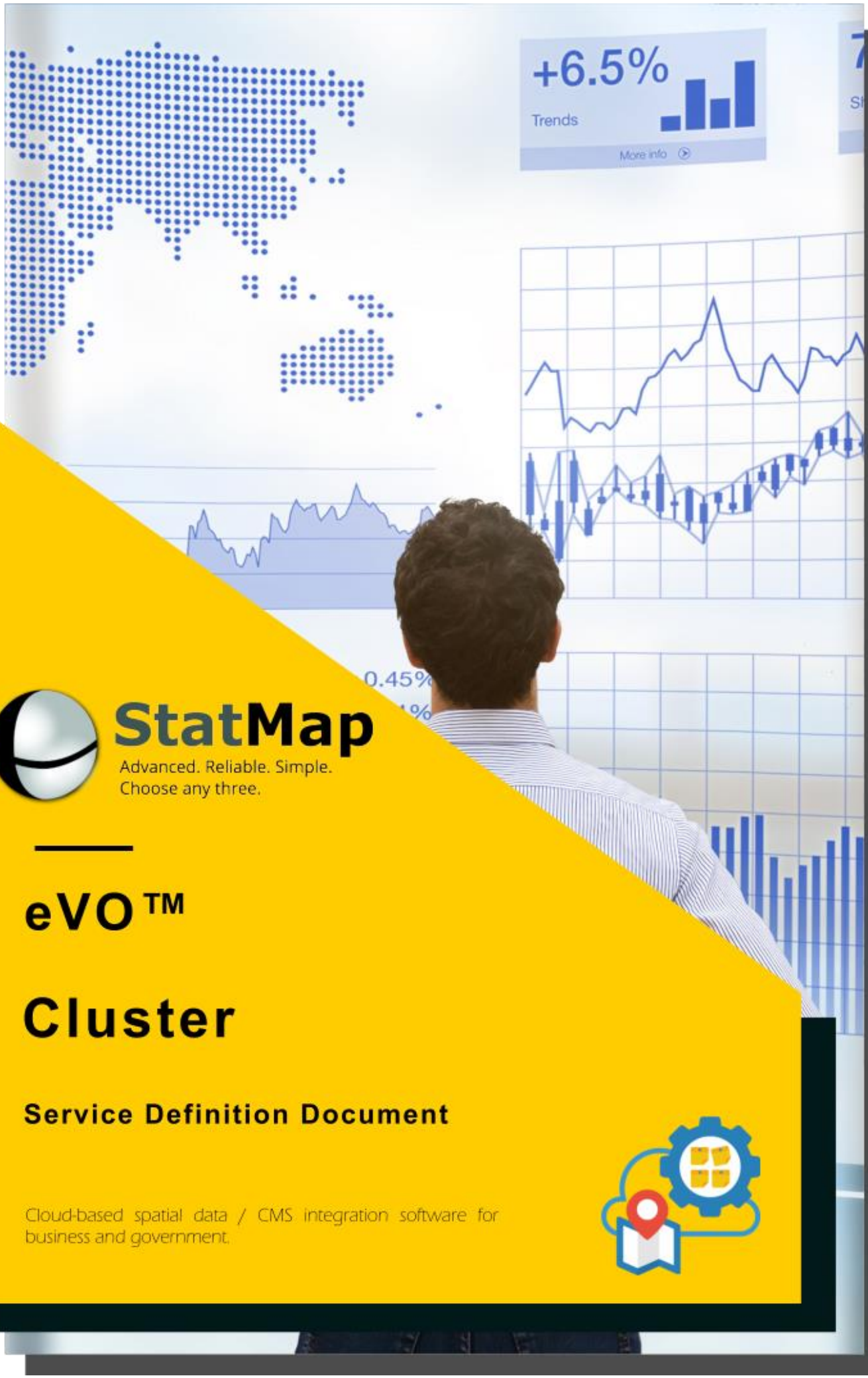


StatMap

Advanced. Reliable. Simple.
Choose any three.

eVO™

Cluster

Service Definition Document

Cloud-based spatial data / CMS integration software for business and government.

