

Governing in the Cloud™



Government agencies are looking for ways to reduce spending and cut costs now more than ever. Many at the local, state and federal level are turning to cloud solutions for a lower-cost alternative to traditional programs that can eliminate the burden on IT staff and resources. The adoption of cloud-based solutions for the public sector is expected to triple over the next five years, primarily due the rate at which agencies achieve ROI over traditional enterprise software.

This paper will examine how cloud-based technologies, like Granicus' solutions, are being leveraged by government agencies to improve citizen services while increasing organizational efficiency.

White Paper

Why the cloud works for government

The American public is accustomed to getting what they need online, from home or over mobile devices. Government agencies are responding by making the availability of public data online a priority.

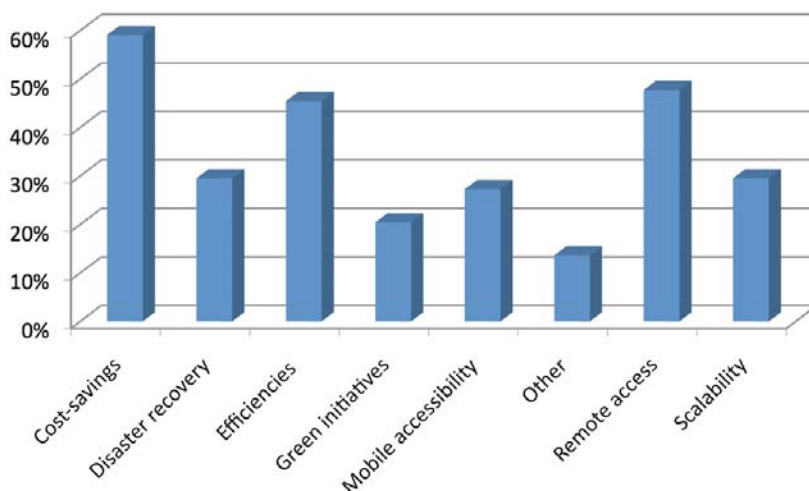
Open and participatory government begins with easily accessible public information. But how are

governments effectively and efficiently getting public data online? More and more public sector organizations are turning to cloud-based software, or Software-as-a-Service (SaaS), to automate data publishing. Secure and scalable Web-based tools help government agencies cost-effectively improve operational efficiencies while simultaneously creating a more open and transparent organization.

1 It's Cost-Effective

There's no question that government agencies are continuing to lower costs wherever possible. We recently surveyed public sector IT professionals and discovered that the number one reason why government organizations want to migrate applications to the cloud was to reduce costs.

What were the main factors in moving applications to the cloud?



What is the cloud?

The term "cloud" has broadly become synonymous with "the Internet" and the two are often used interchangeably. The National Institute of Standards and Technology (NIST) states that the cloud model provides access to a shared pool of resources that's readily available to users over the internet and can be provisioned with minimal effort¹.

¹ (Mell & Grance, 2011)

It's Cost-Effective (cont'd)

Similarly, former U.S. Chief Information Officer, Vivek Kundra, issued a Federal Cloud Computing Strategy in February to encourage the adoption of web-based applications saying that this model “can significantly help agencies grappling with the need to provide highly reliable, innovative services quickly despite resource constraints”².

It's easier for governments to budget for SaaS over traditional software solutions. Instead of large up-front investments, SaaS models are typically based on monthly subscriptions which allow customers to essentially “pay as you go”. This model can further help governments easily adopt new solutions and stay within budget without being locked into contracts for out-dated technologies in legacy environments.

Since 2001 Granicus has offered a SaaS platform of applications for managing public data online. We were one of the first in our industry to do so because we knew this model could ultimately help the public sector as much as it had for the private. When the economy took a turn in 2008, we reexamined our service and pricing model and began offering lower cost monthly subscriptions. Agencies could now spread more costs over the year rather than pay all at once. And they could still predict and fix costs for budgeting purposes

because services are offered at a standard monthly fee. During a time when budgets are so tightly scrutinized, this offering alleviates some of the financial pressures government organizations are facing. Now, customers can begin operating on a fully hosted platform for managing government meeting data for less than \$400 a month.

