Information on Demand Services: WMS / WMTS / WFS / APIs

Service Definition

Date: July 2019

AIRBUS

Overview of our Information on Demand services

The Airbus Information on Demand services enable you to efficiently and securely stream geospatial data to your end user communities 24 hours a day, 7 days a week. You can stream large data volumes from our secure, high-availability data hosting platform and also integrate our streaming services in to your software applications. Our services include:

Web Map Service (WMS)

- Georeferenced map images served to your software application for background context
- GetFeatureInfo request type, to return map feature attributes, included as standard
- Service options include restricting data layers based on user type and geographical area.

Web Feature Service (WFS)

- Makes your map interactive by enabling geographic feature queries for analysis
- All of the 'optional' WFS operations can be included
- Service options include bespoke authentication mechanisms.

Web Map Tile Service (WMTS)

- Georeferenced map tiles served to your software application for background context

Application Programing Interface (API)

- Access Airbus services machine to machine
- Service options include service reporting and gazetteer APIs
- Bespoke APIs can be developed and delivered to your specifications

Use Airbus because…

- We are **highly experienced** having served data streaming services for over 10 years
- Our streaming services are **secure, reliable** and serve the **latest version** of the data
- We have capacity to serve **high data volumes**, in the last year processing over 40 million requests
- **Hosting options** include UK based Airbus owned datacentres and public cloud
- **Experienced**, and friendly, **customer service** teams with a **24/7 technical support** option

Our services conform to the latest OGC[1] version standards and are INSPIRE[2] compliant

[1] *Open GeoSpatial Consortium*
[2] *Infrastructure for Spatial Information in Europe*

Contents

Overview of our Information on Demand services		**1**
1.	**Benefits**	**3**
2.	**Features**	**3**
3.	**How our service can help you**	**4**
4.	**Proven ability to stream high data volumes**	**5**
5.	**Keeping your service secure**	**6**
6.	**Delivering a resilient service**	**6**
7.	**On-boarding and off-boarding**	**7**
8.	**Pricing**	**8**
9.	**Supporting your service**	**8**
10.	**Service constraints**	**9**
11.	**Financial recompense model for not meeting service levels**	**9**
12.	**Training**	**9**
13.	**Ordering and invoicing process**	**9**
14.	**Ending the contract**	**9**
15.	**Want a trial service?**	**9**
16.	**Service technical detail**	**10**

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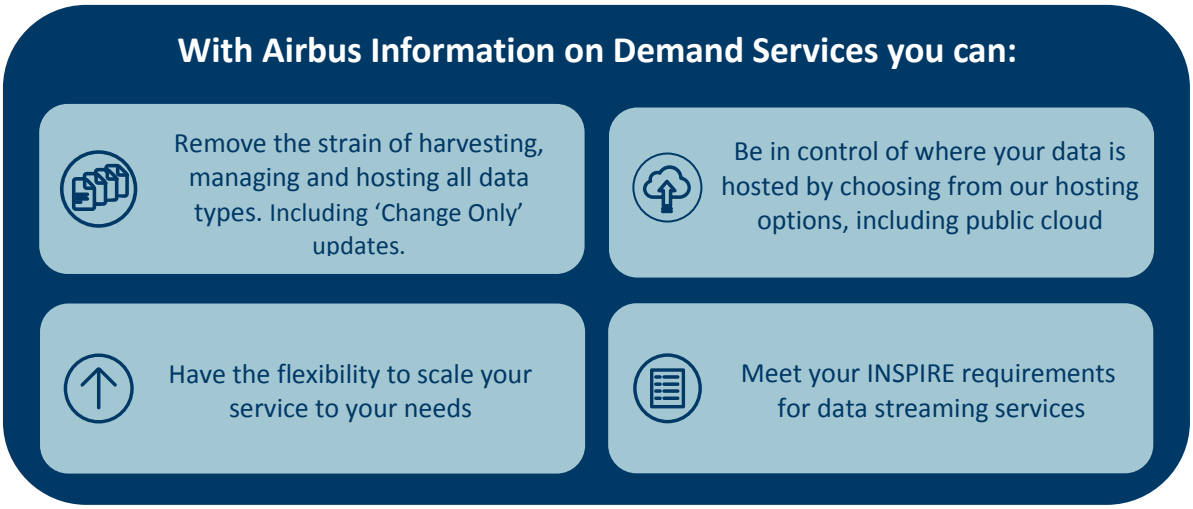
1. Benefits



2. Features

Designed for high volume and availability, our reliable and secure Information-on-Demand services are easy to implement and come with a variety of management and support options to suit your requirements.