1. Introduction

This document provides details of the Service Definition for the Aurora web GIS (or public-facing GIS) SaaS which is provided by StatMap Ltd and made available for procurement by for public and private sector organisations through the Crown Commercial Service's G-Cloud 13 Framework.

1.1 Cluster spatial data reporting / CMS integration

Using and enabling web GIS / public-facing GIS services in the Cloud has never been so easy, straight-forward and powerful.

Because Cluster (as with the other products in the eVO technology platform) designed from the ground up to be run as HTML-based services, consumed as a JavaScript client, migrating to the Cloud is seamless and without pain.

1.2 Service Overview

Cluster is a unique web-based data mining solution for delivering spatially-enabled data straight to the pages and content within your organisation's web Content Management System (CMS). Thanks to Cluster you can forget about lengthy publishing processes or manual synchronization between your spatial resources and Content Management System. Cluster is a fast and stress-free tool, which allows you to effectively communicate the most important facts straight from your Spatial Data Warehouse to your target audience in a useful, attractive yet simple way.

1.3 Complementary / Additional Services

Along with our Cluster Spatial Data / CMS web content integration SaaS offering, StatMap also offers complementary SaaS offerings – via G-Cloud - for the following:

- **Earthlight – Enterprise GIS:** full-desktop replacement, configurable and scalable GIS software, offering a means of dispensing with the traditional architecture, with a fully purpose-built http service infrastructure.
- **Earthlight Public – public-facing, workflow based GIS:** delivers public-facing applications;
- **Meteor - INSPIRE metadata services**: metadata hosting, publishing and data download services for clients. Available for publishing through data.gov.uk portal.

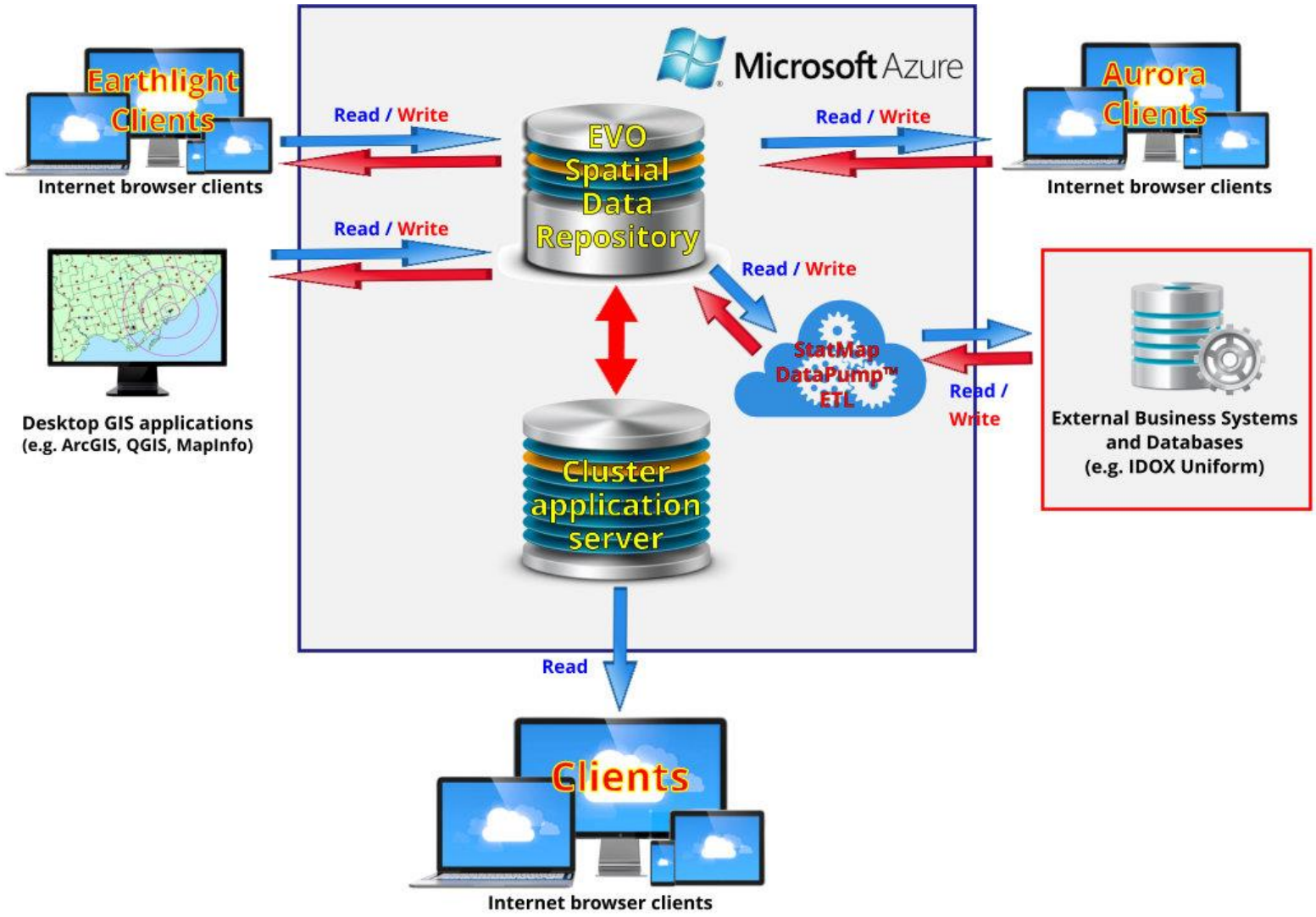
These can be used and utilised in addition to or independently of Cluster SaaS. If Cluster is used in conjunction with Earthlight SaaS, the Earthlight Cloud interface provides a convenient way to centrally integrate control of Cluster and any of the other SaaS applications which make up part of the eVO technology platform: Earthlight Aurora, Earthlight Mobile, and Meteor.

