to use on all computers or each tier when prompted. You must also have installed SIU on each computer with support for SIU remote mode; see the installation instructions in the readme provided with the SIU release for details.

13. Wait for the verbose and redacted HTML 5 reports to be exported and displayed in the default browser.

    • If you are prompted that Microsoft Edge cannot be started as an administrator, select Close and it will open in Internet Explorer instead.

    • If you are prompted for an application to open HTML files, select Internet Explorer.

    • If you are prompted to set up Internet Explorer, select the Use recommended security and compatibility settings option.

14. Resolve any failures or warnings, then run the SIU again until they are all resolved.

15. Install MyID on all computers, following the instructions in the core product documentation, then run the SIU again.

16. Resolve any failures or warnings, then run the SIU again until they are all resolved.

Alternatively, you can edit the `SIU-Config.txt` configuration file directly, based on one of the supplied example files, then use the `Start-SIUNonInteractively.bat` batch file instead.

Note: The `SIU-Config.txt` configuration file is not present on a fresh install – you are recommended to copy one of the example files from the `SIUExample` folder into the same folder as the `Start-SIUNonInteractively.bat` file, and rename it `SIU-Config.txt`.

You can specify non-standard ports for SQL Server and IIS – see section *5*, *Configuration file format* for details.

The verbose and redacted HTML 5 reports are saved in the `TestReports` subfolder, in files with names in the following formats:

```
Intercede SIU Verbose Report yyyyMMddTHHmmssZ.html

Intercede SIU Redacted Report yyyyMMddTHHmmssZ.html
```

Test data reports that you can use for offline analysis are also saved as comma-separated values in the `TestData` sub-folder, in files with names in the following formats:

```
Intercede SIU Test Statistics yyyyMMddTHHmmssZ.csv

Intercede SIU Test Configuration yyyyMMddTHHmmssZ.csv

Intercede SIU Test Results yyyyMMddTHHmmssZ.csv
```

2.1 Interpreting the results

The verbose HTML 5 report generated by the SIU includes sections for statistics, test configuration, and test results for each computer under test.

Note: The verbose HTML 5 report may contain customer-sensitive information and should not be sent by email to Intercede. It can be uploaded only using one of the following secured connections:

- SFTP using an FTP client (for example, Filezilla):

  `sftp://share.intercede.com` port 22.

- FTPS using an FTP client (for example, Filezilla):

  `ftps://share.intercede.com` port 990.

Contact Intercede customer support (`support@intercede.com`) if you need a reminder of your credentials.

The redacted HTML 5 report is similar, but the following information is excluded:

- Test configuration
- All expected test results
- All actual test results
- All literal parameters to test cases
- All IP addresses
- All usernames of service accounts
- Description of the test case

Each row of test results is a test case. This includes a unique test identifier (ID), a reference to core product documentation, the tier(s) that the test case will execute on and condition (whether MyID must be installed or uninstalled), the test function that was executed, the expected value, the actual value and the outcome. Hover the mouse over each row to obtain a description of the test case in a popup.

The expected value will contain one of the following symbols:

- `==` (Equals)
- `>` (Greater than or equals)
- `=~` (Match)

- `!~` (Not match)

- `∩` (Contains)

The outcome will be one of the following:

- Pass (green), if the expected result has been satisfied.

- Fail (red), if the expected result has not been satisfied and this affects functionality.

- Warning (orange), if the expected result has not been satisfied and this does not affect functionality; for example, an issue that may impact performance, the configuration is untested and unknown by Intercede, or to bring attention to something unusual requiring further checks.

- Not Applicable (light yellow), if it is informational with no expected result; for example, date formats.

- Can't Test (gray), if the test case cannot be performed; for example, missing configuration information or PowerShell cmdlets used by test cases are not supported by the operating system.

- Not Run (gray), if the test case is not applicable to the tier of the computer under test.

- Exception (blue), if the SIU has generated an internal error.

You must check any test failures or warnings against the core product documentation for resolution.

2.2   Upgrading from earlier versions of MyID 10 to the current version

You can also use this version of SIU to check the upgrade path from MyID 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, or 10.8 to the current version of MyID.

All references in the reports to the appropriate section of the core product documentation apply to the current version of the documentation.

3 Description of the installation and uninstallation process

The installer performs the following, which is reverted completely when you uninstall the utility:

1. Sets the PowerShell environment variable `SIUPath` to the SIU `Scripts` subfolder and appends this to the `PSModulePath` environment variable.

2. When run with local or domain administrative privileges, prompts whether the installer should configure the computer to support SIU remote mode.

   > **Warning:** Installing SIU in remote mode may expose your system to potential vulnerabilities.

   Installing the SIU in remote mode performs the following additional steps:

   a. Changes the PowerShell execution policy for the local machine to `RemoteSigned`.

      This is the default execution policy for Windows server computers. Scripts must be signed by a trusted certificate.

      See *docs.microsoft.com/en-us/powershell/module/microsoft.powershell.security/set-executionpolicy?view=powershell-7.1* for details.

   b. Creates registry keys and properties for credential delegation.

      Provides an exportable version of credentials to the remote host.

      > **Warning:** This exposes users to the risk of credential theft from attackers on the remote host.
      >
      > See *docs.microsoft.com/en-us/windows/client-management/mdm/policy-csp-credentialsdelegation* for details

      Allows delegating fresh credentials with NTLM-only server authentication. See *docs.microsoft.com/en-us/windows/client-management/mdm/policy-csp-admx-credssp#admx-credssp-allowfreshcredentialswhenntlmonly* for details.

   c. Enables PowerShell remoting.

      Configures the server to receive remote PowerShell commands. The parameter enables a firewall rule for public networks that allows remote access only from computers in the same local subnet. See *docs.microsoft.com/en-us/powershell/module/microsoft.powershell.core/enable-psremoting?view=powershell-7.1* for details.

   d. Enables Credential Security Support Provider (CredSSP) authentication as server to receive credentials from a remote client computer.

      > **Warning:** This practice increases the security risk of the remote operation. If the remote computer is compromised, when credentials are passed to it, the credentials can be used to control the network session.
      >
      > See *docs.microsoft.com/en-us/powershell/module/microsoft.wsman.management/enable-wsmancredssp?view=powershell-7.1* for details.

e. Appends the domain to the trusted hosts file.

Other computers within the same domain are treated as trusted hosts, which implies they can perform a remote log in session.

See *docs.microsoft.com/en-us/powershell/module/microsoft.powershell.core/about/about_remote_troubleshooting?view=powershell-7.1* for details.

Installing the SIU in local mode does not carry out any of the above configuration.

Installation and uninstallation are fully logged in the `SIU-Installation.log` file.

4 Troubleshooting

If the SIU returns an exception, unusual results, or fails to run:

- Ensure the SIU has been installed correctly on all computers under test.

  If you attempt to run SIU remotely, and you have not installed the SIU on the remote servers, you may see a message similar to:

  ```
  SIU computer myserver.domain.local is not ready or credentials are
  incorrect! [myserver.domain.local] Connecting to remote server
  myserver.domain.local failed with the following error message : The
  WinRM client cannot process the request...
  ```

- Ensure the operating system and Windows PowerShell version are supported.

- Ensure the SIU configuration file is correct for the computers under test and valid for the SIU version.

- Ensure the correct SIU configuration file is being used.

- Ensure the remote credentials have been entered correctly for all computers under test.

- Ensure the remote computers are on the domain and their DNS is correctly registered.

