1Integrate for ArcGIS

Installation Guide

Mobile Edition

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1 Installation Overview

> **Note:** Before proceeding with an installation, please see your Release Notes to ensure you have installed all pre-requisite software and meet all minimum system requirements.

The installation process consists of the following main steps:

1. Extract your release package
2. Install core components using the Setup Wizard

> **Note:** If any help is required during the installation process, please contact 1Spatial Support.

Release Package

Your release package consists of a zip file, which must be extracted to an accessible location.

The **1IFA_Mobile-[version].msi** file is the setup wizard that will install your components.

The **1IFA_Mobile-[version].soe** file is the server extension deployed to ArcGIS Server during configuration.

Installation Pre-requisites

Before proceeding with your installation, ensure you have met the system requirements and installed all necessary Esri applications.

Consult the *1Integrate for ArcGIS Release Notes* for the specific pre-requisites for your release.

2 Installing Components

The following component is installed via the 1Integrate for ArcGIS Setup Wizard:

▶ **1Integrate for ArcGIS Mobile Service** - a service that manages all 1Integrate for ArcGIS Mobile processes. It also provides a web-based monitoring tool to view all 1Integrate for ArcGIS Mobile requests.

Running the Setup Wizard

The Setup Wizard is run via the **1IFA_Mobile-[version].msi** file provided in your Release Package.

Run the Setup Wizard:

1. Launch the wizard by double-clicking on **1IFA_Mobile-[version].msi**.

Name	Date modified	Type	Size
1IFA_Mobile-1.5.0.2.msi	20/02/2017 15:46	Windows Installer ...	9,916 KB
1IFA_Mobile-1.5.0.2.soe	20/02/2017 15:46	SOE File	3,590 KB

Figure 2-1: *Example Release Package*

The 1Integrate for ArcGIS Setup Wizard will open.

2. Click **Next** to proceed.

Figure 2-2: *Setup Wizard Start Page*

3. If you want to change the location in which to install the 1Integrate for ArcGIS Mobile, click **Change**.

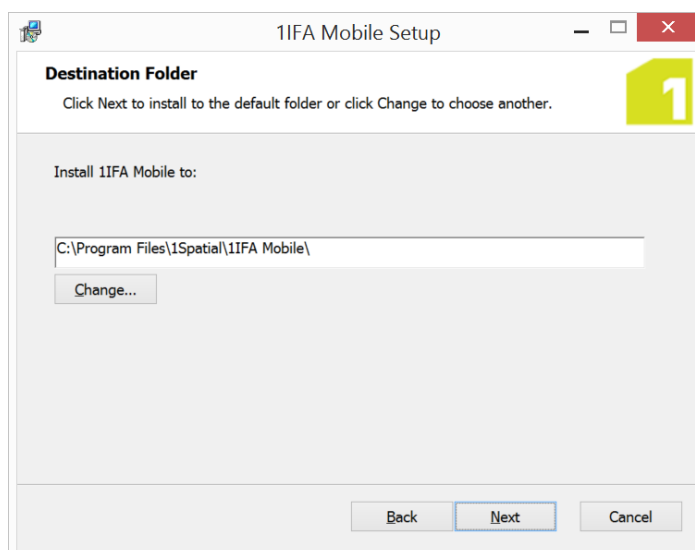   To accept the location and proceed, click **Next**.

Figure 2-3: *Location for 1Integrate for ArcGIS Mobile*

4. Enter the Metadata Service endpoint details:

   ▶ **Metadata Service host** - the machine on which the Metadata Service is installed

   ▶ **Metadata Service port** - the port defined during installation (by default this was set to 9998)

> ![note icon] **Note:** The Metadata Service would have been installed during the installation of 1Integrate for ArcGIS Server Edition.

Figure 2-4: *Enter details for the Metadata Service endpoint*

Click **Next** to proceed.

5. Enter the Active MQ broker details:

    ▶ **Broker URL** - the machine and port number on which ActiveMW is installed

    ▶ **Queue Name** - the name of the 1Integrate for ArcGIS Mobile Queue that will be used with Active MQ. We recommend you keep the default setting (feature_change).

