TechnologyOne resource paper

Enterprise SaaS: Government's new route to the cloud

Cloud adoption is an imperative for government agencies. Those that get it right have a rare opportunity to focus on their core missions and deliver innovative and efficient digital services.

The message is clear: Government information technology is moving to the cloud, but many agencies still struggle to chart a path for their own cloud transformation. However, a major change in the delivery model for enterprise information and communications technology (ICT) services, the delivery of enterprise software as a true cloud service, is poised to help them overcome that challenge.

Federal and state governments have identified substantial benefits from the adoption of cloud computing and delivered a clear message to agencies that cloud is the required future state of public ICT.

The Department of Finance's Australian Government Cloud Computing Policy states agencies must adopt cloud where it is "fit for purpose, provides adequate protection of data and delivers value for money."

However, many government leaders are still struggling to chart a cloud migration path for their organisations. Beset by complex information technology (IT) infrastructures, pushback from IT management, vague cloud definitions and conflicting advice from vendors and consultants, the road ahead has been anything but clear.

It's time to go back to basics. Information technology is, or should be, a tool to help people and organisations achieve their goals.

However, over time, many organisations have found their IT tools have become an IT trap. Complexity made them difficult and expensive to change, slowing government's ability to exploit new opportunities offered by the internet, universal connectivity and mobility. Worse, agencies have struggled to respond to new demands flowing from stakeholders, users and customers.

Valuable data that could improve service provision and automation is too often locked away in silos and inaccessible to internal users, let alone external customers. More and more resources are being consumed by growing IT departments acting tactically to maintain internal services, rather than strategically to build external ones.

Management frustration with this has been palpable for years, and has only grown as IT became more and more strategically important. A 2014 McKinsey study, for example, found CEOs were too often confounded by persistent unresolved problems in IT, failure to deliver promised fixes and too frequent unexpected and unpleasant surprises.

The cloud conundrum

Escaping this trap requires major changes to the way enterprise software is delivered and architected. From its inception, cloud computing represented a significant advance over hosted solutions. But while it looked like the way forward, at first it presented as many questions as answers.

Users had to grapple with seemingly complex deployment alternatives, like pure cloud versus hybrid cloud. They had to break down processes and workloads to determine which should be maintained internally and which could safely be deployed to the cloud – and how to integrate these workloads and processes.

They also had to understand which vendors were truly committed to, and capable of delivering, a new model of robust cloud computing that suited their needs.

This is changing fast with the advent of Enterprise Software as a Service (ESaaS), which promises low-friction cloud migration for many agencies.

Think of it this way: when you use electricity, you don't have your own power generator to make it. In the same way, the ESaaS cloud model delivers just the software, as a service. That software is configured, not customised, to meet your organisation's specific needs.

ESaaS allows customers to share massive economies of scale with other users while retaining their own unique and valuable processes.

Contrast that with hosting. Users lose economies of scale and fail to eliminate complexity because they still buy the components of their environment separately. Hardware, operating systems, software, databases, integrated components, physical space, power and more have to be procured and managed.

With ESaaS all of this is seamlessly taken care of. For users, costly IT infrastructure maintenance is largely eliminated. All that's needed is a device and an internet connection.

Risks associated with internal systems glitches are eliminated, along with upgrade cycles. Your software is always up-to-date. You won't be stranded on an old software version and left facing an expensive migration to the latest stack.

Instead of addressing IT challenges, you can focus on your customers and your core business. Some have settled for hosting their existing applications externally, rather than the true cloud model offered by ESaaS. This is at best an expensive interim stage, a tactic that cannot deliver true transformation.

Because hosting providers do not develop the software they are managing, most of the fundamental advantages of cloud computing are lost. Imagine Google running massive data centres but not developing its own software.

Security is always an important concern, and with a series of enterprise hacks and the proliferation of state-sponsored threats, that has only increased. Just as ESaaS offers access to the latest, most powerful software every time a user logs on, it also ensures the latest security protections, to ISO standard.

Many organisations struggle to deliver that in the cloud. With increasingly constrained internal resources the task will only become more challenging.

Under an ESaaS model, all of these advantages come with one point of accountability. Instead of an endless blame-game when things go wrong, one vendor stands up to take responsibility for the entire technology stack.

Mandate for change

Central and state government chief information officers (GCIOs) in Australia have universally backed cloud as the way forward, mandating 'cloud first' approaches to procurement to drive innovation and support change.

