



Artena Deployment Guide 2



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Proprietary Information

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Intended Audience

SMSS Client IT staff who are responsible for the deployment of Artena.

Revision History

Description	Revision date	Version	Author
Initial and subsequent editions		1.0 – 2.0	Emil
Revision history added	22/05/2013	2.0	Lian
Tidy up after introduced formatting errors	31/05/2013	2.1	Emil
Artena Docs content changes	31/05/2013	2.2	Emil
Maintenance section added	31/07/2013	2.3	Emil
Student File and Online Enrolments info added	20/02/2013	2.4	Emil
Added Interapp Config options.	19/09/2014	2.5	Emil
Online Enquiries config options added	12/02/2015	2.6	Emil
Change some prerequisite versions and PHP encoder	28/04/2015	2.7	Emil
Removed ERS config options	30/06/2015	2.8	Emil
Added report service path option	21/07/2015	2.9	Emil
Changed prerequisites to SQL Server ODBC Driver 11	09/09/2015	2.10	Emil
Added version specific upgrade notes appendix	17/09/2015	2.11	Emil
Added report configuration options detail	28/09/2015	2.12	Emil
smstx configuration changes	01/04/2016	2.13	Emil

Prerequisites

1. **Windows 2008 R2 SP1** or another operating system supported by the SQL Server 2012 ODBC Driver
2. **SQL Server 2012 ODBC Driver** (required by PHP extensions **pdo_sqlsrv**, **sqlsrv**)

Driver version 3.2 information <https://msdn.microsoft.com/en-us/data/ff657782.aspx>

You can download the ODBC Driver from

<http://www.microsoft.com/en-nz/download/details.aspx?id=36434>

3. **SQL Server 2012**

Please refer to Microsoft's minimum Hardware and Software Requirements for Installing SQL Server 2012. [http://msdn.microsoft.com/en-us/library/ms143506\(v=sql.110\).aspx](http://msdn.microsoft.com/en-us/library/ms143506(v=sql.110).aspx)

4. IIS or Apache **Web Server** setup with **PHP**

- **WAP 06.00.00** - see Web Server and PHP Setup Guide 2

5. Required **PHP Extensions** (must be loaded in PHP)

- amf
- com_dotnet
- curl
- gd2
- ldap
- mbstring
- openssl
- pdo_odbc
- pdo_sqlite
- pdo_sqlsrv
- sockets
- sqlsrv
- xmlrpc

PHP extensions on Windows are provided by loadable extensions contained in DLL files. The directory in which the loadable extensions (modules) reside is specified by the **extension_dir** php.ini directive.

An extension is enabled by editing the php.ini file and removing ';' in front of the extension, or adding the line if not already present.

```
// change the line matching the extension name from ...
;extension=pdo_odbc.dll
```

```
// ... to
extension=pdo_odbc.dll
```

NOTE: Verify extensions are loaded by running **phpinfo()** and sighting the extension as in the screenshot

pdo_sqlsrv

pdo_sqlsrv support		enabled
Directive	Local Value	Master Value
pdo_sqlsrv.log_severity	0	0

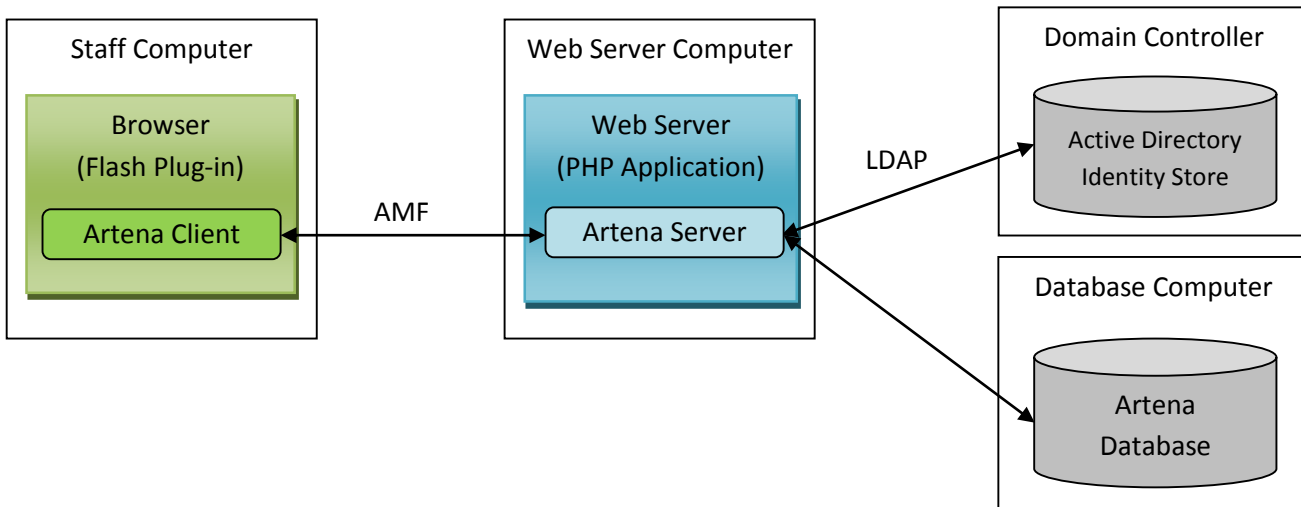
For more information on **phpinfo()** see the **Web Server and PHP Setup Guide 2**.

Additional Prerequisites

6. A Microsoft **SQL Server Reporting Services** instance to run reports, if report functionality is required.
7. A **Mail Server** the application can send emails through, if email functionality is required.
8. **C:\wap_artena** is the root folder where all files necessary to run Artena are located, if most preconfigured paths are to work as they are. Whether the default locations are used or not, settings and paths should be double checked. It is the responsibility of the person deploying the application to make sure they are correct.
9. **ArtenaSCE 01.03.00 or 01.04.00** if Standard Communication Engine generate and send functions are required.
 - .NET 4 Runtime is required by ArtenaSCE.

Architecture

High level Artena architecture.



Release Package

The release package contains the following items:

- admin_application
- report_definitions
- sql_scripts
- web_application

IMPORTANT: The Web Server and PHP Setup Guide 2 is released separately as it may be used by Artena, SWArtena, and other applications.

Installation

1. Accounts and Groups

1.1. Service Account

This is a **domain user account** that is used to run the IIS Application Pool or the Apache Service and connect to the database.

For the purpose of this document “**test\artena**” is used.

To create a new domain user account use the Active Directory Users and Computers tool.

Give the account an appropriate name, for example, **artena**. Clear the User must change password at next logon and select Password never expires.

Use a strong password for the account. Strong passwords should include at least seven characters with a mixture of uppercase and lowercase letters, numbers, and other characters such as *, ?, or \$.

1.2. Artena Admin (AA) Account

This is a **domain user account** used as the default Artena administration account. This account must be a member of the Artena Security Group.

1.3. Artena Security Group

This is a **domain user group** used to authorize access to Artena. Only users that are members of this group are able to login into Artena. The name of the group is not important. It is commonly referred to as the "Artena Group" or "Artena Security Group".

2. Database Setup

Existing clients' databases are migrated with a purpose built utility. A new first time setup guide will be created for new clients.

2.1. Configuration

Create a SQL Server login with Windows Authentication for the **test\artena** service account.

Assign the following roles/privileges

- Artena Database
 - **db_owner**

Set the default database for **test\artena** to the Artena database.

As of Artena 09.05.00 auditing uses the **SQL Server Service Broker (SSB)** infrastructure. This means that the service broker must be enabled for the Artena database.

Running the following query on your Artena database

```
select
    name,
    is_broker_enabled,
    service_broker_guid
from sys.databases
where database_id = db_id()
```

should return **1** in the **is_broker_enabled** column.

To enable service broker execute

```
alter database <Artena_DB> set enable_broker with rollback immediate
```

To assign a new broker id, if not already assigned or broker cannot be enabled because the same ID is already in use, execute

```
alter database <Artena_DB> set new_broker with rollback immediate
```

IMPORTANT: Service Broker uses the **EXECUTE AS** infrastructure to deliver the messages. The **EXECUTE AS** infrastructure requires **dbo** to map to a valid login.

