



Astun Clarity

Service Definition v13.0

About Astun Technology	4
Overview	4
Service Features and Benefits	6
Service features	6
Service Benefits	6
Example Deployment	7
Infrastructure Overview (simplified to show single catalog)	7
Enterprise metadata workflow, from creation to publication and discovery	8
Creating and editing metadata records	8
Quality assurance and approval for publication	8
Publication	9
Discovery	10
Typical Astun Clarity Service features	11
Metadata Editor and Validation	11
Initial population of catalog	11
Harvesting and Bulk Importing	11
Publishing	12
Discovery	13
View Service	16
Transformation Service	17
Reporting Tools	17
Style and Accessibility	19
Standards	19
OGC	19
GEMINI	20
Validation	20
Training	20
Cloud Services	21
Hosting Services	21
Performance and availability	21

Service management	21
Service monitoring	21
Availability Zone Redundancy	21
Enterprise Grade Support	22
Service desk	22
Incident management	22
Support Conditions	23
Hosted OS Base Mapping	23
Pricing	24
Ordering and invoicing process	24
On-boarding and Off-boarding processes	24
Onboarding	24
Offboarding	25
Information assurance	25
Backup/restore and disaster recovery	25
Service management details	26
Project Management, Implementation, Training and Service Enhancements	26
Cloud Services	26
Service constraints	26
Service Levels	26
Training	27
Data restoration / service migration	27
Customer responsibilities	27
Technical requirements	27
Trial Service	28

About Astun Technology

Astun Technology is the UK market leader for enterprise geospatial solutions built on Open Source foundations. Astun helps organisations to realise the power of geography whether managing assets and business processes or determining policy across the organisation and beyond.

Astun supports over 30 organisations in fulfilling their metadata obligations. Customers include the **Scottish Government, Defra and the Environment Agency** and all their Arms Length Body organisations.

Overview

Astun Clarity enables public sector organisations to deploy a custom cloud based metadata service.

The solution provides both internal metadata maintenance and discovery services with a workflow for quality approval and subsequent publication of a subset of records to data.gov.uk or any other standards compliant portal. Multiple catalogs can be implemented, for internal-facing and external-facing metadata, with a workflow for publishing from one to the other with any post-processing that's required (such as stripping out personal information from public-facing records).

Astun Clarity is based on **GeoNetwork**, the leading open source standards-compliant metadata catalogue, which is used by the majority of the world's spatial data infrastructures.

Astun have developed a **GEMINI 2.3** plugin for GeoNetwork, ensuring full support for UK metadata standards, helping you to produce compliant metadata first time.

Astun Clarity is comprised of four key elements:

- **Cloud Service Subscription** would typically include:
 - Hosting Services
 - Enterprise Grade Support
 - Hosted OS Base Mapping Service
- **Project Management**
- **Implementation and Training** would typically include:
 - Design of the service

- Setup and Configuration of the service
- Training
- **Service Enhancements** would typically include:
 - Reconfiguration of the service
 - Enhancements to the service
 - Expert advisory services we supply directly or via standards committees

Project Management, Implementation, Training and Service Enhancements are provided in accordance with **Astun Consultancy Services** (See separate Service Definition).

Service Features and Benefits

Service features

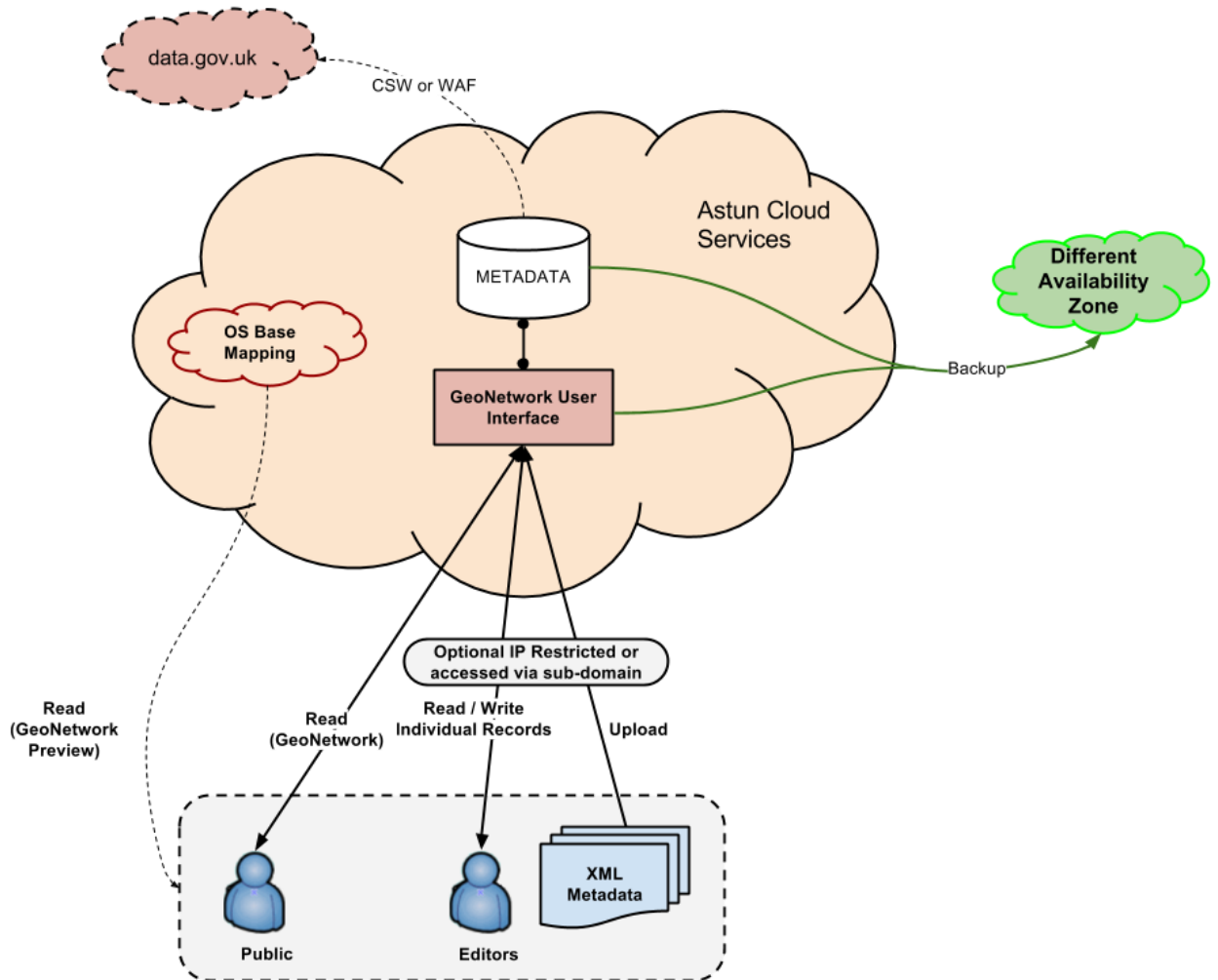
- INSPIRE compliant service
- Automatic validation of metadata against schema
- Support for custom schemas
- QA and Approval for Publication workflows
- Serve metadata via an OGC CSW to the data.gov.uk portal
- Organisational and departmental hierarchy
- Separate internal and public metadata
- Internal and Public discovery services
- No need to implement any additional technology locally
- Enterprise Grade Support