Figure 2-5: *Enter details for the Active MQ broker*

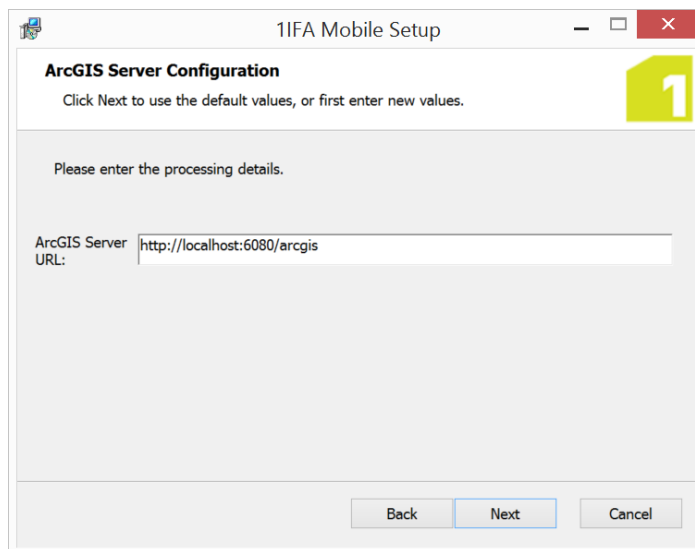Click **Next** to proceed.

6. Enter the ArcGIS Server URL.

Figure 2-6: *Enter the ArcGIS Server URL*

Click **Next** to proceed.

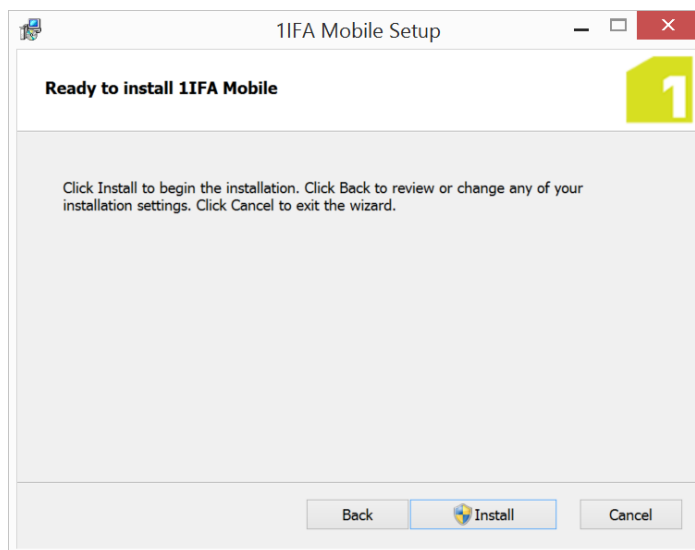7. The Setup Wizard will now install 1Integrate for ArcGIS Mobile.

Figure 2-7: *Confirm the installation*

Click **Install** to proceed.

8. 1Integrate for ArcGIS Mobile Edition is now installed. Click **Finish** to exit the Setup Wizard.

3 Configuring ArcGIS Server for Mobile

In order to enable 1Integrate for ArcGIS Mobile Edition to be used for your data services, it must first be configured through the ArcGIS Server Manager.

The mobile extension must first be added, and then each data service must be configured to use the extension.

> **Note:** This configuration is in addition to the configuration performed for 1Integrate for ArcGIS Server Edition.

Adding the 1Integrate for ArcGIS Mobile Extension (1Spatial Change Detector)

The 1Integrate for ArcGIS Mobile Extension must be added to ArcGIS server before any data services can use it.

Add the Mobile Extension:

1. Log in to your ArcGIS Server Manager.

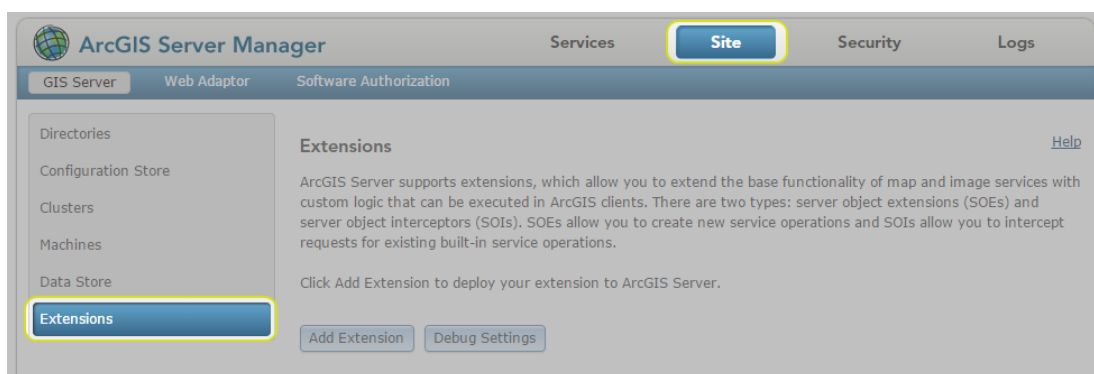2. Within ArcGIS Server Manager, navigate to **Site** > **Extensions**.