To check the owner of the database run

```
select
    [name] as [database],
    suser_sname(owner_sid) as [owner]
from sys.databases
where name = '<Artena_DB>'
```

To set the owner of the database to a valid login run

```
alter authorization on database::[<Artena_DB>] to [sa];
```

If **dbo** does not map to a valid login, you will get the following error messages in the SQL Server log

Error 15517: An exception occurred while enqueueing a message in the target queue. Error: 15517, State: 1. Cannot execute as the database principal because the principal "dbo" does not exist, this type of principal cannot be impersonated, or you do not have permission.

Transporting Databases

When a database is backed up and restored it may sometimes have leftover entries in the `dbo.SSB_DIALOGPOOL` table. These can cause errors with statements that invoke auditing. Error message might read something like "The conversation handle "<HANDLE-GUID>" is not found."

To resolve simply clear the `dbo.SSB_DIALOGPOOL` table.

```
delete dbo.SSB_DIALOGPOOL
```

3. WAP – Web Server and PHP Setup

Refer to the **Web Server and PHP Setup Guide 2** for detailed setup instructions. Check the Release Notes for information of new/required version of WAP for the current Artena release.

4. Web Application Setup

4.1. Unpack the release package

Prior to Artena 09.09.00 there are two versions of the web application:

- **artena_ion** - PHP files encoded for **ionCube Loader**
This version is for use with **Apache** and the Thread Safe (TS) PHP **Apache module**.
- **artena_zgl** - PHP files encoded for **ZendGuard Loader**
This version is for use with **IIS** and the Non-Thread Safe (NTS) PHP **FastCgi module**.

As of Artena 09.00.00 the web application for both Apache and IIS is encoded for the **ionCube Loader**

Note: Although it is possible to run PHP NTS as FastCgi under Apache and PHP TS as ISAPI module under IIS, it is recommended to use the combinations listed above.

Extract the package and place the web application files that match your web server and PHP version within the existing WAP structure on **C:** drive. This should result the following folder structure being created.

```
C:
|-- wap_artena                < Read & Execute, List Folder Contents, Read
|   |-- artena
|   |   |-- private
|   |   |   |-- logs          < Write   (Application logs folder)
|   |   |   |-- server
|   |   |       |-- bin        <         (Binary applications: SCE, ...)
|   |   |       |-- conf      <         (Application configuration and admin scripts)
|   |   |       |-- ...       <         (Some directories not listed for clarity)
|   |   |-- public           <         (Artena Client application files)
|   |   |-- docs             <         (Artena Help Docs viewer - no content here)
|   |   |-- server           <         (Artena Server application files)
|   |-- artena_docs          <         (Artena Help Docs content)
|   |-- artena_files         < Write   (File storage, temp, and log folders)
|   |   |-- file_store
|   |   |-- file_temp
|   |   |-- sce_output_logs
|   |   |-- sce_output_root
|   |-- wap
|   |   |-- apache
|   |   |-- php
|   |       |-- x.x.xx-nts
|   |       |-- x.x.xx-ts
|   |       |-- logs          < Write
|   |       |-- sessions      < Write
|   |       |-- temp          < Write
|-- www
```

As of Artena 09.05.03 the Artena Help Docs content is located outside the public folder structure. This is done for security and ease of deployment reasons.

4.2. User files

User files are files accumulated as part of the daily Artena work. These may be uploaded, generated, temporary files, logs, etc.

The **artena_files** folder structure is intentionally located outside the **artena** folder. It can also be located on a separate drive if necessary. This simplifies updates to Artena as there are less files and folders to move around.

If you are upgrading an existing installation, and haven't already done so, move the **file_store**, **file_temp**, **sce_output_logs**, and **sce_output_root** folders inside the **artena_files** folder. If this is a first time setup, create the folders.

Important Note: The folders and the path they are on, **must not contain spaces**. Spaces may prevent long running processes from executing successfully.

4.3. Assign file system privileges

The **test\artena** service account must be given the privileges as indicated above. The **Read & Execute, List Folder Contents, and Read** permission should apply **recursively**. Additionally the PHP **logs** and **temp** folder require **Write** permissions, as does the Artena **logs** folder, and the **artena_files** folder.

4.4. Assign cmd.exe privileges

Artena requires **Read & Execute** privileges to **cmd.exe** in order to launch long running processes.

You can do the assignment using Windows GUI or by executing the following commands.

```
cacls C:\Windows\System32\cmd.exe/E /G test\artena:R
```

On a 64bit machine assign the privileges to **cmd.exe** in the **SysWOW64** folder.

```
cacls C:\Windows\SysWOW64\cmd.exe /E /G test\artena:R
```

For more information see <http://technet.microsoft.com/en-us/library/cc754344>

You may need to take ownership of cmd.exe first. On a fresh install of Windows the owner of cmd.exe is Trusted Installer. This would prevent you from altering privileges to it. To take ownership you can use the **takeown** command or the Windows GUI.

For more information see <http://technet.microsoft.com/en-us/library/cc753659>

4.5. Assign Windows temp folder privileges

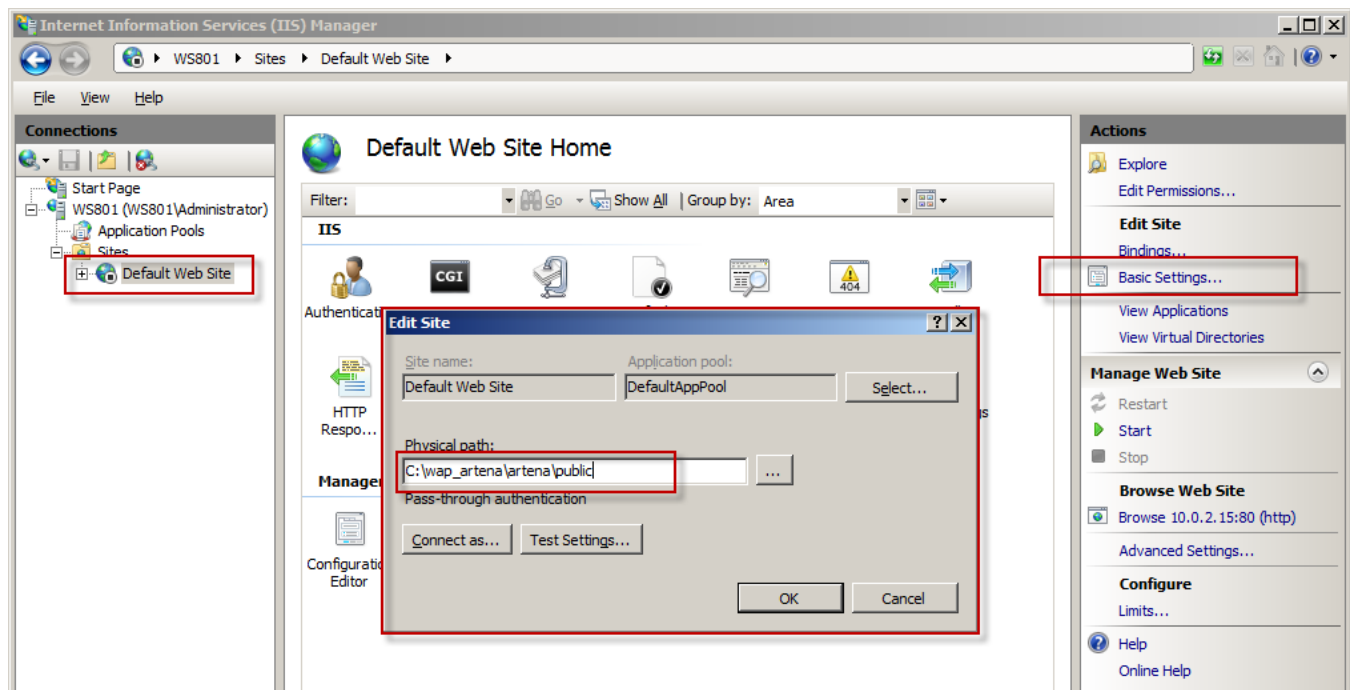
ArtenaSCE requires **Write** privileges to **C:\Windows\temp** in order to generate output. You can do the assignment using Windows GUI or by executing the following command.

```
cacls C:\Windows\temp /E /G test\artena:W
```

For more information on installing ArtenaSCE refer to the **ArtenaSCE Deployment Guide**

4.6.a. IIS 7, 7.5 - Website Setup

If the website is dedicated to Artena, then you can simply change the **Default Web Site's** physical path to point to the **C:\wap_artena\artena\public** folder.