Service Benefits

- Custom cloud based metadata service
- Uses GeoNetwork like most of the world's spatial data infrastructures
- Full support for UK GEMINI metadata standards
- Metadata Publishing provides full UK Location Programme compatibility
- Ensures that data is managed and discoverable across your organisation
- Provides real business value and business efficiency
- Multiple catalogs for both internal-facing and external-facing metadata
- Serve metadata to data.gov.uk or other standards compliant portals
- Automated Metadata Creation and Update, saving time and resources

Example Deployment

Infrastructure Overview (simplified to show single catalog)



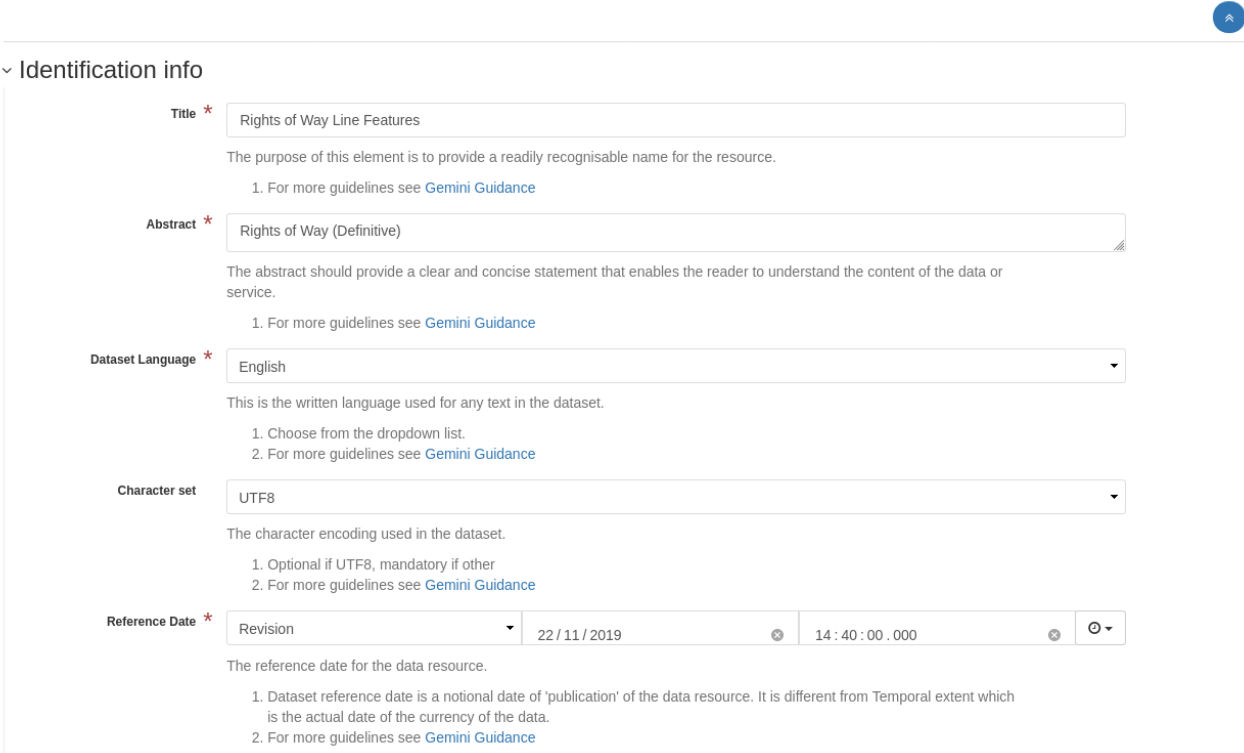
Astun Clarity runs within the Astun Virtual Private Cloud with associated security and monitoring. Each instance comprises a separate “node” within Geonetwork, with ring-fenced security access and a separate database (following [Cloud Security Principles](#)).

Enterprise metadata workflow, from creation to publication and discovery

Creating and editing metadata records

Astun Clarity provides a user-friendly interface for creating and editing records. It clearly shows the mandatory elements and provides a calendar-based approach for choosing date and time elements. A number of different creation and editing views are provided, from the “simple” view (shown in the screenshot) to the raw XML view.

Various helpers are provided, such as lookups and directories to aid data entry and ensure consistency. In the plugin for the UK Gemini 2.3 metadata standard, Astun have embedded links to online guidance within the editor to make it as easy as possible for users to create high quality, valid metadata.



