

## GovCMS

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**Organisation:** Australian Department of Finance

**Country:** Australia

**Level of government:** Central government

**Sector:** Economic affairs

**Type:** Digital, Other, Public Service

**Launched in:** 2015

**Overall development time:** 3 year(s) 6 month(s)

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# Description

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govCMS is an open source web content management and hosting service developed by the Australian Department of Finance to help agencies create modern, affordable, and responsive websites for users. It demonstrates a new way of thinking about shared services and has become an engine for innovation across Government. There was no new funding, no big upfront investment, and no directive or policy mandate. govCMS acted like a startup within government. Agencies using govCMS are part of a thriving community supported to “create functionality once, and share with everyone” eliminating duplication of cost, time and effort. Today, 38 agencies are using the govCMS platform, representing 6 different jurisdictions. There are 75 live websites and 20 more in development. govCMS has been recognised as a positive example of innovation, winning the “Contributing to a Culture of Practice of Innovation” category at the 2016 Institute of Public Administration Australia: Public Sector Innovation Awards

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## Why the innovation was developed

- Reduce the technology and compliance burden on government agencies while
  - providing a more cost-effective web content management and hosting option.
  - Enable agencies to shift their focus to providing high quality content and services to people.
  - Build communities of digital expertise across all levels of government.
  - Make it easy to collaborate and innovate. govCMS is about tearing down the walls that separate government digital teams across Australia and bringing people together to create community. When we began, many government web teams were locked into expensive, proprietary web management software, often with limited resources to maintain or manage these systems. Small teams of web people were scattered across agencies – all trying to solve the same problems and fight the same battles to comply with the regulations that govern websites and keep up with increasingly sophisticated security and technical requirements.
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## Objectives

Develop staff capacity, Improve efficiency, Improve service quality, Improve user satisfaction, Other

- Collaboration and reuse
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## Main beneficiaries

Government bodies, Government staff

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## Existing similar practices

### Common Web Platform

In other countries' public administrations

New Zealand: Department of Internal Affairs

The Common Web Platform (CWP) is a platform as a service (PaaS) open to New Zealand government websites. New Zealand were generous in sharing their lessons learned with us. As we have progressed through our implementation we have shared our experiences and learnings. govCMS provides similar technical features providing both a ‘Software as a Service (SaaS) and a Platform as a Service (PaaS)

option. The main difference of the govCMS approach has been in applying a community led business model to the delivery of a shared service and, building a culture of sharing and co-development from the outset.

<http://www.cwp.govt.nz/>

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# Results

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## Efficiency

- An end to bespoke work historically repeated by each agency to comply with unique government requirements. Now, each component is built only once, subsequent effort by another agency extends the capability rather than repeating the initial effort.
  - Significant reduction in licensing costs through adoption of open source
  - Economies of scale provide more competitive pricing across all components sourced from the market such as site defence, cloud hosting and compliance.
  - The common tools included in govCMS enable agencies to very quickly and easily stand up new websites.
  - Agencies migrating from disparate platforms can execute quickly through the expertise behind the innovation.
  - Experience in managing emergency migration for agencies in trouble (24hr shift) avoids unnecessary contract renewals on unsustainable platforms.
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## Effectiveness

- govCMS takes away the burden of managing the underlying software and hosting for websites – we protect sites from security threats, keep sites up and running, and make sure there is access to well designed accessible layouts. This frees up agency staff to focus on what really matters creating high quality content and end user experience.
  - The ease and adaptability of the platform gives agencies the time and freedom to experiment with different approaches, without risking the underlying security and reliability of their websites. govCMS builds a common set of technical skills. For government this means for the first time we truly have a surge capability right across government.
  - For people in digital teams they now have skill sets that allow mobility across a wide range of agencies, teams and projects. govCMS has successfully addressed the need among agencies for a powerful web content management and hosting solution. We continue to evolve the product offering in response to demand.
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## Service quality

### Accessibility:

- Many content management platforms present barriers to accessibility for authors. This is evident through either overly complex interfaces that require staff to have advanced knowledge of HTML coding, or accessibility elements are not supported such as being able to add alternative text to an image.
- The Web Accessibility National Transition Strategy Survey 2012, prepared by Finance, estimated that approximately 200 websites across the Commonwealth are managed in raw HTML using tools such as Adobe Dreamweaver. These sites lack the efficiencies that come with using content management systems, making accessibility compliance more difficult.
- The core govCMS software was developed using accessibility and service design principles right from the start. govCMS provides agencies with websites that meet WCAG 2 AA accessibility requirements.
- Agencies are responsible for ensuring that their website remains accessibility compliant whenever content is added or the agency develops their own theme.

### Responsiveness:

- A challenge with older web software is its limited ability to change the appearance of the site, and more of an issue is its ability to display differently on desktops versus smart phones and everything in between.
- We ensured that govCMS was built on a platform that would enable an agency to manage the appearance of their websites, including the ability to display in a responsive manner. govCMS includes responsive designed themes enabling website content to be displayed in optimal format across a wide range of devices.

