Government Executive





The promise of cloud computing—where software and data storage are managed remotely via large, efficient server banks and customers purchase them as a service—is well documented. By cutting the cables linking office computers and their basement servers, agency executives suddenly are in a position to re-

imagine how they do business; how and where their employees work; and the ways they communicate and share information with workers, customers and stakeholders.

Vivek Kundra, the former (and first) federal chief information officer, directed agencies in 2011 to begin

investing in Web-based IT operations. To better understand the trend, Government Executive recently examined five major cloud migration projects agencies are undertaking. They show the tremendous potential the technology has for reshaping government operations.



GENERAL SERVICES ADMINISTRATION

GSA was the first federal agency to move its entire 17,000-employee staff to a single cloud-based email system in June 2011. Six months after starting the mammoth task, Chief Information Officer Casey Coleman's strongest takeaway was about pacing. The government management agency's phased migration to the new Google Apps for Government email system initially began with 100 information technology workers, then 400 staffers agencywide, and finally

everyone else. That plan proved crucial to refining GSA's training process, Coleman said.

During the second stage, IT staffers were able to hone their training for employees with specific needs, he said, such as attorneys who have to retain certain emails and ensure they are easily searchable, and administrative assistants who manage their bosses' email accounts. Those first two migrations, however, convinced Coleman's staff that separating the move into more than three phases would do more harm than good, especially if large numbers of employees had to spend weeks sorting through two email systems and different sets of passwords and preferences.

GSA used its transition experience to inform a blanket purchase agreement that will smooth the way for other agencies making the move to cloud-based email. The agency is on track to meet its goal of saving about \$15 million from the email transition over five years, the CIO added.



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA needed an email and collaboration tool that would serve its 25,000 employees, contractors and other associates around the world, many of whom must be able to work at sea and in the air. IT planners also wanted telework and video chat capabilities. To unify messaging applications, NOAA contracted with Earth Resources Technology Inc., in Laurel, Md., to link the agency's systems using Google Apps for Government.

A chief challenge for NOAA was syncing schedules on a new calendar system, said Chief Information Officer Joseph F. Klimavicz. To prevent problems

with the calendar system and other collaboration tools, the agency has taken an incremental approach to the migration, beginning with internal agency users first. "We want to have a process in place before we fully turn on all the functionality. We don't want collaboration to get out of control to the point where it becomes more difficult to find information," Klimavicz said.

SECURITIES AND EXCHANGE COMMISSION

The SEC needed an IT system that could keep up with the 90,000 tips, complaints and referrals inundating the agency annually. With 3,700 employees in 12 offices nationwide and most IT services outsourced to 1,100 contract employees, SEC Chief Information Officer Thomas Bayer sought a creative approach to the problem. He migrated the Office of Investor Education and Advocacy to Salesforce.com, a Web-based system for interacting with the public. The cloud service allowed employees, regardless of their location, to accept customer queries and manage the workflow to make sure they were answered in a timely manner, Bayer said.



The cloud system, which was completed in mid-2011, has improved efficiency at the watchdog agency by electronically streamlining public contacts via email, Web forms, postal mail, fax and telephone. SEC reported the new system has reduced the time it takes to resolve cases by up to 75 percent.



U.S. ARMY

After a brief, congressionally imposed hiatus, the Army is restarting its enterprise email migration to a cloud service provided by the Defense Information Systems Agency. Mike Krieger, deputy chief information officer, said in a blog post Feb. 17 that Army Secretary John McHugh certified the service's acquisition approach for enterprise email, noting it 'is in the best technical and financial interests of the Army, and provides for the maximum amount of competition possible."

The service kicked off the email project, based on Microsoft Exchange Server 2010 Enterprise Edition, in February 2011. The Army planned to shift 1.4 million unclassified and 200,000 classified accounts by the end of 2011, but had transferred only 300,000 accounts by then. Ultimately, the Army expects to save \$100 million a year by switching to the cloud-based enterprise email system, which also will provide employees more capability, including an increase in mailbox storage from 100 megabytes to 4 gigabytes, a significant boost given that 1 gigabyte of storage can hold as much information as roughly 20,000 pages.

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

NARA's Office of Government Information Services had to find a way to help its minuscule staff of seven handle the enormous and unpredictable workflow stemming from citizens seeking access to documents under the Freedom of Information Act. "We knew really early on that we needed a system to handle our caseload—and we had no idea how big that caseload would be," said OGIS Director Miriam Nisbet. The small office contracted with technology firm Active Network to build a self-service website for citizens who need help resolving FOIA requests.



By going to the cloud, OGIS achieved needed scalability, an adaptable infrastructure to drive the public interface and the flexibility to engage seamlessly with existing National Archives systems. The deployment cost \$400,000, including \$100,000 for ongoing maintenance, and took 15 months to complete. IT planners say they see potential for significant savings on the operational side.



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