In the absence of an Earthlight subscription, dedicated Cluster controls are provided for building and developing the services.

The architecture of Cluster on the OVHcloud or MS Azure data centres is shown to the right.
It details means by which users can interact with data and services provided via the Cluster Cloud application.

Further details of the overall architecture of the eVO technology platform can be gained by observing the diagrams provided for our other services also offered via the G-Cloud 13 Framework.

Note: eVO Spatial Data Repository is the central spatial database for all eVO Platform applications.



2. Hosting assurance

OVHcloud UK Data Centre (located in Erith, Kent) is the default physical hosting data centre for all of StatMap's Cloud SaaS applications. The alternative is the Microsoft Azure UK Data Centres (London and Cardiff).

Both offer a fully comprehensive and award-winning regime of protection for critical infrastructure, ensuring that all of our SaaS offerings offer high availability and high resilience.
The performance metrics of both OVHcloud and Azure are widely published, including 99.95 percent availability and 24/7 tech support and health monitoring.

Server specifications

Single tenancy instance (which hosts unlimited numbers of Horizon case management system applications and other eVO applications (e.g. Earthlight, Earthlight Public, GMS LLPG, etc.) :

- 8 GB memory
- 4 cores
- 300 GB of storage [C: 100GB (including 10GB of Spatial Data Repository storage and D: 100 GB) – the D:\ drive is a temporary drive].
- 64-bit platform
- I/O Performance: standard
- 1 TB monthly bandwidth usage.

We offer additional processing power, high-availability and resilience options. This allows deployment of multiple eVO application instances, accompanied by software load balancers and other services to ensure that the service can better withstand periods of high activity and/or the failure of one node. These are available by buying one or more units of Additional Cloud Compute Capacity, depending on the configuration you need.

Persistent storage can be expanded for customers by attaching additional drives at a price of £150 per annum for 50GB (equivalent to £3 per GB per annum, or £12.50 per 50GB per month).

Failover Security

There are standby and global fail-over options, hot and cold standby models as well as rolling reboot capabilities that work out of the box.
While this may not be something that is a daily issue to a business, it is definitely something that you can confidently know is happening in the background.

Both OVH Cloud and Azure offer continuous security-health monitoring.

Both OVH Cloud and Azure a broad set of international and industry-specific compliance standards, such as ISO 27001, HIPAA, FedRAMP, SOC 1 and SOC 2.

