Web Services

Web services provide a standard means of interoperating between different applications running on a variety of platforms by providing some kind of data and/or functionality over the internet.

What are GIS web services?

GIS web services provide access to spatial data or functionality over the internet in a standardised format. These services can be consumed by or integrated into web applications and can be thought of as an interface by which your application accesses the data or functionality.

What type of web services do Spatial NI provide?

Spatial NI provides two types of GIS web services:

ArcGIS REST Services

REST stands for Representational State Transfer. It's an architecture for sharing information through the use of simple HTTP protocols. Most new API's follow some form of RESTful design to maximise adoption and ease of use.

- The majority of Spatial NI web services are published as ArcGIS REST services and have been secured using GIS Tier authentication.

OGC Services

OGC Web Service (OWS) standards define protocols that can be implemented as web API's. These include WMS, WMTS and WFS. OGC web services were defined before the publication of REST principles.

- A number of key OSNI datasets have been published from Spatial NI as OGC services and have been secured using Web Tier (Digest) authentication.

How can Spatial NI services be used?

GIS web services from Spatial NI can be accessed from any web enabled application. This includes desktop applications such as ArcGIS Pro, ArcMap or QGIS as well as web applications, commonly built with JavaScript and HTML5.

If the application can connect to the internet, a developer can integrate GIS web services from Spatial NI. These can be deployed through standard web protocols such as HTTP.

What are the advantages of using Spatial NI services?

1. Data does not need to be stored locally and can be maintained by the data owner.
2. Functionality is already provided and doesn't need to be built by the application developer.
3. Developers can use multiple services in their applications.
4. Services use standard formats in how they are accessed and the capabilities that they have.
5. Interoperability – services can work across different platforms and applications over a network.