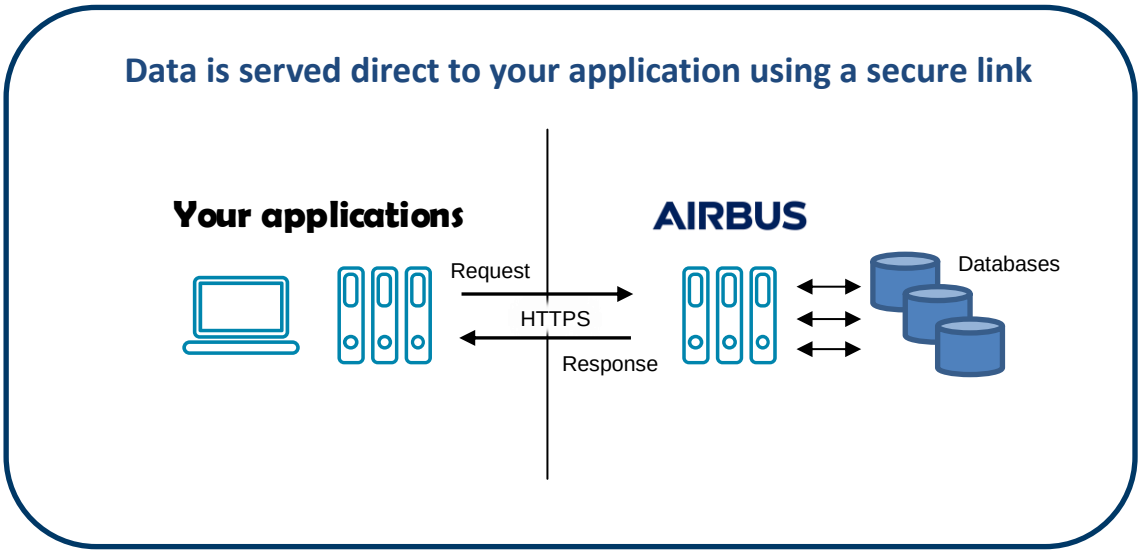
INFORMATION ON DEMAND SERVICE FEATURES INCLUDE:

- **High volume** service capability to enable your service to grow
- Robust Service Levels with **high service availability**
- Stream your own datasets and third party datasets with **hosted and federated options**
- **Data management** including Change Only Updates
- All services operated **24 hours a day**, 365 days a year
- **INSPIRE compliant** services including all 'optional' features
- The Airbus hosting infrastructure is independently **certified to ISO® 27001:2013**
- Reporting analytics on your service's **usage information** and management statistics
- Various service **support level options** to suit your requirements
- **Flexibility** to enhance your service, including 24x7 technical support

DATA PRODUCTS AVAILABLE

- Public Sector Mapping Agreement data,
- Aerial Photography for Great Britain (APGB) height and imagery data
- Pan Government Agreement (PGA) data
- Ordnance Survey data
- Government data under Open Government Licence
- Commercial data

In addition, we can host and manage your organisation's geospatial data as part of the service



3. How our service can help you

Our Information on Demand services provide a simple and secure way to share geospatial data within your organisation, to user communities, or support your public web services.