- Ensure firewall rules are correct, if applicable. See the *Windows Firewall settings* section in the **Installation and Configuration Guide** for details of setting up your firewall.

- Ensure local group policy does not have PowerShell script execution disabled.

- Try running the SIU locally instead of remotely on the computer under test.

- Ensure the SIU version on all computers under test is compatible with the MyID version.

- Contact customer support, quoting reference SUP-104.

4.1 Known issues

For issues relating to installation or tests supported in this release, see the readme provided with the SIU release.

- **IKB-259 – SIU does not support systems with separate Web and Web Services servers**

  If you install MyID in a split tier environment where the MyID web server and web services server are installed on different machines, you cannot currently select the web services server in the System Interrogation Utility. If you run the utility against the web server in this environment, errors are displayed, as web services are not installed.

- **IKB-263 – Cannot select databases with SQL Azure when SQL Server Auth is selected**

  When **SQL Azure with SQL Server Auth (NoAuth)** value is selected for the field **DB Type and Auth** in the **SQL Settings** section, it is not possible to select the **Main DB** or **Archive DB** values as they are read-only. To work around this problem, select **SQL Server with Windows Auth (Mutual)** as the **DB Type and Auth** to be used, pick the databases to use, then select **SQL Azure with SQL Server Auth (NoAuth)** again.

- **IKB-272 – Exception reported for test IDs 028 and 235**

Test IDs 028 and 235 will report result `Exception` instead of `Fail` when the website used in Internet Information Services (IIS) is any website other than the **Default Web Site** and that website does not meet the criteria of the test case. Successful completion of the test case will report as `Pass`.

The actual result reported will be:

```
Unexpected exception
'System.Management.Automation.PropertyNotFoundException' occurred
during test ID 235 at line 1 with message 'The property 'Message'
cannot be found on this object. Verify that the property exists.'
```

5 Configuration file format

This chapter contains details of the format of the configuration file.

Strings can include PowerShell environment variables (such as `$HOME` or `$env:COMPUTERNAME`).

Computers can consist of any combination of fully qualified domain names, or IP addresses. To disable testing a specific computer, you can use an empty or `$null` string.

5.1 OperatingMode section

Option	Description	Allowed values	Comments
Mode	SIU operating mode.	`Local`, `RemoteWithSameCredentials` or `RemoteWithDifferentCredentials`	This is a mandatory field. For remote testing, specify whether to supply administrative credentials for the SIU to use on all computers: (`RemoteWithSameCredentials`) or each tier separately: (`RemoteWithDifferentCredentials`).
RunAs	Run tests in the context of user(s).	`Installation User`, `Installation User / MyID Com Plus User`	This is a mandatory field. You can set to `Installation User / MyID Com Plus User`, which will request credentials for the MyID Com Plus User and allow test ID 259 (Get BOL Status) to be run (supported only in Local Mode).

5.2 Computers section

Option	Description	Allowed values	Comments
`Clients`	Hostname or IP address of each Client computer under test.	String, comma-separated strings, empty string, or `$null`	This is a mandatory field if testing locally and this computer is a Client. At least one field from the Computers group is mandatory. Blank fields will cause the test coverage to be reduced significantly.
`WebServers`	Hostname or IP address of each Web Server computer under test.	String, comma-separated strings, empty string, or `$null`	This is a mandatory field if testing locally and this computer is a Web Server. At least one field from the Computers group is mandatory. Blank fields will cause the test coverage to be reduced significantly.
`AppServers`	Hostname or IP address of each Application Server computer under test.	String, comma-separated strings, empty string, or `$null`	This is a mandatory field if MyID is installed. This is a mandatory field if testing locally and this computer is an Application Server. At least one field from the Computers group is mandatory. Blank fields will cause the test coverage to be reduced significantly.

Option	Description	Allowed values	Comments
Databases	Hostname or IP address of each Database computer, cluster, or SQL Azure instance under test.	String, comma-separated strings, empty string, or `$null`	This is a mandatory field if testing locally and this computer is a Database. At least one field from the Computers group is mandatory. Blank fields will cause the test coverage to be reduced significantly.
DomainControllers	Hostname or IP address of each Domain Controller computer under test.	String, comma-separated strings, empty string, or `$null`	This is a mandatory field if testing locally and this computer is a Domain Controller. At least one field from the Computers group is mandatory. Blank fields will cause the test coverage to be reduced significantly.

5.3 Users section

Option	Description	Allowed values	Comments
MyIDComPlusUser	Name of COM+ user (domain account).	String	This is a mandatory field. Specify the user without the domain name.
IISUser	Name of IIS user (domain account).	String	This is a mandatory field. Specify the user without the domain name.
WebServiceUser	Name of web service user (domain account).	String	This is a mandatory field. Specify the user without the domain name. If you are testing MyID 10.6 or earlier, specify a dummy user and ignore the associated results, as this user is not relevant.

Option	Description	Allowed values	Comments
`InstallationUser`	Name of the installation user (domain account).	String	Optional. Specify the user without the domain name. You may need to add the installation user to the configuration file if you are running the SIU non-interactively and see errors relating to the installation user; for example, test 44.
`AuthWSUser`	Name of the authentication web service user (domain account)	String	This is a mandatory field. Specify the user without the domain name.

5.4 SQLSettings section

Option	Description	Allowed values	Comments
`DBTypeAndAuth`	Means of hosting the database and authentication.	`None`, `SQL Server with Windows Auth (Mutual)` or `SQL Azure with SQL Server Auth (NoAuth)`	This is a mandatory field.
`MainDB`	Name of main database.	String	This is a mandatory field if MyID is installed. Blank fields will cause the test coverage to be reduced significantly.
`ArchiveDB`	Name of archive database (if used).	String, empty string, or `$null`	This is an optional field. Blank fields will cause the test coverage to be reduced significantly.
`AuthDB`	Name of authentication database	String	This is a mandatory field if MyID is installed.

5.5 IISSettings section

Option	Description	Allowed values	Comments
`IISProtocol`	IIS protocols enabled.	`None`, `HTTPS`, `HTTPS + HTTP` or `HTTP`	This is a mandatory field.
`IISWebsite`	Name of the website for use with MyID.	String	This is a mandatory field. IIS typically uses `Default Web Site`.

5.6   Ports section

Option	Description	Allowed values	Comments
SQLPortTCP	Specifies the SQL Server port to use.	Integer	This is a mandatory field. Defaults to `1433`.
IISPortHTTP	Specifies the IIS Server port for HTTP.	Integer	This is a mandatory field. Defaults to `80`.
IISPortHTTPS	Specifies the IIS Server port for HTTPS.	Integer	This is a mandatory field. Defaults to `443`.

5.7   Output section

Option	Description	Allowed values	Comments
ExecuteTestIDs	Specifies which tests will be executed.	`All` or comma-separated string containing range of test IDs and/or specific test IDs	This is a mandatory field. All tests will be executed if set to `All`. You may specify a range of test IDs and/or specific test IDs to be executed, for example `001-003, 005, 010-142`.
CustomerName	Name of your organization to include in the filename of the HTML 5 reports (for reference only).	String	This is a mandatory field.
EnvironmentType	Brief description of your environment to include in the filename of the HTML 5 reports (for reference only).	`Production` or `PreProduction`	This is a mandatory field.
HideUnimportantResults	Hides unimportant results (Not Run and Can't Test) from reports for clarity.	`True` or `False`	This is an optional field.

6 Description of derived tests

This chapter contains details of the tests that the SIU runs. The **Reference** column links to the relevant section of the MyID documentation.

