

**REVOLUTIONIZING
GOVERNMENT
FACILITIES
MANAGEMENT
WITH THE CLOUD**



Industry Perspective

Building a Future in the Cloud

Facilities management in government is nothing new. The U.S. government owned and managed buildings and assets well before Thomas Jefferson signed his name to the Declaration of Independence. However, today's facilities managers have a resource that Jefferson and his fellow Founding Fathers could never have imagined: cloud computing. Imagine how much more efficient Jefferson could have been if he'd had the power to manage his Virginia farm remotely while serving in the Continental Congress in Philadelphia.

To understand the benefits that cloud computing brings to facilities management, GovLoop talked with Steve Beard, Senior Principal of Global Enterprise Asset Management for software maker Infor.

It might surprise citizens to know that the federal government owns, leases, or manages more than 275,000 buildings around the globe. Those facilities have an annual property operating budget of \$30 billion.

"The government needs a viable solution that will help them commission, track, monitor, maintain, and retire those facilities and other assets," said Beard. "Additionally, the solutions need to be secure, reliable, and technologically current. Those are all value propositions of the cloud."

Five years ago, President Obama called cloud computing an emerging technology that could transform government. He encouraged agencies to consider going cloud-first for all of their pilot projects. And since 2010, the government has seen cloud move from an emerging technology to a cost-effective and highly secure standard for business going forward. The shift is due in large part to the launch of the Federal Risk and Authorization Management Program (FedRAMP), the security guidance created through the collaborative efforts

of the General Services Administration, the National Institute of Standards and Technology, and the Department of Defense, among others. FedRAMP provides a compliance framework within which the vendor community can secure authority to operate for their unique products and services running in the cloud.

For Beard, the pairing of facilities management and proven cloud technologies makes perfect sense: "Facilities management applications like Infor's Enterprise Asset Management (EAM) suite delivered as a preconfigured deployment in the cloud work because they allow facility directors and their teams to access best-of-breed, commercial off-the-shelf solutions, along with cloud-based data storage and processing power, which increases efficiencies."

This industry perspective will help you better understand the process and the benefits of cloud computing and facilities management, and will address:

- An overview of the cloud and facilities management
- The top benefits of adding cloud to facilities management
- Government's biggest cloud hurdles
- How enterprise asset management is transforming the business of government
- The future of government facilities management

The public sector is under increasing pressure to deliver results while cutting facilities management costs. Cloud adoption is no longer an if, but a when: It's now viewed as a given when it comes to planning for the future.

The Cloud & Facilities Management

The easiest way to understand how cloud computing can impact facilities management is to think of the cloud as a deployment methodology.

“Imagine what homemaking would look like if you never had to go grocery shopping again,” Beard said. “What if all you had to do was order your food from an online service, any time of day or night, and in any amount you wanted? That service in turn would also be responsible for maintaining your refrigeration system. The service provider would determine how many refrigerators or freezers you needed, and it would be responsible for keeping those devices operational. The homemaker would never have to replace another filter, fix a broken icemaker or change another light bulb.”

In essence, the homemaking system would determine how to store the food and how to organize it so that it would always be available for the homemaker to find and retrieve when needed.

“A cloud-based facilities management solution functions in much the same way,” Beard explained. “The cloud is a service that assumes the responsibility of assimilating, maintaining, and securing the technology platform an organization needs to manage and run its data.”

The agency still controls and owns the data, just like homemakers own their food. But all the underlying infrastructure — the hardware, the networking, and the security systems required to administer the data — is managed by a third party who guarantees its performance through a service-level agreement.

The facilities management cloud service allows agencies to migrate from manual processes that track assets via spreadsheets or in disparate systems. Additionally, a move to a modern facilities management solution, deployed in the cloud, can transition the government’s asset management strategy from one that is reactive to one that is more proactive. A reactive approach to facilities management essentially means fixing assets only after they fail, which can be costly and disruptive.

“A reactive approach to maintenance actually costs the government a lot more than a mature approach to maintenance management,” Beard said. “But a predictive or preventive approach to maintenance management would allow agencies to catch problems earlier and fix assets before they fail, preventing services from being disrupted.”



Benefits of Adding Cloud to Facilities Management

While the homemaker might not yet have a self-service refrigerator, the cloud is already available to government organizations, and is having a major impact on the management of its buildings and assets.

Beard noted four main reasons agencies are — or should be — considering cloud solutions for facilities management.

1

COST

This might seem obvious, but Beard insists cloud computing doesn't simply provide cost savings; it actually changes the way government buys services. With cloud computing, the cost of running an application is transferred from a capital expenditure to an operational expenditure. Because the government is "renting" IT services and applications from a contractor, it doesn't have to worry about long-term upkeep or providing services far into the future. The government just buys the services it needs at the time they're needed. "The government can preserve or allocate capital for other priorities, instead of spending that money on IT infrastructure," explained Beard. "The IT infrastructure is hosted and maintained by the cloud service provider — they incur the capital expense. Because the government pays only to use the software and to store data, the costs become a more predictable and manageable operational expense."

3

AGILITY

A cloud service provider's technical environment is scalable, which means that agencies who subscribe to cloud services can scale up or down more quickly and at a lower cost than with a self-managed, on-premises deployment. "Agencies get out of the business of having to procure or get rid of hardware and infrastructure as the size of their organization changes," said Beard. "Governments simply pick up the phone to order more or fewer services from the cloud service provider."

