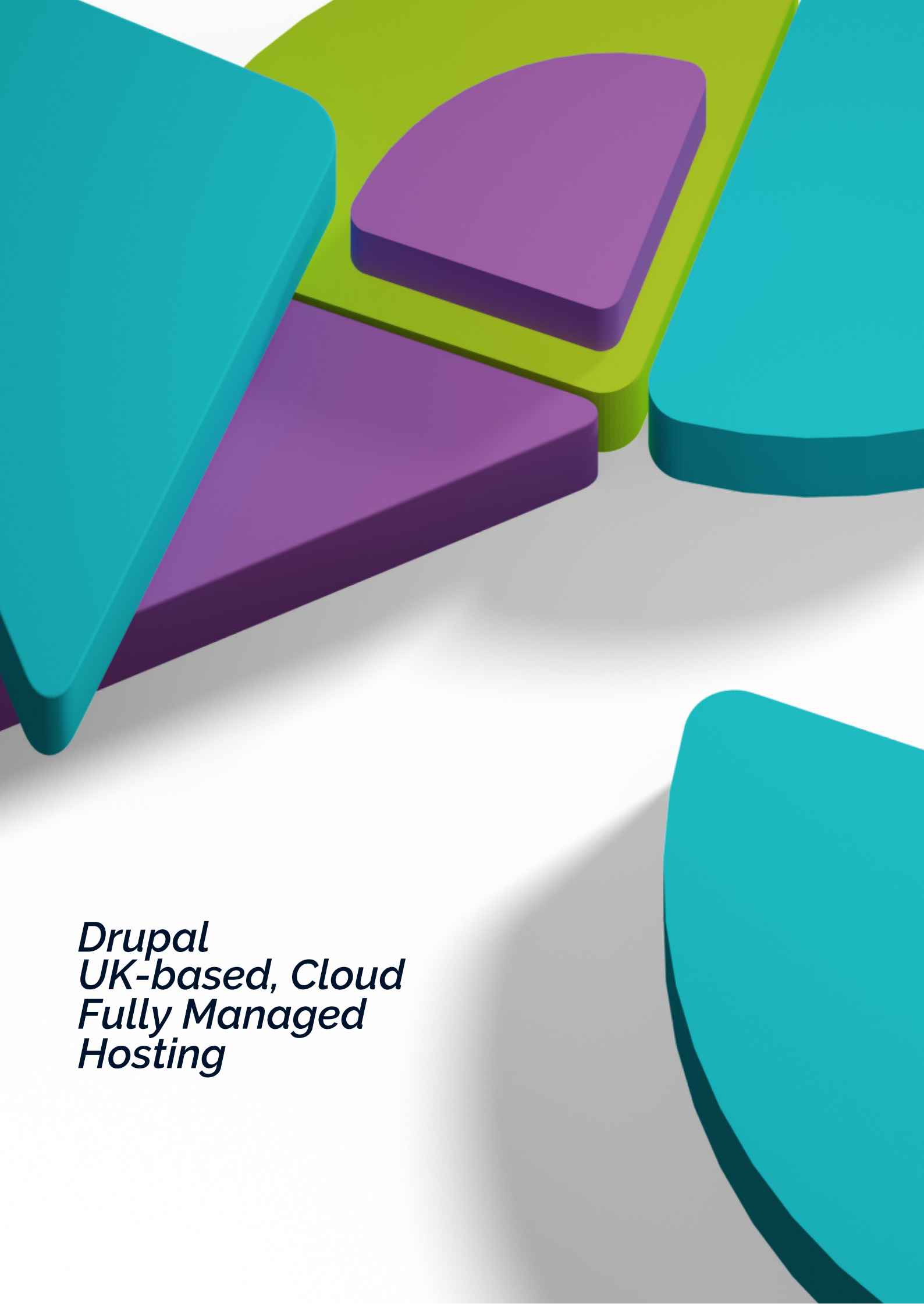


The background features several large, overlapping, three-dimensional geometric shapes. On the left, a large teal shape points towards the center. In the upper middle, a purple shape is layered on top of a lime green shape. To the right, another teal shape is partially visible. In the bottom right corner, a large teal shape is partially cut off. The shapes have soft shadows, giving them a sense of depth and volume.

*Drupal
UK-based, Cloud
Fully Managed
Hosting*

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Service Overview

CIVIC as a full-service digital agency, covers all aspects of Drupal delivery including; responsive website design/development, user experience (UX), build, testing, technical integration, development, hosting, maintenance and support.