Next Step from Virtualization

Virtualization can easily be seen as the first step towards resource-pooling and cost-savings in a cloud environment. The State of Utah recently moved several servers into a virtual environment in an effort to reduce spending. As a result, the state has reportedly saved over 25% in operating costs³. Consolidating infrastructures removes the IT overhead of managing multiple pieces of hardware and reduces energy use, among other benefits. While moving to a virtual environment produces a positive ROI, migrating applications to the cloud can further reduce overall IT expenses. All capital costs for hardware and software, plus support costs, labor, maintenance, and energy use are all deferred to the service provider, reducing an organization's operational costs.

² (Kundra, 2011)

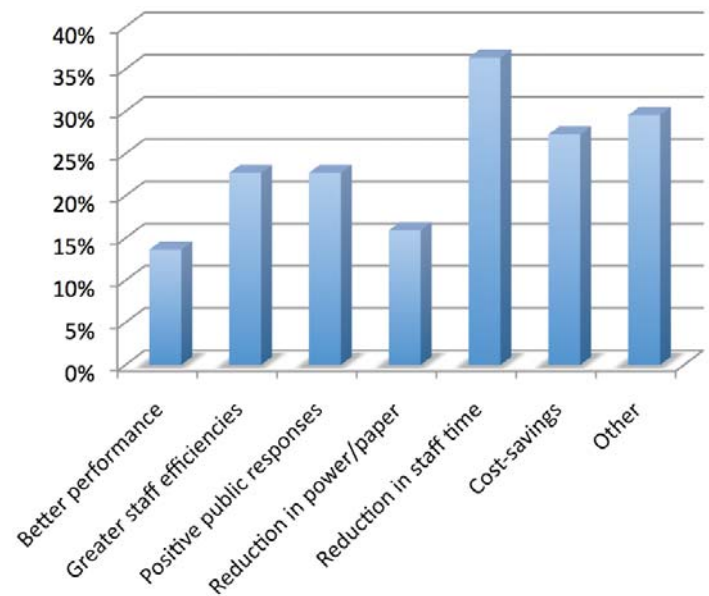
³ (Heaton, 2011)

2 Improved Operational Efficiencies

While most cost-savings can be directly tied to improved efficiencies, like reductions in staff time, there are other noteworthy operational improvements that cloud platforms and applications offer. Take for example the size of a small municipality's IT department. What are their daily responsibilities? Can the department afford to add additional applications without adding head count? They can if the application is hosted in the cloud. Service providers have teams of experienced developers and technicians whose sole focus is to ensure that an application is up-to-date and running successfully. All service upgrades are handled by their staff, eliminating an organization's investment in internal resources. Government IT staff can focus on mission-critical tasks rather than managing application environments.

The Tennessee General Assembly significantly improved operational efficiencies by leveraging cloud-based services. Before implementing this model, they struggled to maintain online communication and storage of public meeting data and had one full-time position dedicated to re-encoding and posting hearings to the Web. "Our previous method for storage was manual and relied on a person to accommodate the workflow," says Steve Kriegish, Director of Legislative Information Services for the Tennessee General Assembly. After contracting with Granicus, the Assembly eliminated manual and redundant processes, reducing operational staff time overall.

What results have you seen since moving applications to the cloud?



With multitenant offerings vendors make back-end updates for all customers at once. Each customer benefits from the same system improvements without having to shut down operations to install or update programs. We release updates in a set maintenance window during the lowest usage hours. Late on Friday evenings allow us to make updates without any unnecessary disruptions to services.

Offer citizen services faster

Depending on the software, traditional deployment methods could take up to a year to fully implement but cloud-based software has a much shorter timeline. Shorter deployments mean quicker delivery of public services and faster return on investment. At Granicus, we can initialize fully cloud-based applications instantly.

