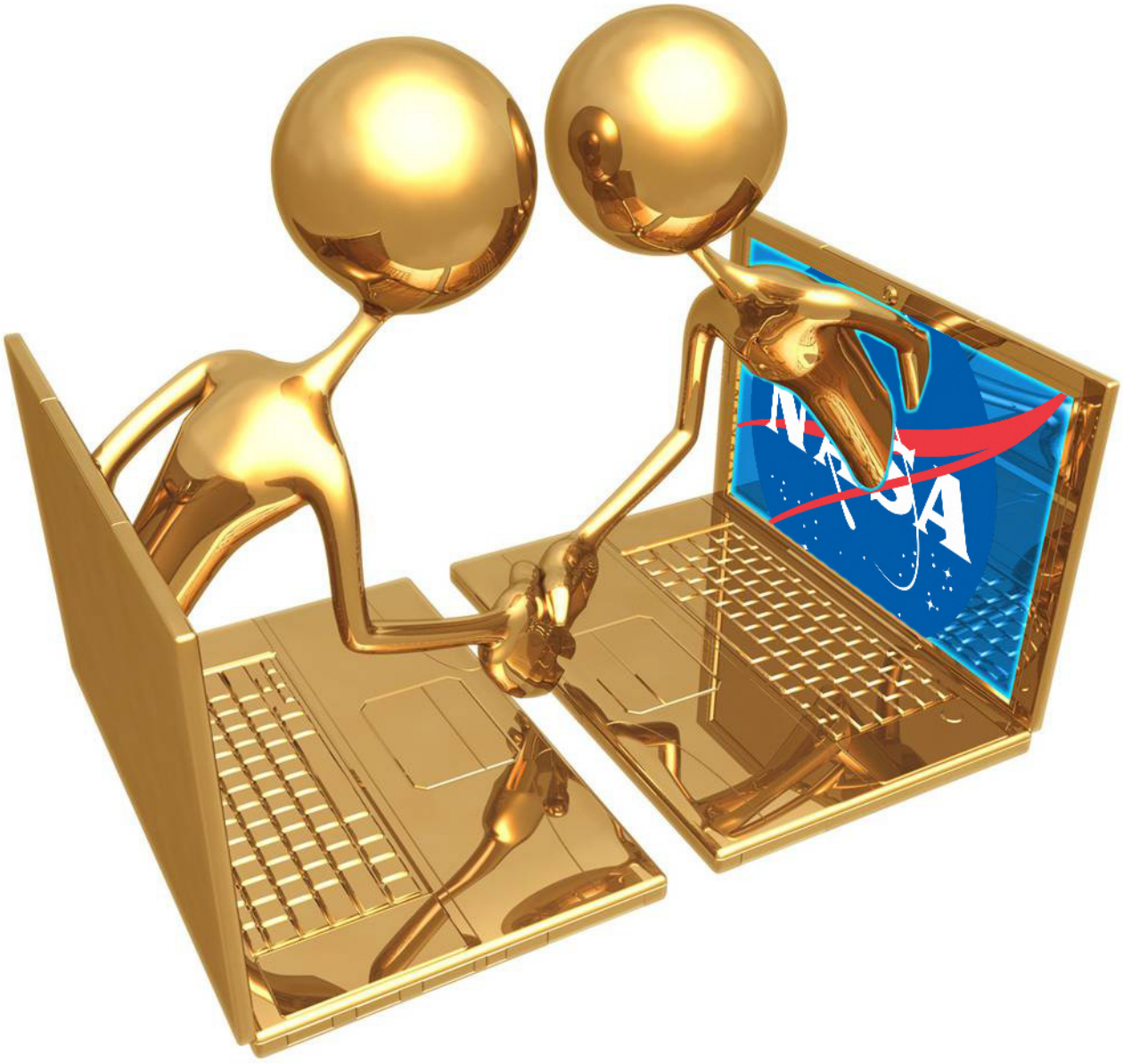
National Aeronautics and Space Administration

