

A Briefing  
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## How Far and How Fast? Comparing Three Governments' Progress in Cloud Computing

"In a lean fiscal environment, organizations look for ways to take existing resources and use the latest advances and tools to do the seemingly impossible: improve and expand services, while cutting costs. It is no different with the Federal Government."<sup>i</sup>

Those words, written in 2011 by U.S. Federal CIO Stephen VanRoekel, cut to the heart of why governments worldwide are looking to the cloud to host the information technology services they provide for and on behalf of citizens.

In this report, we look at how policymakers in three countries – the United States (U.S.), the United Kingdom (U.K.), and Australia – have moved from strategizing to action when it comes to enabling government services with cloud computing. All three governments have encountered challenges as they have wrestled with new procurement models and complex issues of data security, but all three are convinced that long-term benefits are there for the taking, in the form of cost reductions and new efficiencies.

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### Allure of Cost Savings

When IT services are hosted on a shared, internet-based platform – ‘the cloud’ – not only are hardware assets utilized more efficiently (with follow-on benefits for the environment), but also the time and effort required to manage them is reduced. When services and applications are based in the cloud, any authorized user can access them, regardless of that user’s physical location or the device they have on hand, be it a desktop PC, laptop, smartphone or tablet.

For governments around the world working to increase transparency and spend taxpayers’ money more wisely, those benefits can make a substantial contribution to their efforts. It’s a “no-brainer,” as Adrian Scarfe, an IT professional working within the United Kingdom’s Ministry of Justice recently blogged on the U.K. government’s official cloud computing website.<sup>ii</sup> “Cloud computing is so easy to understand that even simple folk like me get the idea,” he wrote.

But when it comes to exploring the opportunities of cloud, “the public sector is well behind the private sector,” according to a March 2012 study of government adoption worldwide.<sup>iii</sup>

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- *Exploring the Cloud*,  
KPMG

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Researchers found that the progress of government entities significantly lags that of their for-profit counterparts by 9 to 13 percent. Based on surveys of 429 government executives and managers in 10 countries, as well as 808 executives in the private sector, they report that only 12 percent of government executives say that over 10 percent of their agencies' overall annual IT resources were allocated to cloud in 2011.

But by the end of 2012, researchers anticipate this figure to more than double to 28 percent.

"Like other potentially transformative innovations, cloud will take some time for users to fully understand its full potential and get past its initial mystique, build and make it work, prove and develop its credibility, and operationalize and move it to broad adoption," say the report's authors.

"Momentum is building, but governments remain cautious," they say.

Here, we look at three countries, united by a common first language but located on three continents – the U.S., the U.K. and Australia – for signs of momentum and caution.

## United States: Purchasing Power

Since the departure of former Federal CIO Vivek Kundra in August 2011, the work of implementing the Federal Cloud Computing Strategy that he proposed continues under his successor, Stephen VanRoekel. Key to that is enforcement of the Cloud First policy, under which federal agencies are obliged to consider cloud-based options first when planning new applications and services.

In a December 2011 White House blogpost, VanRoekel reviewed the year's successes: 79 services identified by federal agencies as good candidates for moving to the cloud; 40 services successfully migrated; and 50 legacy systems eliminated as a result. Cloud computing, he noted, "has become an integral part of the government's IT DNA." But he acknowledged that assessing and authorizing cloud services had proved burdensome on federal agency resources, involving "multiple steps that take anywhere from six to 18 months and countless man hours."

VanRoekel's office launched the Federal Risk and Authorization Management Program (FedRAMP), a standardized approach to security assessment, authorization and continuous monitoring for cloud products and services. Testing of vendors is scheduled to start in June 2012, managed by the General Services Administration. By using a FedRAMP-approved cloud service provider, agencies can hope to save between 30 and 40 percent of the costs of assessing cloud services, according to VanRoekel.

Also with the goal of making cloud procurement more simple for agencies, the CIO Council published a guide to cloud service procurement, *Creating Effective Cloud Computing Contracts for Federal Government*, in late February 2012. "Since the Federal Government holds the position as the single largest purchaser in this new market, Federal agencies have a unique opportunity to shape the way that cloud computing services are purchased and consumed," say the report's authors.

## United Kingdom: Targets Set

U.K. government IT projects have a long and inglorious history of running over budget and past deadline – and sometimes being scrapped altogether. As a result, policymakers have found themselves in the unenviable position of choosing between sticking to what they know, or moving to a newer, but more uncertain cloud-based future.



