Customer demands and aggressive development timelines forced systems integrator SAIC to find ways to become more agile, both in research and development and in the services it provides to customers. The company sought a secure cloud solution that could support infrastructure as a service and easily migrate workloads to and from its private cloud and a public cloud. The solution also had to be compatible with SAIC’s and its customers’ existing infrastructures. The VMware on- and off-premises software-defined data center architecture, which includes the VMware vCloud® Air™ solution and VMware vCloud Government Services™ provided by Carpathia, meets those requirements, enabling SAIC to remain competitive.

Science Applications International Corporation (SAIC), based in McLean, Virginia, provides information technology, system integration, and e-business solutions worldwide. These solutions include big data and analytics, cloud computing, cybersecurity, IT managed services, networks and communications, and software and mobility services. SAIC’s primary customer is the United States government, but its 15,000 employees also deliver systems engineering and integration offerings to large-scale government and commercial projects across the globe.

The Challenge
SAIC prides itself on delivering effective, competitive technology services and solutions to its clients. But as the period from initial requirements to final design continues to shrink, the organization had to look for ways to deliver those services and solutions more quickly and cost-effectively.

“Our IT experts needed a more rapid development platform for creating differentiated solutions and offerings for our customers,” says Coby Holloway, SAIC’s vice president and service line director of cloud computing technologies and business transformation services. “We had to become more efficient.”

The company investigated cloud technologies as a way to rapidly deploy services and develop solutions. It already had a well-established private cloud environment based on VMware vSphere® software. The next step for SAIC IT experts was to build a universal lab for its globally disbursed workforce. Providing remote workers with infrastructure as a service (IaaS) was key to streamlining access to the development tools they need to create unique, cost-effective solutions for clients.
BUSINESS BENEFITS
• IaaS delivers new capabilities to R&D team in minutes rather than weeks or months.
• FedRAMP-secure solution is compatible with existing customer investments.
• Seamless data migration to and from the cloud streamlines day-to-day processes.
• Ability to automate network administration tasks saves time, reduces costly errors.
• Platform speed and flexibility enable SAIC to deliver unique solutions more cost-effectively.

“The majority of cloud-based platforms require a substantial amount of work to translate an existing virtual machine into a format to be used on another cloud,” Holloway says. “That reduces the agility, flexibility, and speed with which we can adjust our IT service offerings for our end users.”

The company needed a solution that would make it easier to quickly migrate workloads and data from the private cloud to a public cloud and back again as needed. Additionally, it needed to provide a cloud service platform for its customers and support customers’ demands for IT as a service. SAIC System integrators also needed a highly secure solution that could bring hybrid cloud and IaaS capabilities to its public sector clients, including the U.S. government.

The Solution
In 2013, SAIC began building its software-defined data center architecture based on VMware products and technologies. The architecture, which includes VMware vSphere with Operations ManagementTM technology and VMware vCloud Suite® software, makes it easier for SAIC IT experts to deliver support infrastructure to its internal research and development communities. The architecture also facilitates the IaaS and cloud services that the company’s clients demand.

“We added vCloud Suite to help provide the infrastructure-as-a-service capability and the multicloud management that we knew our internal and external customers really wanted,” explains Holloway. “Then we needed cloud services providers to manage through that platform, and vCloud Air was an obvious choice for us.”

SAIC already had a robust IT infrastructure utilizing the full VMware virtualization and orchestration technologies, so the vCloud Air implementation was a natural fit. It enables the organization to migrate workloads and data sets between public and private clouds with minimal IT engineering and administration. The solution was quickly deployed and made accessible to SAIC designers, engineers, developers, and other members of the research and development team.

Finally, to address customer requirements for a secure hybrid cloud solution, SAIC turned to FedRAMP-accredited VMware vCloud Government Services provided by Carpathia. The Federal Risk and Authorization Management Program (FedRAMP) is a government initiative that provides security assessment, authorization, and continuous monitoring for cloud products and services. Because the solution has FedRAMP accreditation, Holloway says, “it’s our lead-in solution for delivering hybrid cloud IT to our government customers.”

Business Benefits
Since rolling out its IaaS infrastructure based on the VMware architecture approach to the software-defined data center, SAIC has found the increased speed, agility, and flexibility it needs to remain competitive. “It provides our system integrator with a mechanism for tightly coupling the delivery of IT services with the infrastructure elements that make up those services,” says Holloway. “It allows our system integrators to respond to degradations in IT service performance immediately without making adjustments on the fly to the underpinning infrastructure.”
“Now we can respond rapidly to customer requests, and we can create unique, differentiated solutions more cost-effectively.”

