



SEARCH CONSULTANCY SERVICES

Service Definition

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Overview

Axis12 have designed and built some of the largest Drupal sites in the UK, and have several Government clients including:

- Department of Health
- Department for Education
- High Speed 2
- Home Office
- Northern Ireland's Business Development Agency

We're especially prominent in the cultural space having led major digital rebuild and redesign projects for:

- Somerset House
- Royal Botanic Gardens (Kew)
- Royal Museums of Greenwich
- Southbank Centre
- British Film Institute

We are the Care Quality Commission's technical partner for achieving their 'Digital by Default' targets through the use of online registrations and form submissions.

We design, build, host and support complex cloud-based applications based on Drupal, SOLR and other open source technologies. We are particularly known throughout the community as experts in difficult integrations and for enterprise search.

Service

Search is an integral part of any website. With the big search engines offering such powerful ways to find content online, your visitors will naturally expect the same on your website.

We specialise in search consultancy and have designed and implemented complex search solutions for many high-profile organisations, such as Tate Galleries and the Care Quality Commission. We often work on projects that require multiple types of information to be discoverable in a variety of ways (web pages, documents, audio, video, images, data) and have provided end-to-end solutions that include user experience design, iterative testing, integration and the full functional build and release.

We have implemented native Drupal search for many Drupal websites, but also specialise in integrating with other search options, such as open source Solr search engine and ElasticSearch. Our search consultancy solutions can also span multiple sites all included in one index or include catalogue and library system indexing for eCommerce and shop features.

Specialist Search Consultancy

Our specialist search consultancy services will give you the confidence that you're getting world-class search, while taking full advantage of the technologies available.

We cover all aspects of designing and building search for your online presence:

- Specification
- User experience
- Design
- Implementation and testing
- Support and optimisation

Solr and ElasticSearch technologies are designed for high-traffic, content heavy websites typical within the public sector. Designed to overcome the most challenging of search requirements, we can make sure you get high performance, maximum availability and a search system that meets all of the needs of your visitors and end-users.

Solr Specialism

Axis12 have been using Solr for a long time and have become a recognised authority, maintaining and building several Solr Drupal modules and implementing these technologies into large organisations across the globe.

We designed and developed 'Solr Search as a Service', an enterprise grade search service, which uses the latest in Solr technologies and is designed and pre-configured for even the biggest of Drupal sites.

Here are just some of the reasons that we use Apache Solr:

- Scalable to your needs
- Can be cloud based for resilience
- Sophisticated advanced search perfect for big websites
- Advanced and robust security features and integration
- High customisable and configurable to your website and search needs

Standard Features

Our search consultancy and implementation provides the following features as standard:

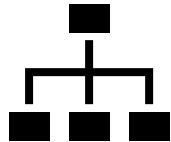
- Spell-check and common misspellings
- Predictive search/autosuggest
- Nil results suggestions
- 'More Like this' (similar content based on semantic analysis)
- Similar results (similar content based on tags)
- Elevated results ('best bet' boosting) - this would solve the specific example given of being able to control what appears at the top of a search, and we can combine this with 'Synonyms' - controllable through a taxonomy, to enable admin users to build up multiple variants of the same search to be treated in the same way
- Geospatial search ('Near me')



Search Result Grouping and Filtering

Filtering or faceting is straightforward using the Enterprise search and Facet API modules. We can also create filters for you based on the result set. Providing a source filter will allow the user to focus or widen their search depending on results.

Where there are multiple sources and a search ends in 'no results', results from the other sources can be suggested with a link through to the full results set.



Multi-Site (Unified) Search Facility

Multi-site or unified search is a common requirement for many organisations. We've recently implemented this for Royal Botanic Garden (Kew), Lambeth Council and Tate Museums. We're often asked to find a solution for unified search that combines the content from different data sources including XML, CSV, databases and other CMSs.



Error Correction and 'Soundex'

We can approach **error correction** in a number of ways. Predictive (type ahead localised search) is the starting point. This uses only the terms in the indexes to provide suggestions, which helps to reduce the chance of 'no results' and reduces the chance of errors from spelling mistakes.

Synonyms allow for organisation-specific terms to be built up so that multiple variants of the same search are treated in the same way.

Finally, **stemming and phonetic matching** ('soundex') allows content to be indexed with support for lexical variations to be returned.



Results Weighting

Search result weighting, boosting and focus are bespoke for every organisation; it depends on the tone of content, structure, metadata and many other factors. We have provided results weighting in every search project we've delivered and believe this is the key to delivering the right content to your users.



Search Result Formatting

The information displayed on search results is configurable at a content-type level. This allows for additional information to be displayed based on the type of information in the search results, e.g. date and price for events or a description of content for web pages. We have implemented this type of feature for the majority of our search clients.

Pricing

Our full rates can be found in the attached rate card. Please use these rates as a guide for this particular type of consultancy.

If you would like to engage us, once we know more about your requirements, we can provide more specific costs.

Training

We train and work with clients' resources to help maintain what we've put in place. We can also help you maximise the potential of your existing websites. Our team has a deep understanding of technology coupled with experience of the challenges that face organisations that need to stay on top of their market.

General Information

Areas of Expertise

Our depth and breadth of experience means we can help you with all things open source related, with a particular focus on making open source scale.

Specifically:

- Architecture specification and implementation
- Site specification and design
- Developing responsive and engaging themes
- Integration with external systems through SSO's and API's
- Functional, user acceptance and usability testing
- Project management and coordination
- Agile development and Scrum mastering
- Site resilience, performance and security
- Release management

Technologies in which consult include: Varnish, Solr, Nutch, Mule ESB, Drupal, Django, Linux, Symfony, MySQL, Mongo, XML, XSL, Python, Java, Hadoop, h-Base, HA-Proxy, NGX, PHP, Javascript, Postgres, Git, jQuery, Swift, Jenkins, Puppet, and many more.