### Reliability:

- Many agencies don't have the budget or resources to put robust environments in front of their websites to mitigate outages, hacking or pressures from high traffic load spikes.
- Our user research illuminated that single sourcing these elements can be very expensive for agencies in isolation.
- govCMS is built with enterprise grade loadbalancing capabilities and disaster recovery to ensure high quality availability of agency websites. All agencies, regardless of their size, immediately benefit by default.
- The govCMS platform has a website uptime of 99.95% each month. govCMS is proactively tested and maintained to meet government compliance standards and security accreditation and fend off threats to agency websites.
- govCMS provides agencies with Distributed Denial of Service (DDoS) protection, Web Application Firewall (WAF) to detect potential attacks and an enterprise level Content Delivery Network (CDN). Now sites from very small agencies get this level of protection by default.

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## User satisfaction

- govCMS is well regarded, with customer agencies interviewed during post-implementation reviews and general feedback providing strong positive affirmation. One agency representative remarked that “govCMS is the first implementation of a whole-of-government service that has actually delivered on the expectations set and promises made”.
  - The govCMS service has had overwhelmingly strong take-up and has built strong trust with agencies. Our users have told us: • “govCMS has successfully addressed the need for a simple web content management and hosting solution”. • “Finally developing in a proper environment... and that's exciting”. • “Gave us more functionality options”. • “90% of our requirements met, out of the box”. • “Opportunity to be part of something bigger”. • “Provides opportunity for whole of government approaches”. • “Content authors and administrators can do more”. • “Opportunity for reuse with other agencies”.
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## Other improvements

- KPIs
- Deloitte Digital conducted global research into similar services to provide us with projected adoption rates to establish KPIs. They provided targets for conservative, intermediate and ambitious adoption scenarios.
- In 18 months we have achieved these results; • 95 sites are live or in development on the platform • 38 agencies on the platform representing 6 different jurisdictions • We have exceeded the Conservative target for Year 4 • We met our Intermediate target for Year 2 (in Year 1) and already exceeded targets for Year 3 • We have already met the Ambitious target for Year 2
- The Victorian Department of Premier and Cabinet delivered the State Budget on govCMS [www.budget.vic.gov.au](http://www.budget.vic.gov.au) • One of the largest sites (by traffic) in the federal government adopted govCMS [www.humanservices.gov.au](http://www.humanservices.gov.au) • Adoption by medium and large agencies has exceeded all expectations reflecting the trust established in govCMS Agencies have collaborated together, including across different jurisdictions

# Development

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## Design

govCMS was created by 2 practitioners in a government digital team who saw an opportunity to solve common pain points, create inefficiencies and facilitate innovation. We dared to do things differently. From the outset we knew that what we were creating was more than tool or service, that it was a new approach to empower people. We started small, with user needs and used ethnographic methods to create the evidence for this service. We followed with a feasibility study and a cost benefit analysis to prove our hypothesis that it would save the government time and money. We worked out which tasks in managing websites created the most pain, took the most time and could be provided effectively as a common service to agencies. As the idea grew, we iterated, tested and refined with digital teams across government. Now we are in operation we have a variety of iterative feedback loops with our users that continue to drive the direction of the service based on user needs. Design time: 1 year(s)

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## Testing

- During the discovery, design and implementation phases we constantly iterated and tested ideas with users. Early implementation challenges were overcome by doing extensive co-design activities with our key service partner. Both parties worked hard to overcome teething issues such as low local presence, slow approval process and establishing clear lines of responsibility. We managed technical implementation risks by conducting a limited trial with early adopter agencies.
- Early adopters helped us harden operational procedures and the technical environment, better understand customer requirements and prepare for higher demands on the service. They became willing ambassadors and champions, which was critical to the program being embraced by other agencies. In exchange we provided them with lots of extra support and, as they joined the service, we worked alongside them to understand what worked and what didn't. Based on this experience, we refined the service and released it more broadly.

Testing time: 1 year(s)

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## Implementation

### Tools used:

- govCMS uses Drupal open source at its core and we have taken care to ensure that there is no vendor, IP or technology lock-in. It's hosted on Amazon public cloud. Akamai and Cloudflare provide a global content delivery network to mitigate against distributed denial of service attacks. Technical Change Management and Issue Tracking are managed transparently using the open source community's GitHub service. GovCMS has championed openness and transparency wherever possible, even the initial procurement process was openly debated on the Chief Technology Officer blog.
- govCMS is aligned with the Open Government and Government-as-an-API movement, making government information programmatically discoverable and reusable by industry, citizens and other governments. GovCMS manages an online community tool for users who openly discuss new ideas, support each other and contribute to the development of the service. We use Service Design and Agile methodologies to design and deliver.