With our team of talented individuals, we're able to maintain an optimum level of customer service for clients across the UK. Our reputation is built on customer service, value for money and market-leading expertise. We continue to work on high profile, creative, technically complex Drupal projects, helping our clients to make profits or deliver on their objectives, by:

- Putting emphasis on user experience
- Keeping pace with users' browsing behaviour
- Actively follow relevant technology changes
- Understanding changing business needs
- Delivering performance improvements
- Ensuring data security
- Leading on best practice and legislative compliance
- Innovating

Our approach is client-focused. Our underlying objective is to continuously improve in value over the lifetime of any contract, by staying ahead of the game on areas such as convergent technologies, cross-platform support and social media. We don't tie our clients into proprietary solutions, but seek to provide flexible platforms that can be developed and deployed by people with easy-to-find skills.

Areas of Specialism

CIVIC's experience on Drupal (v7 to the latest) is spread but not limited across the following six areas of specialism:

Strategy • Branding • Digital Strategy • Content strategy & planning	User Experience • User research • Usability and accessibility testing • Information Architecture • Prototyping & Wireframing • Persona & user journey development • Accessibility compliance
Design • Accessible Web Design • Responsive Web Design • Interactive content • Rich media campaigns	Development • Drupal website/application development • Drupal bespoke theme development • Drupal responsive and accessible theme development • Drupal bespoke module development • Drupal headless/decoupled theme development employing Angular, React or any other popular JavaScript framework • Drupal custom integration with popular CRM

	• Drupal multisite and multilingual development • Implement UK council websites using LocalGov Drupal. • Build robust online shops with Drupal Commerce 2. • Build Learning Management Systems using Opigno LMS. • Full website (content, contributed modules, custom themes and modules) migration from older versions to the latest Drupal • Migration of websites build in other CMSs (i.e. Joomla, WordPress, Umbraco, Whix) to Drupal • Integrate and Drupal website with Apache SOLR to offer enhanced content and document searching capabilities • Offer seamless integration of any Drupal website with any 3rd party system exposing REST services • Implement REST APIs to expose any Drupal data to third party applications. • Integrate with MS active directories, LDAP, gmail and any other identity provider to provide SSO capabilities with your existing systems • Perform cookie audits and ensure Drupal website is GDPR compliant at all times.
Support • Service Level Agreements • Support team and helpdesk	Hosting • Managed hosting for Drupal websites • Dedicated server management • Drupal security • Networks

Drupal User Experience Design

Only by gaining a deeper understanding of the user and how they interact with a website, application and/or digital marketing activity, we're able to create a solution that is usable and delivers value.

To bring it all together and affect behavioural change we ensure that usability testing and User Centred Design (UCD) are expressed at every stage of the project, as we move from project initiation, planning, design, development and deployment.

During the planning phase, we conduct user research (e.g. interviews, focus groups, meetings, card sorts etc) in order to gain an understanding of the target audience: their backgrounds, barriers, needs, goals, frustrations and motivations. We also explore how users interact with the product/service (when, where, how, platforms, tasks, barriers), including analysing customer journeys. This ensures that we build a user experience around the target audience needs.

We then turn this rich data captured on user requirements into the building blocks for the iterative design phase. This phase typically includes: customer experience maps, personas, user journeys, Information Architecture, wireframes and prototypes. We ensure that there are sufficient calls to actions using the appropriate and appealing interface to ensure that behavioural change can be triggered. When a prototype has been developed, user testing helps to identify the most important UX issues before launch, thus saving expensive redesigns. Feedback can then be used to adapt any changes required.

Before launch, user testing can be conducted again as a means of validating and ensuring that our solution meets user needs and allows us to make any modifications before deployment.

Drupal Web and Application Development

Drupal is the Open Source choice for millions of websites, since 2001, and one of the Scottish Government approved open-source CMS platforms.