Test ID	Group	Tiers	Description	Reference
1	HW	WB,AP,DB,DC	If tier is not Client, test the processor speed is greater than or equal to 2 GHz. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-001*
2	HW	WB,AP,DB,DC	If tier is not Client, test the system RAM is greater than or equal to 4 Gb. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-002*
3	HW	WB,AP,DB,DC	If tier is not Client and test case is run directly in a console session, test the display resolution is greater than or equal to 1024x768. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-003*
4	HW	WB,AP,DB,DC	If tier is not Client and test case is run directly in a console session, test the display resolution is greater than or equal to 1024x768. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-004*
5	HW	WB,AP,DB,DC	If tier is not Client, get a list of all local disks and the free space in gigabytes available. No test required.	*SIU-005*
6	HW	DB	If tier is Database Server, test the free space from the local disk with the most free space is greater than or equal to 40 Gb. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-006*
7	HW	WB,AP	If tier is Web Server or Application Server, get a list of the MyID installation locations on local disks and size of each installation in gigabytes. No test required.	*SIU-007*
8	OS	WB,AP,DB,DC	If tier is not Client, test the operating system installed is Windows Server 2019 or Windows Server 2022.	*SIU-008*
9	DB	AP,DB	If tier is Application Server or Database Server, perform SQL query of master database (including Microsoft SQL Azure instances) and test the database installed is SQL Server 2017, SQL Server 2019, or Microsoft SQL Azure.	*SIU-009*

Test ID	Group	Tiers	Description	Reference
10	DB	AP,DB	If tier is Application Server or Database Server, perform SQL query of master database (including Microsoft SQL Azure instances) and test the database installed is SQL Server 2017, SQL Server 2019, or Microsoft SQL Azure. If not satisfied, display outcome as an "Untested configuration" warning, instead of a failure.	*SIU-010*
11	HW	CL	If tier is Client, test the processor speed is greater than or equal to 1 GHz. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-011*
12	HW	CL	If tier is Client, test the system RAM is greater than or equal to 2 Gb. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-012*
13	HW	CL	If tier is Client and test case is run directly in a console session, test the display resolution is greater than or equal to 1280x768. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-013*
14	HW	CL	If tier is Client and test case is run directly in a console session, test the display resolution is greater than or equal to 1280x768. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-014*
15	HW	CL	If tier is Client, get a list of all local disks and the free space in gigabytes available. No test required.	*SIU-015*
16	HW	CL	If tier is Client, test the free space from the local disk with the most free space is greater than or equal to 2 Gb. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-016*
17	HW	CL	If tier is Client, get a list of the MyID installation locations on local disks and size of each installation in gigabytes. No test required.	*SIU-017*
18	OS	CL	If tier is Client, test the operating system installed is a supported Windows 10 or Windows 11 version. If not satisfied, display outcome as an "Untested Configuration" warning, instead of a failure.	*SIU-018*
19	IE	CL	If tier is Client, test major part of "svcVersion" of Internet Explorer installed is 11. If not satisfied, display outcome as an "Untested Configuration" warning, instead of a failure.	*SIU-019*

Test ID	Group	Tiers	Description	Reference
20	IE	CL	If tier is Client, get if Internet Explorer is installed under "C:\Program Files" and if this is a 64-bit executable.	*SIU-020*
21	IE	CL	If tier is Client, get if Internet Explorer is installed under "C:\Program Files (x86)" and if this is a 32-bit executable.	*SIU-021*
22	DB	DB	If tier is Database Server, check that the SqlServer PowerShell module is installed. This module is required to run the SIU tests against the database. If the SqlServer module is not installed, but the SQLPS module is installed, the tests can still run, but as this module is no longer maintained, this test displays a warning.	*SIU-022*
23	NW	CL,WB,AP,DB,DC	On all tiers, test that each machine successfully performs an ICMP ping test to 0..n Clients.	*SIU-023*
24	NW	CL,WB,AP,DB,DC	On all tiers, test that each machine successfully performs an ICMP ping test to 0..n Web Servers.	*SIU-024*
25	NW	CL,WB,AP,DB,DC	On all tiers, test that each machine successfully performs an ICMP ping test to 0..n Application Servers.	*SIU-025*
26	NW	CL,WB,AP,DB,DC	On all tiers, test that each machine successfully performs an ICMP ping test to Database Server or clusters (excluding Microsoft SQL Azure).	*SIU-026*
27	NW	CL,WB,AP,DB,DC	On all tiers, test that each machine successfully performs an ICMP ping test to 0..n Domain Controllers.	*SIU-027*
28	NW	CL,WB	If tier is Client or Web Server, request status codes for all Web Servers using HTTP URL and test that an invalid/missing response (status code not 200) is not returned for each.	*SIU-028*
29	NW	WB	If tier is Web Server, test firewall profile is either disabled, or (is enabled for domain, firewall rules to allow inbound traffic on TCP port 80 exist and rule is enabled).	*SIU-029*
30	NW	WB	If tier is Web Server, test firewall profile is either disabled, or (is enabled for domain, firewall rules to allow inbound traffic on TCP port 443 exist and rule is enabled).	*SIU-030*
31	AD	CL,WB,AP,DB,DC	On all tiers, test if tier is on domain.	*SIU-031*
32	AD	DC	If tier is Domain Controller, test if service "Active Directory Domain Services" is installed and running.	*SIU-032*
33	OS	CL,WB,AP,DB,DC	On all tiers, get local machine's culture name. No test required.	*SIU-033*

Test ID	Group	Tiers	Description	Reference
34	OS	CL,WB,AP,DB,DC	On all tiers, get local machine's long date format pattern. No test required.	*SIU-034*
35	OS	CL,WB,AP,DB,DC	On all tiers, get local machine's short date format pattern. No test required.	*SIU-035*
36	OS	CL,WB,AP,DB,DC	On all tiers, get local machine's language tag. No test required.	*SIU-036*
37	.NET	WB,AP,DB	If tier is Web Server, Application Server or Database Server, test .NET Framework version installed includes 4.8 or above.	*SIU-037*
38	.NET		If tier is Database Server, test .NET Framework version installed includes 3.5.	*SIU-038*
40	AD	DC	If tier is Domain Controller, test membership of domain group "Domain Users" contains this user.	*SIU-040*
41	AD	WB,AP	If tier is Application Server or Web Server, test membership of local group "Administrators" contains this user.	*SIU-041*
42	AD	WB,AP	If tier is Application Server or Web Server, test impersonation of client after authentication for users in the group "BUILTIN\Administrators"; this should include the installation user.	*SIU-042*
43	DB	DB	If tier is Database Server, test SQL Server role privileges is 'public' for this user or group. Role "public" is a special case and cannot be queried, so it is included by default if the user exists for the server.	*SIU-043*
44	DB	DB	If tier is Database Server, test SQL Server role privileges is 'dbcreator' for this user or group. If this test fails, try adding the `InstallationUser` to the `[Users]` section of the configuration file. See section *5.3*, *Users section*. .	*SIU-044*
45	AD	DC	If tier is Domain Controller, test domain user for MyID COM+ account exists.	*SIU-045*
46	AD	DC	If tier is Domain Controller, test MyID COM+ account is enabled, not locked out and expiry date is less than or equal to 0.	*SIU-046*
47	AD	DC	If tier is Domain Controller, test MyID COM+ account password will never expire and has not expired.	*SIU-047*
48	AD		If tier is Domain Controller, test MyID COM+ account exists on the domain under organizational unit "Service Accounts".	*SIU-048*
49	AD	DC	If tier is Domain Controller, test MyID COM+ account is a member of domain group "Domain Users".	*SIU-049*

