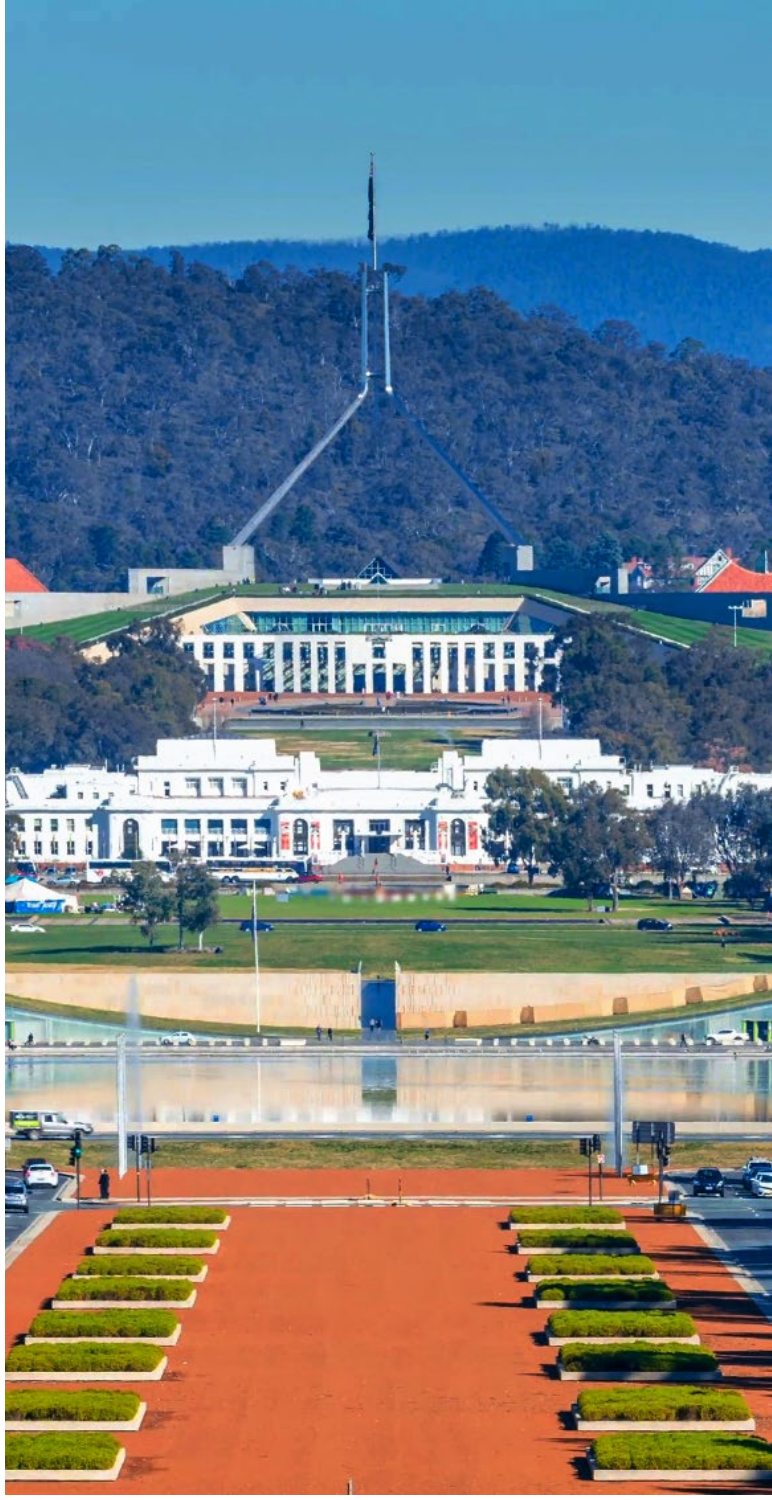
Case Study

Australian Government

Crowdsourced Testing in the Government Sector

Harnessing the power of the crowd for secure software testing in government

Crowdsourced testing in the government sector is a growing global trend, and Australian governments would do well to harness its power. Indeed, some already are. Governments across Australia are undertaking several large multi-million dollar digital programs to deliver various services online to make it easier for residents and businesses to access government services through web and mobile apps.



THE POWER OF THE CROWD IN THE GOVERNMENT CONTEXT

The Australian Government is no stranger to using the power of the crowd either. It's been utilising crowds for many years, from crowdsourcing scientific research assistants, to crowdsourcing corrections to historical newspapers in order to build a free national library, to even crowdsourcing Victorians' opinions on road safety throughout Melbourne's streets and laneways.

Now, as the digital revolution picks up even more steam, and the benefits of secure crowdsourced testing become more and more clear, governments around the world have a huge opportunity. Secure crowd testing services allow governments to enlist secure and vetted crowds, through crowd testing agencies, for software and information technology testing purposes.

BENEFITS OF SECURE CROWDSOURCED TESTING FOR THE GOVERNMENT SECTOR

Have you ever been frustrated with the speed at which government processes move sometimes? Red tape and bureaucracy do not always mix well with efficiency and innovation. This pain point is especially felt in the tech sector, which traditionally moves at an extremely fast pace.

That said, it's extremely important that governments are prudent, thorough, and act with their citizens' and stakeholders' security interests in mind.

Crowdsourced software testing is one way of tackling some of the challenges faced by governments in the 21st century.

Here are just some of the benefits crowdsourced testing offers government and associated agencies:

Through crowdsourced testing, you can:

• Leverage the power and intelligence of the crowd – more people gives you more sophisticated data

• Double the amount of test coverage on your web, mobile, and cloud software applications at 50% of the cost in 50% of the time

But how does crowdsourced testing offer this advantage, you ask?