Identification info

Title * Rights of Way Line Features
 The purpose of this element is to provide a readily recognisable name for the resource.
 1. For more guidelines see [Gemini Guidance](#)

Abstract * Rights of Way (Definitive)
 The abstract should provide a clear and concise statement that enables the reader to understand the content of the data or service.
 1. For more guidelines see [Gemini Guidance](#)

Dataset Language * English
 This is the written language used for any text in the dataset.
 1. Choose from the dropdown list.
 2. For more guidelines see [Gemini Guidance](#)

Character set UTF8
 The character encoding used in the dataset.
 1. Optional if UTF8, mandatory if other
 2. For more guidelines see [Gemini Guidance](#)

Reference Date * Revision 22 / 11 / 2019 14 : 40 : 00 . 000
 The reference date for the data resource.
 1. Dataset reference date is a notional date of 'publication' of the data resource. It is different from Temporal extent which is the actual date of the currency of the data.
 2. For more guidelines see [Gemini Guidance](#)

Quality assurance and approval for publication

Astun Clarity provides a roles-based workflow for quality assurance. For each metadata group, a Content Reviewer must approve a record, ensuring that it validates against the appropriate schema. The process of approving or rejecting a record triggers an email to the record owner detailing the problem. The process of editing a record automatically revokes it's published status, ensuring that any changes are again checked and approved by a Content Reviewer.

Back to search
< Previous Next >

NHS Choices - Hospitals

Hospital locations derived from NHS Choices

Update record status

- Unknown
- Draft
- Submitted
- Approved
- Rejected
- Retired


Status message

Approved by Content Reviewer

Updated: a month ago

Update record status

Download and links




<http://syn.ads.astuntechnology.com/nhs/choices/wfs?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=hospitals&SRSNAME=EPSG:27700>

This dataset is published in the download service (WFS) available at <http://syn.ads.astuntechnology.com/nhs/choices/wfs?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=hospitals&SRSNAME=EPSG:27700> with layer name [].

Open service

About this resource

Categories	
Keywords	<ul style="list-style-type: none"> • health • NHS • Hospitals • Health
Language	<ul style="list-style-type: none"> • English
Resource identifier	<ul style="list-style-type: none"> • e564b64f-cd16-4d11-9e7f-76da852531f5
Legal constraints	<p>http://www.nhs.uk/aboutNHSChoices/professionals/syndication/Documents/nhs-choices-standard-licence-terms.pdf</p> <p>© Crown Copyright</p>

Publication

Astun Clarity provides a single-click button to publish a record once it has been approved by a Content Reviewer. This process automatically sets the privileges on the record to make it discoverable either by searching as a non-logged in user, or via the CSW endpoint. Similarly, there is a one-click button for revoking the published status of a record, ensuring it is no longer accessible via these methods.

Back to search
< Previous Next >

NHS Choices - Hospitals

Updated: a month ago

Hospital locations derived from NHS Choices

Download and links

<http://syn.ads.astuntechnology.com/nhs/choices/wfs?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=hospitals&SRNAME=EPSG:27700>

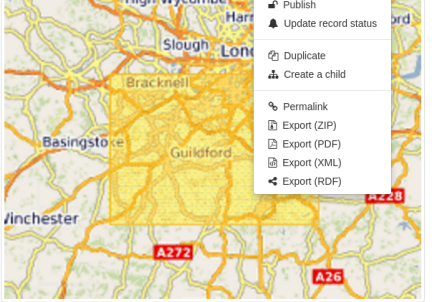
This dataset is published in the download service (WFS) available at <http://syn.ads.astuntechnology.com/nhs/choices/wfs?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=hospitals&SRNAME=EPSG:27700> with layer name [].

Open service

About this resource

Categories	
Keywords	<ul style="list-style-type: none"> health NHS Hospitals Health
Language	<ul style="list-style-type: none"> English
Resource identifier	<ul style="list-style-type: none"> e564b64f-cd16-4d11-9e7f-76da852531f5
Legal constraints	<p>http://www.nhs.uk/aboutNHSChoices/professionals/syndication/Documents/nhs-choices-standard-licence-terms.pdf</p> <p>© Crown Copyright</p>

Spatial extent



Privileges

Transfer Ownership

Publish

Update record status

Duplicate

Create a child

Permalink

Export (ZIP)

Export (PDF)

Export (XML)

Export (RDF)

Temporal extent

Creation date
2016-01-04

Revision date
2016-01-04

Period
Tue May 31 2016 01:00:00 GMT+0100 → Tue May 31 2016 01:00:00 GMT+0100

Discovery

Records that are published via the workflow outlined above are then visible to non-logged in users of the metadata portal and via the CSW endpoint. The CSW endpoint can then be used as a Discovery service and is used for publishing to data.gov.uk.

Typical Astun Clarity Service features

A detailed description of the key features of a typical Astun Clarity implementation and its metadata workflow follows below.

Metadata Editor and Validation

Astun Clarity supports the import of metadata records in a variety of formats as individual records, bulk imports, or harvests from other portals via Web Services (WMS/WFS/CSW) or other GeoNetwork portals. XSL transformations can be included in the import process to transform the metadata to the correct profile, or to make other changes. The transformations provided with are fully compliant with those used in the UK Location Metadata Editor and data.gov.uk. Additional transformations can be developed as required.

Astun Clarity can support the process of completing metadata records in the following ways:

- The use of metadata templates with as many fields completed as possible. Administrators can create multiple templates, for different use-cases, metadata profiles, or groups, and can copy existing records to use as templates.
- Fragments, or ‘snippets of metadata’ can be inserted into metadata records and can be reused across multiple records.
- Directories, such as for Contact information, can be set up, allowing the metadata creator/editor to search for an individual and automatically insert their contact details into the record.

Initial population of catalog

Astun have enhanced a “metadata crawler”, originally created as part of the [Talend Open Studio](#) package to automatically create metadata in UK Gemini 2.3 format for file-based sources, or databases, and insert it into GeoNetwork. This can be run as a one-off to “discover” data sources and populate the metadata catalog, or repeatedly as a scheduled task to catch updates and new data sources. Metadata fields that cannot be implied from the data, such as contact details or abstracts are populated with placeholder elements, however post-processing scripts are provided to derive these fields from spreadsheets, either as a one-off or a scheduled task.

Harvesting and Bulk Importing

Records imported in bulk or from harvesting can be optionally validated as part of the import or harvest process. This element is configurable by administrators and can be changed for an individual import or harvest, as required. All records, including those imported individually into Astun Clarity or created within it can be validated as part of the editing process.

Records are validated against the following rule-sets, in accordance with UK Gemini 2.3 and data.gov.uk:

- ISO19139 XSD
- ISO19139 constraints schematron
- Gemini 2.3 schematron
- Gemini 2.3 supplemental schematron (this can be configured to be optional if strict compliance is not required)

Validation errors are clearly shown within the editing interface, and records that have failed validation are also highlighted in the administrative interface.