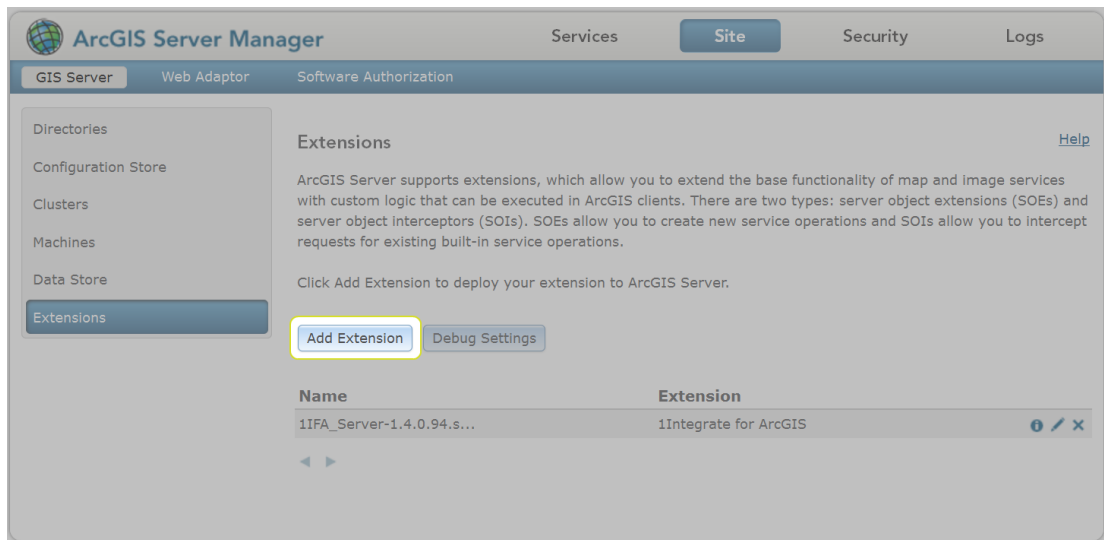Figure 3-1: *Extensions page*

3. Click **Add Extension**.

Figure 3-2: *Add Extension*

4. Click **Browse** to locate and open the 1Integrate for ArcGIS SOE package provided in your release package **(1IFA_Mobile-[version].soe)**.

Figure 3-3: *Example Release Package*

5. Click **Add**.

   A confirmation message will display, and **(1IFA_Mobile-[version].soe)** is now listed as an extension (called "1Spatial Change Detector").

Figure 3-4: *1Spatial Change Detector Extension added*

Configuring a data service

In order for data services to be able to use 1Integrate for ArcGIS Mobile, they must first be configured.

Additionally, each data service must be configured to be associated with a ruleset, to determine the rules that will be available.

> **Note:** A data service can only be associated with one ruleset, but a ruleset can be associated with many data services.

<u>Configure a Data Service:</u>

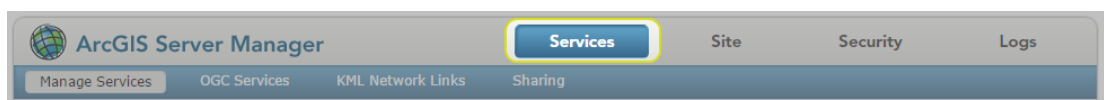1. Within your ArcGIS Server Manager, navigate to **Services**.

Figure 3-5: *Services tab*

2. Select the data package you wish to configure using the left hand menu.

   Open it for editing by clicking the pen icon ✏ next to the title in your data package.

Figure 3-6: *Example data package*

3. Navigate to **Capabilities**.

4. Under "Select and configure capabilities", check the box next to **1Spatial Change Detector** to enable it.
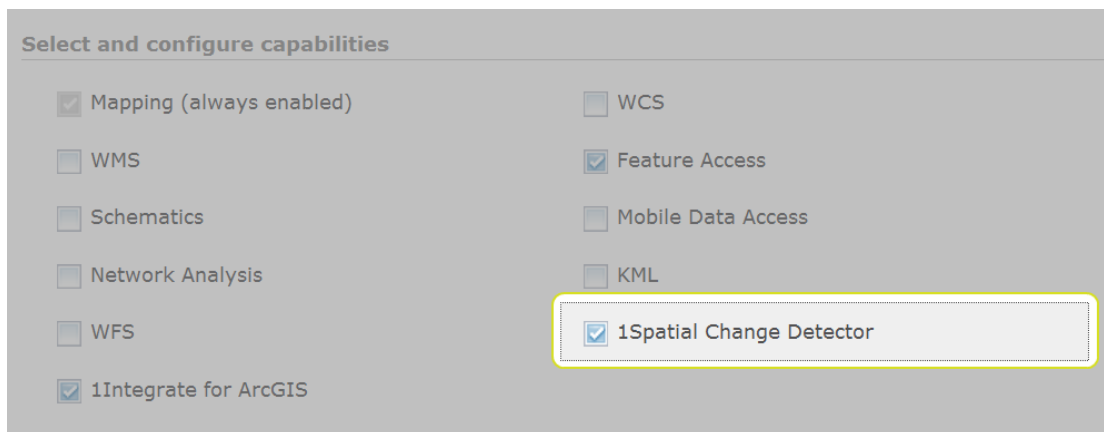

