1Integrate

Installation Guide

Oracle WebLogic Server

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1 Introduction

This guide explains how to install 1Integrate.

The procedures apply to both Windows and Linux environments, unless specifically indicated.

For more information about new features and changes in this release, and hardware and software requirements, refer to the *1Integrate Release Notes*.

Audience

This guide is intended for personnel responsible for the installation, configuration, and administration of software.

The procedures detailed in the guide should be performed by a system administrator who is familiar with the application environment of the organisation.

Licences

1Integrate licences will be issued via email.

1Spatial Product Support

If assistance is required while installing 1Integrate, please call 1Spatial support on +44 (0)1223 423069, or visit the support section of the 1Spatial website via the Services menu at www.1spatial.com.

2 Prerequisites

Before installing 1Integrate, please ensure you have met all system requirements and installed all necessary prerequisite components:

▶ Check "System Requirements" below (including the version of Java required)

▶ "Microsoft Visual C++ Redistributable (Windows only)" on the next page

▶ "Configuring a Database Server for 1Integrate's repository" on the next page

▶ "ICU Libraries (Linux only)" on page 8

▶ "Required Packages (Linux only)" on page 8

▶ "Loading Data Formats" on page 21

System Requirements

Please see the *1Integrate Release Notes* for specific system requirements for this release.

Sizing a Server for 1Integrate

There are a number of minimum requirements for server size in order to install 1Integrate.

Depending on your intended configuration you will need, as a minimum:

per Interface:

▶ 2 CPU Cores

▶ 2GB RAM

per Engine:

▶ 1 CPU Core

▶ 1GB RAM

> **Note:** In order to achieve optimal performance, a dedicated core per engine is recommended.

While being processed, data is stored on disk. So the recommended available storage varies on a case by case basis.

While improving CPU and memory will increase performance, the biggest gains can be made from using fast disk storage, e.g. SSDs.

> **Note:** For storage requirements, a minimum of 10GB should cover basic uses of your 1Integrate installation. Additional storage will be required for the database you will be using.

Microsoft Visual C++ Redistributable (Windows only)

Microsoft Visual C++ 2015-2019 64-bit Redistributable packages are required for Windows installations of 1Integrate.

These can be downloaded from the Microsoft website (**vcredist_x64.exe**).

For more information about the version numbers of pre-requisites, please refer to the relevant release notes for your installation.

Configuring a Database Server for 1Integrate's repository

1Integrate requires access to an database server to store configuration data such as rule or session definitions, and conformance results. This is referred to as the "1Integrate repository".

Supported Database Servers are:

- ▶ *Oracle* Enterprise
- ▶ *PostgreSQL (WildFly only)*
- ▶ *Microsoft SQL Server (WildFly only)*

> **Note:** Please refer to the relevant product documentation when installing your chosen database server.

Creating the repository

You will need to create a database and user (Oracle only requires a User) for your 1Integrate repository on your selected server.

> **Note:** When deploying 1Integrate to multiple servers, one database user is required per environment.

Oracle:

Using Oracle, 1Integrate requires a database user. The setup should be performed as recommended by your Database Administrator who must grant the user access to the database and at least the following permissions:

- ▶ `create sequence`
- ▶ `create table`

Required Packages (Linux only)

The following package is a prerequisite for Linux installations of 1Integrate:

- ▶ **libX11**

You must install **libX11** via the system's package manager.

ICU Libraries (Linux only)

ICU libraries are required for data and timestamp support in Linux.

A root user (or a user with root access privileges) is required to copy the files from the installation package and run the `ld_config` command.

Install the ICU libraries:

1. Run the `su` command to switch to the root user.

2. Copy the **.so** files from the installation folder (within the ICU folder) to the **/usr/local/lib64/** folder.

3. Create a new configuration file: **/etc/ld.so.conf.d/integrate.conf**

> **Note:** Both the **.so** files and the **.conf** file must have read permissions for all users.