The screenshot shows the 'Boundary-Line' metadata editing interface. The form includes fields for Title, Abstract, Dataset Language, and Character set. A validation panel on the right displays errors: 'Abstract length check' (error) and 'Coordinate Reference System (warning)'. Below the form is a search bar and a list of records with filters for Type of Resources, Categories, Workflow Progress, and Provided By.

Publishing

Astun Clarity uses the concept of “status” to determine whether a record can be published. User roles are used to determine whether an individual has the right to publish a record or whether it must be approved by a Content Reviewer. Status changes trigger notification emails to Content Reviewers, allowing a final check of the record before publication. Users with the appropriate privileges can then publish the record, or indeed revoke its published status. Records can be downloaded in a number of formats and can be accessed by a permanent link with a persistent URL (see screenshot below).

The screenshot shows a context menu for a record. The menu items are: Privileges, Transfer Ownership, Publish, Update record status, Duplicate, Create a child, Permalink, Export (ZIP), Export (PDF), Export (XML), and Export (RDF).

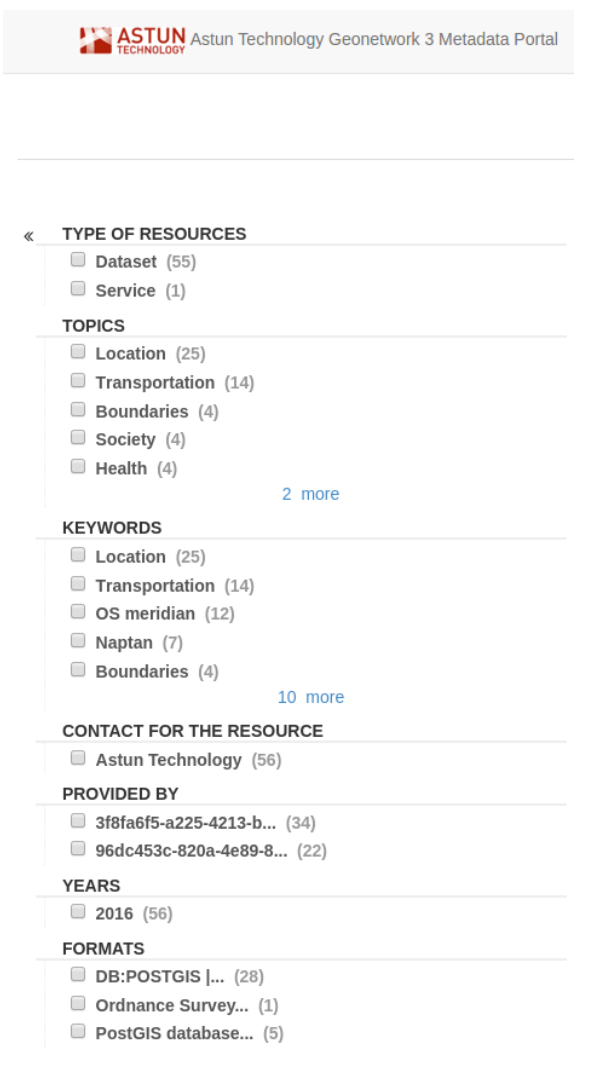
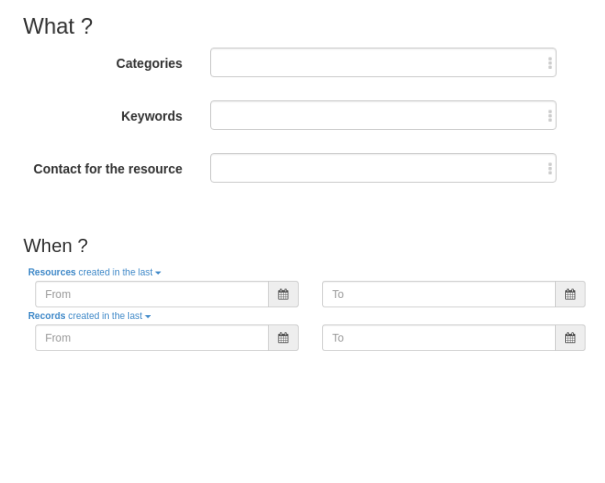
Records that have been validated and marked as published are then viewable via the CSW endpoint for the catalogue. This endpoint is used as the harvesting source on data.gov.uk, which gathers the metadata via the CSW calls GetRecords and DescribeRecord. Furthermore the CSW endpoint can be used within other metadata discovery services, such as in desktop GIS packages.

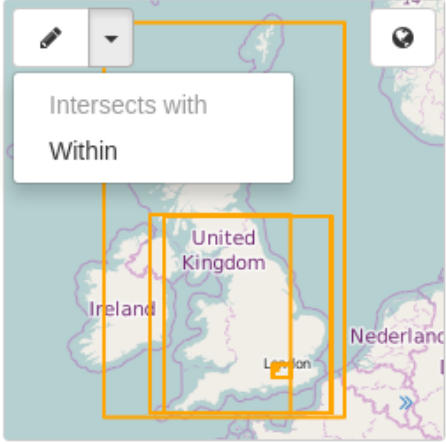
Discovery

Astun Clarity provides a choice of search and browse options to allow users to efficiently find any resource whether through category drill-down or a free form text search, the use of keywords or a geographic based search.