While setting up WAP you would have already setup and configured

- a FastCgiModule mapping for PHP
- a FastCgi application
- Application Pool identity
- Anonymous authentication

Artena can also be setup as

- a **Website**
- an **Application** within the Default or another Website
- a **Virtual Directory** within the Default or another Website (not recommended)

4.6.b. Apache 2.4 - Website Setup

No special group membership required.

- The **test\artena** service account must be set as the account the **Apache service** runs under.

4.6.b.1. Create and Configure the Artena Virtual Host

Copy the **C:\wap_artena\wap\apache\conf\conf.d\artena.conf.dist** file to

C:\wap_artena\wap\apache\conf\conf.d\artena.conf

Edit the **C:\wap_artena\wap\apache\conf\conf.d\artena.conf** virtual host configuration file

```

1  # _ipaddress_ #####
2  Listen _ipaddress_ :80
3
4  <VirtualHost _ipaddress_ :80>
5      DocumentRoot "C:/wap_artena/artena/public"
6      ServerName _ipaddress_or_domainname_
7      ErrorLog logs/artena-error.log
8      CustomLog logs/artena.log common
9      Timeout 300
10     KeepAlive On
11     KeepAliveTimeout 300
12     MaxKeepAliveRequests 100
13
14     <Directory "/">
15         Options None
16         AllowOverride None
17         Order allow,deny
18         Allow from all
19     </Directory>
20 </VirtualHost>
21
22 Listen _ipaddress_ :443
23
24 <VirtualHost _ipaddress_ :443>
25     DocumentRoot "C:/wap_artena/artena/public"
26     ServerName _ipaddress_or_domainname_
27     ErrorLog logs/release-error.log
28     CustomLog logs/release-access.log common
29     Timeout 300
30     KeepAlive On
31     KeepAliveTimeout 300
32     MaxKeepAliveRequests 100
33
34     <Directory "/">
35         Options None
36         AllowOverride None
37         Order allow,deny
38         Allow from all
39     </Directory>
40
41     SSLEngine on
42     SSLCipherSuite ALL:!ADH:!EXPORT56:RC4+RSA:+HIGH:+MEDIUM:+LOW:+SSLv2:+EXP:+eNULL
43     SSLCertificateFile conf/ssl.crt/server.crt
44     SSLCertificateKeyFile conf/ssl.key/server.key
45     #SSLCertificateChainFile conf/ssl.crt/ca.crt
46     #SSLCACertificatePath conf/ssl.crt
47     #SSLCACertificateFile conf/ssl.crt/ca-bundle.crt
48     #SSLCACertificatePath conf/ssl.crl
49     #SSLCACertificateFile conf/ssl.crl/ca-bundle.crl
50     #SSLVerifyClient require
51     #SSLVerifyDepth 10

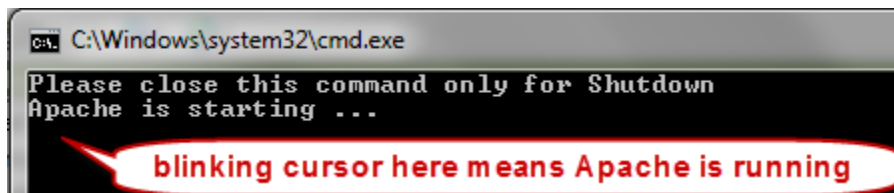
```

Replace all instances of **_ipaddress_** with the IP Address dedicated to Artena.

Replace all instances of **_ipaddress_or_domainname_** with the IP Address or Domain Name.

Replace the **server.crt** and **server.key** with the certificate and key for your server. Remove or comment out the **Listen _ipaddress_:443** and **VirtualHost _ipaddress_:443** directives, if you don't need HTTPS access.

Run Apache from the command line first, with **apache_start.bat**, to check for any errors in the configuration.



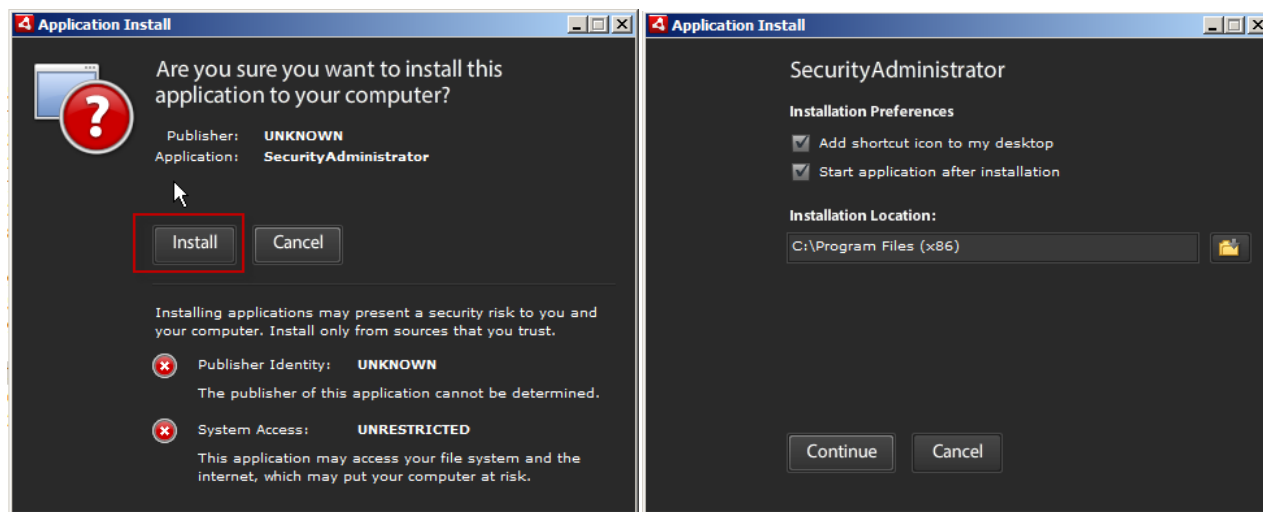
If no errors are reported, close the command window (this will stop Apache) and (re)start the ApacheArtena service.

5. Security Administrator Setup

The Artena Security Administrator is a standalone application that runs on Adobe AIR <http://get.adobe.com/air/> and does not require a browser.

To install it the Adobe AIR runtime must be installed first. Download Adobe AIR <https://get.adobe.com/air/>

To install the Artena Security Administrator run the **SecurityAdministrator.air** file from the **admin_application** distribution folder, and accept the defaults.



6. Application Log Database Setup

As of release 09.04.00 the application debug and error log is kept in a SQLite database. The log database is located in **C:\wap_artena\artena\private\logs\artena.log.db** SQLite database file.

On initial setup copy the **C:\wap_artena\artena\private\logs\artena.log.db.dist** database file to **C:\wap_artena\artena\private\logs\artena.log.db**

7. Artena Help Docs Setup

The Artena User Help viewer application is distributed as part of Artena.

```
C:
|-- wap_artena
|   |-- artena
|       |-- private
|       |   |-- ... < (Some directories not listed for clarity)
|       |-- public
|           |-- docs < (Artena Help Docs viewer - no content here)
|           |-- server
|-- artena_docs < (Artena Help Docs content)
```

The Artena User Help content files are distributed separately. The release is packaged as

ArtenaHelpDoc-MM.mm.RR.7z

(MM.mm.RR corresponds to the major, minor, and release version numbers)

To setup, extract the archive contents into the **artena_docs** folder. The result should be

```
C:
|-- wap_artena
|   |-- artena
|       |-- private
|       |   |-- ... < (Some directories not listed for clarity)
|       |-- public
|           |-- docs < (Artena Help Docs viewer - no content here)
|           |-- server
|-- artena_docs < (Artena Help Docs content)
|   |-- Artena System Administration Guide
|   |-- Artena User Guide
```

As of Artena 09.05.03 the Artena Help Docs content is located outside the public folder structure. This is done for security and ease of deployment reasons.

8. ArtenaSCE Setup

ArtenaSCE is a .NET console application that is used to perform the Standard Communication Engine generate and send functions.

For more information on installing ArtenaSCE refer to the **ArtenaSCE Deployment Guide**

9. Reports Setup

An existing Microsoft **SQL Server Reporting Services** instance is a prerequisite for setting up the Artena Reports. How to setup a Microsoft **SQL Server Reporting Services** instance is beyond the scope of this guide. If you need assistance to setup Reporting Services please contact SMSS.

9.1. Linked Server

The Artena database and the Reporting Services databases should ideally be on separate machines. If this is the case, the SQL Server instance that holds Artena must be linked to the SQL Server instance that holds the Reporting Services databases.