"The Australian Government recognises that the community expects government services to be responsive to their needs and available where and when they want them," says the Australian Government Cloud Computing Policy. "Key to realising this vision is the effective use of ICT by government, including the adoption of cloud services."

Thus, agency leaders – CEOs, CFOs and CIOs – are charged with negotiating a path for their organisations through the complexity of their legacy technologies and to reinvent themselves in the cloud.

To date, most agencies have worked towards cloud transformation from the outside in, deploying non-core and peripheral systems or adopting SaaS alternatives.

However, at the core of these organisations lies enterprise software that delivers a wide range of functionality, usually in modules covering core financial management, human resources, customer relationship management, asset and infrastructure management and more, all built on proprietary code bases. Any cloud deployment that aims to be transformative must include these applications as a matter of priority. For many, that appears neither easy nor cheap, requiring the implementation of new versions of existing software, which will again need to be customised to fit the agency's activities and processes.

This simply reintroduces the complexity these solutions were bought to eliminate.

Why Enterprise SaaS is truly transformative

ESaaS can drastically simplify and speed an organisation's cloud migration.

ESaaS solutions, like TechnologyOne's OneGovernment solution, offer a suite of enterprise applications built natively for the cloud. More importantly, they are built on one standard code base that immediately answers around 80 per cent of a government agency's needs.

The other 20 per cent is delivered by configuring – not customising – the software. In contrast to most hosted enterprise software systems, the code base of ESaaS software is standardised across all users and is upgraded in the cloud at regular, carefully managed intervals.

As part of an ESaaS solution, agencies buy cloud computing power and storage to meet their base needs, rather than over-provisioning on hardware to cope with peak capacity requirements at high cost. That's because cloud infrastructure is flexible and can be dynamically provisioned to cope with changing user demand.

Expensive disaster recovery, backup and restore capabilities that used to require separate mirrored datacentre capacity are also provisioned automatically.

Technology One's ESaaS model includes the cloud environment, software licences, support, maintenance, and ongoing management and monitoring, says TechnologyOne Industry Manager for Government, John Swords.

"It's an annual fee for state-of-the-art cloud applications, availability, security, and infrastructure. Customers don't have to manage it but still have control over it. That's a big difference from hosting, where you still need to pay for someone to manage upgrades and so forth. We take control of that in the cloud environment."

Delivering for stakeholders

Federal and state governments are demanding agencies reduce costs and increase efficiency while maintaining service delivery to the public. At the same time, connected customers are demanding digital and mobile services, and staff members are demanding mobile access to core applications to deliver field service and support flexible work practices.

Hosting existing enterprise software externally won't deliver the benefits required; only ESaaS can meet current demands and offer the flexibility to adapt to future needs. TechnologyOne's OneGovernment, for instance, enables mobile access through the browser on any chosen mobile device using the latest version of the web's core display language, HTML5.

ESaaS is truly transformative, offering automated upgrades running standard code hosted on cloud infrastructure. This allows

organisations to focus on their core mission of service delivery rather than on system maintenance.

Through ESaaS, resources formerly used to manage infrastructure and software – to 'keep the lights on' – can be reassigned to improving service delivery though online and mobile channels and to process automation, a change sometimes referred to as 'bi-modal' IT.

"Instead of doing the mundane functions of keeping IT rolling, you are moving to a new mindset – how to drive more value, deliver better business outcomes and deliver better services more effectively," says Paul James, TechnologyOne General Manager, Cloud.

A cloud transition strategy

Once executives have committed to change, planning and implementation are the keys to success in any cloud transition project.

The first phase is to have a clear view of what success will look like – the future state – and to clearly define the current state. Every organisation is unique and will develop its own unique path to transition based on its existing applications, systems and requirements. A 'lift and shift' approach – placing current applications into a hosted environment – won't deliver true transformation.

Applications that can be moved to the cloud easily will be the first to move. The viability of custom-developed applications also needs to be assessed. If they are not available through ESaaS, they may be able to be moved into a hosted environment.

James says there are several broad steps in a transition.

"We work with the organisation to understand the integration architecture, and work out an approach to get the customer to a better place.

"Businesses that plan their move to the cloud have an enormous strategic advantage, they can take advantage of the benefits of cloud that normal business can't. They can move fast and innovate quickly."

For many agencies, getting to that better place will require a new way of accessing the latest, most powerful and most reliable core software modules in the cloud through elastic Enterprise Software as a Service.