- **Stream data** to user GIS desktop applications, internal software applciations and web mapping plaforms or external websites for background mapping context or to support data analysis.
- Our flexible service can be implemented to meet your individual requirements through:
  - Applying your own **specific organisational data styling**
  - Supporting bespoke service **authentication options**, such as time limited token authentications
  - Altering the service content to **suit your dataset requirements**
  - Enabling **data visibility restrictions**, on the same service, by user type or geography
  - Offering a variety of **support options**
- Airbus harvest and process all data updates on your behalf and your users will receive the **most recent versions** of common geospatial data, such as Ordnance Survey products.
- **Track your service usage** and understand which datasets are most popular on your service, through regular service reports
- **Compatibility** with other target systems is maximised by using industry Open Standards

4. Proven ability to stream high data volumes

MANAGING AND SERVING DATA

Airbus has considerable experience in managing and serving large raster and vector products. Through our geospatial streaming services in the UK we:

- process **in excess of 40 million requests** each year,
- regularly mange high numbers of concurrent requests, with the ability to process **over 100 GetMap requests a second** per service.

Airbus has **empirical knowledge of routinely managing updates** to aerial photography, satellite data, LiDAR and Ordnance Survey national mapping products. We manage both Full and Change-Only (COU) updates for all types of data, including very large datasets in vector and raster formats.

Our Data Management capabilities ensure **data is maintained and optimally suited** to your requirements. We manage the end to end process from receipt, processing, to the distribution of the data through streaming services, whilst using customised quality assurance (QA) steps to ensure the continued validity of data.

Our Versioning Control also supports the rollback of any data update. If you require a recent data update to be removed from your service, we can quickly **roll back to a previous working version** of a particular dataset without any impact to the end user.

A TRUSTED SUPPLIER

We have exceptional pedigree in delivering robust geospatial data services to a wide range of customers requiring continuous access to their data. Airbus has been a trusted supplier of streaming services to UK government departments and organisations for over 10 years, building on over 25 years of data management experience.

We focus on developing long-term mutually beneficial relationships with our customers which is evidenced by our valued customers continuing to use our streaming services year after year.

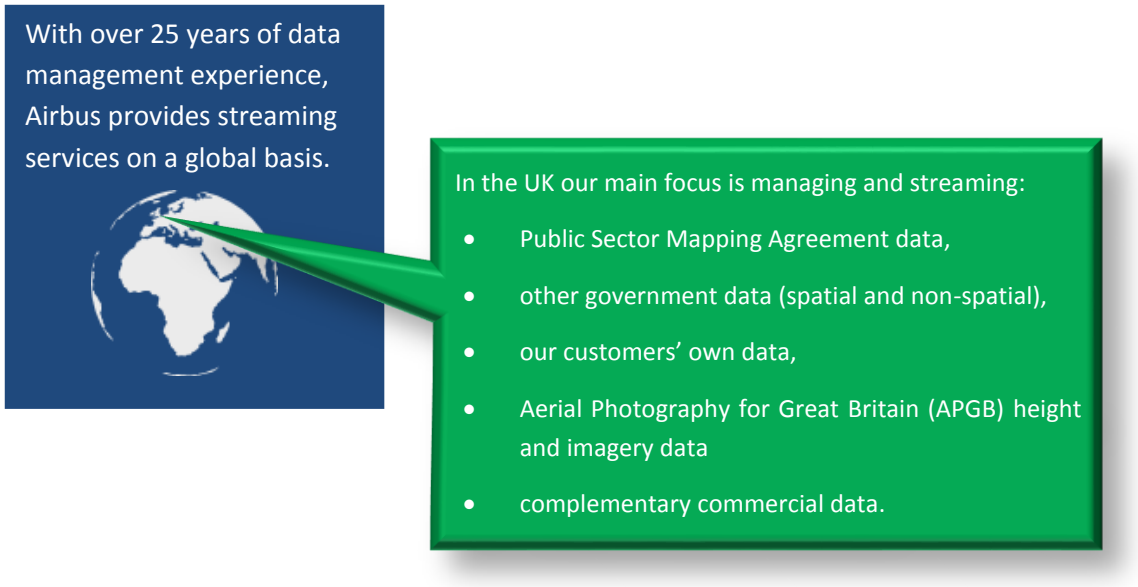


Figure 1: Airbus has 25 years' experience managing and streaming numerous collections of geospatial data