1. Run **SQL Server Management Studio**.
2. In the **Connect to Server** dialog box, specify the name of the appropriate SQL Server, and then click **Connect**.
3. In **SQL Server Management Studio**, double-click **Server Objects**, right-click **Linked Servers**, and then click **New Linked Server**.
4. In the **New Linked Server** dialog box, on the **General** page, in **Linked server**, enter the full network name of the SQL Server you want to link to.
5. Under **Server type**, click **SQL Server**.
6. In the left pane of the **New Linked Server** dialog, under **Select a page**, choose **Security**.
7. You will need to map a local server login to a remote server login. On the right side of the Security page, click the **Add** button.
8. Under **Local Login**, select a local login account to connect to the remote server. Check **Impersonate** if the local login also exists on the remote server. Alternatively, if the local login will be mapped to a remote SQL Server login you must supply the **Remote User** name and **Remote Password** for the remote server login.
9. In the left pane of the **New Linked Server** dialog, under **Select a page**, choose **Server Options**. Set the **Rpc** and **Rpc Out** parameters to **True**, and then click **OK**.

9.2. Report Server Synonyms

Report Server Synonyms enable the Artena database to query the Reporting Services database and get lists of reports and their properties. Without the synonyms or if they are pointing to the wrong database the Artena client will not be able to display report lists or run reports.

Delete the **dbo.REPORTS_SYSOBJECTS** synonym, if it already exists. Next execute the following query against the Artena database to setup all synonyms

```
exec dbo.SetReportServer '[server].[reportserver]'
```

or, for a named instance

```
exec dbo.SetReportServer '[server\instance].[reportserver]'
```

Replace **server** with the name of your Reporting Services server, and **instance** with the name of your Reporting Services instance if it is not running on the default SQL Server instance.

9.3. Reports Deployment

Deploy the Artena standard reports using Artena Report Server Deployment (ArtenaRSD). Refer to the **ArtenaRSD Guide** for detailed instructions.

10. Student File Importer

The Student File Importer script can be used to import scanned and other documents and associate them with a student within Artena.

Scanned and other documents that are to be imported and attached to a student are placed within subfolders by Student Id.

```
C:
-- wap_artena < Read & Execute, List Folder Contents, Read
|  -- artena
|  |  -- private
|  |  |  -- logs < Write (Application logs folder)
|  |  |  -- server
|  |  |  -- bin < (artena.studentfilescanner.php)
|  |  |  -- conf < (Application configuration and admin scripts)
|  -- artena_files < Write (File storage and scanned files folders)
|  |  -- file_store <
|  |  -- student_files < (Imported files inside sub-folders by Student Id)
D:
-- student_file_import < (Scanned files inside sub-folders by Student Id)
```

10.1. Run

The Student File Importer can be run on demand or as a scheduled task. The syntax to run the script is

```
<pathto>\php.exe -c <pathto>\php.ini artena.studentfileimporter.php
```

A simple batch file with the command as contents could make it easier to run and save some typing.

10.2. Schedule

Use the Windows Task Scheduler to schedule the working command or the batch file.

Make sure to run from the **bin** directory as the Artena Service account.

11. Online Application Importer

The Online Application Importer script can be used to import online application and related documents and make them available for processing within Artena.

```
C:
-- wap_artena < Read & Execute, List Folder Contents, Read
|  -- artena
|  |  -- private
|  |  |  -- logs < Write (Application logs folder)
|  |  |  -- server
|  |  |  |  -- bin < (artena.onlineapplicationimporter.php)
|  |  |  |  -- conf < (Application configuration and admin scripts)
|  |  -- artena_files < Write (File storage and scanned files folders)
|  |  |  -- file_store <
|  |  |  |  -- enrolment_application_files < (Imported applications and documents)
D:
-- online_application_import < (Online Applications and documents to import)
```

11.1. Run

The Online Application Importer can be run on demand or as a scheduled task. The syntax to run the script is

```
<path>\php.exe -c <path>\php.ini artena.onlineapplicationimporter.php
```

A simple batch file with the command as contents could make it easier to run and save some typing.

11.2. Schedule

Use the Windows Task Scheduler to schedule the working command or the batch file.

Make sure to run from the **bin** directory as the Artena Service account.

12. Online Application Copier

The Online Application Copier script can be used to transfer online applications, and related documents, and make them available for the importer.

The script works at the File System level. It can move files from one machine to another, using [UNC source path](#), assuming the machines are networked, and the required permissions are set.

```
C:
-- wap_artena < Read & Execute, List Folder Contents, Read
|
|  -- artena
|  |  -- private
|  |  |  -- logs < Write (Application logs folder)
|  |  |  -- server
|  |  |  |  -- bin < (artena.onlineapplicationcopier.php)
|  |  |  |  -- conf < (Application configuration and admin scripts)
|  |  -- artena_files < Write (File storage and scanned files folders)
|  |  |  -- file_store <
|  |  |  |  -- enrolment_application_files < (Imported applications and documents)
D:
-- online_application_import < (Online Applications and documents to import)

SourceRoot < Write
-- applications < application XML and related files are located here
-- backup < backups are stored here, in sub-folders by year-month
-- YYYY-MM
```

12.3. Run

The Online Application Copier can be run on demand or as a scheduled task. The syntax to run the script is

```
<pathto>\php.exe -c <pathto>\php.ini artena.onlineapplicationcopier.php --source-directory=<uncpath>
```

A simple batch file with the command as contents could make it easier to run and save some typing.

12.4. Schedule

Use the Windows Task Scheduler to schedule the working command or the batch file.

Make sure to run from the **bin** directory as the Artena Service account.

Configuration

1. Artena Application Configuration

Artena uses the configuration for database, file storage, reports, and email settings. Configuration options are set in the **C:\wap_artena\artena\private\server\conf\config.php** application configuration file. Please take care when editing.

On initial setup copy the **C:\wap_artena\artena\private\server\conf\config.php.dist** file to

C:\wap_artena\artena\private\server\conf\config.php

Edit the **C:\wap_artena\artena\private\server\conf\config.php** application configuration file and configure the application for your environment.

When upgrading, read the Release Notes, and compare the new **config.php.dist** with your active configuration and merge the changes as required. (New configuration options may have been introduced, or existing ones removed/renamed.)

1.1. Configuration Options

All Artena configuration options are detailed in the Configuration Options Table in the following layout/format

//section comment(for visual grouping)-----	
option_name	Option description
	Allowed Values: value1 value2 or An explanation of the allowed values.
	Example (Syntax): sample value
	Detail:

The Artena configuration options are listed in the table below

Configuration Options Table

//global -----	
PRODUCTION_SERVER DEBUGGING_ENABLED	<p>Global Artena configuration</p> <p>Allowed Values: PRODUCTION_SERVER = true/false DEBUGGING_ENABLED = true/false</p> <p>Example (Syntax): if (!defined('PRODUCTION_SERVER')) define('PRODUCTION_SERVER', false); if (!defined('DEBUGGING_ENABLED')) define('DEBUGGING_ENABLED', true);</p> <p>Detail: PRODUCTION_SERVER should be set to true in live environment. Debugging can be enabled in order for the application to log debug and error messages. In production, messages passed back to the client are filtered, in order not to reveal sensitive information.</p>
PHP_EXECUTABLE PHP_CONFIGURATION	<p>Global Artena configuration</p> <p>Allowed Values: PHP_EXECUTABLE = path to php.exe PHP_CONFIGURATION = path to php.ini</p> <p>Example (Syntax): if (!defined('PHP_EXECUTABLE')) define('PHP_EXECUTABLE', 'C:/wap_artenal/wap/php/<phpversion>/php.exe'); if (!defined('PHP_CONFIGURATION')) define('PHP_CONFIGURATION', 'C:/wap_artenal/wap/php/<phpversion>/php.ini');</p> <p>PHP_EXECUTABLE defines the location of php.exe PHP_CONFIGURATION defines the location of php.ini</p> <p>These files are used by long running processes.</p> <p>Make sure to enter correct paths. The ones in the example are just that, an example.</p>