Quality Assurance



1.1.1 Code quality

All our developers are experienced in working to the highest open source coding standards and have committed code back to the open source community.

However, to ensure the quality of the code we produce is always of a high standard, we have our own open source coding quality assurance process which goes far beyond simply adhering to open source coding standards. We believe that we have one of the most stringent

code QA processes in our sector, and our commitment to quality is embedded in our staff onboarding process and forms an integral part of our overall ISO 27001 certification.

All our development team continually check their code against this process and senior members of our technical team check all code before it is approved to be included in a release.

We ensure high quality code by:

- Ensuring all coders develop according to open source coding standards
- Where a specific open source coding standard is not detailed, ensuring that code is written according to best practice standards
- Running automated tests to check the adherence to these standards
- Peer review of all commits means only reviewed and approved code is released



1.1.2 Quality in Delivery

We ensure consistent quality in our delivery through the planning, setting and implementation of specific and measurable quality objectives. Our dedicated Account Manager, in consultation with our client's project team, will work together to produce quality objectives with associated milestones, which will then be constantly monitored throughout the delivery process.

Three vital aspects of securing quality delivery are risk, change and cost management. Identifying, monitoring and mitigating risks are a key part of successful delivery.

We recommend the use of a Service Level Agreement to ensure all parties are clear about responsibilities, key milestones and quality standards. We have found this approach assists in balancing out cost and quality of services in order to provide the client with best value for money. We view a successful project as one that continues to form a key part of a client's digital strategy in the months and years after it has been delivered. It is therefore in our interests to ensure that the client takes a hands on approach to all products we deliver during all phases of their delivery.

Using this definition of success, it makes no sense for us to take a unilateral approach to delivering a project - we actively encourage the client to fill key roles whether that be as testers in our scrum team, or product owners - we view it as essential that the client takes a hands-on role and that the delivery team has representatives from all stakeholders in the business.

- For clients such as Care Quality Commission, the business analysis and product ownership roles were kept in-house and formed integral membership of the scrum teams provided by Axis12.
- For the Tate Gallery we worked with Tate's in-house Java team (who managed the huge collections repository database), as well as some of their designers, in a tightly knit team

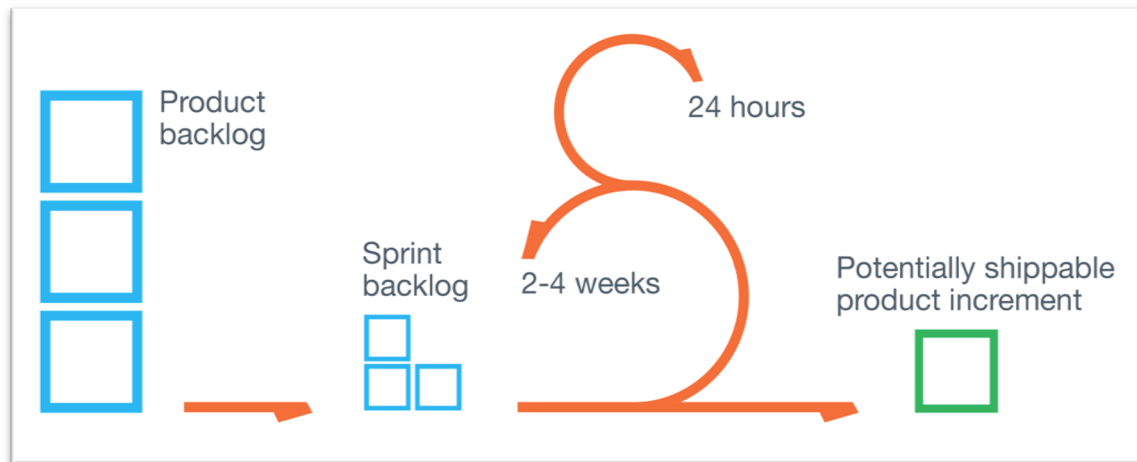
We have a comprehensive quality management system that is continuously monitored and updated to ensure that all services and products are of the highest standards of quality and reliability.

We strive to be the best provider of open source web enterprise services in the industry. Through the use of several principles, everyone in Axis12 is accountable for fully satisfying our customers by meeting, or exceeding, our clients' needs and expectations with first class solutions and services.

Methodologies and Approach

Our PRINCE2- and Agile-qualified delivery teams have vast experience of managing and delivering projects using a range of approaches. By clearly defining the phases of the initial delivery – from discovery and concept to design and development – we can choose the method that fits best with your organisation.

An Agile approach (e.g. SCRUM) can be extremely effective in offering you early sight of software, rapid development, incremental delivery and regular prioritisation of features.



The Agile Process

Waterfall methods (e.g. PRINCE2) are preferred by some clients because they allow monitoring of progress via more traditional means – such as detailed project plans and Gantt charts – that are more in keeping with their internal governance structures.

Our team have also developed ways to use a blended approach effectively, providing agile and rapid delivery with flexibility of prioritisation and specification alongside the structure, accountability and predictability that comes with a Waterfall approach.

Our project delivery is supported by systems that manage the detailed specifications, including acceptance criteria, user stories and results from functional and non-functional testing. These are available to our internal staff, and staff from third parties and partners to ensure clear specifications are available to everyone involved in the delivery.

Contact Us

Get in touch via email at info@axistwelve.com, or call us on 0845 519 5465.