2

INNOVATION

Cloud consumers can keep their technology current and take advantage of innovation through vendor-supported upgrades and implementation accelerators. Historically, government has maintained its own infrastructure. Agencies have had to manage moving or migrating from release to release on their own — an expensive and time-consuming proposition for government. "However, by using a cloud service provider to support those upgrades and keep the technology up-to-date, agencies are able to leverage more innovation and stay current without allocating staff, resources, or time to manually upgrade each system," said Beard. "This means government can take advantage of the best products on the market and keep in step with technology innovations over time."

4

SECURITY

Cloud service providers like Amazon Web Services (which Infor uses for its facilities management solutions) employ best-practice security standards, policies, and procedures. "AWS provides unparalleled data protection for government customers," said Beard. "Included in that security suite is a disaster recovery program. Those services enable an immediate response to things like outages, daily backups, and data replication. AWS offers an advantage in the area of security and preparedness that the government can't provide on its own."

Overcoming Hurdles in Using the Cloud

However, the government's move to the cloud for facilities management isn't without its challenges. Beard noted that while the obstacles are by no means insurmountable, they are real, and need to be addressed before government can fully transition to using cloud technology as its primary platform for facilities management or any other software solution.

The most prominent challenge? Security. While it might seem contradictory to view security as both a benefit and a challenge for government, Beard noted that the distinction comes down to how agencies actually view their data.

"Agencies need to decide what data is mission-critical. Some types of data are more mission-critical than other types," he said. "It's up to the government to decide what security provisions need to be put in place by the cloud service provider. (That is the purpose of FedRAMP, in the first place). Agencies have to decide who can see the data and — equally important — who has access to the physical environment where the data resides. Security policies, procedures, and personnel need to be carefully vetted in a robust service-level agreement with the vendor in question." When agencies use a CSP, the agency renders the control to a third party. It's like give the keys to your house to a neighbor. It takes due diligence, trust and a committed partnership.

The real challenge with security in the cloud has less to do with protecting the data while it resides in the cloud; it's more about deciding what information should actually be moved to the cloud. "It remains incumbent on agencies to rigorously weigh their

data governance options in making the distinction between what types of data need to be secure," explained Beard.

As with data security, the challenge of creating a robust disaster recovery plan also lies with the agency, who must ensure provisions for such in a strong service-level agreement with the cloud provider. "Again, each agency has to decide if the cloud service provider's plans, policies, procedures, and technical infrastructure and locales are sufficient to guarantee business continuity in the case of an emergency. Agencies have to determine how strong the protections are within the service-level agreement and the extent to which those protections are negotiable," said Beard.

The final and most pressing hurdle Beard addressed was the human talent challenge. "Administering a next-generation IT model like the cloud requires a different set of skills," he noted. "Implementing cloud means redefining some job tasks and responsibilities. Employees will need to learn new skills in the same way bookkeepers had to learn new skills when accounting systems transitioned from paper journals to automated financial management systems."

In the end, some of the government's major roadblocks to a robust cloud facilities management solution stem from a lack of concrete requirements on the part of agencies. Beard noted that once those requirements are ironed out in service-level agreements, "we will see an increase in cloud adoption."

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- **Steve Beard**, Senior Principal of Global Enterprise Asset Management at Infor

Enterprise Asset Management & More

The move to cloud goes a long way toward improving enterprise asset management for government. EAM allows organizations to commission, track, monitor, maintain, and retire their physical assets — everything from buildings and equipment to fleet vehicles.

“Assets can be fixed, movable, or linear networks,” Beard explained. “You have to think of any physical asset that the government owns. All of those types of assets need to be acquired and maintained. They also need to be depreciated and eventually retired. Enterprise asset management helps organizations do that seamlessly.”

Building tenants often take the operational complexity of the buildings in which they work for granted. Roofs, exterior walls, windows, interior partitions, and engineering systems all need to be managed. “All of those different types of assets or asset components have to be well maintained, not

only to insure the comfort and safety of the building for tenants, but also to meet a bevy of regulatory requirements,” said Beard.

By choosing to manage those assets off-premises versus in their own data centers, agencies are relieved of the responsibilities of having to administer the technology infrastructure. The cloud service provider takes care of everything, from the hardware and networking infrastructure to providing managed services, including the provisioning and the deployment of the application.

Infor’s new suite of EAM solutions for facility management offers baked-in cloud computing components. “Infor’s Cloud Suite Facilities Management comes bundled with a number of other technologies that really empower the organization — like mobility, integration technology, collaboration capabilities, and business analytics,” said Beard.



A New Era of Government Facilities Management

Obviously, the Founding Fathers could never have conceived of cloud computing for facilities management. At a time when electricity was barely understood, and technological innovation involved flying a kite in a thunderstorm, the idea that a building could be managed remotely and wirelessly would have been incomprehensible.

However, with the cloud-based tools and resources available to the public sector today, a true transformation in facilities management is possible.

“The cloud gives agencies with tight budgetary dollars the ability to improve and grow. It makes government more nimble, and it allows government to focus on its mission — governing — rather than running data centers,” said Beard.

Adding cloud technology to an agency's facilities management solution saves time and money for government customers. That's time and money that the government can re-invest in other value-added services for the citizenry. Those are definitely changes the Founding Fathers would support.



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About GovLoop

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For more information about this report, please email us at: info@govloop.com

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1152 15th St NW, Suite 800
Washington, DC 20005

Phone: (202) 407-7421 | Fax: (202) 407-7501

www.govloop.com
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