

1 Integrate for ArcGIS Installation Guide Mobile Edition

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1Spatial Tennyson House Cambridge Business Park Cambridge CB4 0WZ United Kingdom Phone: +44 (0)1223 420414 Fax: +44 (0)1223 420044 Web: www.1spatial.com

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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 four 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 <u>deployed to</u> <u>ArcGIS Server during configuration</u>.



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

Integrate 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 <u>Release Package</u>.

Run the Setup Wizard:

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

Name	Date modified	Туре	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.

12	1IFA Mobile Setup	_ 🗆 🗙
1	Welcome to the 1IFA Mobile Wizard	: Setup
	The Setup Wizard will install 1IFA Mobile of Click Next to continue or Cancel to exit the	on your computer. e Setup Wizard.
	Back Next	Cancel

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.

11FA Mo	bile Setup	-		×
Destination Folder Click Next to install to the default folder or	click Change to choose another.			1
Install 1IFA Mobile to:				
C:\Program Files\1Spatial\1IFA Mobile\ Change				
	<u>B</u> ack <u>N</u> ext		Canc	el

Figure 2-3: Location for 1 Integrate 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: The Metadata Service would have been installed during the installation of 1Integrate for ArcGIS Server Edition.

7		1IFA Mobile Setup	
Me	tadata Service		
(Click Next to use the defa	ult values or enter new values.	
Pl	ease enter Metadata Serv	ice endpoint details	
M	etadata Service host:	localhost	
M	etadata Service port:	9998	
		Back Novt	Cancol

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).

12	1IFA M	obile Setup	-	- 🗆 🗙
Queue Con Click Next	figuration to use the default values, or fi	st enter new value	s.	1
Please enter	the ActiveMQ broker details.			
Broker URL:	tcp://localhost:61616			
Queue Name:	feature_change			
		<u>B</u> ack	Next	Cancel

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

Click **Next** to proceed.

6. Enter the ArcGIS Server URL.

18	1IFA Mobile Setup 🛛 🗕 🗆 🗙
ArcGIS S Click Ne	Server Configuration ext to use the default values, or first enter new values.
Please er	nter the processing details.
ArcGIS Serv URL:	/er http://localhost:6080/arcgis
	Back Next Cancel

Figure 2-6: Enter the ArcGIS Server URL

Click **Next** to proceed.

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

12	1IFA Mobile Setup -	□ ×
Re	eady to install 1IFA Mobile	1
	Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.	
	Back 😽 Install	Cancel

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 the 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**.

ArcGIS Server Man	ager Services Site Security Logs
GIS Server Web Adaptor	Software Authorization
Directories	Extensions
Configuration Store Clusters	ArcGIS Server supports extensions, which allow you to extend the base functionality of map and image services w custom logic that can be executed in ArcGIS clients. There are two types: server object extensions (SOEs) and server object intercentors (SOIs). SOEs allow you to create new service operations and SOIs allow you to intercen
Machines	requests for existing built-in service operations.
Data Store	Click Add Extension to deploy your extension to ArcGIS Server.
Extensions	Add Extension Debug Settings

Figure 3-1: Extensions page

3. Click Add Extension.

Chapter 3 Configuring the ArcGIS Server for Mobile

ArcGIS Server Mar	nager	Services	Site	Security	Logs
GIS Server Web Adaptor					
Directories Configuration Store Clusters Machines Data Store Extensions	Extensions ArcGIS Server supports exten with custom logic that can be server object interceptors (S' requests for existing built-in s Click Add Extension to deploy Add Extension Debug Se	nsions, which allow you to executed in ArcGIS clien DIs). SOEs allow you to c service operations. y your extension to ArcGI ittings	o extend the base ts. There are two reate new service S Server.	functionality of map and types: server object ext e operations and SOIs all	Help d image services tensions (SOEs) and low you to intercept
	Name	E	xtension	315	6 / Y
	< ▶	£.			07 ^

Figure 3-2: Add Extension

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

Name	Date modified	Туре	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 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").

Extension "1IFA_Mobile-1.4.0.2.soe" is a	deployed successfully	×
Extensions		Help
ArcGIS Server supports extensions, which allow with custom logic that can be executed in ArcGIS server object interceptors (SOIs). SOEs allow yo requests for existing built-in service operations.	you to extend the base functionality of map and image 5 clients. There are two types: server object extensions u to create new service operations and SOIs allow you	e services s (SOEs) and to intercept
Click Add Extension to deploy your extension to	ArcGIS Server.	
Add Extension Debug Settings		
Name	Extension	
1IFA_Mobile-1.4.0.2.soe	1Spatial Change Detec	0 ∕ ×
1IFA_Server-1.4.0.94.s	1Integrate for ArcGIS	6 ∕ ×

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.

Configure a Data Service:

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.

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 3-7: 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 Detec	tor 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 of 1Integrate for ArcGIS Mobile to work	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.

1IFA for Mobile: Log Monitor

Show 15 Tentries			Search	messages:			
Timestamp	•	Level	Message				
[2016-09-05] 09:19:44.478		INFO	Starting 1IFA Mobile Service.				
[2016-09-05] 09:19:43.967		INFO	Metadata Service URL: https://localhost:9998/				
Showing 1 to 2 of 2 entries					« <	1	>

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

integrate 11FA for M

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:

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.