

DEFENSE IN THE CLOUD

Five principles
making the case
for cloud



When General “Stormin’ Norman” Schwarzkopf said his Desert Storm victory and minimal losses “can be directly attributed to the excellent intelligence picture we had on the Iraqis”,¹ he joined a host of battlefield leaders who have recognized the importance of having the right information at the right time.

In today’s digital world, that principle is truer than ever. Whether undertaking theatre operations abroad or pursuing security efforts in their own countries, defense agencies need access to timely, accurate and comprehensive data. And the mass of available data is growing by the day. Technological advances in areas such as remote electronic sensors, cybersecurity, and surveillance by satellites and drones, are generating huge volumes of data, creating new challenges for human analysts who are struggling to keep pace. What’s more, to manage, protect and make the best use of all this new information, defense agencies must boost storage capacity and analytical processing power. Such investments place further strains on operations whose budgets are already under fire while service demands are growing.

Until now, defense agencies have been cautious about the cloud. But cloud computing could be the differentiator in achieving next-generation defense. It can be easier, cheaper and more secure than existing siloed systems. And better able to keep pace with the demands of modern defense. Indeed, as optimizing operations becomes a strategic necessity for defense agencies across the world, it is no longer a case of whether to use cloud, but how.

What is cloud computing?

Cloud computing is the dynamic provisioning of IT capabilities, whether hardware, software (SaaS), or services from a third party over a network. It offers a delivery model with increased operational and financial flexibility and reduced maintenance and support. Cloud has three core models: public, private or hybrid.



CLOUD EFFICIENCIES

Cloud requires a new way of thinking, especially for defense agencies where national and global security is at risk. And cloud technology is no longer nascent. An Accenture survey of 2,000 executives found an overwhelming majority (95 percent) who said their organizations have a five-year cloud strategy in place. And a similar number (89 percent) who agree that implementing cloud strategies is a competitive advantage which helps enable them to leverage innovation through agility.²

The efficiencies and cost reductions that cloud offers are well documented: less need for IT systems support and infrastructure and more time and larger budgets for other operational initiatives. The attractiveness of this proposition is not lost on defense agencies. These organizations are experiencing competing demands: managing high-volume, high-diversity and high-sensitivity information while simultaneously freeing their people from the complexities of data management to concentrate on core missions. In peacetime, access to information must be watertight: security around plans or discussions is essential. But in times of armed conflict, data becomes the lifeblood of operations. It must flow freely and, ideally, securely, while recognizing a degree of managed risk may be necessary.

There are many examples of the private sector using cloud in a secure way. The rapid rise of eCommerce shows that retailers and suppliers have been able to manage their customers' financial information securely by applying the right governance, systems and processes. Defense agencies are not ready to embrace the risks and opportunities of cloud in quite the same way. But, with an active and pragmatic approach that minimizes threats, they could be.

A combination of digital disruption and increasing citizen expectations for faster, more informed communications adds to the pressure to change. Agencies need to be better connected, moving beyond their separate systems to exchange data with allies and other systems across the world. Cloud is the enabler of this shift. What's more, it is a simpler, more cost effective and potentially more secure option than the systems that defense agencies currently run themselves.

Some defense agencies are already forging ahead with cloud initiatives:



The United States

The United States Department of Defense recently launched a series of cloud initiatives aimed at improving mission effectiveness and cybersecurity in a reengineered information infrastructure.³



The United Kingdom

The United Kingdom Ministry of Defence – in common with the UK Government as a whole – has adopted a “cloud-first approach” under which purchases through the cloud are expected to be the first option considered by public sector buyers of IT products and services.⁴



Australia

The Australian Government launched its Cloud Computing Policy in 2014, requiring government agencies to adopt a ‘cloud first’ approach where it is fit for purpose, provides adequate protection of data and delivers value for money. The Australian Cyber Security Centre also provides guidance on secure cloud computing, including a list of Certified Cloud Services.⁵

When discussing how cloud can modernize and streamline government IT, Acting Chief Information Officer Terry Halvorsen of the United States Department of Defense stressed the importance of data distribution: “I think what you’ll have in 10 years is a lot fewer physical facilities, much more virtual cloud data that, from our standpoint, is accessible on whatever the new technology brings.”⁶

ACHIEVING CLOUD SUCCESS

While no two organizations' journeys to the cloud are identical, many of the issues that need to be dealt with are similar. The case for cloud requires defense agencies to address the following five principles:

- 1. Do more, do it faster and do it cheaper**

Defense agencies are already realizing significant speed, cost and agility benefits from cloud technologies, including “thin provisioning” where storage capacity is constantly realigned with current needs. Cloud can also free up skilled IT staff to perform higher-value activities, by helping to automate complex yet repetitive tasks.
- 2. Establish data sovereignty**

Take into account the legal constraints for data restriction around national borders. Set up cloud within your own country. Cloud computing can facilitate the secure transfer of information across missions, between forces and among allies, boosting the ability to respond quickly and effectively—while enhancing efficiency, interoperability and collaboration.
- 3. Grow awareness**

In the future, a blend of cloud, mobility and analytics will take situational awareness to a new level. Data will be collected, shared and accessed from a vast array of sources and devices, and fed into portable cloud ‘containers’ to support better-informed in-theatre decision making. Ultimately, this data can be used to help improve situational awareness for defense agencies, both at HQ and at satellite locations.
- 4. Improve logistics and supply chains**

Defense agencies manage complex, mission-critical supply chains. When combined with mobility, analytics and advanced sensor technologies, cloud can vastly improve the efficiency and security of these processes, giving unprecedented control and visibility into the supply chain and reducing the risk of counterfeit goods and equipment.
- 5. Be resilient**

To maximize operational security, defense agencies have historically built siloed systems, with different branches of the armed forces having completely separate IT resources. Cloud computing can strengthen overall security by reducing the risks of individual errors or weaknesses in each silo, while ensuring consistent security standards across the entire organization.

CLOUD IN THE NOW

The environment in which defense agencies operate must adapt to the world in which we live. They must leave behind outdated IT systems and cumbersome procurement processes in favor of a new way of working. Yet there is a marked difference between recognizing something's potential and acquiring a deep understanding of its true possibilities from large-scale implementations. As a result, third parties who have experience in delivering state-of-the-art cloud projects, alongside deep defense skills, can help to ease the transition to this new way of working.

Cloud is too good an opportunity to miss. Defense agencies must understand it, embrace it and live it if they want to become the digitally enabled defense organizations of the future. Now is the time, not only to plan, but also to act – and realize the rewards that cloud has to offer.

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