Drupal is a flexible framework for development, trusted by some of the world's largest and busiest websites and supported by a very large and dedicated community, working on the Core platform and numerous contributed modules. Some of the Drupal features, include:

- 100% web-based: Content Editors and Administrators can perform any task that is needed using just the web browser of their choice.
- Extremely Flexible: The software is powerful and flexible allowing the customisation and expandability of the functionality either through custom or contributed modules.
- Intuitive Interfaces: Drupal Core comes with a straightforward and intuitive back-end environment, that allows Content Editors and Administrators to perform their everyday tasks easily.
- Content Creation and Management: Drupal empowers Content Editors and Administrators with default and custom tools for reviewing, controlling, and managing their website content. Some examples include: node lists (filtered by Content types and/or Status), ordered by creation date, title, author etc. These interfaces can be further customised to match special needs based on User Role or the task at hand. Node history and Node revisions are also valuable tools, made available to Content Editors and Administrators via the back-end environment. These can be combined with simple or more complex workflows and roles to facilitate content creation and maintenance.
- Strong SEO Capabilities: Drupal was designed from the ground-up to be search engine friendly.
- Social Media: A number of social media modules help integrate websites with social media sites such as Twitter, Facebook and Google+, providing a centralized way of managing social media profile information and plug-in widgets such as follow and share buttons.
- Theming: Drupal allows the creation of custom themes allowing front-end developers to build fully responsive and accessible websites so that content is seamlessly accessed by desktops, laptops, mobile and handheld devices, regardless of Operating System, Screen size/resolution, Web Browser or assistive technology employed.
- Accessibility: There are a number of contributed modules that allow Drupal developers to achieve high levels of website accessibility, such as theme selectors (allow for different colour combinations, font sizes etc.), improved screen readers perception of the content, support for captions and more accessible controls for media files (videos etc.).
- User Experience: Drupal Core and contributed modules allow developers to implement anything that UX guidelines propose; there is no limit to the capabilities of the platform in this respect.
- Stability & Scalability: Drupal scales effortlessly and is stable even when serving thousands of users simultaneously.
- Blogs: Drupal allows the creation of integrated blogs on your website, with dynamic navigation menus and global theming.
- Newsletter registration and integration: Drupal allows users to opt-in in newsletter lists and seamlessly integrates with newsletter applications (i.e. mailchimp).
- Search: Drupal offers a variety of enhanced Search modules. Depending on your business needs we adopt the corresponding approach to provide optimal content discovery capabilities to your users.

- Google Analytics: the GA code will be added to the new website after deployment.
- Visitor polls with real time results: The Drupal poll module allows your site to capture votes on different topics in the form of multiple-choice questions.

At CIVIC, we specialise in creative technology – choosing the right technologies and components to deliver your promises. Our team strive to produce high quality Drupal solutions and achieve high levels of security, user experience and accessibility as a matter of course. We are experts in building and customising Drupal based websites to cover your business needs. Our team of experts undertakes all stages of website development lifecycle:

- Collecting functional/non-functional requirements.
- Devising specifications document.
- Identification and optimal selection of contributed modules that cover your business requirements.
- Back-end configuration to create all necessary administration workflows, content types, taxonomies, roles/permissions etc.
- Custom responsive and accessible theme development for Drupal using the following technologies (depending on Drupal version, designs and UX requirements): CSS, HTML, JavaScript, React, Angular, Vue.js, jQuery, twig, PHP. All Drupal themes created by CIVIC are cross-platform, cross-device, responsive and accessible themes that follow the most state-of-the-art standards in website development (HTML5/CSS3). This ensures that your application will be fully operational in every modern browser that is capable of rendering HTML5/CSS3 web pages. Additionally, we have expertise in adapting Drupal themes for rendering in older versions of browsers or quickly updating themes to tackle any issues with newest versions browser updates.
- Custom Drupal headless theme development. In this case Drupal is only used as a back-end content management system. Users are not directly connecting to Drupal (i.e. via theme) but to a frontend JavaScript (React, Angular, Vue.js) framework. Thus, the Drupal back-end works as expected, but the frontend is entirely decoupled from Drupal. CIVIC is one of the early adopters of the headless Drupal approach and has already built sites either using fully decoupled or semi-decoupled approaches. CIVIC's decoupled themes also follow the most state-of-the-art standards in website development (HTML5/CSS3).
- Custom module development for Drupal using the following technologies (depending on Drupal version and functional/non-functional requirements): JavaScript, React, Angular, Vue.js, jQuery, PHP, Symfony. Although Drupal has a really active community that regularly contributes modules to tackle common CMS tasks there are some cases where custom module development is needed to cover your business needs. CIVIC has a vast experience in custom module development. We are shortly listing some of the custom modules that we have developed for our customers:
 - o Consume REST APIs of third-party applications.
 - o Expose REST APIs to third-party applications.
 - o Provide SSO capabilities with Drupal acting both as an identity or a service provider.
 - o Custom analytics/statistics when google analytics or other modules are not adequate.
 - o Custom forms.
 - o CIVIC Cookie Control for Drupal.
 - o Custom content moderation workflows.
 - o Custom components to expose content using REST.
 - o Content import from JSON, csv, xml and other structured/unstructured files.