Records can include:

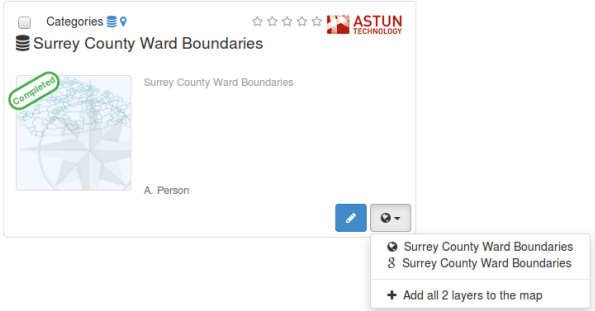
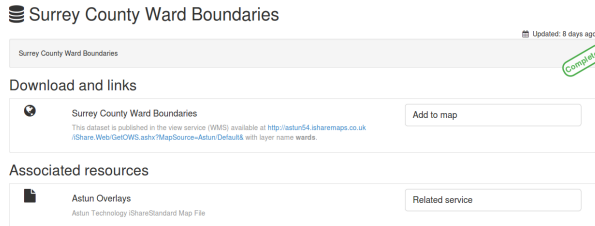
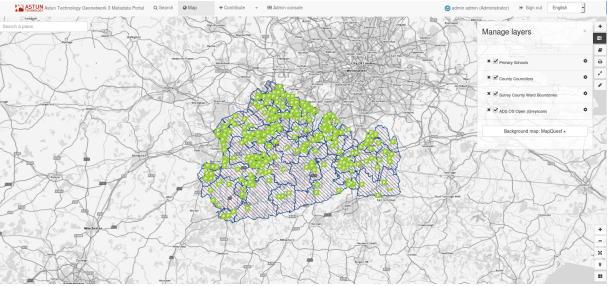
- Categories e.g. Boundaries, Lookups, Tables, Documents etc
- Records can be assigned to user-defined categories (see screenshot below)
- Key words or thematic groupings e.g. INSPIRE keywords, Census, Electoral, Employment etc
- Records can contain keywords, which can be INSPIRE/Gemini-compliant themes picked from an in-built thesaurus, or user-defined
- A full description with images attached, previews of the dataset and text held whether included in the Title, Abstract or other metadata fields.
- One or more links to allow for the download of the data, in a variety of formats.

<p>Browse - Category based</p> <p>Headings can be configured without restriction and therefore examples such as 'Boundaries', 'Lookups' or 'Latest products' can be created. These can also be applied as keywords so the filtering could be used within Textual or Geographic searches (Simple & Advanced below)</p> <p>Astun Clarity supports a range of filtering options, based on user-configured categories, product type, year of publication, bounding box extent etc. Custom filters can also be created. Furthermore, simple and advanced search options are also available, for searching within the metadata, or for searching for records with particular ownership or status.</p>	 <p>The screenshot shows the 'Astun Technology Geonetwork 3 Metadata Portal' interface. It features several filter sections: <ul style="list-style-type: none"> TYPE OF RESOURCES: Dataset (55), Service (1) TOPICS: Location (25), Transportation (14), Boundaries (4), Society (4), Health (4), and a link for 2 more. KEYWORDS: Location (25), Transportation (14), OS meridian (12), Naptan (7), Boundaries (4), and a link for 10 more. CONTACT FOR THE RESOURCE: Astun Technology (56) PROVIDED BY: 3f8fa6f5-a225-4213-b... (34), 96dc453c-820a-4e89-8... (22) YEARS: 2016 (56) FORMATS: DB:POSTGIS ... (28), Ordnance Survey... (1), PostGIS database... (5) </p>
<p>Search</p> <p>Based on the principles of 'What?' And 'When?' a quick search can be undertaken.</p> <p>The simple search option allows a quick way for a user to perform a textual, word-based search.</p> <p>This can be geographically refined by specifying a region on the search map, choosing whether your search should intersect or be contained within the area.</p>	 <p>The screenshot shows the search interface with two main sections: <ul style="list-style-type: none"> What ?: Includes input fields for 'Categories', 'Keywords', and 'Contact for the resource'. When ?: Includes two date range selectors. The first is for 'Resources created in the last' and the second is for 'Records created in the last'. Each selector has 'From' and 'To' input fields and a calendar icon. </p>

	
<p>Multi word search</p> <p>Multi word search will search for any dataset or record that has either word within it. Options are immediately available for specific searching on Title, Abstract or Keywords.</p> <p>As with the simple search a geographic constraint can be applied.</p>	<p>KEYWORDS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Location (25) <input type="checkbox"/> Transportation (14) <input type="checkbox"/> OS meridian (12) <input type="checkbox"/> Naptan (7) <input type="checkbox"/> Boundaries (4) <input type="checkbox"/> Society (4) <input type="checkbox"/> Health (4) <input type="checkbox"/> NHS (4) <input type="checkbox"/> Health (4) <input type="checkbox"/> Environment (3) <input type="checkbox"/> Crime (2) <input type="checkbox"/> Railway (2) <input type="checkbox"/> School (2) <input type="checkbox"/> Os Open Data (2) <input type="checkbox"/> County (2)
<p>Further search options</p> <p>The advanced search panel offers searching over a wide range of different metadata options, such as the contact for the resource, the data format, the update frequency and so on</p>	<ul style="list-style-type: none"> << < TYPE OF RESOURCES < TOPICS < KEYWORDS < CONTACT FOR THE RESOURCE < PROVIDED BY < YEARS < FORMATS < REPRESENTATION TYPES < UPDATE FREQUENCIES < STATUS < SERVICE TYPES < SCALE
<p>INSPIRE options</p> <p>INSPIRE searches can be based on predefined Themes to help the user filter their results.</p>	<p>INSPIRE THEMES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Human health and... (1) <input type="checkbox"/> Utility and... (1) <input type="checkbox"/> Transport networks (1)

View Service

Astun Clarity includes a map viewer and provides the ability to perform spatial searches via the map. The service includes the provision of Ordnance Survey Premium base mapping via our [Astun Data Services](#) subject to the provision of an Ordnance Survey license authorisation by the client, alternatively OS OpenData can be used as a less detailed base map.

<p>Viewing spatial datasets</p> <p>The viewer has multiple options for adding a dataset to the map. From the main search page each dataset has an option to add it, and associated records to the map.</p> <p>When a spatial dataset has been selected the user has the option to then add the dataset to the map viewer. When a search has been performed the user simply selects the "Add to Map" button to add to the map viewer</p>	
<p>From the detail page for a dataset the viewer need only click the "Add to map" button.</p>	
<p>From the main map page itself, multiple datasets and services can be added. Compatible resources (such as WFS) can be interrogated by clicking on features. There are options to save the map, print it, along with standard tools for geolocation, searching, annotations, zooming, panning, measuring, switching overlay and base layers.</p>	

Contextual mapping

Astun Data Services are included as part of our proposed service

Base map data services include national cover of Ordnance Survey PSMA data (if licensed) and OS OpenData products.