4. Inside the configuration file, reference the location of the ICU libraries, for example: `/usr/local/lib64/*`

5. Enter the following `ld_config` command:

```
/sbin/ldconfig -v /usr/local/lib64/
```

Alternatively, edit **~/.bashrc** or similar for the user used to run 1Integrate to include `/usr/local/lib64` on the `LD_LIBRARY_PATH`, as in the following example:

```
# User specific
```

```
if [ -z "$LD_LIBRARY_PATH" ]; then
export LD_LIBRARY_PATH="/usr/local/lib64"
else
export LD_LIBRARY_PATH="/usr/local/lib64:$LD_
LIBRARY_PATH"
fi
```

Data Store Prerequisites

1Integrate supports the following types of data stores for input (reading) and output (writing), either as standard or using FME Desktop (which requires a licence). Pay particular attention to the prerequisites attached to certain data store types:

> **Note:** All formats listed below as using FME Desktop require FME Desktop Professional Edition, unless otherwise indicated.

Data Store Type	As standard		Using FME Desktop	
	Read	Write	Read	Write
Autodesk AutoCAD DWG/DXF	✗	✗	✓	✓
Bentley Microstation Design (V8)	✗	✗	✓	✓
Delimiter-separated value (DSV)	✓	✓	✗	✗
Esri ArcGIS Server	✓	✓	✗	✗
Esri Enterprise Geodatabase	✗	✗	✓[1]	✓[2]

[1]This format is only available on Windows. Requires FME Desktop (64-bit) Esri Edition, and ArcGIS Desktop, ArcGIS Desktop Background Processing (64-bit) and Database client (64-bit).
[2]This format is only available on Windows. Requires FME Desktop (64-bit) Esri Edition, and ArcGIS Desktop, ArcGIS Desktop Background Processing (64-bit) and Database client (64-bit).

Data Store Type	As standard		Using FME Desktop	
	Read	Write	Read	Write
Esri File Geodatabase	✓	✗	✓	✓
Esri Shapefile	✓	✓	✓	✓
Google BigQuery	✓	✓	✗	✗
MapInfo Tab	✓	✓	✓	✓
Microsoft SQL Server Spatial	✗	✗	✓[1]	✓[2]
Oracle	✓	✓	✗	✗
PostGIS	✓	✓	✗	✗
OGC Web Feature Service	✓[3]	✗	✗	✗

[1]This format is only available on Windows. The Microsoft SQL Server 2012 Native Client must be installed.
[2]Windows only. Requires FME Desktop Database Edition. The Microsoft SQL Server 2012 Native Client must be installed.
[3]This format only supports 2D geometries.

3 Installing 1Integrate on WebLogic

> **Note:** Before proceeding, ensure you have completed all pre-requisite steps (see "Prerequisites" on page 6).

Installing 1Integrate on an Oracle WebLogic Server consists of the following tasks:

- ▶ Running the Installation Wizard using the "1Integrate Installation Wizard Parameters" on page 13
- ▶ "Configuring Users and Roles" on page 19
- ▶ "Testing the Installation" on page 29

1SMS Installation Wizard

The 1Spatial Management Suite Installation Wizard guides you through the product installation.

Launching the wizard

The wizard can be run on both Windows and Linux operating systems.

Launch the installation wizard on Windows:

1. Copy and unzip the installation folder on the target server machine.
2. Double-click the **1sms_installer-[version].jar** file.

Launch the installation wizard on Linux:

1. Copy and unzip the installation folder on the target server machine.
2. Run the **installer.jar** file using a Java 1.8 JVM.

   For example, from the command line enter: `Java -jar ./1sms_installer-[version].jar`

Installation of 1Integrate

> **Note:** Ensure that the WebLogic Node Manager and Admin Server are running before proceeding with the installation.

> **Note:** If you have your own custom data stores or built-ins, you will need to add these to the installation directory before running the installation wizard.

> **Note:** If you are running the installation on an existing domain, roles and users may already exist in that domain. Only new users and new role mappings will be created in this situation. Existing mappings will be preserved.