- Content migration from other CMSs or from older Drupal versions. We have successfully completed a number of content migrations either from Joomla, WordPress, Umbraco CMSs or from older Drupal versions using either custom solutions or using proper implementations based on the migrate API.
- Source migration from older Drupal versions. Using our deep knowledge on the development standards of all Drupal versions we can successfully migrate custom modules developed in older Drupal version to latest Drupal versions.

We follow the Development - Staging - Production (DSP) model during Drupal website development. We perform all the development and testing on our development servers. Once the application is considered bug free and complies with your requirements, the latest developments are moved over to the Staging server.

The staging server is a mirror copy of the production server; its primary purpose is to test the completed application on the mirrored copy of production to ensure that the recent developments don't break the live application or other application that co-existing on the production server. No actual development ever takes place on the staging server (only minor tweaking of OS parameters or application settings).

The staging server is the last step before the application is deployed to the Production server(s). Once the application/website has been reviewed on the staging server and all changes have been signed off formally then we can move the final application to the production server(s).

The DSP model is applied for 1) initial development, 2) bug fixes, 3) post-release website enhancements, 4) Drupal security updates, 5) Drupal non-security updates.

Drupal Managed Hosting

It is important that your hosting platform is scalable and secure to allow for peak demand traffic and also provide the peace of mind of knowing your Drupal website is in safe hands. At CIVIC, we offer our own managed hosting services: scalable cloud hosting, dedicated servers, and multi-server infrastructures from our secure ISO27001 accredited Tier 3 datacentres in Edinburgh and Glasgow.

Our main hosting environment is based at Pulsant in South Gyle, Edinburgh, which is currently the Scottish Government's approved hosting supplier. To ensure scalability, resilience and security of your website, we recommend that you consider hosting your site on our general purpose clustered hosting platform.

Benefits of this service include:

- Operational management, monitoring and backup procedures
- Service Level Agreement (SLA) for network uptime, service response time, support and cover, in and out of office hours
- Physical security, resilience, availability, and security of the network
- High bandwidth

Our end-to-end hosting service proposition and the Service Level Agreement which underpins it enables us to offer managed infrastructure services to support both current and future requirements in delivering your web systems. We have built an enterprise level hosting environment to support our clients' business critical systems and ensure maximum 'up time' for their websites and applications. This environment has been designed to create a robust and resilient infrastructure and conforms to current IT best practice.

Our highly secure and robust hosting infrastructure serves both generalist and specialist hosting needs. We also operate a public cluster suitable for websites and applications with fairly common requirements, plus private single purpose platforms and customised infrastructures for those who require it.

There are no single points of failure and business critical hardware is replicated so that it can be deployed immediately if production systems fail. We deliver and take responsibility for a fully managed infrastructure, supported 24/7 from multiple sites in Europe, offering a combined service-desk which incorporates Technical Support, Service Delivery Management, and continuous proactive Quality Improvement.

Load Balancing

We offer our clients the ability to manage traffic by distributing workloads across multiple servers and resources automatically or on demand. This can maximize your workload performance and help prevent overload to help give your users a seamless experience. We employ the industry standard HA Proxy (<http://www.haproxy.org/>) which enables us to offer our clients a number of load balancing options as dictated by their requirements.

IP Level Persistent Load balancing

CIVIC has the capability to perform persistent load balancing using any host in our infrastructure to achieve the best possible performance for the end user. The load balancing takes place at our state-of-the-art firewalls thus reducing the response times by removing the need for a separate load balancing server. The current load balancing technique uses transparent proxying but does not affect the applications running on the application servers at any time. The relative load that each server will take is fully configurable. Support for HTTP header-based load balancing is available. The load balancers use a cookie to store persistence information in the browser.

Firewall

We operate a fully redundant cluster of firewalls that act as perimeter protection for your server. Our firewall cluster conforms to the ISO 27001 standard and is managed by a highly competent team that has decades of experience in the field of internet security.