All data traffic is served between server and client (and vice-versa) entirely encrypted using the SHA2.0 protocol.

The hosting server infrastructure is built to adhere to the TIA-942 Tier 3 level secure data centre, utilising proven industry standards throughout.

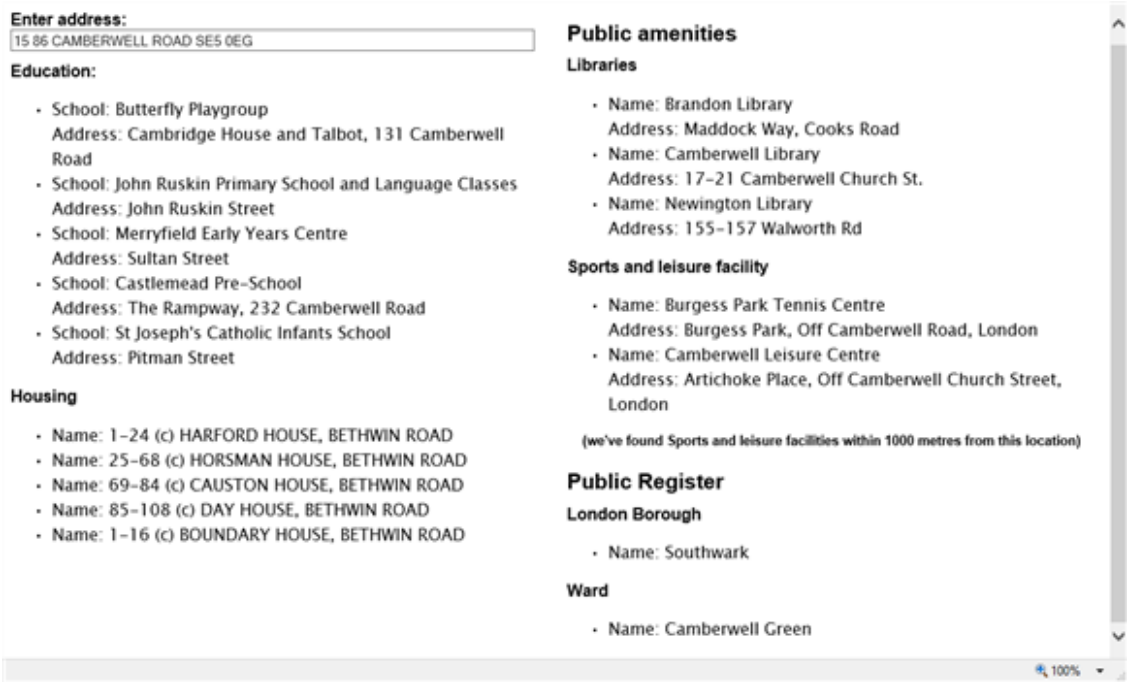
3. Service Feature highlights

- **All data on a single page:** Cluster allows to extract spatially enabled data in an aggregated, easy to comprehend form. Cluster end users are usually presented with a simple, single-page report which summarizes vast amount of business knowledge within a single second.
- **Rich formatting features:** Cluster gives you the power to precisely control data presentation. You can add custom headers, create hyperlinks and embed data-specific images. You can also display distances to affected records in imperial and SI units.
- **Seamless integration:** Being a frame-free, cross-domain application, Cluster results can be directly embedded within CMS of your choice. This ensures a unified browsing experience for your users and provides confidence since they are not redirected to different, GIS-specific domains when browsing your website.
- **Your data – everywhere:** Cluster is a completely plug-in free, HTML5-compatible implementation with wide support for older browsers. Cluster does not use plug-ins which means that it can be easily used by the vast majority of web-enabled devices: PCs, tablets, laptops, mobile phones.

  It is also compatible with, but does NOT require, HTML5 browsers. Therefore, your data can be accessed using cutting-edge browsers as well as older ones.
- **100% Cookie free:** Cluster never uses cookies or any other user tracking mechanism – meaning that it is fully compliant with UK privacy policies. Using Cluster application is completely transparent for end-user machines and absolutely no information is left behind or stored by Cluster servers against the user identity.
- **Ultimate data control:** It is easy to precisely define not only which layers will be available to the users but also which fields and in which order they will be exposed to the outside world.