//databases -----	
databases	<p>The database configuration settings for the Artena database.</p> <p>Allowed Values:</p> <p>Mandatory:</p> <p>driver => sqlsrv</p> <p>dbhost => (local), hostname, or IP address</p> <p>dbname => the name of the database</p> <p>Optional:</p> <p>username => the username to connect with</p> <p>password => encrypted password</p> <p>drivername => SQL Native Client or SQL Server Native Client 10.0</p> <p>Example:</p> <pre>\$cfg->databases = array ('artena' => array('driver' => 'sqlsrv', 'dbhost' => '(local)', 'dbname' => 'Artena'));</pre> <p>Detail:</p> <p>Both username and password configuration options must be present and not blank in order to use username and password authentication. Keep the database configuration on one line as per the example.</p> <p>Note: dbhost with port as in 'ipaddress,port' is not supported by ArtenaSCE currently.</p>
//authentication -----	
auth_provider	<p>The authentication provider to use.</p> <p>Allowed Values:</p> <p>ldap</p> <p>Example:</p> <pre>\$cfg->auth_provider = 'ldap';</pre>
//site information -----	
site_name	<p>The site name to use for email subject lines.</p> <p>Example:</p> <pre>\$cfg->site_name = 'Artena';</pre>
site_heading	<p>The site heading not used currently.</p> <p>Example:</p> <pre>\$cfg->site_heading = 'Artena';</pre>
site_url_scheme	<p>The scheme to use when PRODUCTION_SERVER = false.</p>

	<p>Allowed Values: http or https</p> <p>Example: \$cfg->site_url_scheme = 'http';</p>
site_url_domain	<p>The domain name or IP address.</p> <p>Example: \$cfg->site_url_domain = 'artena.institute.ac.nz';</p>
site_url_path	<p>The path to the application.</p> <p>Example: \$cfg->site_url_path = '/'; or \$cfg->site_url_path = '/path/to/artena/';</p> <p>Detail: If your Artena application is not installed at the root of the domain, enter the path to it here. Make sure to end the path with a forward slash.</p>
//file management -----	
default_storage	<p>The default location of Artena Output files.</p> <p>Example: \$cfg->default_storage = 'D:\\path\\to\\file_store\\';</p>
system_storage	<p>Contains System Storage files for Artena</p> <p>Example: \$cfg->system_storage = 'D:\\path\\to\\file_system\\';</p>
temp_directory	<p>Directory for creating temporary files.</p> <p>Example: \$cfg->temp_storage = 'D:\\path\\to\\file_temp\\';</p>
photo_directory	<p>Photos are stored in an external directory. If this value is not set, the photos will be stored in the database. This should not be set to the same directory as the default_storage or system_storage directory, to avoid file name conflicts. This directory must be accessible from the Web server. The Artena web service account must have read/write/modify access to this directory.</p> <p>Photo files must follow the naming convention <student id>.<file extension></p>

	<p>Example:</p> <pre>\$cfg->photo_directory = '\\server\directory path\';</pre> <p>This is a UNC path and the closing slash is mandatory.</p>
sce_output_root	<p>Contains the ArtenaSCE output files (the documents generated for the purpose of correspondence).</p> <p>Example:</p> <pre>\$cfg->sce_output_root = 'D:\\path\\to\\sce_output_root\\';</pre>
sce_output_logs	<p>Contains the ArtenaSCE output log files. Useful for troubleshooting purposes.</p> <p>Example:</p> <pre>\$cfg->sce_output_logs = 'D:\\path\\to\\sce_output_logs\\';</pre>
student_file_import_root	<p>Location where scanned and other student files must be put for the Student File Importer to process.</p> <p>Example:</p> <pre>\$cfg->student_file_import_root = 'D:\\path\\to\\student_file_import_root\\';</pre>
online_application_import_root	<p>Location where online enrolment applications (and related files) must be put for the Online Application Importer to process.</p> <p>Example:</p> <pre>\$cfg->online_application_import_root = 'D:\\path\\to\\online_application_import_root\\';</pre>
online_enquiry_import_root	<p>Location where online enquiries must be put for the Online Enquiry Importer to process.</p> <p>Example:</p> <pre>\$cfg->online_enquiry_import_root = 'D:\\path\\to\\online_enquiry_import_root\\';</pre>
//help docs -----	
docs_root	<p>Contains the Artena Help Docs content.</p> <p>Example:</p> <pre>\$cfg->docs_root = 'D:\\path\\to\\docs_root\\';</pre>
//mail -----	
mail_provider	<p>Provider that is used to send emails.</p> <p>Example:</p> <pre>\$cfg->mail_provider = 'smtp';</pre>

smtp_host	<p>IP Address or hostname of the SMTP server.</p> <p>Example:</p> <pre>\$cfg->smtp_host = '192.168.0.3';</pre>
smtp_port	<p>SMTP port is optional. Can be used if SMTP server is listening on a non-default port.</p> <p>Example:</p> <pre>\$cfg->smtp_port = '25';</pre>
smtp_username	<p>Optional username if SMTP authentication used to send emails.</p> <p>Example:</p> <pre>\$cfg->smtp_username = 'root';</pre>
smtp_password	<p>Encrypted password of the account used to authenticate and send emails.</p> <p>Example:</p> <pre>\$cfg->smtp_password = 'ABCXYZ=';</pre> <p>Detail:</p> <p>Password must be encrypted using encrypt_password.php command line file. To do so run run_script.cmd batch file and enter encrypt_password.php when prompted, then enter the password, and use the generated encrypted value.</p>
from_name	<p>From name to use when sending emails.</p> <p>Example:</p> <pre>\$cfg->from_name = 'artenauser';</pre>
from_email	<p>Email address of the account used to authenticate and send emails.</p> <p>Example:</p> <pre>\$cfg->from_email = 'artenauser@domain.tld';</pre>
mail_queue_retry	<p>How many times should the mail queue server retry sending queued emails.</p> <p>Example:</p> <pre>\$cfg->mail_queue_retry = 100;</pre>
//security -----	
maintenance_mode	<p>In maintenance mode only the user specified by the maintenance_mode_user configuration option is allowed to login and perform operations.</p>

	<p>Allowed Values: true or false</p> <p>Example: \$cfg->maintenance_mode = true;</p> <p>Detail: Default is false.</p>
maintenance_mode_user	<p>The username of the user allowed to login and perform operations in Artena during maintenance mode.</p> <p>Example: \$cfg->maintenance_mode_user = 'AA';</p>
session_timeout	<p>Time out for a session in minutes</p> <p>Example: \$cfg->session_timeout = 30;</p> <p>Detail: Value is in minutes.</p>
notify_to_admin_email	<p>Email Address of the admin that sends notifications.</p> <p>Allowed Values: An email address.</p> <p>Example: \$cfg->notify_to_admin_email = 'admin@domain.tld';</p>
suspend_user_threshold	<p>The number of unsuccessful login or reset password attempts before the user account is temporarily suspended.</p> <p>Allowed Values: Numbers.</p> <p>Example: \$cfg->suspend_user_threshold = 6;</p> <p>Detail: Value is in whole numbers.</p>
suspend_user_duration	<p>The length of the suspension for a user that has exceeded the threshold of unsuccessful attempts.</p> <p>Allowed Values: Numbers.</p>

	<p>Example: \$cfg->suspend_user_duration = 60;</p> <p>Detail: Value is in minutes.</p>
suspend_host_threshold	<p>The number of unsuccessful login or reset password attempts before the host is temporarily suspended.</p> <p>Allowed Values: Numbers.</p> <p>Example: \$cfg->suspend_host_threshold = 10;</p> <p>Detail: Host suspension may be tricky as some users may be behind a proxy and appear to the server the same host as other users.</p>
suspend_host_duration	<p>The length of the suspension for a host that has exceeded the threshold of unsuccessful attempts.</p> <p>Allowed Values: Numbers.</p> <p>Example: \$cfg->suspend_host_duration = 5;</p> <p>Detail: Value is in minutes. Host suspension may be tricky as some users may be behind a proxy and appear to the server as the same host as other users.</p>
allow_multiple_logins	<p>Allow Multiple logins</p> <p>Allowed Values: true or false</p> <p>Example: \$cfg->allow_multiple_logins = true;</p> <p>Detail: Default is true.</p>
//ldap -----	
ldap_host	<p>IP Address of ldap Server</p> <p>Allowed values: IP address</p>