Figure 3-7: *1Spatial Change Detector capability enabled*

5. Upon selecting the box next to **1Spatial Change Detector**, the following configuration properties will be displayed:

   ▶ **Queue Broker URL** - Location and port of the Active MQ service.

   > **Note:** The default URL uses the default host and port numbers: **localhost:61616**. If this was amended during the installation of 1Integrate for ArcGIS Server Edition then change these values, but do not change anything on the rest of the default URL.

   ▶ **Queue Name** - Name of the Active MQ queue that was specified during the 1Integrate for ArcGIS Mobile installation (the default name "feature_change" is recommended).

▶ **Processing Buffer Distance** - Size of buffer that is used to determine how much data is run through the rules engine when a feature is inserted, updated or deleted.

> 📋 **Note:** By default, a buffer of 30.5m is used which means that all other data within a 30.5m buffer of the feature being edited will also have the business rules applied.

1Spatial Change Detector Configuration

Operations Allowed

No capabilities defined.

Properties

Queue Broker URL	tcp://localhost:61616?trace=false&soTimeout=60000
Queue Name	feature_change
Processing Buffer Distance	30.5

Figure 3-8: *1Spatial Change Detector Configuration Properties*

6. Ensure that the boxes next to **1Integrate for ArcGIS** and **Feature Access** are checked.

> 📋 **Note:** These must also be enabled on the Service in order for 1Integrate for ArcGIS Mobile to work.

Select and configure capabilities

☑ Mapping (always enabled)	☐ WCS
☐ WMS	☑ Feature Access
☐ Schematics	☐ Mobile Data Access
☐ Network Analysis	☐ KML
☐ WFS	☑ 1Spatial Change Detector
☑ 1Integrate for ArcGIS	

Figure 3-9: *1Integrate for ArcGIS and Feature Access capabilities enabled*

7. Click **Save**.

4 Checking the Installation

To check the installation has completed successfully, open a browser and navigate to the interface(s), using the locations determined during installation.

Component	Location
Metadata Service	https://[host]:[port]/index.html
Rule Author	https://[host]:[port]/login.html
1Integrate for ArcGIS Mobile (Log Monitor)	https://[host]:42000/index.html

Log in to the 1Integrate for ArcGIS Mobile Log Monitor using the Rule Author Administrator credentials.

Once logged in, a log should display that the 1Integrate for ArcGIS Mobile Service has started.
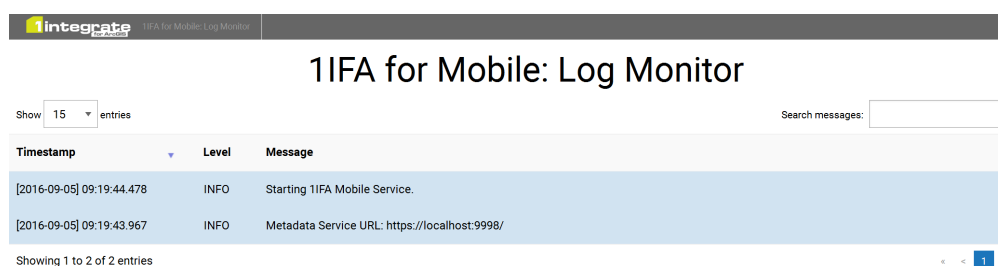

Figure 4-1: *1Integrate for ArcGIS Mobile Log Monitor*

5 Upgrading an Installation

It is possible to upgrade an existing installation of 1Integrate for ArcGIS from an older version to a newer version.

Upgrade an Installation (Mobile Edition):

1. Back up your existing Rules and Actions.

   Access the folder where your current version of 1Integrate for ArcGIS Mobile is installed. Make a copy of the **1IFA_Mobile-[version].soe** file, and keep it in a safe place.

2. Uninstall the existing 1Integrate for ArcGIS installation using the Windows® Control Panel.

3. Remove the existing 1Integrate for ArcGIS Mobile SOE from within ArcGIS Server using ArcGIS Server Manager.

4. Install the latest version of 1Integrate for ArcGIS Mobile as per the installation guide, and deploy the new SOE extension.