IT Talk

January - March 2013 Volume 3 • Issue 1



Connecting Anywhere, Anytime

IT Talk

Jan - Mar 2013 Volume 3 • Issue 1

Office of the CIO
NASA Headquarters
300 E Street, SW
Washington, D.C. 20546

Chief Information Officer
Linda Y. Cureton

Editor and Publication Manager
Eldora Valentine

Editor and Writer
Sarah Rigdon

Graphic and Web Design
Michael Porterfield

IT Talk is an official publication of the Office of the Chief Information Officer of the National Aeronautics and Space Administration, Headquarters, Washington, D.C. It is published by the OCIO office for all NASA employees and external audiences.

For distribution questions or to suggest a story idea, email: eldora.valentine-1@nasa.gov

To read *IT Talk* online visit: nasa.gov/offices/ocio/ittalk

For more info on the OCIO:
- www.nasa.gov/ocio
- insidenasa.nasa.gov/ocio *(Internal NASA network only)*
- www.nasa.gov/open/

facebook.com/NASAcio
twitter.com/NASAcio

In this Issue

Message from the CIO

By Linda Cureton

As we flip our calendars and embrace 2013, I think about the challenges ahead and the rapidly evolving pace of technology.

One of the greatest challenges I face as NASA's Chief Information Officer (CIO) is how to empower the NASA community's use of emerging technologies while ensuring that use does not compromise NASA's mission. This balancing act is a critical part of the decisions I make in leading the organization forward.

So with this in mind, this year, just like all the rest, I have some proposed key goals. Here are several of my 2013 New Year's resolutions:

1. IT Security is our top priority. Ensuring that NASA data is more secure is critical for our Agency. Our equipment and information must be protected against vulnerabilities and breaches.
2. Embrace mobile technologies.
3. Firm up policies on bring-your-own-device (BYOD).
4. Remove the stigma out of "remote" and encourage more Centers to feel comfortable in embracing the concept of telework.
5. Use collaborative technologies more. Recently, we launched a Virtual Executive Summit that had over 600 executives Agency-wide gather remotely using collaborative technologies. This helped put us one giant leap closer to implementing Administrator Charlie Bolden's vision of an anywhere, anyplace, anytime organization.
6. Improve service delivery.

We will no doubt face challenges in meeting some of these goals. We must all learn to do more with less and live with it. Budget cuts are here to stay! But if we work smarter and more strategically, I believe there is nothing we as a team cannot accomplish.

—Linda

Happy New Year from the staff in the NASA OCIO

Cybersecurity Begins and Ends with You!

By Meredith Mengel, OCIO IT Security Division

"Laptop with NASA workers' personal data is stolen"—NBC News

Stories alerting the public to NASA's most recent security breach dominated headlines over the last several weeks.

All civil servants and contractors play a major role in NASA's ability to safeguard IT assets from cybercriminals, hackers, and other groups. By creating a united front, NASA employees can protect, prevent, and preserve NASA data and information systems—the key to beginning the cybersecurity transformation at NASA.

How well are you protecting the information you use on a daily basis? Here are some tips for keeping your identity and data safe—and the world's focus on NASA's good work.

- Complete NASA's Annual IT Security Awareness Training. This training is required for all Federal and contractor employees, and for good reason. It covers the protection of your desktop and home computers, safeguarding your identity and data, and privacy best practices. Be sure to complete this training as soon as you can; it's an important first step toward learning how to protect and safeguard information.
- Know how to protect your laptop and the information on it in case a loss or theft occurs:
  1. Lock your laptop when you're not using it.
  2. When transporting your laptop, keep it with you at all times.
  3. Laptops should be taken into your home or office, immediately. Do not leave them in the trunk or back seat of your car.
  4. Laptops are required to be updated with Data-At-Rest (DAR) encryption before leaving Government facilities.
  5. Use strong passwords that are not easy to guess, and store them separately from your laptop.
- Avoid clicking on unfamiliar links or downloading files from email, Facebook, or other popular communication tools, regardless of who sent them. Destructive malware uses these environments to spread and weaken your computer's security.