Test ID	Group	Tiers	Description	Reference
50	AD	WB,AP	If tier is Application Server or Web Server, test MyID COM+ account is a member of local group "Distributed COM Users".	*SIU-050*
51	AD	AP	If MyID is installed and tier is Application Server, test "Logon as a Service" and "Logon as a Batch Job" are set for this user or group.	*SIU-051*
53	AD	DC	If tier is Domain Controller, test IIS User domain user for IIS user account exists.	*SIU-053*
54	AD	DC	If tier is Domain Controller, test IIS User account is enabled, not locked out and expiry date is less than or equal to 0.	*SIU-054*
55	AD	DC	If tier is Domain Controller, test IIS User account password will never expire and has not expired.	*SIU-055*
56	AD		If tier is Domain Controller, test IIS User account exists on the domain under organizational unit "Service Accounts".	*SIU-056*
57	AD	DC	If tier is Domain Controller, test IIS User account is a member of domain group "Domain Users".	*SIU-057*
58	AD	WB,AP	If tier is Application Server or Web Server, test IIS User account is a member of local group "Distributed COM Users".	*SIU-058*
59	AD	DC	If tier is Domain Controller, test domain user for Web service user account exists.	*SIU-059*
60	AD	DC	If tier is Domain Controller, test Web service user account is enabled, not locked out and expiry date is less than or equal to 0.	*SIU-060*
61	AD	DC	If tier is Domain Controller, test Web service user account password will never expire and has not expired.	*SIU-061*
62	AD		If tier is Domain Controller, test Web service user account exists on the domain under organizational unit "Service Accounts".	*SIU-062*
63	AD	DC	If tier is Domain Controller, test Web service user account is a member of domain group "Domain Users".	*SIU-063*
64	AD	WB,AP	If tier is Application Server or Web Server, test Web service user account is a member of local group "Distributed COM Users".	*SIU-064*
65	COM	DC	If tier is Domain Controller, test MyID COM+ account or group has "Local Launch" permissions and "Local Activation" permissions on Application Servers.	*SIU-065*

Test ID	Group	Tiers	Description	Reference
67	COM	DC	If tier is Domain Controller, test MyID COM+ account or group has "Local Launch" permissions and "Local Activation" permissions on Web Servers.	*SIU-067*
71	COM	AP,DC	If tier is Domain Controller and a split-tier installation, test local Distributed COM Users group on Application Servers has Local Launch, Local Activation, Remote Launch and Remote Activation permissions.	*SIU-071*
75	COM	WB,DC	If tier is Domain Controller and a split-tier installation, test local Distributed COM Users group on Web Servers has Local Launch, Local Activation, Remote Launch and Remote Activation permissions.	*SIU-075*
79	IIS	WB	If MyID is installed and tier is Web Server, test ASP limits for "maxRequestEntityAllowed" is greater than or equal to 524288. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-079*
80	IIS	WB	If MyID is installed and tier is Web Server, test ASP limits for "bufferingLimit" is greater than or equal to 524288. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-080*
82	COM	AP	If tier is Application Server, test "Transaction Timeout" is greater than or equal to 180. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-082*
83	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server and a split-tier installation, test MSDTC default coordinator is local.	*SIU-083*
84	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server and a split-tier installation, test MSDTC security is set to allow remote clients inbound and outbound.	*SIU-084*
85	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server, a split-tier installation and Windows Firewall is enabled, test active rule for "Distributed Transaction Coordinator (TCP-In)" is enabled, allowed inbound for "Domain" networks.	*SIU-085*
86	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server, a split-tier installation and Windows Firewall is enabled, test "Block all incoming connections including those in the list of allowed apps" option is not selected.	*SIU-086*

Test ID	Group	Tiers	Description	Reference
87	IIS	WB	If MyID is installed and tier is Web Server, test each application for each website has Output Caching feature settings disabled for cache. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-087*
88	IIS	WB	If MyID is installed and tier is Web Server, test each application for each website has Output Caching feature settings disabled for kernel cache. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-088*
91	OS	WB,AP,DB	If tier is Web Server, Application Server or Database Server, test that "Do not use temporary folders per session option" is Enabled. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-091*
92	DB	DB	If tier is Database Server, test by reading the SQL Server installation summary log that the "Database Engine Services" feature is installed.	*SIU-092*
93	DB	AP,DB	If tier is Application Server or Database Server or Application Server, test by reading the SQL Server installation summary log that the "Client Tools Connectivity" feature is installed.	*SIU-093*
96	DB	AP,DB	If tier is Application Server or Database Server, perform SQL query of master database (including Microsoft SQL Azure instances) and test that "Full Text Search" is enabled.	*SIU-096*
97	DB	DB	If tier is Database Server, and the database does not exist, test SQL Server role privileges includes "sysadmin" for the installation user. If the database does exist, check that the MyID COM user and MyID Authentication user accounts exist as logins in the MyID and authentication databases; if the logins do not exist, check that the installation user has "sysadmin" privilege so that the installation process can create the logins. **Note:** This test requires the installation user to have either the `sysadmin` role or the `securityadmin` role; if not, this test displays a warning.	*SIU-097*
98	DB	AP,DB	If tier is Application Server or Database Server, perform SQL query of master database (including Microsoft SQL Azure instances) and test that language is "English (United States)".	*SIU-098*

Test ID	Group	Tiers	Description	Reference
99	DB	WB,AP,DB	Check whether the server requires a reboot due to pending updates. You are recommended to restart your server before starting the MyID installation process.	*SIU-099*
100	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Application Development\.NET Extensibility 4.x" is installed.	*SIU-100*
101	RF		If tier is Database Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature ".NET Framework 3.5 Features\.NET Framework 3.5 (includes .NET 2.0 and 3.0)" is installed.	*SIU-101*
102	RF	WB,AP	If tier is Web Server, Application Server or Database Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature ".NET Framework 4.5 Features\.NET Framework 4.5" is installed.	*SIU-102*
103	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Application Development\ASP" is installed.	*SIU-103*
104	RF	WB	If OS is Windows Server 2019 or Windows Server 2022 check for ASP.NET 4.6 or greater is installed.	*SIU-104*
106	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature Windows "Process Activation Service\Configuration APIs" is installed.	*SIU-106*
107	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Common HTTP Features\Default Document" is installed.	*SIU-107*
110	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Common HTTP Features\HTTP Errors" is installed.	*SIU-110*
111	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Health and Diagnostics\HTTP Logging" is installed.	*SIU-111*

Test ID	Group	Tiers	Description	Reference
112	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Application Development\ISAPI Extensions" is installed.	*SIU-112*
113	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Application Development\ISAPI Filters" is installed.	*SIU-113*
114	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Management Tools\IIS Management Console" is installed.	*SIU-114*
115	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Management Tools\IIS Management Scripts and Tools" is installed.	*SIU-115*
117	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Windows Process Activation Service\Process Model" is installed.	*SIU-117*
118	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Security" is installed.	*SIU-118*
119	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Common HTTP Features\Static Content" is installed.	*SIU-119*
120	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Web Server (IIS)\Web Server\Performance\Static Content Compression" is installed.	*SIU-120*
121	RF	WB,AP,DB	If tier is Web Server, Application Server or Database Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "File and Storage Services\Storage Services" is installed.	*SIU-121*
122	RF	WB,AP,DB	If tier is Web Server, Application Server or Database Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature ".NET Framework 4.5 Features\WCF Services\TCP Port Sharing" is installed.	*SIU-122*