COBY HOLLOWAY
VICE PRESIDENT AND SERVICE LINE DIRECTOR
FOR CLOUD COMPUTING TECHNOLOGY AND
BUSINESS TRANSFORMATION SERVICES,
SAIC

VMWARE FOOTPRINT
• VMware vCloud Suite
  – VMware vCloud Air
  – VMware vCloud Director
  – VMware vRealize Automation
  – VMware vCloud Government
Services provided by Carpathia
• VMware vSphere
• VMware vCenter™ Orchestrator™
• VMware Professional Services

The addition of automation and life-cycle management provided by the VMware vRealize™ Automation™ solution also makes the company more agile in delivering IT services. It used to take weeks or even months to go through a formal acquisition process to deliver new infrastructure to the company’s engineering, science, and development community. Today, thanks to SAIC’s new IaaS capabilities, that process happens in minutes.

“The flexibility and development speed provided by the integration features of the platform allow us to more effectively pursue certain opportunities in the market,” says Holloway. “But now we can respond more rapidly to customer requests, and our IT experts can create unique, differentiated solutions more cost-effectively, which means our IT experts can bring those solutions to our customers more cost-effectively.”

The company also can automate network administration tasks, which saves time and reduces costly errors. “One of the main improvements our system integrators have seen in the use of software-defined data center technology is the ability to reduce wasted hours. The time we spend routing a piece of paper or manually updating systems—all of that can be automated,” Holloway explains. “Our IT experts have seen reductions in configuration errors and an improved consistency in the way we secure our IT environment.”

The combination of the self-service catalog functionality provided by the vRealize Automation solution and the cloud services provided by vCloud Air technology has made it easy to move workloads as needed. An added bonus is that internal and external users were already working with VMware products and technologies, so transitioning to the new capabilities was simple.

“For our customers, vCloud Air represents an opportunity to create synergies between an existing vSphere install base and the investments they have already made in operational procedures,” notes Holloway. “It’s familiar, and it’s less expensive and faster to deploy than some of the other cloud service provider options that are available.”

When it comes to government work, the addition of VMware vCloud Government Services provided by Carpathia makes it easier to address security concerns while offering hybrid cloud services to public sector clients. “Having FedRAMP accreditation for that platform gives anyone in the government a level of assurance that the platform meets specific security controls and is monitored continuously per the requirements of the FedRAMP organization,” Holloway says. “Our system integrators see vCloud Government Services as providing an exceptional platform for delivering enterprise IT that is inclusive of cloud but recognizes that there’s a much broader set of services that have to be delivered in the IT portfolio.”

The expertise and guidance SAIC has received from the VMware professional services organization, along with the robust capabilities made possible through the VMware software-defined data center products and technologies, have given SAIC a bright outlook in a time of declining IT budgets. “One of the ways you can get more value out of your IT spend is by reducing the cost of the IT services you deliver today and then taking that delta and plowing it back into new features and capabilities,” says Holloway.
SAIC looks to VMware as one of its most important partners in its ongoing mission to develop the solutions and services its customers demand. “Our IT experts view vCloud Air and other products in the vCloud Suite portfolio as a platform we can leverage to create unique solutions for our customers in the cloud space,” Holloway says. “When you unify all these technologies together and combine them with the orchestration and automation capabilities that are delivered by the software-defined data center, you're able to create a cohesive, comprehensive IT-to-service delivery framework that enables customers to meet their missions in a cost-effective and efficient way. The combined story, when you put it all together, is incredibly compelling from a value perspective.”

Looking Ahead

SAIC is looking at other capabilities in the VMware portfolio. It would like to offer rapid enterprise resource planning (ERP) as a service, using the automation and service management capabilities inherent in the platform. It also hopes to expand the use of automation in its software development activities and find new ways to help customers innovate more rapidly.

“Particularly, we think our customers are going to be interested in the power of software-defined networking,” says Holloway. “Our system integrators are starting to see our customers explore that space, so we are very interested in expanding our own offerings to include it. We’re also looking forward to software-defined storage and virtualized storage configuration capabilities. Integrate all of that into a seamless IT service delivery framework, and we think that’s the next generation of IT. That is where the software-defined data center is really going to shine in the future.”

For more information, please visit VMware vCloud Air.