NASA is depending on all employees to help keep all data and systems safe! If you have questions, suggestions, or tips for improving cybersecurity at NASA, please send them to Agency-IT-Security@mail.nasa.gov.

Ames's IT Security Innovation Lab Team Wins 2012 U.S. National Cybersecurity Innovation Award

The IT Security Innovation Lab team developed and implemented a tool that identifies, monitors, and raises the visibility of IT Security vulnerabilities at a very low cost across multiple NASA Centers. Team members Matt Linton (IT security operations lead) and Chris and Matt Antoun (Web developers) developed, tested, and launched the tool quickly and efficiently.

The team modified Ames's vulnerability detection program to bring responsibility directly to system administrators and technical staff—those who can fix the problems. By normalizing and tabulating Common Vulnerability Scoring System values for each host and cross-referencing hosts to our asset inventory, Centers are now able to produce a "scoreboard" showing which hosts are security heroes and which are security problems. The scores are further modified by constantly scanning the Center from a truly external server and adjusting scores upward when vulnerable hosts have services exposed beyond Agency firewalls.

This win would not have been possible without an Agency-wide team effort that includes Jon Davis at Goddard Space Flight Center, Howard Whyte at Headquarters, and many Ames Research Center systems administrators and IT security personnel who tested and provided input on the tool.

To view the full details of the innovation award, visit the NASA Ames News and Events site at: http://www.nasa.gov/centers/ames/news/releases/2012/rel_cybersecurity-innovation-award.html.

Ames's IT Security Innovation Lab Team: (l–r) Chris Antoun, Matt Linton, Matt Antoun. Photo by Nicholas Theodore

NASA FedScoop Award Winners

FedScoop recently honored Federal technology leaders, innovators, and rising stars at the first annual FedScoop 50 Awards on November 28, 2012, in Washington, DC. More than 150 attendees from the White House, U.S. Department of Defense, civilian agencies, and industry were in attendance.The 50 awardees were nominated by their peers throughout Government and then voted on by FedScoop's readers. More than 8,000 votes were cast for the awards that honored Federal executives, Federal leaders, industry leaders, Federal IT programs, Federal innovations, mentors, and up-and-comers.

Congratulations to all our NASA winners.

- Golden Gov—Federal Executives of the Year: Linda Cureton
- Federal IT Program of the Year: NASA IT Labs
- FedMentors of the Year: Emma Antunes, Web Manager, NASA; and Nicholas Skytland, Program Manager, Open Innovation Program, NASA

For more information, visit http://fedscoop.com/fedscoop-50-awards-honor-top-federal-it-innovators-of-2012/

Allison Wolff, Linda Cureton, and Nick Skytland.

NASA OCIO and JAXA Representatives Meet in Maryland

By Lynn Heimerl, STI Program Manager

The NASA Office of the Chief Information Officer (OCIO); the Agency-wide Scientific and Technical Information (STI) Program; and its contractor, the NASA Center for AeroSpace Information (CASI), recently hosted personnel from the Japan Aerospace Exploration Agency (JAXA). The meeting took place at the CASI facility in Hanover, MD.

STI and JAXA have an information exchange agreement. This exchange has been extremely beneficial for both organizations in helping to expand aerospace research and development information for their personnel.

Meeting participants included Deborah Diaz, NASA Deputy Chief Information Officer (CIO); Karen Petraska, Associate Deputy, Tech Integration & SE Computing Services at Headquarters; Lynn Heimerl, STI Program Manager; Gerald Steeman, STI Program Analyst; Laurie Johansen, STI Contracting Officer's Technical Representative (COTR) and Resources Manager; Ann Dixon, CASI Program Manager; and Eric Kamenitzer, CASI Deputy Program Manager. JAXA participants included Akiko Fujii, Administrator, Information Systems Department, Knowledge Management System Expert; Nobuto Yoshioka, Associate Senior Engineer, Engineering Digital Innovation Center, Information/Aerospace System Specialist; and Norimitsu Kamimori, Director, JAXA Washington, DC, Office. Also included were Tony Anania and Grant Stoddard of the NASA data center consolidation initiative. Michael Genuardi of CASI helped with day-to-day activities associated with fulfillment of the exchange agreement.