Moreover, you can fine tune number of records returned, or even set buffer for individual drill-down queries for every layer. Supporting complex, multi-step queries makes Cluster a full-featured data mining application, which allows you to deliver all relevant data in an instant.

Below is an image of an example of a summary page (without corporate CSS styling having been applied.



- **Instant gazetteer search:** This innovative feature not only displays relevant addresses as you type but also gives you the freedom in providing address details. You can type in a partial postcode, name or house number, street name or locality in any order, and every single press is zeroing on desired property.

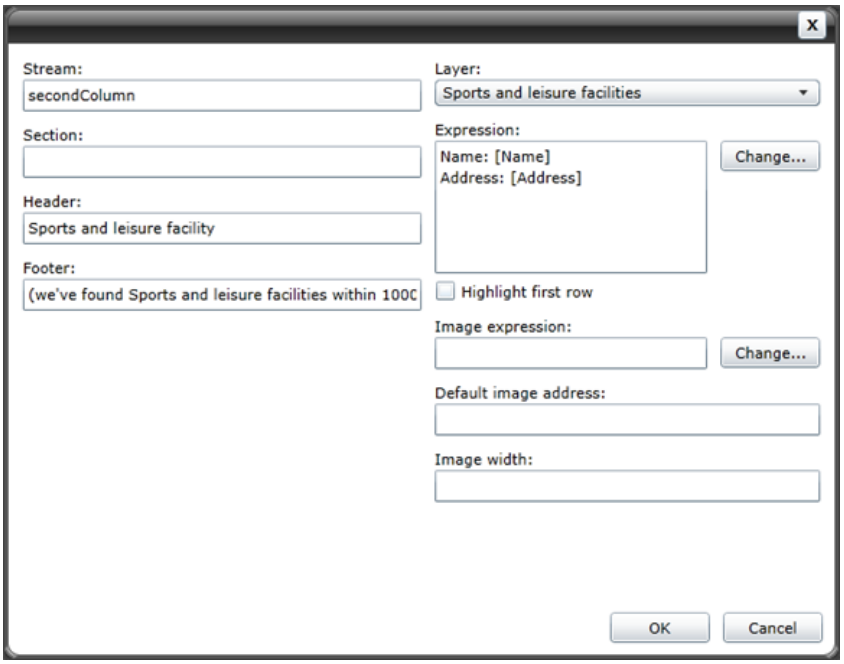
  By default Cluster can upload and use gazetteers from CSV files in DTF format (both full supplies and change only updates are supported), but you can use any layer as the gazetteer. In addition, various Cluster pages can use different gazetteers.

- **Different views for different people:** Cluster, just like Aurora, allows you to create as many spatially-enriched pages as you want. From generic overview pages of nearest amenities, through personalized refuse collection calendars to ad-hoc created pages with last-minute gritting information. Cluster extracts and delivers precisely tailored pieces of information from your Spatial Data Warehouse to different group of people. No need to settle for mass-produced mash if you can empower your clients with made-to-order reports.