5. Keeping your service secure

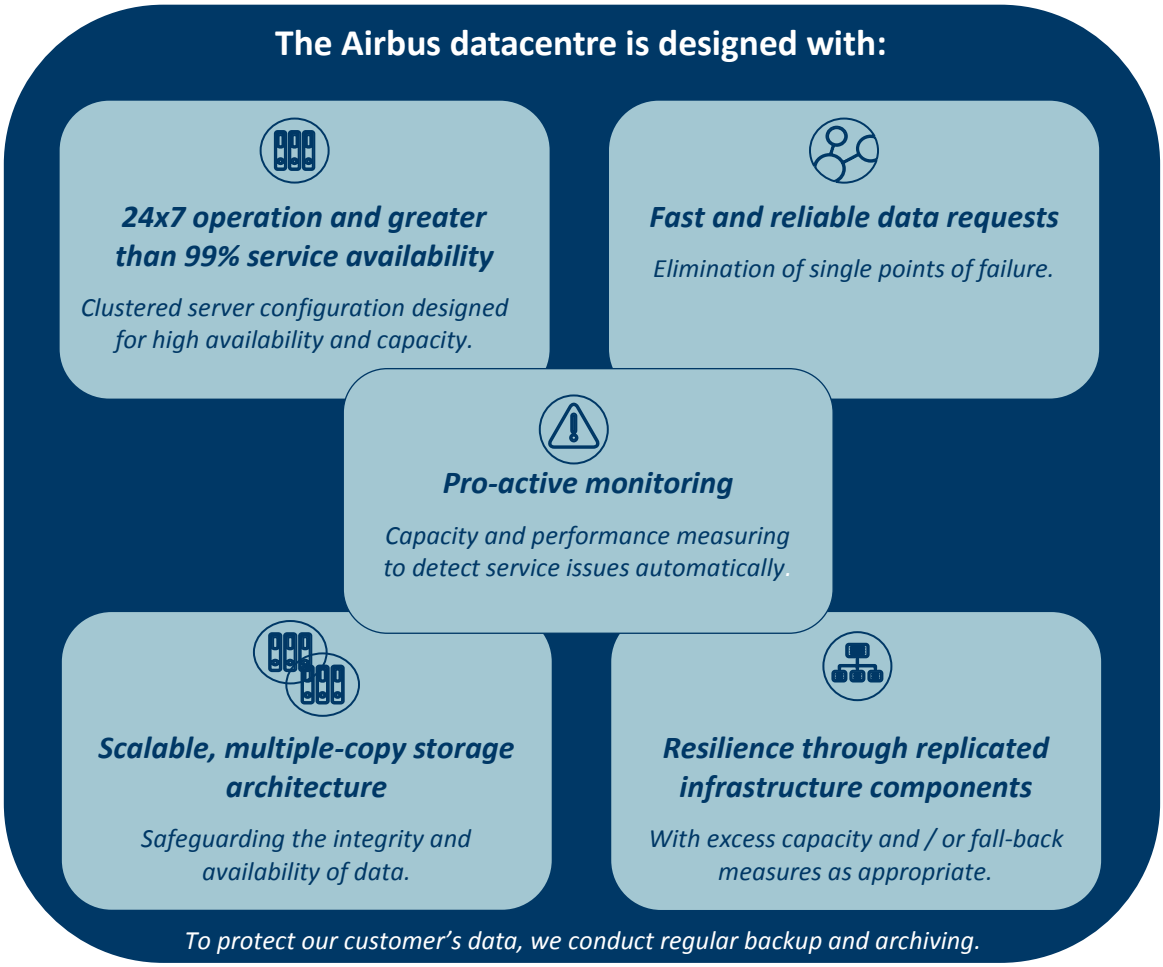
Airbus delivers products and services to a range of customers including government departments and industry. We secure information using an **Information Security Management System certified to ISO 27001:2013** for the development and management of mapping and monitoring services. This includes:

- **Risk and impact assessments** to inform our security approach
- Application of security **procedures, tools, training and governance** to deliver secure services to our customers
- **Working with our customers** to ensure the protection we apply is appropriate
- **Access and security measures** to include building access control and network and IT infrastructure protection.