Install 1Integrate using the Installation Wizard:

1. Launch the Installation Wizard (see "Launching the wizard" on the previous page).
2. Select **WebLogic Installation**, then click **Next**.
3. In the Product Selection page, tick **Install** for all components, then click **Next**.
4. Complete each page of the installation wizard, entering parameters as required.
5. On the Summary page, click **Next**, then click **Begin** to run the installation.

> **Note:**
> If you encounter the following when clicking **Begin** to run the installation, restart the Admin Server then re-run the installation wizard.
>
> All previously entered data will be preserved.
>
> ```
> ################################################
> #
> # Server "AdminServer" must be restarted to
> activate all configuration changes.
> ################################################
> #
> ```

1Integrate Installation Wizard Parameters

The following parameters are given in the order displayed in the Installation Wizard, and split by the page within which they appear.

Common Settings

Parameter	Description	Typical Value
WebLogic		
WebLogic Home		C:/oracle/Middleware
WebLogic Domain Home	This can be an absolute directory or one relative to WebLogic home (relative directories will be converted into absolute directories automatically) .	user_project/domains
WebLogic 64-bit Domain With SOA Components		
Host	Host name	[machine name]
Port	Port number	7001
Protocol	Protocol type to use (t3 or t3s). **Note:** If using t3s, you must ensure that the server's certificate(s) are added to the cacerts trust store for the Java version used *when WebLogic was installed*.	
Admin Username	Admin username for the WebLogic domain.	
Admin Password	Admin password for the WebLogic domain.	
Admin Server Name	Name of the WebLogic domain's Administration Server **Note:** This should be the same for each domain.	AdminServer

Parameter	Description	Typical Value
Domain Name	Name of the domain	sms_domain
Node Manager Machine Name	Name of the node manager machine	[machine name]
Node Manager Host	Host of the node manager	localhost
Node Manager Port	Port of the node manager	5556
Node Manager Type	Type of node manager	ssl

1Integrate Interface

Item	Description	Typical Value
General		
Service Port	The port to use to host the 1Integrate interface web service	7004
Listen Address		[machine name]
Server Name	The name of the server to host the 1Integrate interface web service	[server name]
1Integrate Repository		
JDBC Connection string	The connection details of the schema in the form `jdbc:oracle:thin:@hostname:port/service_name` or `jdbc:oracle:thin:@hostname:port:sid`	
Username	User name for the schema	
Password	Password for the schema	

Item	Description	Typical Value
Cache Data		
Directory	The location of the cache directory. When a session is run, a folder is created called "1Integratecache", within which the cache is stored. > **ℹ Note:** This stores the data cache from data read by 1Integrate. This may require large amounts of disk space depending on the size of data being read into sessions and the number of concurrent sessions. For Linux, if left blank this will default to `/tmp`. For Windows, if left blank this will default to `C:\Users\ [user]\AppData\Local\Temp`.	C:/1spatial/data
License	The location of the provided product licence file	C:/1spatial/ [licence name].lic
Interface JVM Settings		
Initial Heap Size		256MB
Maximum Heap Size		1024MB
Custom Extensions		
Include Custom Extensions	Tick this box to include custom extensions.	
Selected Custom Extensions	Browse for custom extensions to be included.	

1Integrate Engines

Parameter	Description	Typical Value
General		
Number of Nodes	Number of Engine(s) to be created (limited by your licence agreement).	2
Service Port (s)	A list of ports that should be used to host the processing services. This can either be a comma separated list or a range, such as 8022, 8023, or 8024-8027. Ensure the ports are not already in use.	
Engine Label (s)	Select Edit and enter labels for each engine. A new line represents a new Engine, and each line can contain multiple labels in the form of a comma separated list. **Note:** You will be unable to proceed until the number of lines matches the number of Engine(s) deployed during installer. Lines can be left blank to indicate no label required for certain engines.	label1,label2 label3 label4,label5
Listen Address		
1Integrate Repository		
Note: These settings must be entered the same as for the 1Integrate Interface.		
JDBC Connection String	The connection details of the schema in the form `jdbc:oracle:thin:@hostname:port/service_name` or `jdbc:oracle:thin:@hostname:port:sid`	
Username	User name for the schema	
Password	Password for the schema	