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-U.S. CIO Council



The idea of the “G-Cloud” – a government-wide secure cloud computing network – was first mooted back in mid-2009, under Gordon Brown’s Labour administration. Despite a change of government in May 2010 that saw an uneasy Conservative/Liberal Democrat coalition take power and embark on widespread public-sector cuts, the concept has survived. In fact, the G-Cloud took centre-stage in the coalition government’s Government Cloud Strategy, published in October 2011, and its first fruits have started to emerge.

As in the U.S., the U.K. government is now urging a “public cloud first” approach to procurement, with a view to saving as much as £340m (around \$539m) by 2015. Unlike the U.S., however, it has not set a cloud spending target – but it is aiming to increase by at least 50 percent its information and communications technology (ICT) resources from the public cloud by 2015.

The launch of an online marketplace for services in February 2012 fulfills a major G-Cloud target, according to Cabinet Office minister Francis Maude who heads that strategy.

On the CloudStore, those in charge of IT procurement at both national and local government agencies can browse details and pricing information on 1,700 cloud services from 258 suppliers in four categories: infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), software-as-a-service (SaaS), and specialist services such as configuration, management and monitoring.

The CloudStore itself is hosted on Microsoft’s Windows Azure cloud platform – and, ironically, went offline for some hours due to an Azure service outage just days after it launched.

While the suppliers on CloudStore have been approved, most of the individual cloud services on offer have not. The idea is that, to lower procurement costs government-wide, the first agency to choose a particular service from CloudStore will steer the supplier through accreditation in an ‘accredit once, use everywhere’ system. That means all subsequent agencies can adopt it without further checks, according to G-Cloud Program Director Chris Chant. A second wave of services is scheduled to be added to CloudStore in April 2012.

### Australia: Risk Averse

Compared to the U.S. and the U.K., the Australian government’s stance on cloud computing has been “slower to develop and more conservative,” according to a recent report by Steve Hodgkinson, an Asia-Pacific-based analyst with global IT market research company Ovum.<sup>iv</sup> When the Australian Government Information Management Office (AGIMO) published its Cloud Computing Strategic Direction Paper in April 2011, it made it clear that it believed only non-sensitive information was suitable for migration to cloud-based services.

Even in its draft form, the advice the paper contained was slammed by the Australian Information Industry Association (AIIA) for overplaying the risks of cloud computing. “Over-emphasising data sovereignty and possible loss of control will play to agencies not wanting to change the status quo and this may compromise higher level aims to reduce costs and increase efficiencies,” the AIIA’s Cloud Computing Taskforce said.

Since then, the government has drafted three “better practice” guidelines. After lengthy public consultation, these were published in February 2012 and aim to explain the privacy, legal and financial considerations to take into account when planning and procuring cloud strategies.



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- Steve Hodgkinson,  
Ovum



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In other words, there's no 'cloud first' policy in Australia, yet, Australian government agencies are adopting the cloud. The Bureau of Statistics, for example, has built a private cloud for statistical analysis. The Department of Immigration and Citizenship has conducted an e-visa pilot using Google's online translation tools. The Maritime Safety Authority also uses the cloud to host a shipping registry.

"As cloud services, particularly those of the leading Australian ICT providers, mature we expect to see the procurement policy settings of federal and state government shift to more positively embrace cloud services as they have in other countries," says Hodgkinson.

Clearly, the full promise of the cloud is not yet being fully realized – even in three nations like the U.S., U.K. and Australia that, by any global comparison, are favored by economic prosperity, political stability, and have a robust ICT infrastructure and a broad IT skills base.

But the opportunity to streamline their IT footprint, reduce costs and achieve greater scalability and responsiveness will appeal to governments worldwide.

Experts conclude: "The question isn't whether governments will adopt the cloud or not, but how far and fast will they go?"

By Jessica Twentyman

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<sup>i</sup> Stephen vanRoekel blogpost, "A Year of Change in Federal IT," 08 December 2011. <http://www.whitehouse.gov/blog/2011/12/08/year-change-federal-it>

<sup>ii</sup> Adrian Scaife blogpost, "A No Brainer," 23 March 2012.

<sup>iii</sup> KPMG Report, "Exploring the Cloud: A Global Study of Governments' Adoption of Cloud," February 2012. <http://www.kpmg.com/global/en/issuesandinsights/articlespublications/pages/exploring-cloud.aspx>

<sup>iv</sup> Steve Hodgkinson, Ovum, "Why Government Agencies Need the Cloud," February 2012. <http://www.telstra.com.au/business-enterprise/download/document/business-ovum-government-cloud-whitepaper-17-feb-2012-aus.pdf>