As further re-assurance on the security of your service, we also have measures in place to guard against cyber-attacks and have achieved **Cyber Essentials** certification

6. Delivering a resilient service

Airbus use a hybrid cloud approach to suit your requirements, this includes public cloud as well as Airbus' own data centre, all with resilient infrastructure.



We can securely hold a final copy of your data for up to one year after contract end and offer a long-term archiving service.

7. On-boarding and off-boarding

ON-BOARDING

Once you've placed an order with us through G-Cloud, Airbus will work with you to define the specific elements require for your service**.** The main stages of this process are summarised below:

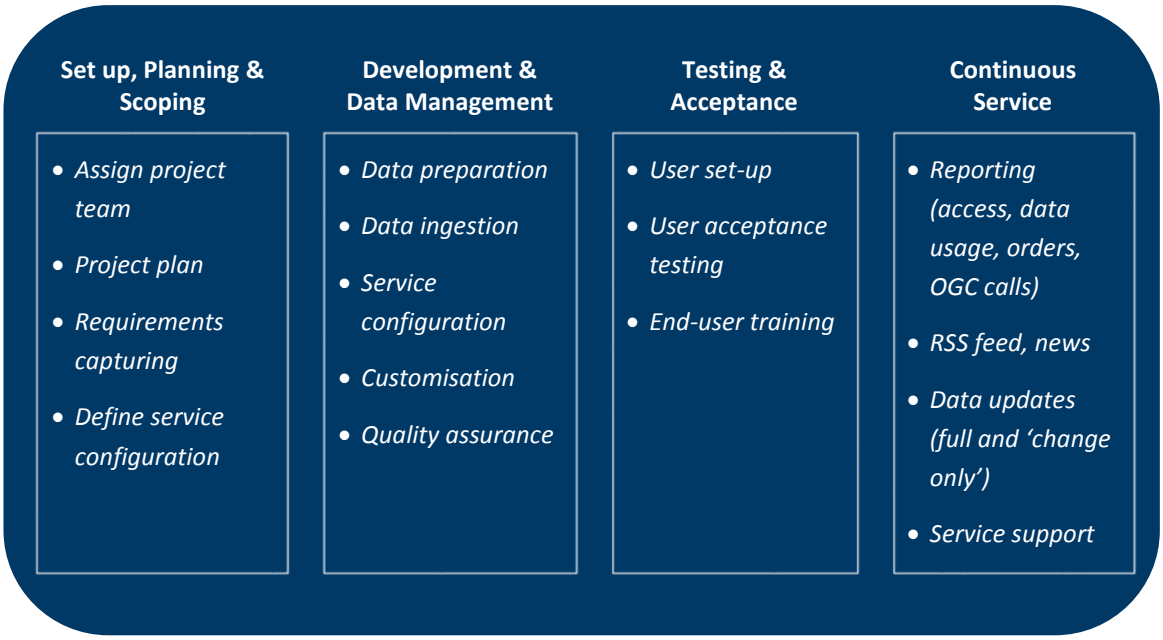


Figure 2: We use a structured approach and proven procedures throughout the service lifecycle

OFF-BOARDING

Upon conclusion of the service, we will arrange transfer to you of the latest versions of your data live on the service at the commencement of the off-boarding process and all services will be switched off. Data related to usage of the service during the contracted period will also be returned to you, together with any agreed relevant audit trail information.

8. Pricing

The pricing for Airbus Information on Demand Services are as follows.

WMS/WMTS/WFS

The minimum price is £115.50 per month

The minimum operational price to provide access to streamed data is £1,385 per annum.

A typical operational price is £25,000 per annum based on average usage and technical support requirements.

Prices are based on 99% availability (excluding scheduled maintenance) and exclude additional data loading and data licence costs.

GAZETTEER AS A SERVICE API

The minimum operational price is £13,000 per annum

A typical operational price is 300,000 look-ups per annum at £60,000 per annum

Prices are based on 99% availability (excluding scheduled maintenance) and exclude costs for a tailored set-up and data license costs.