Parameter	Description	Typical Value
Cache Data		
Directory	The location of the cache directory. When a session is run, a folder is created called "1Integratecache", within which the cache is stored. > **Note:** This stores the data cache from data read by 1Integrate. This may require large amounts of disk space depending on the size of data being read into sessions and the number of concurrent sessions. For Linux, if left blank this will default to `/tmp`. For Windows, if left blank this will default to `C:\Users\ [user]\AppData\Local\Temp`.	C:/1spatial/data
License	The location of the provided product licence file	C:/1spatial/ [licence name].lic
Engine JVM Settings		
Initial Heap Size	This Initial Heap Size value specifies how much memory a 1Integrate Engine node uses on startup. If it requires more memory, it will grow up to the Maximum Heap size.	256MB

Parameter	Description	Typical Value
Maximum Heap Size	This is the maximum amount of Java memory that can be allocated to the 1Integrate Engine node. If this number is too small then very complex or large processes may fail by running out of memory. The amount of memory is required not directly related to the amount of feature loaded (because they are cached to disk) but is related to the size of individual entities being handled, such as restoring large XML backups or processing very large geometries.	1024MB
Custom Extensions		
Include Custom Extensions	Tick this box to include custom extensions.	
Selected Custom Extensions	Browse for custom extensions to be included.	
Clustering		
Clustered		
Cluster Name		
Cluster Address (optional)		
Cluster Load Algorithm		
Cluster Messaging Mode		
Cluster Broadcast Channel (optional)		

Configuring Users and Roles

Users and Roles can be edited within 1Integrate.

> **Note:** You will need to restart 1Integrate for any changes to user and roles to take effect.

By default, 1Integrate is deployed with example users and passwords included. This enables a quick set-up process, but for security reasons it is HIGHLY RECOMMENDED that:

▶ As a minimum, on installation, change all passwords from the default to unique values.

▶ change the user names to ones relevant to your organisation.

For stronger security and management, consider using other authentication mechanisms such as using your organisation's Lightweight Directory Access Protocol (LDAP) Service e.g. Microsoft Active Directory. This ensures that passwords and usernames are not stored in the application server but managed, as normal, by an IT department.

Roles

The following roles are available in 1Integrate:

Role	Description
rs_admins	The administrator can set up system parameters and has all the privileges of the other roles. These include creating and modifying: ▶ rules ▶ data stores ▶ sessions ▶ actions ▶ action maps The administrator can also define sessions and upload files.
rs_data_ engineers	A data engineer can: ▶ create and modify actions ▶ create and modify action maps ▶ define and run sessions

Role	Description
rs_data_loaders	A data loader can upload files into 1Integrate on the Data Stores page only.
rs_data_quality_stewards	A data quality steward can define and run sessions only.
rs_rule_definers	A rule definer can create and modify: ▶ rules ▶ data stores ▶ sessions The rule definer can also run sessions.
rs_users	A user can only view data presented on the interface.
rswsuser	A web service user can use the web services.

Users

The following users are and roles are created by default upon installation:

Username	Password	Assigned roles
INTFull	integrate1	rs_users rswsuser rs_rule_definers rs_data_loaders rs_data_engineers rs_data_quality_stewards
INTAdmin	integrate101	rs_admins rs_users rswsuser
INTUser	integrate102	rs_users
INTWService	integrate103	rswsuser
INTRule	integrate104	rs_rule_definers
INTLoader	integrate105	rs_data_loaders
INTEng	integrate106	rs_data_engineers

Username	Password	Assigned roles
INTQuality	integrate107	rs_data_quality_stewards

WebLogic Users

1Integrate users and roles should be configured using the WebLogic Server Administrator Console.

Role membership determines a user's access to application features.

1Integrate roles are created by default. However, unlike the default users that are created, the role names set up by installer must not be altered.