	Example: <code>\$cfg->ldap_host = '10.1.1.120';</code>
ldap_domain	Domain Name of Ldap Server Allowed Values: Domain name Example: <code>\$cfg->ldap_domain = 'test';</code>
ldap_base_query	Fully qualified domain name for ldap Example: <code>\$cfg->ldap_base_query = 'DC=test,DC=domain';</code>
ldap_application_group_name	Example: <code>\$cfg->ldap_application_group_name = 'CN=ArtenaGroup,OU=Groups,DC=Test,DC=Domain';</code>
ldap_login_name_attribute	Example: <code>\$cfg->ldap_login_name_attribute = 'sAMAccountName';</code>
ldap_memberof_attribute	Example: <code>\$cfg->ldap_memberof_attribute = 'memberOf';</code>
ldap_display_name_attribute	Example: <code>\$cfg->ldap_display_name_attribute = 'cn';</code>
ldap_sync_user_loginname	Example: <code>\$cfg->ldap_sync_user_loginname = 'AA';</code>
ldap_user_in_group_method	The method used to determine if a user belongs to a group. Allowed Values: userinfo or searchfilter Example: <code>\$cfg->ldap_user_in_group_method = 'userinfo';</code> Detail: This setting is optional. If not set userinfo is used by default.

ldap_use_ssl	<p>Connect to the ldap server with secure LDAP.</p> <p>Allowed Values: true or false</p> <p>Example: \$cfg->ldap_use_ssl = true;</p> <p>Detail: This setting is optional. If not set false is used by default.</p> <p>The server must support LDAPS connections.</p>
//reporting ----- The report URL is composed by concatenating the values of the following config options	
InternalUrl = rpt_server_internal + rpt_web_service_virtual_directory + rpt_report_viewer_path + '?' + rpt_base_folder + report path + options¶ms http://192.168.0.100/ReportServer?/Artena 2008/Client/Person/Person Details&rs:Command=Render&PERSONUID=0	
rpt_server_external	<p>URL when the report is viewed outside the domain. Usually a fully qualified domain name.</p> <p>Example: \$cfg->rpt_server_external = 'http://server.domain/';</p>
rpt_server_internal	<p>URL when the report is viewed inside the domain. Usually an IP address.</p> <p>Example: \$cfg->rpt_server_internal = 'http://192.168.0.100/';</p> <p>Detail: rpt_server_external is used if no value is supplied.</p>
rpt_web_service_virtual_directory	<p>This defines the name of the SSRS web service virtual directory.</p> <p>Example: \$cfg->rpt_web_service_virtual_directory = 'ReportServer';</p> <p>Detail: 'ReportServer' is used if no value is supplied.</p>

rpt_report_viewer_path	<p>This defines the report viewer path. Leave out or set to blank works in most cases. In some environment configurations the explicit path may be required.</p> <p>Example:</p> <pre>\$cfg->rpt_report_viewer_path = 'Pages/ReportViewer.aspx';</pre> <p>Detail: Optional Setting.</p>
rpt_base_folder	<p>If defined, this is a folder that is always added.</p> <p>Example:</p> <pre>\$cfg->rpt_base_folder = 'Artena 2008/';</pre>
rpt_reporting_svcs_user	<p>This defines user that the Artena database uses to filter the report list.</p> <p>Example:</p> <pre>\$cfg->rpt_reporting_svcs_user = 'domain\\username';</pre>
rpt_reporting_svcs_role	<p>This defines the role of the user the Artena database uses to filter the report list.</p> <p>Example:</p> <pre>\$cfg->rpt_reporting_svcs_role = 'Browser';</pre>
//proxy ----- This section is optional. Use only if required. Do not use if you have direct connection.	
proxy_host	<p>The proxy server to use when communicating to external interfaces. Usually an IP address.</p> <p>Example:</p> <pre>\$cfg->proxy_host = '127.0.0.1';</pre>
proxy_port	<p>The port the proxy is listening on.</p> <p>Example:</p> <pre>\$cfg->proxy_port = 8080;</pre>
proxy_username	<p>The username used to authenticate to the proxy.</p> <p>Example:</p> <pre>\$cfg->proxy_username = 'domain\\username';</pre> <p>Detail: Optional setting. Use only if the proxy requires authentication. Depending on the type of authentication domain may or may not have to be specified.</p>

proxy_password	<p>The password used to authenticate to the proxy.</p> <p>Example:</p> <pre>\$cfg->proxy_password = 'eNcRyPtEdPaSsWoRd';</pre> <p>Detail:</p> <p>Optional setting. Use only if the proxy requires authentication together with proxy_username and proxy_authtype.</p>
proxy_authtype	<p>The type of authentication required by the proxy.</p> <p>Allowed Values:</p> <pre>ntlm or basic</pre> <p>Example:</p> <pre>\$cfg->proxy_authtype = 'ntlm';</pre> <p>Detail:</p> <p>Optional setting. Use only if the proxy requires authentication together with proxy_username and proxy_password.</p>
//external interfaces -----	
moodle_url_scheme	<p>Moodle URL scheme (commonly known as protocol).</p> <p>Allowed Values:</p> <pre>http or https</pre> <p>Example:</p> <pre>\$cfg->moodle_url_scheme = 'http';</pre> <p>Detail:</p> <p>Optional setting. Use only if you are using Moodle integration.</p>
moodle_url_domain	<p>Moodle URL domain (alternatively IP Address).</p> <p>Example:</p> <pre>\$cfg->moodle_url_domain = 'mymoodlesite.tld';</pre> <p>or</p> <pre>\$cfg->moodle_url_path = '127.0.0.1';</pre> <p>Detail:</p> <p>Optional setting. Use only if you are using Moodle integration.</p>
moodle_key	<p>Moodle authorisation key.</p> <p>Example:</p> <pre>\$cfg->moodle_key = 'moodleauthorisationkey';</pre>

	Detail: Optional setting. Use only if you are using Moodle integration.
unicare_url_scheme	Uni-Care interface URL scheme (commonly known as protocol). Allowed Values: https Example: \$cfg->unicare_url_scheme = 'https';
unicare_url_domain	Uni-Care interface URL domain. Example: \$cfg->unicare_url_domain = 'smss.crombie.co.nz';
unicare_url_path	Uni-Care interface URL path. Example: \$cfg->unicare_url_path = 'smss/index.php';
unicare_email	Uni-Care interface web service error contact email. Example: \$cfg->unicare_email = 'fmsupport@crombielockwood.co.nz'; Detail: This is the set of individual/s to notify in case of a web service error in the Uni-Care interface. The provided email is the Uni-Care contact point and should not be removed. Separate each email with the ' ' symbol (i.e. a@b.com a@c.com).
qas_proweb_url	QAS Address service URL. Example: \$cfg->qas_proweb_url = 'http://127.0.0.1:2021/'; Detail: This is the full URL including port of the QAS Address service.
//smstx ----- This section is optional. Use only if required. Do not use if you do not have SMS text provider.	
smstx_provider	The provider to send SMS text messages through. Currently only spark and vodafone supported. Used by SCE. Allowed Values:

	<p>None or spark or vodafone</p> <p>Example:</p> <pre>\$cfg->smstx_provider = spark;</pre>
smstx_username	<p>Used for SMTP or web API authentication.</p> <p>Example:</p> <pre>\$cfg->smstx_username = 'username';</pre> <p>Detail: If SMTP authentication is required, both smstx_username and smstx_password must be set and valid.</p> <p>When using SMTP this value is used instead of smtp_username, when talking to the host configured via smtp_host. This is not the text service provider website username.</p>
smstx_password	<p>The password used to SMTP or web API authentication.</p> <p>Example:</p> <pre>\$cfg->smstx_password = 'eNcRyPtEdPaSsWoRd';</pre> <p>Detail: Assumes SMTP authentication is required, therefore both smstx_username and smstx_password must be set and valid.</p> <p>When using SMTP this value is used instead of smtp_password, when talking to the host configured via smtp_host. This is not the text service provider website user password.</p>
smstx_from_email	<p>Used for SMTP as the From field email.</p> <p>Example:</p> <pre>\$cfg->smstx_from_email = 'username@domain.tld';</pre> <p>Detail: When provided this is used in the email From: field instead for the smstx_username.</p>
smstx_via	<p>Use a web API instead of SMTP (email) for sending SMS.</p> <p>Example:</p> <pre>\$cfg->smstx_via = 'API';</pre> <p>Detail: Use only if the service does have an API and SCE supports it. If not set or not set</p>

	to 'API' then 'SMTP' is used.
//student file importer -----	
student_file_importer_email	<p>Email address to send Student File Importer run report to.</p> <p>Example:</p> <pre>\$cfg->student_file_importer_email = 'admin@server.domain';</pre>
//online application importer -----	
online_application_importer_email	<p>Email address to send Online Application Importer run report to.</p> <p>Example:</p> <pre>\$cfg->online_application_importer_email = 'admin@server.domain';</pre>
//online enquiry importer -----	
online_enquiry_importer_email	<p>Email address to send Online Enquiry Importer run report to.</p> <p>Example:</p> <pre>\$cfg->online_enquiry_importer_email = 'admin@server.domain';</pre>
//interapp configuration -----	
interapp_artenasp_url	<p>URL of the ArtenaSP deployment.</p> <p>Example:</p> <pre>\$cfg->interapp_artenasp_url = 'https://artenasp.my.domain/';</pre>
interapp_artenasp_password	<p>The ArtenaSP password to use for access. Contact HelpDesk to arrange one to be issued to you.</p> <p>Example:</p> <pre>\$cfg->interapp_artenasp_password = '<artenasppwd>';</pre>
//UIP configuration -----	
esaa_username	<p>The user name issued to your site by the ministry for Production UIP communication.</p> <p>Example:</p> <pre>\$cfg->essausername = 'UIP9999';</pre>
esaa_password	<p>The (encrypted) password issued to your site by the ministry for Production UIP communication.</p> <p>Example:</p> <pre>\$cfg->essausername = '<uip9999pwd>';</pre>
esaa_url_scheme	The scheme by which to connect to ESAA. Currently only https is available.