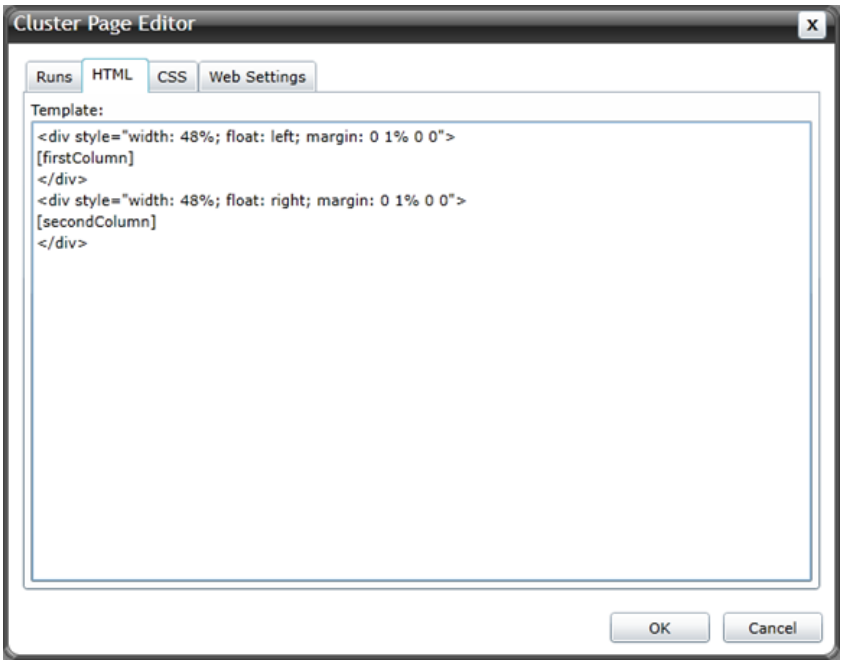
- **No coding required:** With Cluster you can forget all ICT buzzwords: JS, AJAX, HTML5... Every Cluster page can be customized directly from the administration panel and easy user interface makes adding or altering published information a breeze. All your changes can be instantly visible and there is no manual and mundane publishing process.

The following are examples of the administration panel in use.

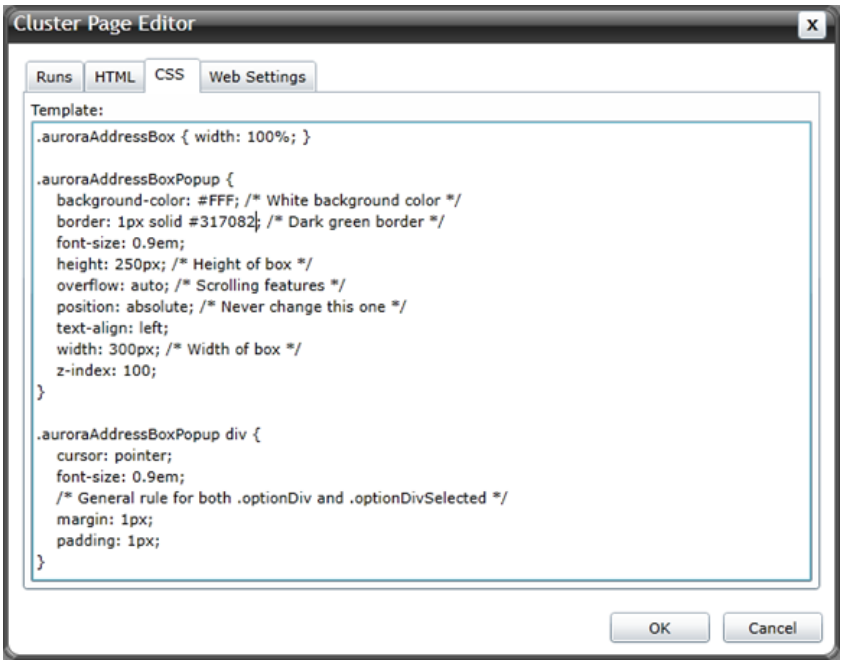
1. **Layers are selected individually and the reporting expressions generated from specific tables and columns**



2. **This image shows an example of the page editor tab where the HTML to be injected into the web page is configured.**



3. **This panel shows an example of the CSS control text being used to style the HTML which will be injected into the CMS web page.**



- **Bonus feature: Spatially-enabled web services:** In addition to the end user pages, Cluster gives your Web developers the power of embedding spatially-enabled data into your own, bespoke solutions. By exposing standardized GeoJSON cross-domain Web services, you can create innovative, tailored solutions with no extra cost. The native Cluster engine can be accessed through simple, secure yet feature-rich API and all results are returned in ready-to-consume JavaScript format.