All prices are exclusive of VAT. Support packages for these services are available subject to your requirements.

9. Supporting your service

CUSTOMER SUPPORT

Airbus take great pride in providing an excellent customer service and offer a variety of support options to help you get the most of out of our services.

Our standard support offers access to our self-service online facility to log your support query, with the ITIL® aligned Airbus Service Desk providing an alternative simple point of contact via phone and email for all service queries. The service desk is supported by experienced, and friendly, second and third line technical support teams.

SERVICE LEVELS

Our standard service levels are:

- 99% service availability
- Served 24 hours a day, 365 days a year
- Phone and email support 09:00-17:00 Monday to Friday (excluding English bank holidays)
- Access to 24x7 support ticket logging via an on-line portal
- 10 working days' notice of scheduled servicing downtime

We recognise the unique needs of each individual customer and strive to accommodate, where possible, all of your requirements in relation to service availability and resolving the support tickets you raise.

We can provide extended support options such as enhanced service availability and weekend or 24x7 technical support which are not included in our standard price and welcome the opportunity to discuss all available options. Extended technical support will based on the SFIA Rate Card.

We will discuss full service level details with you when we discuss, and capture, your requirements.

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10. Service constraints

To ensure optimal performance and availability of the Information on Demand service, general maintenance will be conducted during business hours but will not affect live services where possible. If the service requires scheduled downtime Airbus will limit this to a 48 hour, out-of-hours maintenance window once every three months.

11. Financial recompense model for not meeting service levels

Service credits are not offered as standard for our services, but if they are required we would be happy to discuss this on a case by case basis.

12. Training

We offer a variety of training options and are happy to discuss with you your precise training requirements.

13. Ordering and invoicing process

From your initial expression of interest or order, we will work with you to understand your precise requirements. This will include likely levels of use (number of requests) and the nature, volume and frequency of update of your data management needs.

You will then receive a quotation confirming the level of service we believe best suits your requirements. The quote will clearly highlight any changes or additions to the standard service offering that may be required.

We will agreed payment milestones based on the specific details of your service. Our options include monthly, quarterly, annually or by work package.

14. Ending the contract

This will be agreed with you during the service contract discussion and will be based on the Call-Off Contract Terms and Conditions.

15. Want a trial service?

Depending on the datasets required, we do offer a trial service. Contact us for more details.

16. Service technical detail

WMS/WMTS/WFS

➢ TECHNICAL REQUIREMENTS

Information on Demand services are web-based. Geographical Information System (GIS) client software that supports Open Geospatial Consortium (OGC) WMS and WFS standards are required for WMS, WFS and WMTS services.

These services can be **used in any WMS/WFS compatible software**.

➢ ATTRIBUTE DATA (GETFEATUREINFO)

Attribute data will be provided where available for Products via the GetFeatureInfo feature. Some raster datasets do not hold meaningful attribute data, such as aerial photography, which only has RGB values. In these cases, Airbus will return useful metadata about the data such as the date acquired.

➢ COORDINATE SYSTEM

Our services advertise the CRS (Coordinate Reference System) for the British National Grid coordinate system (EPSG:27700) but will supply the imagery in many other coordinate systems.

➢ DATA FORMATS

Our services offer three standard imagery formats, JPEG, TIFF and PNG but can support GIS client software requests for many other formats.

➢ GEOGRAPHIC COVERAGE

Our services are based upon UK coverage, where available and subject to Licence, although coverage does vary depending on the Product.

➢ OGC VERSIONS

Our services conform to:

- the OGC opengis® WMS version 1.3.0 standard interface, also supporting versions 1.0.0 and 1.1.1
- the OGC opengis® WFS version 2.0.0 standard interface, also supporting versions 1.0.0 and 1.1.0

API's

➢ TECHNICAL REQUIREMENTS

As Information on Demand services are web-based, the API services are launched via a browser which is already hosting another web-based application and therefore require web-based client software to enable connection to an API service.