> **Note:** The default setup assigns the default users to some of the default roles, allowing you to log in and start using 1Integrate without having to change any of the security configuration. If you wish to customise the users, then role assignment can be altered.

LDAP

For stronger security and management, Consider using other authentication and authorisation mechanisms such as your organisation's Lightweight Directory Access Protocol (LDAP) Service e.g. Microsoft Active Directory. This ensures that passwords and usernames are not stored in the application server but managed, as normal, by an IT department.

Authenticate using LDAP

For information on configuring WebLogic in this way, please refer to the Oracle documentation:

https://docs.oracle.com/en/middleware/standalone/weblogic-server/14.1.1.0/secmg/atn.html#GUID-46CB94C0-BF0A-4788-8E93-0D322DA67462

Loading Data Formats

1Integrate can handle spatial data from a number of sources such as an Oracle database, Esri Shapefiles or MapInfo Tab files.

> **Note:** For more details on the formats supported, please see the 1Integrate online help.

PostGIS prerequisite (WebLogic only)

If you are planning on using PostGIS to read data, an additional driver is required:

postgresql-[version].jar

For specific versions, please refer to the Release Notes for your installation.

Installing the Driver:

1. Download the driver **postgresql-[version].jar** from the PostgreSQL website.

2. In the **bin** directory of the 1Integrate WebLogic domain, create a file called **setUserOverrides.cmd**

3. Edit the **setUserOverrides.cmd** file, adding the location of the postgresql driver as part of the PRE_CLASSPATH:

    ```
    set PRE_
    CLASSPATH=%locationOfTheDriver%\postgresql-
    [version].jar
    ```

4. Restart all servers, including Admin Server and Node Manager for the pre-class path to be loaded.

Using FME

To access other formats such as DWG files or Esri Enterprise geodatabases, 1Integrate uses functionality from Safe Software's FME. To use this capability, you must have FME Desktop installed and available to 1Integrate, with an FME Desktop license available for use.

> **Note:** In order to be editable, tables must have a primary key defined. You can read data from tables that do not have primary keys, but you will not be able to write data back to those tables.

To allow 1Integrate to access data that is only available via an FME license, use the following procedure, depending on your operating system:

Configure FME on Windows

> 🗐 **Note:** The following steps are only necessary if FME has not already been added to the system or user's PATH environment variable in Windows. However, when using WildFly with AdoptOpenJDK ensure the `plugins` path is defined, as detailed below.

1. Stop the WebLogic server(s).

2. Create a new file called **setUserOverrides.cmd** within the **bin** directory of your domain, if it does not already exist (i.e.**[domain name]/bin/setUserOverrides.cmd**).

3. Edit the contents of the file to contain the following:

```
@rem add FME to PATH
set PATH=[FME path];%PATH%
```

Where `[FME path]` is the location where FME is installed (e.g. C:\PROGRA~1\FME).

4. Alter the permissions on **setUserOverrides.cmd** to allow the WebLogic user to access the file.

5. Start the WebLogic server(s).

Configure FME on Linux

1. Stop the WebLogic server(s).

2. Create a new file called **setUserOverrides.sh** within the **bin** directory of your domain (i.e.**[domain name]/bin/setUserOverrides.sh**).

3. Edit the contents of the file to contain the following:

```
# add FME to LD_LIBRARY_PATH
export LD_LIBRARY_PATH="[FME_CORE_PATH]:$LD_
LIBRARY_PATH"
```

Where `[FME_CORE_PATH]` is the location of the fme/fmecore/ directory.

4. Alter the permissions on **setUserOverrides.sh** to allow the WebLogic user to execute the file (e.g. `chmod 750 setUserOverrides.sh`).