Test ID	Group	Tiers	Description	Reference
124	RF	WB,AP,DB	If tier is Web Server, Application Server or Database Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "Windows PowerShell\Windows PowerShell 4.0" is installed.	**SIU-124**
125	RF	WB,AP	If tier is Web Server or Application Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature "WoW64 Support" is installed.	**SIU-125**
126	DB	DB	If tier is Database Server, test language for COM+ account user is "us_english".	**SIU-126**
127	DB	DB	If MyID is installed and tier is Database Server, test SQL database role membership for MyID main database for COM+ account user or group includes roles "db_datareader", "db_datawriter", "db_owner" and "public". Role "public" is a special case and cannot be queried, so it is included by default if the user exists for the database.	**SIU-127**
131	DB	DB	If MyID is installed and tier is Database Server, test SQL database role membership for MyID archive database for COM+ account user or group includes roles "db_datareader", "db_datawriter", "db_owner" and "public". Role "public" is a special case and cannot be queried, so it is included by default if the user exists for the database.	**SIU-131**
140	.NET	CL	If tier is Client, test .NET Framework version installed includes 4.8 or above.	**SIU-140**
144	IE	CL	If tier is Client, test if the Web Server zone mapping for the Web Server hostname under the enhanced and non-enhanced security configuration is a Trusted Site or Local Intranet zone. Test if the Web Server zone mapping for the Web Server IP address under the enhanced and non-enhanced security range is a Trusted Site or Local Intranet zone.	**SIU-144**
145	IE	CL	If tier is Client, test the value of "Require server verification (https:) for all sites in this zone" option is selected. This is HTTPS if bit 2 is set of registry key "Flags" under path: "HKCU:\Software\Microsoft\Windows\CurrentVersion\ Internet Settings\Zones\n" where n =1 for Local Intranet, n = 2 for Trusted Sites.	**SIU-145**

Test ID	Group	Tiers	Description	Reference
146	IE	CL	If tier is Client, test if the Popup blocker in Internet Options is disabled, or enabled and the allowed sites includes the Web Server. This is in registry key "PopupMgr", under path: "HKCU:\Software\Microsoft\Internet Explorer\New Windows" and registry key "x", where x is Web Server, under path: "HKCU:\Software\Microsoft\Internet Explorer\New Windows\Allow" respectively.	*SIU-146*
147	IE	CL	If tier is Client, test state of custom security setting "Initialize and script ActiveX controls not marked as safe for scripting". This is enabled if bits 0-2 are cleared for registry key "1201" under path: "HKCU:\Software\Microsoft\Windows\CurrentVersion\ Internet Settings\Zones\n" where n =1 for Local Intranet, n=2 for Trusted Sites. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-147*
148	IE	CL	If tier is Client, test state of custom security setting "Only allow approved domains to use ActiveX without prompt". This is disabled if bits 0-2 are cleared of registry key "120B" under path: "HKCU:\Software\Microsoft\Windows\CurrentVersion\ Internet Settings\Zones\n" where n =1 for Local Intranet, n=2 for Trusted Sites. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-148*
149	IE	CL	If tier is Client, test state of custom security setting "Check for publisher's certificate revocation". This is disabled if bit 9 is set of registry key "State" under path: "HKCU:\Software\Microsoft\Windows\CurrentVersion\ WinTrust\Trust Providers\Software Publishing" If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-149*

Test ID	Group	Tiers	Description	Reference
150	IIS	WB	If tier is Web Server, test IIS website name is correct and the website is started.	*SIU-150*
152	NW	CL,WB	If tier is Client or Web Server, request status codes for all Web Servers using HTTPS URL and test that an invalid/missing response (status code not 200) is not returned for each.	*SIU-152*
153	DB	DB	If tier is Database Server, test that service "MSSQLSERVER" (SQL Server (MSSQLSERVER)) is installed and running.	*SIU-153*
154	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "APDUCardServer" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-154*
155	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "EAudit" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-155*
156	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "eCS" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "App_role" and "Web_role" roles. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-156*
157	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "Edefice_BOL" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "App_role" and "Web_role" roles. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-157*
158	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "Edefice_CS" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-158*

Test ID	Group	Tiers	Description	Reference
159	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "Edefice_DAL" (exc. Web Servers) has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-159*
160	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "eEventLog" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-160*
161	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "eExternalDataSource" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-161*
162	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "ePKIConfig" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-162*
163	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "Entrust_Admin" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-163*
164	COM	AP	If MyID is installed and tier is Application Server, test that COM+ application "ImportProcessor" has "Enforce access checks for this application" set, "Perform access checks at the process and component level" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-164*

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Test ID	Group	Tiers	Description	Reference
165	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that the "eCS.WebConnector.1" component has "Enforce component level access checks" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-165*
166	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that the "EdeficeBOL_ PKI.EdeficePKI.1" component has "Enforce component level access checks" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-166*
167	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that the "EdeficeBOL_ PKI.PKIHelper.1" component has "Enforce component level access checks" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-167*
168	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that all "MyIDBOL.BOL_.*API.1" components have "Enforce component level access checks" set, as well as the "App_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-168*
169	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that all "MyIDBOL.BOL_.*Web.1" components have "Enforce component level access checks" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-169*
170	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that components have "Enforce component level access checks" set, as well as the "App_role" and "Web_role" roles. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-170*

Test ID	Group	Tiers	Description	Reference
171	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that components have "Enforce component level access checks" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-171**
172	COM	AP	If MyID is installed, tier is Application Server and a COM+ application has both roles (that is, eCS and Edefice_BOL), then test that components have "Enforce component level access checks" set, as well as the "Web_role" role. If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-172**
173	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "APDUCardServer". No test required.	**SIU-173**
174	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "EAudit". No test required.	**SIU-174**
175	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "eCS". No test required.	**SIU-175**
176	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "Edefice_BOL". No test required.	**SIU-176**
177	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "Edefice_CS". No test required.	**SIU-177**
178	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "Edefice_DAL". No test required.	**SIU-178**

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Test ID	Group	Tiers	Description	Reference
179	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "eEventLog". No test required.	*SIU-179*
180	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "eExternalDataSource". No test required.	*SIU-180*
181	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "ePKIConfig". No test required.	*SIU-181*
182	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "Entrust_Admin". No test required.	*SIU-182*
183	COM	AP	If MyID is installed and tier is Application Server, get PoolingPoolSize, RecycleActivationLimit, RecycleCallLimit, RecycleExpirationTimeout, RecycleLifetimeLimit and RecycleMemoryLimit for COM+ application "ImportProcessor". No test required.	*SIU-183*
184	MyID	CL,WB,AP,DB	If MyID is installed and tier is Client, Web Server, Application Server or Database Server, get name of all MyID installations with the security identifier (SID) and the name of the installation user (if possible) used (from the Windows Event Log). No test required.	*SIU-184*
185	MyID	WB,AP	If MyID is installed and tier is Web Server or Application Server, get all tiers used by MyID installations (from the Registry). No test required.	*SIU-185*
186	MyID	AP	If MyID is installed and tier is Application Server, get MyID installation type (ENT/PIV) from Registry.	*SIU-186*
187	MyID	WB	If MyID is installed and tier is Web Server, get MyID installation type (ENT/PIV) from web files installed.	*SIU-187*