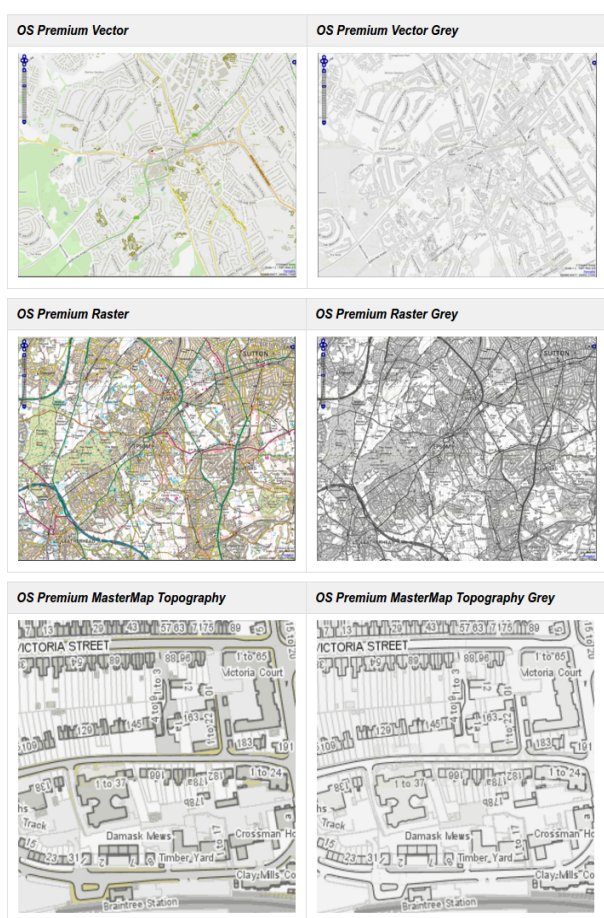
Maps are available as contemporary web cartography or in a black and white style and optionally watermarked with organisational logo when required.

For more information on ADS see:

Astun Data Services - Service Definition on GCloud

[Astun Data Services help page](#)

Please Note: Currently ADS is available in OSGB 1936 and WGS84.



Transformation Service

Astun can provide support for standards-compliant data transformation, such as INSPIRE Phase 2.

Reporting Tools

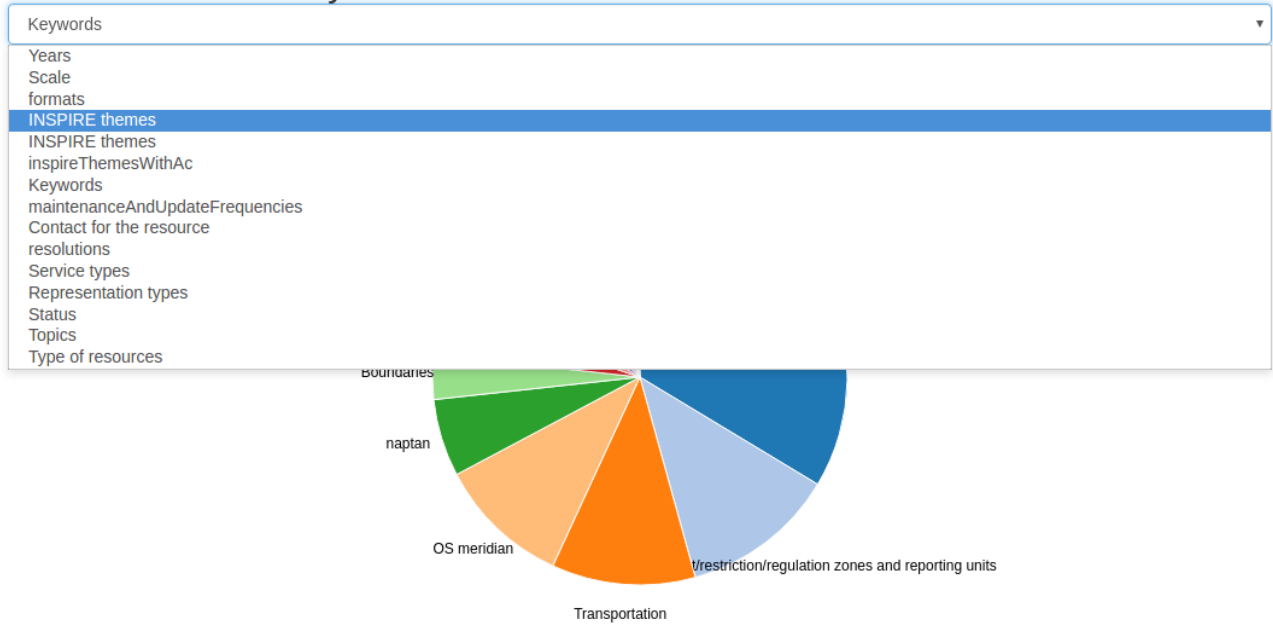
Astun Clarity includes reporting functionality as standard on content and search statistics. This provides administrators with the ability to download lists of records as csv, that relate to a set of preconfigured statistics. This includes the ability to filter records on a number of different parameters such as ownership, INSPIRE theme or status.

A range of statistics on searches carried out using the Astun Clarity User Interface can be found under Administration > Reports. These include searches by:

- User Access
- Record ownership
- Metadata Updates

- Metadata File Uploads

Record's statistics by



The reports can be filtered by time period and can be viewed online or provided in csv format.

- Updated metadata
- Internal metadata
- Metadata file uploads
- Metadata file downloads
- Users access

Updated metadata report

This report allows to extract a list of updated records and the record owner's information for a specified last updated date range for import into Microsoft Access and Excel. This will allow for a review of records to ensure the currency of records or if necessary the deletion of old or expired records. The report results can be imported into MS Access and Excel.