5. Start the WebLogic server(s).

Esri Enterprise Geodatabase

The following changes need to be made to the **setUserOverrides.cmd** (Windows) or **setUserOverrides.sh** (Linux):

▶ Add the SDEHOME path variable

▶ Add the database client path to the PATH

> **Note:**
> SDEHOME must not contain spaces in the path. Make sure that short paths are enabled on the operating system (e.g. PROGRA~2) or copy the following dll files (from C:\Program Files (x84)\ArcGIS\DesktopV\bin64) to a location without spaces :
>
> > ▶ sde.dll
> >
> > ▶ sg.dll
> >
> > ▶ pe.dll
> >
> > ▶ xerces_c3_1.dll

Example (Windows):

```
@rem set FME path
set
PATH=C:\PROGRA~1\FME\;C:\app\Administrator\product\12
.1.0\client_1;%PATH%
set SDEHOME=C:\PROGRA~2\ArcGIS\Desktop10.4\bin64
```

SQL Server Spatial Data

An additional driver is required in order for FME to read Microsoft SQL Server data.

Configure SQL Server for spatial data support:

1. Download the following driver from Microsoft, and place it in an accessible location: **sqljdbc4-[version].jar** (for versioning, please see the release notes for your installation).

2. In the **bin** directory of the 1Integrate WebLogic domain, create a file called **setUserOverrides.cmd**

3. Edit the **setUserOverrides.cmd** file, adding the location of the sqljdbc driver as part of the PRE_CLASSPATH:

```
@rem include the sqljdbc driver as part of the
pre class path
set PRE_CLASSPATH=%locationOfTheDriver%\sqljdbc4-
[version].jar
@rem set FME path as part of the path
```

```
set PATH=C:\PROGRA~1\FME\;%PATH%
```

4. Restart all servers, including Admin Server and Node Manager for the pre-class path to be loaded.

Additional Configuration

It is recommended that you carry out any additional configuration during the installation process to ensure that settings persist between 1Integrate installations and updates.

To do this, each additional parameter will need to be entered in the **config.properties** file under the user defined system parameter: `1Integrate_par_user_defined` .

> **Note:** The `1Integrate_par_user_defined` system parameter can only be entered once. Ensure all additional parameters are under this. Each should be entered as a space separated list of `parameter=value` pairs.

The **config.properties** file is generated when the installer file is opened.

> **Example:** `1integrate_par_user_defined=-DloginDanner=C\:\\1Spatial\\loginBanner.html -Dgrid.local.address=[address location]`

> **Note:** Colons and backslashes need to be prefixed with a \ character.

The following additional configuration should be carried out during installation to ensure settings persist between installs and upgrades:

▶ "Configuring Login Banner" below

▶ "NIC/Network Adaptor Configuration" on the next page

▶ "Offline Help" on page 27

> **Note:** Alternatively additional configuration can be implemented after installing 1Integrate by entering the parameters as JVM Arguments in the Server Start tab of your WebLogic console.

Configuring Login Banner

Optionally, you can configure a login banner to appear at the top of the Login page:

1. First, you must create a valid HTML file with plain text and optional heading tags. Text will be displayed as black.

2. In the **config.properties** file, add the following:

Parameter	Description
`1Integrate_par_user_ defined=-DloginBanner`	Enter a file path to a HTML document you have defined e.g: `1Integrate_par_user_ defined=-DloginBanner= [Location]/[File].html` **Note:** The HTML page must be placed on the same server as the one running the Interface(s).

Note: The `1Integrate_par_user_defined` system parameter can only be entered once. Ensure all additional parameters are under this. Each should be entered as a space separated list of `parameter=value` pairs. Colons and backslashes need to be prefixed with a \ character.

NIC/Network Adaptor Configuration

The Grid discovery used to find engines by default uses the first found non-loopback address, for example a machine with Ethernet adaptors "eth0" and "eth1" and Local Loopback "lo" will likely use "eth0".

Note: If you do not need to override the adaptor default behaviour, then the following properties do not need to be included.

Configure NIC/Network Adaptor :

Within the **config.properties** file, include the following in the parameters within the `1Integrate_par_user_defined` system parameter (see "Additional Configuration" on the previous page for more):

```
-Dgrid.local.address=[NIC Address] -
Dgrid.discovery.tcp.port=[default: 51300] -
Dgrid.communication.tcp.port=[default: 51401]
```

> **Note:** Only one `1Integrate_par_user_defined` system parameter can be defined. Ensure all additionally configured parameters are under this. See "Additional Configuration" on page 25

> **Note:** It is possible to configure the above by navigating to the WebLogic Server Administration Console and including the Server Start Arguments. This will have to be carried out after installation and will not persist between installations and upgrades.