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Test ID	Group	Tiers	Description	Reference
188	MyID	AP,DB	If MyID is installed and tier is Application Server or Database Server, get MyID installation type (ENT/PIV) from SQL query of database (including Microsoft SQL Azure instances).	**SIU-188**
189	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "APDUCardServer" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-189**
190	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "EAudit" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-190**
191	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "eCS" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-191**
192	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "Edefice_BOL" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-192**
193	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "Edefice_CS" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-193**
194	COM	AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "Edefice_DAL" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-194**
195	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "eEventLog" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	**SIU-195**

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Test ID	Group	Tiers	Description	Reference
196	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "eExternalDataSource" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-196*
197	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "ePKIConfig" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-197*
198	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "Entrust_Admin" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-198*
199	COM	WB,AP	If MyID is installed and tier is Application Server or Web Server, test that the COM+ application "ImportProcessor" has DCOM security setting "Authentication Level For Calls" set to "Packet Privacy". If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-199*
200	System	DC	If tier is Domain Controller, test that every computer on the domain has a unique SID (Security Identifier). Report computer names with duplicate SID values.	*SIU-200*
201	SIU	CL,WB,AP,DB,DC	On all tiers, test that SIU is running as an administrator user. If not satisfied, display outcome as a "Limited SIU Test Coverage" warning, instead of a failure.	*SIU-201*
202	SIU	CL,WB,AP,DB,DC	On all tiers, test that SIU can detect if MyID is or is not installed on the Application Servers (because a limited user cannot make WMI calls). If not satisfied, display outcome as a "Limited SIU Test Coverage" warning, instead of a failure.	*SIU-202*
203	HW	WB,AP,DC	If tier is Web Server, Application Server or Domain Controller, test the free space from the local disk with the most free space is greater than or equal to 2 Gb. If not satisfied, display outcome as a "Performance" warning, instead of a failure.	*SIU-203*

Test ID	Group	Tiers	Description	Reference
204	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-204*
205	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-205*
206	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "APDUCardServer" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-206*
207	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "EAudit" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-207*
208	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "eCS" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-208*
209	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "Edefice_BOL" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-209*

Test ID	Group	Tiers	Description	Reference
210	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "Edefice_CS" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-210*
211	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "eEventLog" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-211*
212	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "eExternalDataSource" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-212*
213	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "ePKIConfig" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-213*
214	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "Entrust_ Admin" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-214*
215	COM	WB	If MyID is installed, tier is Web Server and is a proxy (Web Server is different to the Application Server), test that the COM+ application proxy "ImportProcessor" is enabled, is a proxy, is a server application and that the proxy server is the Application Server. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	*SIU-215*

Test ID	Group	Tiers	Description	Reference
217	AD	DB	If tier is Database Server, test membership of local group Administrators contains the installation user. If not satisfied, display outcome as a "Functionality" warning, instead of a failure.	**SIU-217**
218	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server and a split-tier installation, test authentication level is "None" if using SQL authentication, otherwise authentication level is "Mutual".	**SIU-218**
219	DB	DB	If tier is Database Server, check if service "SQL Server Browser" is running.	**SIU-219**
220	DB	DB	If tier is Database Server, check if service "MS SQL SERVER" is running.	**SIU-220**
221	DB	DB	If tier is Database Server, check if service "MS SQL FD Launcher" is running.	**SIU-221**
222	DB	DB	If tier is Database Server, check if service "SQL SERVER AGENT" is running.	**SIU-222**
226	MyID	AP	If MyID is installed and tier is Application Server, test that file "MyID.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the main database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	**SIU-226**
227	MyID	AP	If MyID is installed and tier is Application Server, test that file "MyIDaudit.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the main database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	**SIU-227**
228	MyID	AP	If MyID is installed and tier is Application Server, test that file "MyIDarchive.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the archive database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	**SIU-228**

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Test ID	Group	Tiers	Description	Reference
229	MyID	AP	If MyID is installed and tier is Application Server, test that file "MyIDbinary.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the main database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	*SIU-229*
230	MyID	AP	If MyID is installed and tier is Application Server, test that file "import.udl" has exists, Read permissions for the COM+ user, Initial Catalog pointing to the main database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	*SIU-230*
231	MyID	AP	If MyID is installed and tier is Application Server, test that file "importaudit.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the main database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	*SIU-231*
232	MyID	AP	If MyID is installed and tier is Application Server, test that file "importarchive.udl" exists, has Read permissions for the COM+ user, Initial Catalog pointing to the archive database and Data Source pointing to the Database Server (including Microsoft SQL Azure instances). Test the database connection by reading a data row and comparing with values queried using a known connection string.	*SIU-232*
233	IIS	WB	If MyID is installed and tier is Web Server, test application pool "MyIDPoolClassic" exists and has started.	*SIU-233*
234	IIS	WB	If MyID is installed and tier is Web Server, test application pool "MyIDWebService" exists and has started.	*SIU-234*
235	NW	CL,WB	If tier is Client or Web Server, request status codes for all Web Servers using HTTP URL and test that a valid response (status code 200) is not returned for each if the supplied configuration is HTTPS. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-235*

Test ID	Group	Tiers	Description	Reference
236	NW	CL,WB	If tier is Client or Web Server, request status codes for all Web Servers using HTTPS URL and test that a valid response (status code 200) is not returned for each if the supplied configuration is HTTP. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-236*
238	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the Role and Feature ".NET Framework 4.5 Features\ASP.NET 4.5" is installed.	*SIU-238*
239	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-239*
240	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-240*
241	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-241*
242	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-242*
243	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-243*
244	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-244*

Test ID	Group	Tiers	Description	Reference
245	RF	WB	If tier is Web Server and OS is Windows Server 2019 or Windows Server 2022, test the security sub-roles of Role and Feature "Web Server (IIS)\Web Server\Security" is installed. If not satisfied, display outcome as a "Security" warning, instead of a failure.	*SIU-245*
246	OS	AP	If tier is Application Server, test that the following folders exist and match a simple FIPS-compliant SHA-256 hash of the list of file names contained within:- "[Program Files]\Common Files\System\ado"	*SIU-246*
247	OS	AP	If tier is Application Server, test that the following folders exist and match a simple FIPS-compliant SHA-256 hash of the list of file names contained within:- "[Program Files]\Common Files\System\msadc"	*SIU-247*
248	IIS	CL,WB	If MyID is installed and tier is Client or Web Server, request status codes for all Web Servers to path "MyIDProcessDriver" using HTTPS or HTTP URL (according to configuration) and test that an invalid/missing response (status code not 200) is not returned for each.	*SIU-248*
249	IIS	CL,WB	If MyID is installed and tier is Client or Web Server, request status codes for all Web Servers to path "MyIDDataSource" using HTTPS or HTTP URL (according to configuration) and test that an invalid/missing response (status code not 200) is not returned for each.	*SIU-249*
250	IIS	CL	If MyID is installed and tier is Client, test the Desktop Client configuration file exists, it does not contain invalid XML and all of the URLs in the "Servers" section of the Desktop Client configuration file match the URLs of all the Web Servers for the given IIS protocol configuration.	*SIU-250*
251	IIS	WB	If tier is Web Server and IIS protocol is "HTTPS + HTTP" or "HTTPS", check IIS website SSL bindings point to a certificate that is valid for the default website and DNS matching the web servers.	*SIU-251*
252	Services	AP	If MyID is installed and tier is Application Server, test that service "eBureauSrv" has Startup Type: Auto, Log On As: COM+ User, State: Running, or the service is not installed.	*SIU-252*
253	Services	AP	If MyID is installed and tier is Application Server, test that service "eCertificateSrv" has Startup Type: Auto, Log On As: COM+ User, State: Running.	*SIU-253*