Discussions centered on background information on the NASA STI Program and CASI, JAXA activities and organization, new developments in information management, and a discussion of possible improvements in the joint NASA-JAXA exchange agreement.

On October 1, 2003, the Institute of Space and Astronautical Science (ISAS), the National Aerospace Laboratory of Japan (NAL), and the National Space Development Agency of Japan (NASDA) were merged into one independent administrative institution to perform all of Japan's aerospace activities as one organization, from basic research and development to utilization. The independent administrative institution is the Japan Aerospace Exploration Agency. Per JAXA, space development and utilization and aviation research and development are steps to achieve its nation's policy objectives. A large portion of the JAXA Aerospace Information and Reports Exchange (AIREX) System is composed of NASA STI information.

The NASA STI Program, which has been in existence since the 1960s, is chartered to collect, organize, disseminate, and preserve NASA's published research and development information defined as STI. The STI Database ("Organize STI") has the NASA Technical Reports Server (NTRS) for public use and the NASA Aeronautics and Space Database (NA&SD) for internal NASA use. The program is also chartered to provide the Agency with technical publications policy and ensure that all STI is reviewed and approved for technical quality and restrictions and limitations prior to release. In addition, STI collects and makes available to NASA international STI from noncommercial exchange partners. STI also produces the *Spinoff* publication through the CASI contract for the NASA Office of the Chief Technologist.

The NASA STI Program collects, organizes, disseminates, and preserves NASA's research and development results.

STI produces *Spinoff* for the Office of the Chief Technologist.

JAXA harvests the metadata via the Open Archives Initiative (OAI) from the public interface to the NASA STI repository, which is called the NASA Technical Reports Server. The OAI is an initiative funded by the Andrew Mellon Foundation, the Coalition for Networked Information, the Digital Library Federation, Microsoft, and the National Science Foundation. For more information, visit http://www.openarchives.org.

STI ensures dissemination to mandatory Federal organizations and to commercial search engines. STI also disseminates information to Google Scholar, which provides citation analysis for NASA authors and researchers.

CASI is the STI Program contractor that handles the day-to-day implementation of the NASA STI charter. CASI is currently managed by Chugach Federal Solutions, Inc., (CFSI) on a 5-year, fixed-price, indefinite-delivery/indefinite-quantity (IDIQ) contract through Langley Research Center.

For more information on NASA STI and CASI, see http://www.sti.nasa.gov. For information on JAXA, see http://www.jaxa.jp/index_e.html.

From left to right: Tony Anania (NASA), Norimitsu Kamimori (JAXA), Deborah Diaz (NASA), Eric Kamenitzer (CASI), Laurie Johansen (NASA), Karen Petraska (NASA), Lynn Heimerl (NASA), Akiko Fujii (JAXA), and Nobuto Yoshioka (JAXA). Not pictured: Ann Dixon (CASI), Gerald Steeman (NASA), and Grant Stoddard (NASA).

Connecting Anywhere, Anytime: NASA's Virtual Executive Summit

NASA conducted its annual Executive Summit the entire month of October 2012. The Executive Summit provided a forum whereby NASA executives could collaborate with each other, attend learning sessions, and have the opportunity to hear from NASA leadership on key strategic issues. In the spirit of NASA's commitment to discovery, protection of our environment, and utilization of the latest technology, this year's Executive Summit was entirely virtual, and by all accounts, a resounding success.

This experiment incorporated suggestions from last year's participants, while taking the summit in a new, uncertain direction. Its success depended on everyone's willingness to take that step and commit to the potential of a virtual summit. Ultimately, considerable planning and coordination resulted in a collaborative and interactive summit that engaged approximately 570 executives, 80 percent of whom participated in the virtual events.