• Engage anywhere between 30 and 300 testers from our global pool of testers, or from a pool geolocated to your area (instead of just a handful of testers under traditional testing models)

• Ramp up your testing process in only one to two days (instead of two to four weeks)

• Test your software across 25-100 devices (instead of three or four)

• Find hundreds of reviewed and validated unique defects in your software overnight or over a weekend, so your engineers can be ready to fix them first thing the next morning

• Finish the entire testing process within two to five days (instead of two to five weeks)

• Access professional, security vetted testers

• Have your software systems tested by real people – people just like your stakeholders, customers, employees, or citizens • Have your software securely tested on real devices, using real networks and real life environments

WHAT'S REQUIRED IN A SCURED CROWD TESTING FRAMEWORK FOR GOVERNMENT CLIENTS?

Our crowd testing platform and framework is set up with security front-of-mind, with secured IT infrastructure making up the bones of the system.

Our crowd testing platform is built and hosted on the ISO 27001 certified Microsoft Azure data centre in Australia. Our VPN servers are also secured, and hosted on the ISO 27001 certified Amazon Web Services data centre, also located in Australia.

VETTED CROWD – TRUSTED TESTING COMMUNITY

Allowing people from all over the world, or even just your own country, to access your private data and software systems can seem scary at first. That's why our global pool of testers are vetted to various security levels, and we can provide testers from subsections of these levels as determined by you.

Vetted Level	Description
Level 0	Not vetted
Level 1	Top ranking testers; Known testers; 1 to 3 years on our platform
Level 2	Proof of ID & Address verified; Resume screened
Level 3	Cleared online test (functional/ technical testing)
Level 4	Interviewed face-to-face or via skype to verify experience/ qualifications
Level 5	Police Verification/ Security Clearance

LEGALLY PROTECTED - NDA / CONFIDENTIALITY CROWD TESTING AGREEMENTS

It is common practice for us to request testers to sign legally protected NDA and confidentiality agreements, ensuring your software, application and data, remains safely protected.

Vetted Level	Description
Level 1	Agreed to crowdsprint's legal terms and conditions, including non-disclosure and protection of confidential intellectual property
Level 2	Signed our paper-based non-disclosure / confidentiality agreement
Level 3	Signed a client / project specific non-disclosure / confidentiality agreement

TECHNICAL SECURITY

Finally, in order to make sure all of our security bases are being covered, several layers of technical security, in addition to the already discussed human security, are built into the system.

Vetted Level	Description
Level 0	Available on the internet (Pilot / Prototype; Alpha / Beta / PVT)
Level 1	Application level across credentials
Level 2	Additional browser level access credentials (HT access)
Level 3	Crowdsprint VPN Connectivity
Level 4	Crowdsprint VPN Connectivity with security token or logging or IP level access restriction rules
Level 5	Customer specific VPN connectivity and additional security measures or customer authorised local crowd access centres in Melbourne, Sydney, Canberra and Brisbane

AUSTRALIAN GOVERNMENT CROWD TESTING CASE STUDIES – STATE AND FEDERAL

Having undertaken crowd testing projects at multiple levels of government, crowdsprint is familiar with the requirements and challenges facing local, state, and federal governments, and associated agencies.

STATE GOVERNMENT CROWD TESTING CASE STUDY

A state government agency required functional crowd testing of a service management application to be hosted on the cloud.

Using a crowdsourcing platform hosted in Australia, the project used vetted, professional testers also located in Australia. All testers signed confidentiality agreements and were granted secured access credentials.

The test used 20 devices per test cycle, each of which took just five days to complete. Each test cycle resulted in 75 test cases plus exploratory testing.

Before defects and reporting was made to the government agency, crowdsprint's managed service ensured every test case and defect was reviewed for validity. Duplicate defects that had been reported by testers were also removed from reporting.

At completion of the successful test cycle, crowdsprint provided full test case execution results, a validated defect log, and a test summary report.

FEDERAL GOVERNMENT CROWD TESTING CASE STUDY

The Australian Federal Government required functional crowd testing of new Android, iOS, and web applications. To do this, they enlisted crowdsprint to help lead a functional test case execution, involving 2500 test steps of the applications, which were to be used by field staff.

The test cycle required cross-browser testing, as well as device compatibility testing. Once initial defects were reported and bugs were fixed, crowdsprint ran further test cycles to ensure issue-proof software. Each test cycle enlisted 20 vetted testers from Australia, each of whom had signed confidentiality agreements. All test cycles used secured VPN connectivity and each took just five days to complete.

Crowdsprint's managed service ensured every test case and defect was reviewed with duplicates removed before submitting the final test summary report, validated defect log, and test case execution results.

SECURE CROWD TESTING AND DIGITAL GOVERNMENT INITIATIVES ARE A MATCH MADE IN HEAVEN

While traditional testing can take long periods of time, and can push the limits of even the most flexible of budgets, most crowdsourced testing services such as crowdsprint offer the opposite. If your new software, application, or web development needs could benefit from fixed pricing, guaranteed outcomes, managed services, and secure systems and testers, then crowd testing could be the perfect choice.

As large digital initiatives at all levels of government increase in number and complexity, crowdsprint's secure crowd testing framework provides peace-of-mind, huge budget savings, and a superior service to traditional testing methods. It's good policy.

Concerned about security in the software testing process? Contact crowdsprint now for a free consultation.