Test ID	Group	Tiers	Description	Reference
254	Services	AP	If MyID is installed and tier is Application Server, test that service "eJobServer" has Startup Type: Auto, Log On As: COM+ User, State: Running.	*SIU-254*
255	Services	AP	If MyID is installed and tier is Application Server, test that service "eKeySrv" has Startup Type: Manual, Log On As: COM+ User, State: Running.	*SIU-255*
256	Services	AP	If MyID is installed and tier is Application Server, test that service "eMessageSrv" has Startup Type: Manual, Log On As: COM+ User, State: Running or Stopped.	*SIU-256*
257	Services	AP	If MyID is installed and tier is Application Server, test that service "NotificationsService" has Startup Type: Auto, Log On As: COM+ User, State: Running.	*SIU-257*
258	IIS	WB	If tier is Web Server, test that service "W3SVC" (World Wide Web Publishing Service) is installed and running.	*SIU-258*
259	COM	WB,AP	If MyID is installed, tier is Web Server or Application Server, create COM object for component "MyIDBOL.BOL_GetCoreWeb.1" and call method "GetVersion". Obtain the total number of components and configuration records. Create COM object for component "EConfiguration.Configuration" and call method "GetBOLMethods". For each method, obtain "webProgId" and attempt to instantiate a COM object. Test whether all the COM objects can be created.	*SIU-259*
260	MSDTC	WB,AP,DB	If tier is Application Server, Web Server or Database Server, a split-tier installation and Windows Firewall is enabled, test active rule for "Distributed Transaction Coordinator (RPC)" is enabled, allowed inbound for "Domain" networks.	*SIU-260*
261	MyID	AP	If MyID is installed and tier is Application Server, test that the DatabaseType value from the Registry is compatible with the means of hosting the database specified in configuration option DBTypeAndAuth.	*SIU-261*
262	MyID	AP	If MyID is installed and tier is Application Server, test that the DefaultUDL value from the Registry points to a UDL (Universal Data Link) file that exists.	*SIU-262*

Test ID	Group	Tiers	Description	Reference
263	MyID	AP	If MyID is installed, tier is Application Server and configuration option DBTypeAndAuth = SQL Azure with SQL Server Auth (NoAuth), test that file Dal4Net.dll.config exists, contains well-formatted XML, contains the username, but does not contain the cleartext password specified in the credentials for SQL Server Authentication.	*SIU-263*
264	MyID	AP	If MyID is installed and tier is Application Server, test that file Dal4Net.dll.config exists, contains well-formatted XML and does not contain log4net section left uncommented for debugging use. If not satisfied, display the outcome as a Performance warning instead of a failure.	*SIU-264*
267	MyID	AP	If MyID is installed and tier is Application Server, test that all encrypted private keys and symmetric keys are prefixed in the format "KXX_" in the database; the key names match the latest database key name for MasterCard in the Windows Registry. If not satisfied, display the outcome as a Functionality warning instead of a failure.	*SIU-267*
268	MyID	AP	If MyID is installed and tier is Application Server, test that the number of encrypted private keys and symmetric keys is correct in the database; the key names match any of the database key names for MasterCard in the Windows Registry.	*SIU-268*
269	Services	DC	If tier is Domain Controller, test that service "ADWS" (Active Directory Web Services) is installed and running. If not satisfied, display the outcome as a Limited SIU test coverage warning instead of a failure.	*SIU-269*
270	DB	AP	If MyID is installed and tier is Application Server, get the current size, unlimited or maximum size, free space (if not unlimited size) and automatic growth of the MyID main database. No test required.	*SIU-270*
271	DB	AP	If MyID is installed and tier is Application Server, get the current size, unlimited or maximum size, free space (if not unlimited size) and automatic growth of the MyID archive database. No test required.	*SIU-271*
272	IIS	WB	If tier is Web Server, test that the SSL bindings for HTTPS exist, a TCP connection can be established and the SSL protocol is not None, SSL v2 or SSL v3.	*SIU-272*

Test ID	Group	Tiers	Description	Reference
273	IIS	WB	If tier is Web Server, test that the SSL bindings for HTTPS exist, a TCP connection can be established and the SSL protocol is TLS v1.0, TLS v1.1 or TLS v1.2.	**SIU-273**
274	IIS	WB	If tier is Web Server, test that the SSL bindings for HTTP exist, a TCP connection can be established and the SSL protocol is not None, SSL v2, SSL v3, TLS v1.0, TLS v1.1 or TLS v1.2.	**SIU-274**
275	IIS	WB	If tier is Web Server, test that SSL is required. If not satisfied, display the outcome as a "Security" warning instead of a failure.	**SIU-275**
276	AD	DC	If tier is Domain Controller, test that the COM+ User is not a member of the Domain Admins or the Enterprise Admins domain groups. If not satisfied, display the outcome as a Security warning instead of a failure.	**SIU-276**
277	AD	DC	If tier is Domain Controller, test that the IIS User is not a member of the Domain Admins or the Enterprise Admins domain groups. If not satisfied, display the outcome as a Security warning instead of a failure.	**SIU-277**
278	AD	DC	If tier is Domain Controller, test that the Web Services User is not a member of the Domain Admins or the Enterprise Admins domain groups. If not satisfied, display the outcome as a Security warning instead of a failure.	**SIU-278**
279	DB	AP,DB	If tier is Application Server or Database Server, perform SQL query of master database (including Microsoft SQL Azure instances) and test the database edition installed is Enterprise or Standard. If not satisfied, display outcome as an "Untested configuration" warning, instead of a failure.	**SIU-279**
283	MyID	AP	If MyID is installed and tier is Application Server, test that the MasterCard Entry in the Registry has an 'Enabled' property. Use regedit to view the registry location: HKLM\SOFTWARE\Intercede\Edefice\MasterCard	**SIU-283**
284	MyID	AP	If MyID is installed and tier is Application Server, if using any HSM, the subkey contains value "SerialNumber" and has a value; Use regedit to view the registry location: HKLM\SOFTWARE\Intercede\Edefice\MasterCard	**SIU-284**

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MyiD CMS

Test ID	Group	Tiers	Description	Reference
285	MyID	AP	If MyID is installed and tier is Application Server, test that the number of database keys for MasterCard in the Windows Registry has not reached the maximum supported by MyID. If not satisfied, display the outcome as a Functionality warning instead of a failure. Use regedit to view the registry location: HKLM\SOFTWARE\Intercede\Edefice\MasterCard	*SIU-285*
286	MyID	AP	If MyID is installed and tier is Application Server, if using an nShield HSM, test that the file %Windir%\System32\CknFast.DLL exists.	*SIU-286*
293	DB	DB	If MyID is installed and tier is Database Server, test SQL default schema for the MyID main database for COM+ account user is not "sys".	*SIU-293*
294	DB	DB	If MyID is installed and tier is Database Server, test SQL default schema for the MyID archive database for COM+ account user is not "sys".	*SIU-294*
295	IIS	WB	If tier is Web Server check edge compatibility has been applied to MyID folder	*SIU-295*
296	MyID	AP	Check the version of the OLE DB Driver that is installed. Version 19.0.0.0 or later will pass.	*SIU-296*
297	MyID	WB,AP	Check TLS 1.2 or TLS 1.3 is enabled and TLS 1.0 is disabled	*SIU-297*
299	MyID	AP	Initial Server Check. Check .NET core version on the application server.	*SIU-299*
300	MyID	WB	Initial Server Check. Check .NET core version on the web server.	*SIU-300*
301	MyID	CL,WB	Post-Install. Checks status values of responses to simple unauthenticated web requests to the operator client URL match the expected value.	*SIU-301*
303	MyID	CL,WB	Post-Install. Checks status values of responses to simple unauthenticated web requests to the rest.core API service match the expected value.	*SIU-303*
304	MyID	WB,AP	Post-Install. Checks status values of responses to simple unauthenticated web requests to the oauth2 service match the expected value.	*SIU-304*
305	IIS	WB	Post-Install. Test the IIS application pool "rest.core" exists and has started.	*SIU-305*
307	IIS	WB	Post-Install. If MyID is installed and tier is Web Server, test application pool "web.oauth2" exists and has started.	*SIU-307*

