

The City of Melville

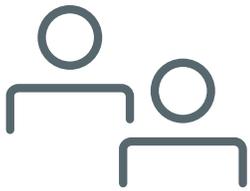
Improving website performance to meet citizens' demands with CA BlazeMeter

CLIENT PROFILE

Industry: Local Government

Organisation: City of Melville

Employees: 700



100,000

RESIDENTS ACROSS 18 SUBURBS



134

TIMES FASTER: WEB
PAGE RESPONSE TIMES

Challenge

The City of Melville is a local government organization in the southern suburbs of Perth, Western Australia's capital city. It is one of the largest local government authorities in the metropolitan region, serving over 100,000 residents across 18 suburbs.

The City of Melville's public website is a critical tool for keeping the public informed about governmental services. This has impacted the ability of the organization to deliver timely information to their community. Recently, the website has been suffering from poor performance during peak usage periods.

The public website was constructed as a sophisticated and multi-tier solution, by using an open source stack consisting of a reverse proxy (Apache Web Server), presentation tier (Joomla) and content repository (Alfresco CMS). The infrastructure environment is virtualized using VMware with servers running Ubuntu Linux. The City of Melville employs a hybrid network architecture consisting of on-site back-end services, in addition to a co-located data center for the web tier.

Solution

The City of Melville engaged Australian CA BlazeMeter partner, Permeance Technologies, to provide specialist ICT development and performance testing services.

After conducting initial testing using CA BlazeMeter, Permeance confirmed that the underlying content delivery system simply did not scale. With a rising number of concurrent users, page load times increased from tens of seconds (slow) to over two minutes (unusable).

The next step was to identify the solution. The City of Melville had made a considerable investment in a complex multi-tier architecture. Therefore, it was decided to limit any impacts on the current solution, by installing a web accelerator in front of the existing platform. Since the content being served was not personalized, it was highly suited to caching, both in a web accelerator and in the user's browser cache. However, the content authors within the organization still required the ability to preview content immediately, without being hindered by caching.

Permeance installed and configured a web accelerator. They chose Varnish Cache because it is a highly performant, reliable and flexible open source product. Appropriate caching rules and proxy logic were created to optimize the delivery of content from the content delivery platform and other internal systems. At the same time, content authors were provided with an alternative hostname to bypass the cache and allow them to preview their content immediately after publishing. The cache was also configured with a grace period to enable content to continue to be served even when the content delivery system was unavailable, thus improving availability.

Some additional optimizations were performed within the content delivery platform to improve its ability to cache content and reduce the communication overhead between the layers of the application.

Results

The City of Melville's public website is now significantly faster than before. As a result, users' satisfaction is higher and they are no longer complaining about performance or outages. Service provision has also improved – content authors are able to keep the community up-to-date with events and important information. Finally, the IT team is able to monitor the performance of the web accelerator and to maintain it, without any additional license costs.

PERMEANCE
TECHNOLOGIES

Permeance Technologies is an Australian based ICT Project and Consulting Service provider headquartered in Perth, Western Australia with offices in Sydney and Melbourne. Permeance was established in 2006 and provides ICT consulting services to both government and private organisations. A current focus is Digital Citizen Engagement. Assisting organisations to improve, and in some cases establish, Digital Engagement.

Permeance currently delivers major projects throughout the APAC region and is a recognised leader in the delivery and support of Web based solutions and technologies such as: enterprise content management; online forms, and workflow processing; digital experience platforms (DXP); enterprise portals; collaboration suites; Web and mobile applications; and bespoke Java application development, again in the private and public sectors.

For more information, visit www.permeance.com.au



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