	Allowed values: https
	Example: \$cfg->esaa_url_scheme = 'https';
esaa_url_domain	The DNS of the ESAA site. Allowed values: ppsecurity.education.govt.nz (compliance) security.education.govt.nz (production) Example: \$cfg->esaa_url_domain = 'ppsecurity.education.govt.nz';
essa_url_path	The path to the ESAA interface. Example: \$cfg->esaa_url_path = '/oauth2';
ih_url_scheme	The scheme by which to connect to InfoHub. Allowed values: https Example: \$cfg-> ih_url_scheme = 'https';
ih_url_domain	The DNS of the InfoHub site. Allowed values: cpinfohub.education.govt.nz (compliance) infohub.education.govt.nz (production) Example: \$cfg->ih_url_domain = 'cpinfohub.education.govt.nz';
ih_url_path	The path to the InfoHub interface. Example: \$cfg->ih_url_path = '/api/v1.0/events';
ih_destination	The indication of whether a message is directed at the production or compliance InfoHub environment. Allowed values: InfoHub-UIP-Com (compliance) InfoHub-UIP (production) Example: \$cfg->ih_destination = 'InfoHub-UIP-Com';

ih_version	<p>The version of the InfoHub specification with which SUBS is currently compliant.</p> <p>Example:</p> <pre>\$cfg->ih_version = 'v01';</pre>
-------------------	---

1.2. Password Encryption

Passwords must be encrypted. To encrypt a password execute the

C:\wap_artena\swartena\private\server\conf\encrypt_password.cmd file

```
C:\WINDOWS\system32\cmd.exe
Enter password <maximum 25 characters>: 123123
Re-Enter password: 123123
90W73R+o6/Y=
Press any key to continue . . .
```

Enter the password, then copy the encrypted value and paste it into the configuration file.

1.3. Configuration Tester

The PHP configuration file has a strict syntax and has many options. To help with deployment a configuration testing script **test_config.php** is provided. The script is located in the **private/server/conf** directory. A command file **run_script.cmd** can be used to run the script and is also provided.

The configuration tester will check for the presence of settings and their general syntax. It does not in all cases test the absolute validity of settings. Future versions may include more detailed validation.

To run the configuration test simply execute the **run_script.cmd** file from the **private/server/conf** directory. You will see a list of available scripts. Simply enter the name of the script you wish to run, **test_config.php** in this case and press enter. (NOTE: If your operating system supports it you can use automatic command completion at the command prompt.)


```
C:\Windows\system32\cmd.exe

=====
List of available scripts:
=====
Volume in drive D is Data
Volume Serial Number is E53A-6CC0

Directory of D:\development\Artena\Server\private\server\conf

26/05/2012  11:46 p.m.          5,772 config.php
06/10/2009  03:11 p.m.           631 encrypt_password.php
28/05/2012  12:55 p.m.          8,764 set_user_guid.php
11/05/2012  03:25 p.m.         13,925 test_config.php
28/05/2012  01:02 p.m.          4,663 truncate_amfpacket_log.php
           5 File(s)          33,755 bytes
           0 Dir(s)  230,526,869,504 bytes free

=====

Enter php script filename (e.g. test_config.php) and press enter:
```

You will see output similar to the one illustrated in the screenshot below.

```

C:\Windows\system32\cmd.exe

#####
# extensions
#####

amf extension loaded.....pass
curl extension loaded.....pass
ldap extension loaded.....pass
mbstring extension loaded.....pass
mssql extension loaded.....pass
openssl extension loaded.....pass
pdo extension loaded.....pass
pdo_mssql extension loaded.....pass
pdo_odbc extension loaded.....pass
pdo_sqlite extension loaded.....pass
pdo_sqlsrv extension loaded.....pass
sockets extension loaded.....pass
sqlite extension loaded.....pass
sqlsrv extension loaded.....pass
xmlrpc extension loaded.....pass
zip extension loaded.....pass

#####
# config and other files
#####

config.php file exists.....pass
blowfish.php file exists.....pass
adLDAP20e.php file exists.....pass
nusoap.php file exists.....pass
phpmailer.php file exists.....pass

#####
# globals
#####

$cfg is set.....pass
PRODUCTION_SERVER is defined.....pass
PRODUCTION_SERVER is valid.....pass
DEBUGGING_ENABLED is defined.....pass
DEBUGGING_ENABLED is valid.....pass
PHP_EXECUTABLE is defined.....pass
PHP_EXECUTABLE is valid.....pass
PHP_CONFIGURATION is defined.....pass
PHP_CONFIGURATION is valid.....pass

#####
# databases
#####

$cfg->databases is set.....pass
$cfg->databases is array.....pass
$cfg->databases['artena'] is set.....pass
$cfg->databases['artena'] is array.....pass
$cfg->databases['artena']['driver'] is set.....pass
$cfg->databases['artena']['driver'] is valid.....pass
$cfg->databases['artena']['dbhost'] is set.....pass
$cfg->databases['artena']['dbhost'] is valid.....pass
$cfg->databases['artena']['dbname'] is set.....pass
$cfg->databases['artena']['dbname'] is valid.....pass
connect to database.....pass

#####
# authentication <ldap>
#####

$cfg->auth_provider is set.....pass
$cfg->auth_provider is valid.....pass
$cfg->ldap_host is set.....pass
$cfg->ldap_domain is set.....pass
$cfg->ldap_base_query is set.....pass
$cfg->ldap_application_group_name is set.....pass
$cfg->ldap_login_name_attribute is set.....pass
$cfg->ldap_guid_attribute is set.....pass
$cfg->ldap_memberof_attribute is set.....pass
$cfg->ldap_display_name_attribute is set.....pass
$cfg->ldap_sync_user_loginname is set.....pass
bind to ldap server.....pass

```

2. Artena Admin (AA) User Configuration

During initial setup of the application or after moving the application from one domain to another, eg. Production to Test, the AA user will not be able to login because the database user will not be matched to the domain user. One would normally see an error message saying “Could not locate your account”.

To link the AA Database User to their domain user do the following:

- Put the application in maintenance mode and set the maintenance mode user to the Artena Admin (AA) user setup in [Installation 1.2](#).

```
$cfg->maintenance_mode = true;  
$cfg->maintenance_mode_user = 'AA';
```

- Login with the Artena Admin (AA) user through the Security Admin or the Application.

Upgrade

Make sure to read the Release Notes. For some version specific upgrade notes see the [Version Specific Upgrade Notes](#) appendix.

All procedures should be performed in a test environment first.

1. Accounts and Groups

No changes to the service account and security group are required during upgrade.

2. Database Upgrade

2.1. Backup

Backup the Artena database before running any scripts against it.

2.2. Upgrade

Execute the **ArtenaSQLUpdateScript-MM.mm.RR.sql** script against the Artena database. There should be no errors. (MM.mm.RR corresponds to the major, minor, and release version numbers.)