3 Government Data is Secure

Many people argue that the cloud isn't a secure location for data storage and that information can be compromised. But as this model continues to improve, so too does security. Kundra recently stated that cloud security fears are exaggerated⁴. Even technology giants like Amazon, Google and Microsoft now offer cloud platforms designed specifically for sensitive government workloads that comply with stringent regulatory requirements. In addition to security standards, Granicus' platform and applications were built solely for the public sector. This vertical-market focus allows customers to leverage an infrastructure shared only between government agencies.

The alternative to storing data in the public cloud is storing it locally at your facility or in expensive offsite data centers. Internally housed servers are typically placed in onsite storage rooms with minimal safeguarding, non-redundant backups and require staff time to maintain and support. This is especially challenging for smaller organizations where the cost to provide security, hardware and upkeep, or the cost to place servers in an offsite facility, is financially prohibitive.

Plus, facilities are susceptible to local disasters and without backups, data can be compromised. Take for example the City of New Orleans whose IT staff spent 18 months developing an internal system for

electronic meeting management. Before it could be released, Hurricane Katrina hit and rendered the system virtually unusable. As a result, they contacted Granicus to provide a safer model. "We couldn't afford to spend staff time and internal resources re-building something so vulnerable," recalls Valeri LeBlanc, Legislative Technical Consultant to the City of New Orleans. Granicus' disparate data center locations and redundancy gave the city a secure alternative for managing government data.

The question often comes up when speaking with prospective customers, "who owns the data if something should happen?" The simple answer is: you do. We offer local storage of streaming media content and backup everything to the cloud, ensuring the utmost reliability and availability of your information.

Granicus and leading cloud providers host content in sophisticated, redundant, SAS 70 Type II certified data centers. These types of facilities offer 24/7/365 monitoring, high security, and detailed disaster recovery plans. Plus, they're equipped with a dedicated team of Database and System Administrators as well as backups and firewalls in a controlled environment that locally-housed server cannot match.

⁴ (Thibodeau, 2011)

4 Increase Workforce Productivity

Staff can access cloud-based technology anytime, anywhere with an internet connection and work as they would from the office. Consider how weather conditions can affect productivity. We spoke with Dan Shea, IS Manager for the City of Superior, WI and he explained that Granicus' model helped staff continue to work despite winter conditions in northern Wisconsin. "In January in Wisconsin you can't always get into your car and drive to the government center. We needed a flexible alternative," said Shea. Now, staff can connect from home or on the go to applications via the Web without hindering productivity.

In the unfortunate event of a natural disaster, remote access through the cloud allows staff to operate from anywhere in the world. Government processes can continue without interruption, regardless of unforeseen circumstances.

Remote access gives staff flexibility for completing tasks in a familiar environment. Patrice Olds, City Clerk for the City of Walnut Creek, told us that one of the biggest benefits of Granicus' cloud-based tools is that following a meeting she can head home, "put on fuzzy slippers, clean up raw notes, and publish draft minutes before I go to bed."

When you and your staff are forced to do more with less, every minute counts. Accessing critical applications anytime anywhere can make a significant difference in productivity.

5 Cloud Services are Scalable

By leveraging a shared infrastructure, government agencies can expand or reduce services as needed and adjust to meet demand. Customers pay for only what they need but are fully protected by pool of shared resources should something unforeseen occur.

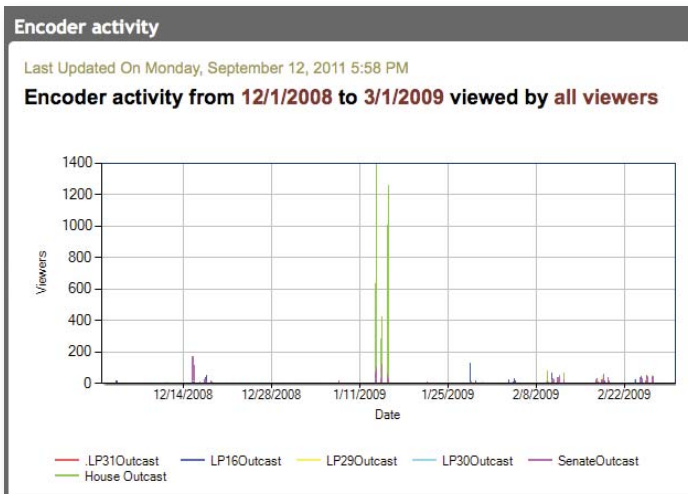
Consider the cost-effectiveness of building a network to accommodate an application that automatically adjusts to spikes in usage. The fixed costs for servers and hardware alone could wipe out an entire allotted budget. Then, there are the soft costs for fluctuating bandwidth. Instead of paying out of pocket for each spike, governments can rely on the cloud to provide services regardless of increases in consumption. With Granicus, organizations can leverage a resource pool shared only between other government organizations.