### Resources used:

- There was no big upfront investment. GovCMS is run on a cost recovery model.
- The original idea was progressed by two public servants on top of their existing workload.
- A small team of 4 was resourced to execute the implementation.
- govCMS is now operated by a core group of 8 and draws upon a larger team for specialist skills as needed. GovCMS uses a modern approach to service delivery.
- govCMS strives to demonstrate its value to government agencies without its use being mandated. This leaves agencies free to make their own value for money judgements and ensures that the govCMS service remains competitive against other offerings
- govCMS ensures that all agency funded improvements are available to the entire govCMS community

Implementation time: 11 month(s)

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## Diffusion

- govCMS is software, a service and an approach that any government can implement. Assuming the agency has the budget and resources to manage their own service, all the elements to make the program work are available to anyone.
- The software code is free and openly available on Drupal.org. We share our documentation, our processes and our methodology with interested governments. Design and deliver with your community – we focused on building the govCMS community around the service.
- We now have hundreds of people working in the community to make things better for everyone. Most importantly, we were able to embed these practices internally, so we have an exemplar innovation process that is repeatable and is being applied to other problems such as radically improving the whole of government collaboration platform.

## Challenges and solutions

- Getting the balance right on governance when experimenting with a novel take on shared services. We settled on a values and principles approach. Our values; Be open, honest and transparent, share your knowledge, don't be greedy, look for ways to help others.
  - Our principles; • Start with the needs of users and build a service that solves their problems
  - Use Agile approaches to design, test and iterate, and incrementally improve the service
  - Foster strong communities, and allow them to actively shape and grow the service
  - Use open source so agencies can leverage the efforts of others
  - Code introduced into the shared environment must be rigorously tested and accepted. You may not do things that break other people's stuff
  - If you build something, you must share with everyone
  - As owners of the service, govern where needed but don't seek to control We constantly challenge ourselves not to automatically reach for a rule or, the rules we have can be condensed into two themes;
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## Partnerships

### Acquia Inc., Akamai, Cloudflare

Other Public Sector, Private sector

Australian government agencies co-develop

functionality on the platform. Acquia Inc. provide our core repeatable hosting components and provide us with specialist architectural oversight.

Akamai and Cloudflare provide site level defence against Distributed Denial of Service attacks (DDoS) and provide global content delivery networks for sites using govCMS.

Leveraging Acquia broad experience in enterprise Drupal deployments has given us a knowledge scale not available within government. This has allowed us to focus on serving the needs of government agencies

alongside a global partner with the capability to host large scale web infrastructure and provide 24/7 support. govCMS conducts the security work necessary to achieve accreditation, manages security operations and incident response. We ensure that govCMS themes are fully WCAG2.0

compliant to achieve accessibility and meet responsive design standards. govCMS builds sites for small agencies especially those in greatest need of a shared service but who often have financial barriers to migrating over to such services. This ensures we are expert users of our own platform.

We also manage the govCMS Drupal distribution on Drupal.org and manage the issues queue on GitHub with Acquia's support. We operate the Change Advisory Board and test the code introduced into the shared environment.

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# Lessons Learned

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## Lessons Learned

- Leverage opportunities the govCMS concept was developed in times of tightening budgets and a shrinking government workforce. This meant that agencies were more willing to consider using a shared service such as govCMS which offered easier procurement and better value for money
  - Our time to market was only possible through an Agile methodology. govCMS would still be a proposal draft under a traditional government project. Following an Agile, iterative approach helped the team manage risk whilst still constantly delivering outcomes
  - Total transparency helps build trust, dispel myths and combat detractors of the program
  - Start with customer needs. govCMS engaged potential agencies early
  - Model and prioritise implementation activities based on the most pressing customer needs
  - Engage partners, both external and internal, in order to quickly increase capability, especially in times of reduced staff
  - Don't mandate the service – just make it compelling
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## Conditions for success

- Create the right culture
  - Be guided by principles not rules.
  - Ruthlessly eliminate any blame culture. Deeply understand user needs Only when we are close enough to their pain to empathise can we offer up solutions that work
  - Invest twice as much time in this activity than you do in creating the business case.
  - Open your mind but don't forget to open you heart – empathy is underrated.
  - Understand the environment
  - Good innovation comes from both empathy for your users and a deep understanding of the strategic context
  - Anchor your ideas to ethics and values of public service Start small
  - Start very small; tell the user story; expand the story to join the dots
  - Get buy-in to investigate feasibility and turn that into strongsupport for action. Constantly talk with users and iterate as you implement Implement with Agile; Let decisionmaking happen in the sprint room – Trust the team to work it through – Increase your qualitycontrol measures at the same time
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## Other information

govCMS demonstrates that the people part of innovation really does drive results. It shows that the right recipe for innovation is to:

- Concentrate on culture first: use methods like Agile to reinforce or even create culture change.
- Combining iterative design and iterative development is powerful.
- Harness ideas from a strong user-centred design ethic that values understanding user needs.
- Increase the reach of innovation by empowering others to join.
- Change is possible. govCMS was a simple idea on how to do something differently. It began with limited resources or support and iteratively created the evidence, the buy-in and resources to execute; now it has burst into the cloud and become an integral part of the Australian government's digital transformation.