4. Service Benefits highlights

- **CMS integration**: integrating your Content Management System with StatMap Cluster engine enables you to make all of your corporate spatial data immediately available to provide data based upon up-to-date and current data as held within your corporate spatial database.
- **Using up-to-date data**: because Cluster allows you to work the 'Live' data in your spatial database, you can be sure that the results returned are based upon data which is current.
- **Insert anywhere in web pages**: because the interface with Cluster is via a JavaScript snippet, spatial data-mining results can be inserted anywhere within the CMS.
- **Channel Shift**: Cluster enables the public to obtain information about services and the Council via centralised web channels – connecting directly to the corporate spatial infrastructure.
- **Add Value**: Cluster makes it easy to add value to data and centralises all summary statistics into an easy to read and consume single form.

- **Quick understanding**: communication of information is very quick, reducing the time needed to speak with and contact staff.
- **Mobile device friendly**: all results can be retrieved and displayed using mobile devices: smart phones, tablets, laptops, etc. So queries can be made whilst members of the public (or public sector organisation employees) are 'on the go'.

4.1 Service applicability

4.1.1 Spatial data / CMS integration for the Public Sector

Our local government clients include: Adur, North Kesteven, East Lothian, London Boroughs of Bromley, Havering, Hounslow, and Wandsworth, Forest of Dean, High Peak, North Somerset, and West Lindsey

Beyond our wide range of local government clients, other public sector bodies are also benefitting from the power of StatMap's Stellar Suite products, including the Home Office, the Lake District and Peak District National Park authorities, SUSTRANS and NHS Lothian. It is also used commercially by Campbell Reith Consulting Engineers and Davidson & Robertson Rural, a surveying and estates management company.

4.1.2 Public sector users

We have made it our business to respond effectively to the changing nature and demands of the public-sector, enabling business applications to be built and adapted by local, county and unitary government to provide support and enhancement within all areas of operation, including amongst others:

- Social (Adult and Children's services) and Health Care management (NHS regional trusts)
- Transportation and Highways
- Emergency Planning and Flood Management
- Local Development Plan / Local Development Framework policy planning, Development and Building Control
- Environmental Protection / Health
- Economic Development
- Housing Strategic Planning
- Library services
- Sports and Leisure services
- Archaeological services
- Vehicle fleet tracking and monitoring
- Estates management
- Amenity area planting and Landscape Management

4.2 Limitation-free usage

4.2.1 Unlimited transactions

As with other Cloud-based StatMap products, there are unlimited transactions, meaning that prices to not increase with increased transaction traffic. Usage is unlimited for clients, meaning that we don't penalise you for being successful and ambitious.

4.3 Product Upgrade Cycles

StatMap undertake a constantly evolving software development programme – meaning that Earthlight (and all other StatMap products within the Stellar Suite range) is subject to upgrade at regular six-monthly cycles.

All existing clients are entitled to all upgrades in accordance with their subscriptions. This is a smooth and painless process, with simple 'stop and restart' of all services to allow the new service to be made 'LIVE' to all users within an organisation.

5. National Addressing Infrastructure

Various gazetteers can be uploaded and used by the client, such as the NLPG or OSG gazetteer data. Essentially, any geo-referenced gazetteer (including free and open source products not listed above) can be used by subscribing organisations. Gazetteers can be configured by the client administrator for different users and groups, depending upon the elements of most relevance to that particular user or user group.

Clients who are members of the public service PSMA or OSMA agreements can utilise UK-wide AddressBase® address gazetteer.

6. On-boarding and Off-boarding

6.1 On-boarding

StatMap will create a new service which is specific to the client organisation and isolated from services of other client organisations.

To commence the service, StatMap will need to be in receipt of a purchase order or direct payment from the client organisation. Normal payment terms apply, whereby payment should be made within 15 days of receipt of the invoice from StatMap.

6.1.1 Data Standards

For new clients, StatMap will provide means of importing data onto the hosted server via importation tools provided through the Earthlight client interface. This will enable data in the following formats to be uploaded to the database:

i) ESRI Shapefile;
ii) MapInfo mid/mif;
iii) MapInfo tab;

iv) Comma Separated Values (.csv).

If the client is an existing client of StatMap and wishes to migrate their self-hosted version of Earthlight to the Cloud, StatMap will manage this transition process as part of the contract.