3. Web Application Upgrade

```
C:
|-- wap_artena < Read & Execute, List Folder Contents, Read
|
|-- artena
|   |-- private
|   |   |-- logs < Write (Application logs folder)
|   |   |-- server
|   |       |-- bin < (Binary applications: SCE, ...)
|   |       |-- conf < (Application configuration and admin scripts)
|   |       |-- ... < (Some directories not listed for clarity)
|   |-- public < (Artena Client application files)
|   |   |-- docs < (Artena Help Docs viewer - no content here)
|   |   |-- server < (Artena Server application files)
|-- artena_docs < (Artena Help Docs content)
|-- artena_files < Write (File storage, temp, and log folders)
|   |-- file_store
|   |-- file_temp
|   |-- sce_output_logs
|   |-- sce_output_root
|-- wap
|   |-- apache
|   |-- php
|       |-- x.x.xx-nts
|       |-- x.x.xx-ts
|       |-- logs < Write
|       |-- sessions < Write
|       |-- temp < Write
|-- www
```

As of Artena 09.05.03 the Artena Help Docs content is located outside the public folder structure. This is done for security and ease of deployment reasons.

3.1. Unpack the release package

Prior to Artena 09.09.00 there are two versions of the web application:

- **artena_ion** - PHP files encoded for **ionCube Loader**
This version is for use with **Apache** and the Thread Safe (TS) PHP **Apache module**.
- **artena_zgl** - PHP files encoded for **ZendGuard Loader**
This version is for use with **IIS** and the Non-Thread Safe (NTS) PHP **FastCgi module**.

As of Artena 09.00.00 the web application for both Apache and IIS is encoded for the **ionCube Loader**

3.2. Perform the application upgrade

1. Move and backup the Artena **private** and **public** folders.
2. Place the **private** and **public** folders from the release in their place.
3. Restore or replace the **artena.log.db** log database. If the Release Notes mention that the log database has changed replace it by copying the **artena.log.db.dist** to **artena.log.db**.
4. Restore the **config.php** configuration file, and set any new or modified configuration options.
5. Restore any binary applications. If the Release Notes mention that the ArtenaSCE has changed replace it with the new version.
6. **IMPORTANT:** If running on IIS and have made any IIS configuration changes that are stored in a **web.config** in your public root folder, restore the **web.config** file in order to preserve your IIS configuration.

4. WAP - Web Server and PHP Upgrade

WAP is distributed separately and needs to be upgraded only when WAP versions change.

All references to the old PHP, such as batch commands (or explicit Windows Task Scheduler task actions) for any command line PHP scripts, must be updated to point to the new PHP that is distributed with the upgraded version of WAP.

5. Security Administrator Upgrade

Security Administrator needs to be upgraded only when a new version is released. Refer to the release notes for changes to the Security Administrator.

Where a new version is released, the Artena Security Administrator can be upgraded by running the **SecurityAdministrator.air** file from the **admin_application** distribution folder.

From time to time the **SecurityAdministrator.air** package certificate may change. When that is the case the installed Security Administrator must be uninstalled manually from the Control Panel.

6. Application Log Database Upgrade

The Application Log database needs to be upgraded only when a new version is released. Refer to the release notes for changes to the Application Log Database.

Where a new version is released, backup the **C:\wap_artena\artena\private\logs\artena.log.db** log database, and then copy the **C:\wap_artena\artena\private\logs\artena.log.db.dist** database file to **C:\wap_artena\artena\private\logs\artena.log.db**

7. Artena Help Docs Upgrade

The Artena Help Docs needs to be upgraded only when a new version is released. Refer to the **Artena Release Notes** for changes to the Artena User Help.

To upgrade, delete the contents of the **artena_docs**, and then place the contents of the archive in their place. The result should be:

```
C:
|-- wap_artena
|   |-- artena
|       |-- private
|       |   |-- ...          <      (Some directories not listed for clarity)
|       |-- public
|           |-- docs          <      (Artena Help Docs viewer - no content here)
|           |-- server
|-- artena_docs              <      (Artena Help Docs content)
|   |-- Artena System Administration Guide
|   |-- Artena User Guide
```

8. ArtenaSCE Upgrade

ArtenaSCE need only be upgraded when a new version is released. ArtenaSCE may be released on a different schedule to Artena. The **Artena Release Notes** should mention if a new version of ArtenaSCE is released at the same time as Artena.

9. Reports Upgrade

Reports need to be upgraded only when a new report is released or an existing report is changed. Refer to the **Artena Release Notes** for changes to any reports.

To deploy any new or updated reports, use ArtenaRSD. Refer to the **ArtenaRSD Guide** for detailed instructions.

Maintenance

1. Temporary Files

The **temp_directory** and **sce_output_logs** folders may accumulate temporary files over time. These can be cleaned up with the **artena.tempfilecleaner.php** script, located in the **private/server/bin** Artena application folder. **artena.tempfilecleaner.php** will delete files older than a week from the **temp_directory** and **sce_output_logs** folders.

The uses an additional executable file from the Windows Sysinternals Suite By Mark Russinovich.

<http://technet.microsoft.com/en-us/sysinternals/bb842062>

- **pslist** (Appendix 1)

Only one instance of **artena.tempfilecleaner.php** is allowed to run at a time. **artena.tempfilecleaner.php** creates a **artena.tempfilecleaner.pid** file when started, and deletes it when finished. **pslist** is used to check if the process is still running, and prevents a second copy starting.

1.1. Run

The Artena Temp File Cleaner can be run on demand or as a scheduled task. The syntax to run the script is

```
<pathto>\php.exe -c <pathto>\php.ini artena.tempfilecleaner.php
```

1.2. Schedule

To schedule **artena.tempfilecleaner.php** create a batch file with the following contents

```
@echo off
<pathto>\php.exe -c <pathto>\php.ini artena.tempfilecleaner.php
```

Replace **<pathto>** with the actual path to the **php.exe** and **php.ini** files.

Then, use the Windows Task Scheduler to schedule it to run as you require. Make sure to run from the **bin** directory.

Appendix

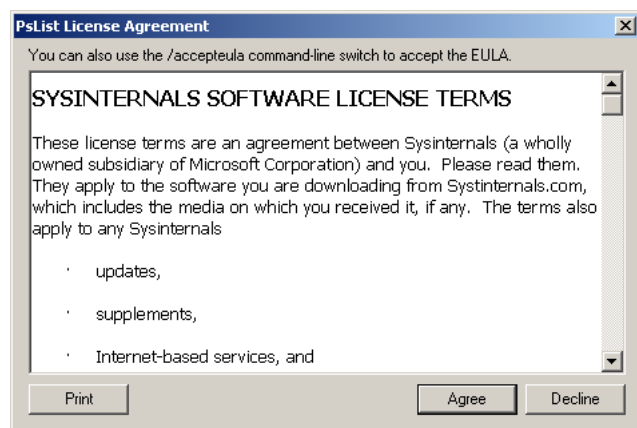
1. PsList

PsList is used by the Artena Temp File Cleaner and other command line PHP scripts. It must be downloaded and setup before these scripts can be used.

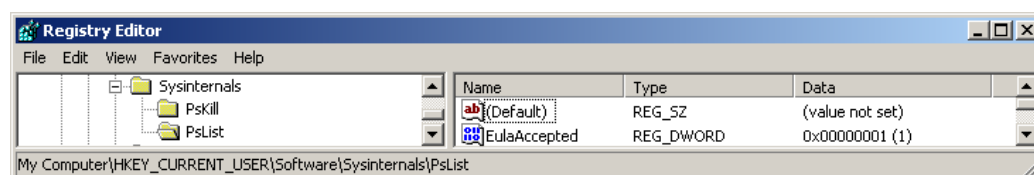
Download **PsList** and place it in the following location

private/server/bin

Execute **PsList**, for the user that will run the scheduled task, manually once and accept the license agreement.



This action will store information in the registry, and the license agreement prompt will no longer appear when you run **PsList**.



Failing to do this step will result in **artena.tempfilecleaner.php** and other import scripts failing silently.

2. Version Specific Upgrade Notes

This appendix lists some of the important changes that relate to a specific version. It is not meant as a complete list of steps to follow, rather as a reminder of some of the bits that are easy to miss.

2.1 Artena-09.10.00

- New prerequisite **SQL Server ODBC Driver 11**
- Changed reporting configuration option. The old **rpt_reporting_svcs_root** is replaced by two new options **rpt_report_viewer_path** and **rpt_report_service_path**.

2.2 Artena-09.11.00

- New prerequisite **SQL Server 2012 ODBC Driver**
- Changed and added SCE SMSTX related configuration options. The existing **smstx_username** and **smstx_password** are now used for SMTP authentication as well. The new **smstx_from_email** and **smstx_via** add more flexibility in configuring the SMSTX function.