Where:

▶ **Dgrid.local.address** - specifies the IP address of the network adaptor used for grid communication.

▶ **Dgrid.communication.tcp.port** and **Dgrid.discovery.tcp.port** - allows environments to specify known ports (for example, when using a firewall).

> **Note:** The communication port must be a minimum of 100 greater than the discovery port, in order to avoid conflict.

Offline Help

By default, clicking the Help button within 1Integrate opens the online WebHelp. However, this button can be configured to open local offline documentation instead.

> **Note:** The configuration of offline help is only advised for environments without access to the internet, as local help files will not receive updates as often as the online help.

Before performing the configuration, ensure your local help files are places somewhere accessible on your local network. If the help files have not been provided with your release, please contact your vendor or 1Spatial Support.

Configure Offline Help :

To configure offline help, the `-Dhelp_base_url=[location of help files]` parameter will need to be entered in the **config.properties** file under the user defined system parameter: 1Integrate_par_user_defined . Colons and backslashes need to be prefixed with a \ character. For more, see "Additional Configuration" on page 25.

Note: Alternatively, Offline Help configuration can be implemented after installing 1Integrate by entering the `-Dhelp_base_url=[location of help files]` parameter as JVM Arguments in the Server Start tab of your WebLogic console.

4 Testing the Installation

> **Note:** Empty your browser cache before testing your installation.

1Integrate can be accessed through the following site:
http://[machine]:[service_port]/1Integrate

> **Note:** Use the port number specified during installation, by default this is 7004.

Log in as a user with administrator permissions.

To verify the engine installations, click the **Admin** tab and check that the Grid Topology matches the number of interfaces and engines installed.

If you need to access the 1Integrate Web Services API, then a web page with documentation and a link to the WSDL document can be found at:
http://[machine]:[service_port]/soap

5 Upgrading an Installation

> **Note:** Before performing an upgrade to an existing installation, ensure **all sessions are stopped** and perform a **backup** of your repository.

> **Note:** These instructions apply when upgrading from one version to the immediately subsequent release only (e.g. from 1.1 to 1.2). If you are performing an upgrade from any older version, please consult your release notes or contact 1Spatial Support.

Upgrade an Installation:

Upgrading an installation on WebLogic consists of un-installing your current product version, copying across your **config.properties** file, and then re-installing your new product version.

> **Note:** The following instructions use an example where currently version 1.A is installed, and we want to upgrade to 1.B. We have used **C:\Program Files\1Spatial** as a directory within which to store our installation package files, organised into **C:\Program Files\1Spatial\Product-1.A** and **C:\Program Files\1Spatial\Product-1.B**.

1. Launch the 1SMS Installation Wizard for your *current* installation (e.g. **C:\Program Files\1Spatial\Product-1.A\1sms_installer.jar**).

   i. Select **WebLogic Installation**, then click **Next**.

   ii. In the Product Selection page, tick **Uninstall** for the components to be upgraded, then click **Next**.

   iii. On the Summary page, click **Next**, then click **Begin** to run the un-installation.

2. Copy the **config.properties** file from your old installation directory (e.g. **C:\Program Files\1Spatial\Product-1.A**) to your new installation directory (e.g. **C:\Program Files\1Spatial\Product-1.B**).

3. Launch the 1SMS Installation Wizard for the *new* product version (e.g. **C:\Program Files\1Spatial\Product-1.B\1sms_installer.jar**).

   i. Select **WebLogic Installation**, then click **Next**.

  ii. In the Product Selection page, tick **Install** for the components to be upgraded, then click **Next**.

 iii. Check the parameters on each page of the installation wizard. These will be pre-populated from the **config.properties** file that was copied from the previous installation.

 iv. On the Summary page, click **Next**, then click **Begin** to run the installation.