Granicus solutions are designed for scalability. We believe that customers shouldn't be responsible for paying more as citizens, staff or media accessed government information online. That's why our platform and suites are priced at a consistent monthly rate that does not spike based on activity. Instead, customers utilize a pool of scalable resources if additional processing power, bandwidth or storage is needed.

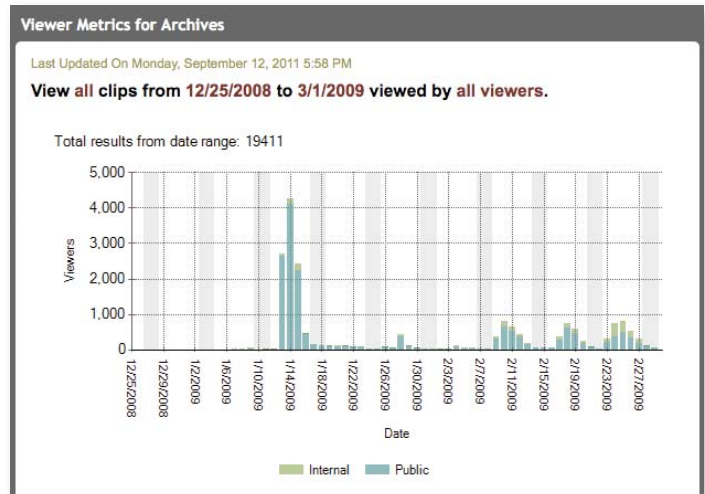
One cloud-based service that's subject to fluctuate is online video. Some events may receive thousands of hits while others attract far less interest. At Granicus, we've witnessed this volatility in viewership for over 10 years. When the Tennessee General Assembly first joined our customer-base, they received a record-breaking 1,400 simultaneous live hits to a single event. Streaming at a bit-rate of 300Kbps, we estimate that every 5 viewers equaled 1.5Mbps of internet bandwidth, or a single T1 line. 1,400 viewers would have used approximately 420Mbps of internet bandwidth which would require the equivalent of 272 T1 lines. "There was no way we could have handled the demand on that day had we continued to support this on our own," says Kriegish.

Because the Granicus platform was built to adjust to spikes, the agency was able to leverage resources shared between nearly a thousand government agencies. As a result, viewers experienced no video latency. How much bandwidth does your organization have? Are you equipped to handle loads of this size without compromising network reliability and user experience? And if you can accommodate for spikes like these, how much are you paying for unused bandwidth? Your organization could save thousands of dollars by moving to the cloud and cancelling extra bandwidth.