Greg Schmidt, Deputy Director of the NASA Lunar Science Institute, shared his appreciation of the new format. "Hearty congratulations to you and everyone on this team who accomplished such a great task! This is very much in line with Obama's executive order 13589, November 9, 2011 (http://www.gpo.gov/fdsys/pkg/FR-2011-11-15/pdf/2011-29683.pdf), which says in part "agencies are encouraged to devise strategic alternatives to Government travel, including local or technological alternatives, such as teleconferencing and videoconferencing."

Some of the immediate benefits of the virtual summit include tremendous cost savings. Because executives did not travel to the summit, NASA saved about $750,000 in travel expenses. The summit also exposed executives to new technologies. During the month of October, executives could access the 2012 Virtual Executive Summit from a single launch page on the HR portal. In addition to the website, executives could participate by viewing and commenting on videos, participating in live sessions using Adobe Connect and by attending the one-day onsite at their Center. Executives could network with peers, pose questions to the knowledgeable virtual community, share ideas, and interact with senior leadership on challenging issues. Just as important as the exchange of information, the Virtual Executive Summit provided an opportunity for executives to become more knowledgeable about the technology they were using and its potential for use in facilitating future meetings and events.

Carol Carroll, Deputy Director for Science, NASA Ames Research Center, is optimistic about the use of virtual technology at NASA. "This has been a terrific way to communicate with the NASA SES [Senior Executive Service] corps. It was easy to use and informative. I think this could and should be used more often, for example, after the election in November and after the budget rollout in February. The corporate world regularly has video chats with their senior leaders to share information about important and timely topics throughout the year. I would encourage NASA to have these SES virtual meetings several times a year for specific topics of interest."

One of the goals of the Virtual Summit was to take advantage of the technology that allowed for distance learning, messaging, and virtual interaction without it actually being the focus. Planners designed the websites for ease of use and accessibility in order to encourage participation and ensure that users have a good experience. Another consideration for designers is that technology in all its forms should be transparent so that participants can concentrate on the subject matter of the presentation without distractions. The Executive Summit website addressed these requirements by providing users with a home base for schedules,

presentations, and technical support. Because the format was different this year, planners incorporated pre recorded how-to sessions describing Adobe Connect, and live session content guidance to ensure that everyone was comfortable.

The online environment allowed flexibility in how, where, and when executives participated. For example, during the first two weeks in October, executives completed activities independently from anywhere and on their own time. When Administrator Bolden addressed executives on October 30, it was an interactive session using Adobe Connect. Each Center arranged a conference room that had a quality speakerphone, a computer with a quality Web camera, and projection equipment so that everyone could participate. One of the unexpected benefits of the virtual summit was realized during Hurricane Sandy when Headquarters was closed. The summit continued, and Assistant Administrator Lori Garver presented as scheduled from the safety of her home.

Planners credit the success of the Virtual Executive Summit to the concerted effort across Centers: The summit was successful to a large degree because both planners and executives embraced change and had the desire to learn and use new technology.

Virtualization Evolves at JSC *By Neesha Hosein, Public Relations Specialist*

As teleworking becomes more common across the Agency, wishing to be in two places at once isn't just a saying anymore; it's an option. The Johnson Space Center (JSC) piloted the LifeSize telepresence systems, now available throughout the Agency. This technology provides a high-definition (HD), life-like video feed with presentation capabilities.

JSC is also participating in the Chief Technology Officer (CTO) Community Desktop Videoconferencing prototype, sponsoring the VSee application. This is a cloud-based public application that allows video, audio, and presentation as well as drag-and-drop, file-sharing capabilities to NASA employees and partners. Other applications in the prototype are Vidyo, Adobe Connect, and Blue Jeans.

"The CTO community is ready to report the prototype out to the ITMB for an extended prototype/pilot with many more customers participating," said James McClellan, JSC CTO. "Google Docs was an IT Labs pilot that is about to become a production system and will be available for purchase soon from ACES. These tools will enable the 'work from anywhere' directive along with tools we already have, like WebEx."