[Create report](#)

-Select a date range-

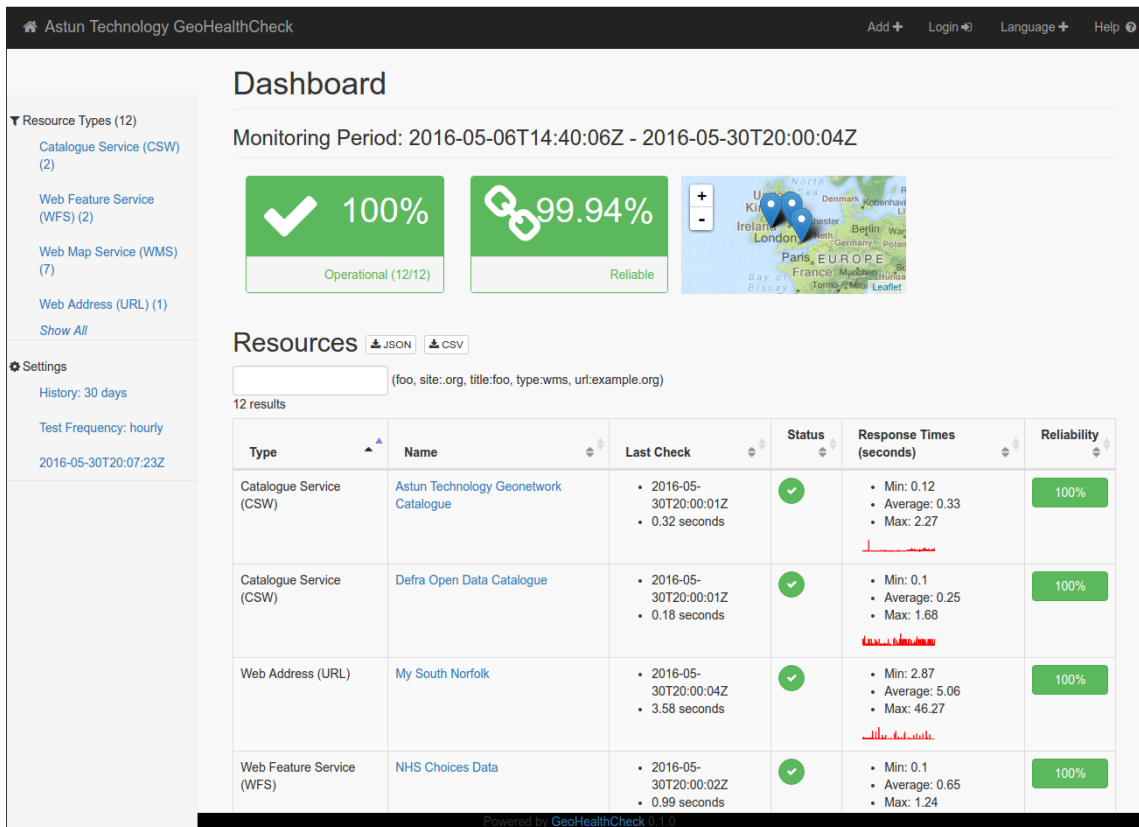
Metadata change date (begin): 02/06/2016

Metadata change date (end): 02/06/2016

Groups: Sample group, Astun, Wycombe

Style and Accessibility

Custom styling can be implemented.



Standards

OGC

Astun Clarity supports the delivery of data through web-service end-points. Some large files may also be available via direct URL / FTP download for convenience. Astun Clarity is built with OGC standard web services at its core. These include CSW - Catalog Service for the Web, WMS - Web Map Service, WFS - Web Feature Service.

CSW will allow the querying of the metadata catalog directly as required, including sourcing data. The resulting XML will have all relevant attributes which would allow the user to locate a URL - whether WFS / WMS / FTP for data download.

Astun Clarity also supports WAF based harvesting.

GEMINI

Astun Clarity is fully compliant with UK Gemini 2.3.

Validation

Schema and Schematron-based validation are implemented for data import and export, creation and editing. Custom validation error messages and schematron rules can be supplied to assist with the editing process, or to provide more fine-grained validation than that required by the standard(s).

Training

Astun provides training and documentation to support administrators and editors.

Typical administrator training comprises:

- A one-day training course for up to 6 administrative users that covers both metadata creation and maintenance and system administration
 - Metadata creation and maintenance
 - The publication workflow
 - Management of the solution
 - Management of users and departmental groups
 - Creation and management of categories and keywords
 - Standard reports

Alternative training configurations are available.

Cloud Services

Hosting Services

Astun Clarity is hosted on dedicated high-performance, scalable instances within Astun Cloud Services (ACS) currently hosted on the Amazon Web Services platform within the UK data centre.

Performance and availability

Astun Clarity services have pro-active alarms configured to notify Astun's cloud operations team of any incidents or trends which require action to ensure that high availability is maintained. Audit and system logs are used to generate reports providing usage and performance analysis. Astun analyse logs and alarms to understand usage trends and to adjust load balancing parameters as required.

Astun Clarity Instances instances are proactively monitored in Astun's GeoHealthCheck dashboard.

Service management

The managed service will include:

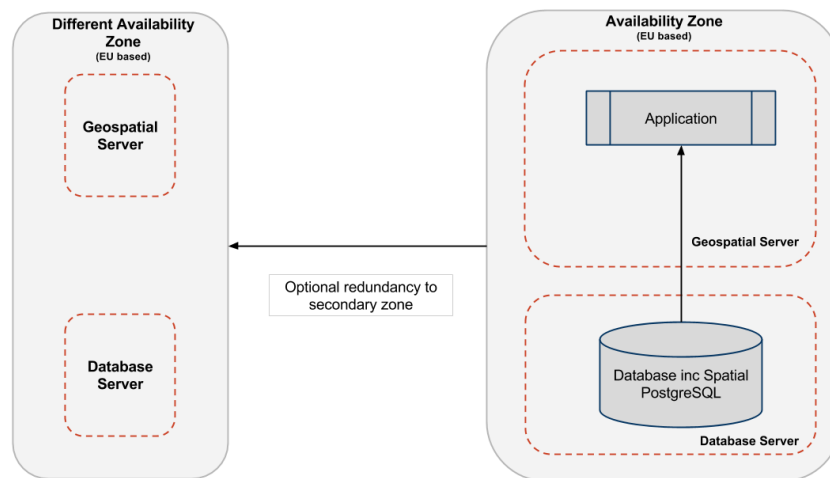
- Test and live services
- Backup and failover
- Infrastructure management and upgrades
- Application updates
- 24 x 7 availability monitoring
- Performance monitoring and tuning
- Dedicated service manager

Service monitoring

ACS operate a set of monitoring services to notify our support team if any server metrics indicate a potential failure (low disk space etc).