DDoS protection

Denial of Service (DoS) and Distributed Denial of Service (DDoS) attacks have been on the rise, and are increasingly affecting organisations. DoS attacks are notoriously difficult to protect against, and require that specialised hardware is in place to mitigate them. We offer our clients DoS protection up to 10GBits, as part of our standard service. Dedicated hardware has been placed at the perimeter of our network. This detects attacks and filters them out before they reach our internal network.

Content Delivery Network (CDN)

We also suggest using a CDN, which is a common mechanism for ensuring that websites can load quickly, when experiencing high levels of traffic. While the CDN is not a replacement for proper hosting, it does help in the delivery of the content and improves website performance. By using a CDN for your website, it will:

- Improve the website loading time
- Increase the content availability and redundancy
- Increase security
- Reduce latency times for all users, regardless of their physical location.

A CDN will allow your global audience to access the content of the website, in a quick and reliable way. Our suggestion would be to use the CloudFlare CDN network, as the pricing model is not based on bandwidth. This means that the cost will remain constant, regardless of the site traffic. They also offer a free plan, that allows you to experience the benefits at no cost.

DNS

DNS is often an after-thought for many organisations. As DNS is really the cornerstone of any internet service, we operate our own set of redundant DNS servers that act as the primary and secondary name servers for any of our clients that wish to use our service.

Internal Monitoring

The first level of monitoring takes place from within our firewalls and allows us to monitor every aspect of the service that we provide. Each server is closely monitored in multiple levels. From the CPU temperatures and disk status to availability of the databases and the application servers. This level of monitoring gives us a very fine control over the granularity of the check hence enabling us to diagnose potential problems at an early stage in the fastest possible time.

This level of monitoring can only be performed by CIVIC as it requires access to services that are cut off from the rest of the world through our firewalls. Notifications for any issues that arise is done through email, SMS and Jabber. Furthermore, once the monitoring service detects a type of failure that can fixed automatically it activates the necessary actions to do so.

External Monitoring

Physical Location Provider Monitoring

Our physical location provider also monitors a variety of our services from an external location. However, these are in effect the public services that are allowed to be viewed by anyone in the world like HTTP. No external contractor is ever allowed to pass through to CIVIC's internal network that houses the client data. Notifications in the event of a failure is done through email and SMS.

Third Party Monitoring

CIVIC also uses an external third-party service to monitor the availability of our service. Again, this external service can only monitor the publicly available services like HTTP. This monitoring services performs checks from a number of different locations, UK, Netherlands, Australia, Sweden and the US. In the event of a failure notifications are send through email and SMS.

Backup procedure

To ensure the availability of the client data in the event of a failure we perform daily encrypted backups of every disk on every server every night. All the client data are stored on large capacity disks of high quality to ensure the longest possible life. To reduce the impact of backup disk failure, each night's backups are on a different disk. The backups take place out of business hours to ensure that all the work that happens during a business day gets properly backed up and also to ensure that the maximum performance of the servers during working hours as backups can be a resource-intensive process.

At the end of each backup cycle the backup software produces a list of all the disks and the servers that were backed up. These reports are checked daily by our administrators and monitored automatically by our monitoring and diagnostic system, which notifies administrators of any failure.

Penetration Testing

Applications are often tested before they go live and then forgotten about. As part of our hosting service, we will perform a regular penetration test and provide you with the results. This gives you the peace of mind that even when a new vulnerability is found on your website or application you will be notified in a timely manner so that it can be fixed.

Network

We provide internet connectivity through BGP peering arrangements with at least four separate transit suppliers. We buy transit bandwidth from four separate suppliers. All four are available to customers in our data centres, presenting over four independent network sources. No supplier presents to our network at less than 1000 Mbits capacity. Capacity within the data centres provide for flexibility beyond 1000 Mbits in any of our facilities. No operational restrictions are placed on bandwidth to restrict it to less than this level. Connections to the servers and firewalls will be no less than 1Gbit/s. No operational restrictions are placed on bandwidth to restrict it to less than this level.