6.1.2 Data Importation

A step-by-step process will be employed for all clients (which can be altered to provide a more tailored and customer-led approach, if desired):

Step 1: Review any existing data deployment and replicate an effective structure on the StatMap hosting environment;

Step 2: Client testing – the client will be able to test their in-place processes within the hosted Earthlight software;

Step 3: The client can then upload their data using the Earthlight upload tools;

Step 4: It is up to the client when they wish to go 'Live' with the software throughout their organisation. Constant support will be offered throughout the process.

6.1.3 Training / Consultation

System user / administration documentation will be supplied and on-line support in the use of the software. As StatMap understands that clients will require different types of training and instruction, based upon their individual circumstance, we will tailor any training to your individual requirements – based upon user scenarios and actual sample client data.

Training is charged on a day rate, will allow up to 4 participants to attend – and will be provided at the client's offices. Details of pricing for training and any associated consultancy are contained within our pricing documentation for this service.

Should clients need specific assistance / consultation in developing workflows, StatMap will provide assistance as part of the normal service maintenance contract.

6.1.4 Service development

StatMap base our service development entirely upon our clients' business needs and seek continual requests for development of features and functionality. We discuss the forthcoming development roadmap via our dedicated user forum (http://forum.statmap.co.uk) and our annual national user conferences. We accept suggestions and requests via our technical Support Centre, where issues, requests and questions are submitted to the StatMap development teams.

6.2 Off-boarding

For the cancellation of a service, StatMap require a one month notice period (which will be chargeable to the client under the normal pricing and payment structure). The cancellation must take the form of a formal notification, delivered via e-mail to our main support e-mail address.

6.2.1 Steps for off-boarding client data

In the event of a contract simply expiring, unless otherwise renewed within 7 working days of the date of expiry (and outstanding fees due to StatMap for the service hosting of those 7 working days settled in full), StatMap undertake to:

i) Withdraw all client access to StatMap's SaaS facility for all StatMap products.

ii) Copy and place all client data onto a full database schema file (in the form of a SQL file), incorporating spatial data in Well Known Text (WKT) and Well Known Binary (WKB) formats. That data can then be uploaded onto any separate database of the client's choice.

iii) All data will be additionally copied to ESRI Shapefiles (where the file format restrictions permit).

iv) If requested, StatMap will also supply data in the form of text files, using WKT format for representation of the geometry / geography field.

v) All data will be sent to the client on encrypted media.

Once the client is satisfied that all data has been adequately returned and that it has been safely uploaded onto alternative storage locations, the client will inform StatMap that they are in agreement to have all data relating to their organisation removed in its entirety from the hosted server – thus protecting the business interests of the client.

Time limits will be in place, and if the former client does not communicate to StatMap within an agreed period, the data will be removed after copies have been taken and sent to the former client.

If notice of more than one month is provided in advance, an alternative process – and one more suited to the client's needs – can be negotiated and agreed with StatMap.

7. Service Level and Support

StatMap have provided full service level and support documentation for separate download from the Digital Marketplace service description entry. A Service Level Agreement is included within this documentation, as are the StatMap Terms and Conditions, and provides a full detailed specification of the service level and support available for this SaaS facility.

Our Technical Support helpline is available during normal working hours, from 9am to 5pm, Monday to Friday (excluding English Public Holidays). Our on-line technical logging system (Support Centre - Support Ticket System) is available 24 hours a day, 7 days a

week. We can also be contacted by e-mail (support@statmap.co.uk), or telephone on 0844 376 4321.

Calls and issues are tracked throughout via our Support Centre Ticket System. All communication is logged and transmitted to this system. Individual users and clients report through dedicated support accounts.

8. Technical Requirements

The only technical requirements that clients must adhere to is to connect to the service via a Broadband connection, and that the user must meet the minimum modern browser requirements:

- Internet Explorer version 7 and later;
- Firefox;
- Chrome;
- Safari;
- Opera.

9. Trial Service

This option is not available.

10. Monitoring of Service use in real time

Client administrators can monitor to see who is using the service at any particular time. Full and live logging information is available through the Earthlight client interface controls to those with appropriate permissions (granted by the client administrator), providing data upon use of the service (and individual elements of functionality) by individual users, layer modification history and use of map projects. Information as to who is logged into the system is also available at the click of a button.