Availability Zone Redundancy

Full backups and redundancy at a server level would be maintained within a separate availability zone within the EU.



Enterprise Grade Support

The Annual Service Fee for Astun Clarity includes a support service managed via a central Service Desk through which support incidents are logged and call off support time requested.

Service desk

During core hours (9am to 5pm on weekdays), access to the Service Desk is available by phone, email and an on-line support portal; outside core hours (on a 24/7 basis), the Service Desk can be contacted by email and on-line support forum, with initial response being within core hours. For users working outside core hours, whilst initial response from Astun will be within core hours, assistance on specific support incidents can be arranged out of hours on an incident by incident basis.

Incident management

Each incident logged via the Service Desk will be allocated a unique ticket number and a priority (based on business impact / need) determining target response time. Support is provided via 1st line, 2nd and 3rd line support.

- 1st line support comprises call logging, prioritisation, and basic advice / diagnostics based on consultation with Astun's Open Source knowledge base / FAQs etc. This would be based on copies of information (e.g. screenshots, error logs etc.) emailed to support desk by the user.
- 2nd line support is provided by product experts, who would provide support by aiming to recreate / replicate problems, based on copies of data sent by users (via secure FTP). 2nd line support staff, are also able to provide additional services via consultancy call off (e.g. write a script to bulk update records or a custom report).

- 3rd line support is provided by Astun developers, who have sufficient technical expertise to examine code, and liaise with the open source development community to diagnose complex issues and apply bug fixes if needed.

Support Conditions

Support conditions, support processes, the service level agreement and escalation procedures are detailed in the accompanying document - **Astun Platform - Terms & Conditions V13.0**

Hosted OS Base Mapping

The OS Base Mapping Service would typically be provided using our **Astun Data Services** (See separate Service Definition).

Pricing

See Pricing Schedule.

Ordering and invoicing process

On receipt of an initial enquiry a quotation for the required Astun Clarity services will be provided.

The customer should provide by email:

- A purchase order confirming:
 - The number of call-off consultancy days purchased by agreed SFIA level
 - The level of the Cloud Service Subscription purchased
- The name of the individual(s) authorised to approve the use of call-off consultancy days
- Signed acceptance of our Conditions of Service

Astun will provide:

- An invoice for the 1st year's Cloud Service Subscription and pre-paid call-off consultancy days
- Details of how to make requests to call-off consultancy days from a block of pre-purchased days

On-boarding and Off-boarding processes

Onboarding

On receipt of a purchase order Astun Technology will:

- Create a task in our project management software (JIRA) to acknowledge handover from sales to operations, and track progress over the duration of the project.
- Assign a project manager and consultant(s) to the project based on individual specialties, capacity, and proximity to the customer where this trait is desirable.
- Draft project initiation documents (PIDs) to capture what the objectives and outcomes of the project will be, the scope of what has been purchased, and a breakdown of how this will be delivered.
- Make initial contact with the customer in written form, to be followed up with a phone/conference call, or a weekly call for large projects.

- We will also create a project space in Basecamp, our project communication software when necessary.
- PIDs are discussed, amended and agreed upon by the customer. Constraints and deadlines are also discussed at this stage if not already agreed upon at the point of sale.

Offboarding

On receipt of a written request to terminate the service and subject to there being no unpaid charges outstanding, Astun will:

- Delete all metadata stored within GeoNetwork
- Delete any Astun-hosted View (WMS) and Download (WFS) services that are specific to the Astun Clarity service
- Customers are responsible for exporting their metadata before requesting termination of the service
- Customers are responsible for the removal of links to Astun-hosted View and Download services in metadata hosted on public portals such as data.gov.uk

Information assurance

Astun are Cyber Essentials Plus accredited. Astun Clarity is hosted on Amazon Web Services (which is ISO 27001 accredited).

No operational customer data is stored or processed.

Backup/restore and disaster recovery

The service is hosted on Amazon Web Services. Client metadata and data are backed up on a nightly basis, the application software is backed up at each update cycle. Backups are replicated to a further instance located within a different geographic region for disaster recovery. Clients can request that their datasets and metadata are only replicated within the EU.

Service management details

Project Management, Implementation, Training and Service Enhancements

Consultant's Working Day	7 hours exclusive of travel and lunch
Working Week	Monday to Friday excluding national holidays
Office Hours	09:00 – 17:00 Monday to Friday

Travel and Subsistence Included in the day rate within M25.
Payable at department's standard T&S rates outside M25

Mileage Included in day rate within M25
Payable at department's standard T&S rates outside M25

Professional indemnity insurance is included in day rates

Cloud Services

Astun Clarity is available 24 x 7

The support desk is available during normal business hours (Monday to Friday 9.00am to 5.00pm)

Service constraints

Most planned maintenance will be undertaken without interrupting service availability, however in the event that this is not possible downtime will be scheduled and customers notified in advance.

Service Levels

- The solution is hosted on a high availability cloud infrastructure with a failover

backup hosted in a different geographic region for maximum resilience.

- Internal availability testing indicates availability in excess of 99.6%
- Response times for WMS are typically less than 1 second at the server.
- The services are continually monitored with automated messages sent to several staff in the event of deterioration or failure.
- No financial recompense is offered for the unavailability of Astun Clarity.

Please also see **Astun Platform - Terms & Conditions V13.0**

No financial recompense is offered for the unavailability of Astun Clarity.

Training

See **Training** section for details of the training that is typically included.

Data restoration / service migration

In the event that the customer terminates the service they can download their metadata from the service in an XML format that should be compatible with alternative metadata catalogues.

Customer responsibilities

- Customers accept the Terms & Conditions for the Astun Platform by using Astun Clarity
- Customers must ensure that their service access details are not disclosed outside of their organisation
- Customers are responsible for ongoing administration of a Astun Clarity solution

Technical requirements

The service can be consumed by applications and clients compliant with one or more of the following standards:

- OGC WMS 1.1.1, 1.3.0
- OGC WFS 1.0.0, 1.1.0
- OGC CSW 2.0.2

Trial Service

Not available