Test ID	Group	Tiers	Description	Reference
308	MyID	AP	Post-Install. If MyID is installed and tier is App Server, check BOL API methods exist.	*SIU-308*
309	DB	DB	Post-Install. If MyID is installed run DB query, check `AuditItemFields` table exist.	*SIU-309*
310	AD	DC	If tier is Domain Controller, test domain user for Authentication Web service user account exists.	*SIU-310*
311	AD	DC	If tier is Domain Controller, test Authentication Web service user account is enabled, not locked out and expiry date is less than or equal to 0.	*SIU-311*
312	AD	DC	If tier is Domain Controller, test Authentication Web service user account password will never expire and has not expired.	*SIU-312*
313	AD	DC	If tier is Domain Controller, test Authentication Web service user account exists on the domain under a valid organizational unit.	*SIU-313*
314	AD	DC	If tier is Domain Controller, test Authentication Web service user account is a member of domain group "Domain Users".	*SIU-314*
315	AD	AP,WB	If tier is Application Server or Web Server, test Authentication Web service user account is a member of local group "Distributed COM Users".	*SIU-315*
316	AD	DC	If tier is Domain Controller, test that the Authentication Web Services User is not a member of the Domain Admins or the Enterprise Admins domain groups. If not satisfied, display the outcome as a Security warning instead of a failure.	*SIU-316*
317	MyID	AP	If MyID is installed and tier is Application Server, test that the Default Authentication DB UDL value from the Registry points to a UDL (Universal Data Link) file that exists.	*SIU-317*
318	DB	DB	If tier is Database Server, test language for COM+ Account user is "us_english".	*SIU-318*
319	DB	DB	If MyID is installed and tier is Database Server, test SQL database role membership for MyID main database for COM+ Account user or group includes roles, "db_owner" and "public". Role "public" is a special case and cannot be queried, so it is included by default if the user exists for the database.	*SIU-319*
320	DB	DB	If MyID is installed and tier is Database Server, test SQL default schema for the MyID main database for COM+ Account user is not "sys".	*SIU-320*

Test ID	Group	Tiers	Description	Reference
321	MyID	WB	Initial Server Check. Check that .NET core was installed after IIS.	**SIU-321**
322	MyID	WB	Server performance will be impacted if PowerShell scripts are required to be signed, CRL Checks have been enabled, but no Internet connection is available.	**SIU-322**
323	MyID	WB	If rest.core feature has been installed check it is an IIS Application and IsAlive method on the web service returns true.	**SIU-323**
324	MyID	WB	If rest.provision feature has been installed check it is an IIS Application and IsAlive method on the web service returns true.	**SIU-324**
325	MyID	WB	If web.oauth2 feature has been installed check it is an IIS Application and IsAlive method on the web service returns true.	**SIU-325**
326	MyID	WB	If DC Notification Listener feature has been installed check it is an IIS Application and IsAlive method on the web service returns true or the web service returns 401:Unauthorized (secure by default).	**SIU-326**
327	MyID	WB	If iOS OTA feature has been installed check it is an IIS Application and IsAlive method on the web service returns true or the web service returns 401:Unauthorized (secure by default).	**SIU-327**
328	MyID	WB	If Credential Web Service feature has been installed check it is an IIS Application and IsAlive method on the web service returns true or the web service returns 401:Unauthorized (secure by default).	**SIU-328**
329	MyID	WB	If Device Management API feature has been installed check it is an IIS Application and IsAlive method on the web service returns true or the web service returns 401:Unauthorized (secure by default).	**SIU-329**
330	MyID	WB	If MyID Enroll feature has been installed check it is an IIS Application and IsAlive method on the web service returns true or the web service returns 401:Unauthorized (secure by default).	**SIU-330**

6.1   Confirmation tests

SIU carries out a series of tests that do not verify that you have configured your system correctly, but confirm that the installation process has worked correctly, or that required services that should be available by default have not been removed.

General confirmation test SIU references: SIU-184, SIU-185, SIU-186, SIU-187, SIU-188, SIU-201, SIU-202, SIU-259, SIU-263, SIU-264, SIU-269, SIU-270, SIU-271, SIU-272, SIU-273, SIU-275, SIU-293, SIU-294.

6.1.1 DCOM security settings

SIU references: SIU-189, SIU-190, SIU-191, SIU-192, SIU-193, SIU-194, SIU-195, SIU-196, SIU-197, SIU-198, SIU-199.

You must make sure that the DCOM security settings for the MyID COM+ components on the application server have their authentication level set to Packet Privacy.

To check the authentication level:

1. In Component Services, right-click the COM+ application you want to view and select **Properties** from the pop-up menu.

2. Click the **Security** tab.

3. Make sure the **Authentication level for calls** option is set to **Packet Privacy**.

6.1.2 REST-based web services

SIU references: SIU-303, SIU-304, SIU-305, SIU-307.

The MyID Operator Client communicates to the web server using REST-based web services. The installation program sets up the following web services:

- `rest.core` – the web service for operations.

- `web.oauth2` – the authentication web service.

The installation program also sets application pools for these web services.

Important: These web services require HTTPS, and will not operate if this is not set up. For information on setting this up, see the *Configuring SSL/TLS (HTTPS)* section in the ***Securing Websites and Web Services*** document.

If you experience any problems with the SIU tests relating to these web services, you can try the following:

- In the Windows Event Viewer application on the web server, check **Windows Logs > Application**.

- In Internet Information Services (IIS) Manager on the web server, check that the relevant application pool exists and has started. Check that the user under which the pool is running is not locked and has the correct password.

- If you still need information, check the `rest.core` or `web.oauth2` logs. For information on configuring logging, see the *MyID REST and authentication web services* section in the ***Configuring Logging*** guide.

6.1.3   Application server components for the MyID Operator Client

SIU reference: SIU-308.

The SIU test with ID 308 tests for the existence of component methods that relate to the MyID Operator Client and its web services.

If this test does not pass, check the following:

* In the Windows Event Viewer application on the application server, check **Windows Logs > Application**.
* Check the COM+ settings for the MyID components.

6.1.4   Database installation for the MyID Operator Client

SIU reference: SIU-309.

The SIU test with ID 309 tests specifically for the existence of the `AuditItemFields` table. This table was introduced at MyID 11.6, so will not be visible on any previous version of the database. The existence of this field confirms that the database has been upgraded to a sufficient level to support the initial release of the MyID Operator Client.

If this test does not pass, check the following:

* Check that the MyID server installation on the database tier completed successfully.
* Check the installation history – from the **Reports** category, select **System Status**, then click the Installation History tab.