Support and Maintenance

Support arrangements are designed to pre-empt any problems before they occur, however when these do occur this Support Level Agreement (SLA) enables us to maintain a service for you that ensures any issues can be resolved quickly and efficiently. In our proposed service the following are included:

- Resolution of issues reported by your users
- Responding to any security alerts and updates
- Patching and configuration of the Content Management System (CMS), database and any bespoke application code to ensure they are stable, secure and responsive
- Internal and external monitoring of the website's availability 24/7/365
- Any CMS issues
- CMS user guidance
- Ad-hoc analytics reports
- Minor text changes and graphic uploads or replacements if requested
- Database management
- Managing backups to ensure that the site can be rebuilt in event of a catastrophic failure
- Identifying potential capacity issues and advising on upgrades
- Patching and configuration of all underlying software
- Physical Security
- All hardware issues
- Unlimited disk space (within reason)
- Unlimited multi-homed data bandwidth connection (100Mbit/sec)
- Daily backups, held for a minimum of 90 days
- 24-hour cover in the event of a complete website failure
- monthly security audit via the Nessus Vulnerability Scanner (<http://www.tenable.com/products/nessus-vulnerability-scanner>)

Drupal Security Updates

Drupal releases security advisories once per month either for core or for contributed modules. All Drupal security advisories are taken under consideration instantly. Depending on the severity of the Drupal security advisory under consideration, the corresponding Drupal contributed modules and core updates are scheduled and applied within 24 hours from release. CIVIC follows the Development - Staging - Production (DSP) model during Drupal website security updates. Drupal core/contributed modules updates including bug fixes/new features are also regularly released. We offer a bi-weekly update policy to install non-security core/contributed modules updates cumulatively.

Accreditations

ISO 9001

Our ISO 9001:2015 certification demonstrates that we operate a robust **quality management** system focused on consistency, continual improvement and customer satisfaction. It provides assurance that our processes are well-controlled and that we deliver services to a reliably high standard.

ISO 14001

ISO 14001 confirms that we have an established **environmental management** system that helps us identify, manage and reduce our environmental impacts. It supports responsible, sustainable delivery and demonstrates our ongoing commitment to improving environmental performance.

ISO 20000

ISO 20000 demonstrates that our **IT service management** processes are structured, measurable and aligned to best practice. It ensures we deliver dependable services with clear governance around incident management, change control and continual improvement.

ISO 27001

Our ISO 27001:2022 certification confirms that we manage **information security** through a formal, risk-based Information Security Management System (ISMS). It provides assurance that confidentiality, integrity and availability are protected through well-defined controls and continuous monitoring.

ISO 27017

ISO 27017 strengthens our information security framework by applying enhanced controls specifically designed for **cloud environments**. It supports secure cloud service delivery by clarifying responsibilities and improving the management of cloud-related risks.

ISO 27018

ISO 27018 demonstrates our commitment to protecting **personal data processed in cloud services**, with controls designed to reduce privacy risk. It provides additional assurance around how personal information is handled, stored and safeguarded in line with recognised privacy best practice.

DCI Cyber Essentials

CIVIC has been awarded the Cyber Essentials Certification and working towards Cyber Essentials Plus, which is backed by the Government and launched in close consultation with the industry. Cyber Essentials was developed as part of the UK's National Cyber Security Programme.

Helpdesk Availability

Our standard helpdesk facilities are available from 09:00 to 17:00, Monday to Friday, excluding weekends and public holidays, for reporting website downtime. We can also provide 24/7 helpdesk availability if this is required. To log a support request:

1. Visit www.civicuk.com/support and log your issue using the form provided
2. If there is an error, please be sure to include the full URL of the page you're on, and the full error message, along with details of the browser that you're using
3. If you require an estimate for the work, please state this in your request
4. Our support manager will assign your request to a member of staff

5. If the piece of work has wider reaching implications, we will exhaust your call off hours, or might be better treated as a discrete project, the request will be passed to your account manager, who will contact you.

When issues are complete you will be notified by email and you can call your Account Manager at any time for an update on support issues.

Response Times

Priority	Response Target	Resolution Target	Examples
1	0.5 working hour	1 working hours	Unavailability of the entire system
2	2 working hours	4 working hours	Unavailability of a key module or major function, causing significant business impact.
3	0.5 working day	5 working days	Problems causing inconvenience, minor disruption or restricting performance.
4	1 working day	As agreed	Non urgent problems causing slight irritation but where workarounds are available; cosmetic or general enquiries for information

Reporting

- **Trouble tickets:** Trouble tickets will be recorded in our ticketing system. You will be provided a dedicated email address that will be used to raise open new tickets. Each ticket has a unique ID enabling you to find the ticket and review activity on the thread. You'll also be CC'd by email on any ticket updates.
- **Server activity:** CIVIC's server monitoring software will create monthly reports on the availability and performance of applications and services. Exceptions and resolutions will be documented in our issue tracker.

Contact

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