Tennessee General Assembly's Spike in Viewership



Spike in Live Viewership



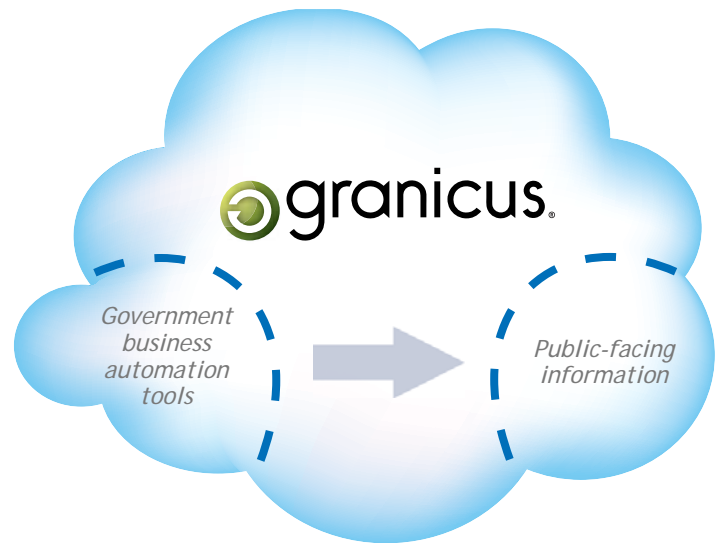
Spike in Archive Viewership

How to get started with the cloud

Move Public-Facing Information First

One of the easiest items to consider moving to the cloud is citizen-facing information, like public meeting data. To comply with local and state open meeting or Sunshine laws, most government organizations are putting this information online. But for many public agencies, publishing data requires manual and redundant workflows. Information is often transferred between multiple systems, affecting various departments and staff members.

Granicus developed cloud-based automation tools that are built into public meeting workflows, making clerk and IT roles more efficient while simultaneously driving data availability. These applications have been tested and perfected by thousands of government staff. As a result of using our automation tools, customers can publish videos, agendas, minutes and allow citizens to track legislative files and public office all through the organization's website without affecting their processes. This information is accessible over mobile devices helping to further reduce Freedom of Information Act (FOIA) requests and free-up staff time.



Open Datasets - Spur Innovation for Free

Applications built with government data are a great way to provide critical information that residents want, and governments have, for free. With data already in the cloud, it's easy to offer open datasets and empower innovation. Through Application Programming Interfaces (APIs) developers can pull data directly from public websites and build programs that better engage citizens, promote transparency, and more.

Many cities have recruited developers for free to create citizen-facing applications leveraging their public data. Take for example, Washington D.C.'s 311 service which allows residents to submit services requests, including uploading images, from their smart phones. Proprietary datasets, on the other hand, do not allow outside developers to easily connect to your data and provide innovative citizen services.

Choose an Experienced and Innovative Vendor

When looking for a cloud solution, choose a secure and trusted vendor whose focus and commitment is to the public sector. Since our inception, Granicus has solely partnered with government agencies at the local, state and federal level providing automated tools to increase operational efficiencies and improve government transparency.

Development of cloud tools and services has always been a focus for us. We know that the future of technology will continue to be more cloud-centric and geared towards mobile devices. We will continue to invest resources in enhancing our capabilities in these areas.

As a government-only cloud infrastructure, customers can take comfort in knowing that the architecture behind their services is shared only between other government organizations. Some of the nation's prominent municipalities like New Orleans, Los Angeles and Chicago, along with one of the largest governing bodies in the world and nearly 1,000 other government organizations, rely on and trust the Granicus cloud for content storage and availability.

Service characteristics

Get information on the vendor's uptime statistics and compare these results across industry standards. Examine a company's market penetration and their customer base. Ask about client retention and satisfaction ratings to get an idea of their commitment and focus on customers.

This year alone, Granicus has experienced nearly 99.99% uptime. We're proud to have a 99% client retention rate and 98% client satisfaction rate. We have fulfilled more than 109 million live and on-demand requests for streaming media.

Pace of innovation

Look at what the company has developed and released to customers over the past year. Ask about their trajectory and how they're staying innovative. Are they building for the future or building to catch up? What is their plan for mobile development?

Open systems

Consider whether or not the vendor offers an API and how this can be leveraged for additional value for staff and citizens (see Open Datasets above). At Granicus, our systems are interoperable. Our foundation, the Open Platform, includes an API and SDK to help organizations integrate existing solutions or develop applications using public data.

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Twitter Follow List

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About Granicus

Granicus, Inc. is the award-winning cloud platform provider for government transparency, efficiency, and citizen participation. Our solutions are designed specifically to help government agencies establish meaningful connections with citizens while reducing operational costs. Granicus has been recognized the past four years for being one of the fastest growing company private companies in the U.S., San Francisco, and the Silicon Valley by Deloitte LLP, the San Francisco Business Times, and Inc. Magazine.

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