We're seeing rapid evolution of collaboration tools with the blast of apps in iTunes and Google Play, and NASA is also in the process of updating many of its telephone systems to move from old analog phones to digital ones that use computer Internet Protocol (IP) networks. This will enable the availability of a new productivity suite called Unified Communications and Collaboration (UCC), which allows email, voicemail, instant messaging, texting, video, and other rich media to be integrated in a way that allows users to control them as a whole and create what is called "presence."

At JSC, several prototypes are under the Office of the Future initiative including a Virtual Desktop Infrastructure (VDI) prototype for both office automation (desktop)-type computers and one for high-power engineering workstations.

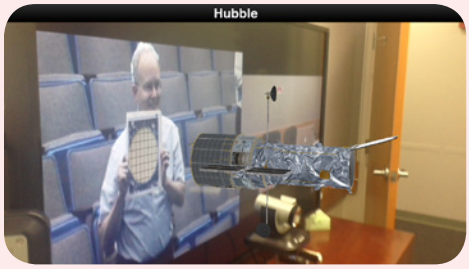
The Next Best Thing to Being There: *The JPL/Goddard Presentation Experiment*

By Tom Soderstrom, CTO, Jet Propulsion Laboratory, California Institute of Technology; Paul Hunter, CTO, NASA Goddard Space Flight Center; Gabriel Rangel, Solutions Engineer, Jet Propulsion Laboratory, California Institute of Technology

Since 2008, the Jet Propulsion Laboratory (JPL) Office of the Chief Information Officer (OCIO) has investigated new avenues for collaboration through high-definition (HD) video conferencing. JPL was one of the first Centers to use LifeSize, now available at several NASA Centers and Headquarters. So when Tom Soderstrom and Gabriel Rangel were invited by Paul Hunter to give a talk to the Goddard Information Science and Technology Colloquium about innovating together, they decided to try something new: How to enable a multimedia-rich presentation with an engaging interactive demonstration without being there in person.

The talk was held at Goddard Space Flight Center (GSFC) November 14, 2012. Tom and Gabriel "presented" from the OCIO offices at JPL to an audience in a large auditorium at GSFC. As with anything new, there were a few technical issues at the start as several technologies were involved. Using high-definition video conferencing (LifeSize, ViTS, H.323), the talk was successful. JPL gave the presentation using Prezi directly over the Internet, enabling the sharing of videos and animations locally. Next was the interactive demonstration of the Spacecraft 3D augmented reality app. Using AirPlay and Adobe Connect, the audience was able to see through the lens of the iPhone camera at JPL; acquire the "target image" held by an audience member at Goddard; and experience augmented reality through video conference screens separated by 3,000 miles. The talk concluded with an interactive Q&A session. When asked, audience members were very positive about the experience and found it to be highly effective, interactive, and fun.

There were lessons learned from the experience and some fine-tuning needed. This experiment could possibly greatly assist in attracting world-class speakers to present at NASA Centers, saving time and money and enabling future coengineering opportunities that leverage remote augmented reality. The willingness to try something new and make it work by the GSFC/JPL team made this effort a success.



Virtual Is Reality at Glenn *By Kristin Ratino, Communications Lead, Glenn Research Center*

Use of virtual technology is a widely accepted practice with leadership and project teams at the Glenn Research Center. In response to the challenge of limited travel budgets, use of videoconferencing technology has grown throughout organizations across the Center. Teams are strategically assessing the way they work and looking for opportunities to conserve and utilize travel budgets efficiently. Cross-Center and external partner collaboration is on the rise, and when teams were challenged with reduced travel allocations, they sought out alternatives to group meetings to effectively work together. Managers and project teams alike are turning to videoconferencing to fill that gap. Meeting virtually can generate thousands of dollars in savings each year when you look at just the costs associated with travel: airfare, hotel, meals, car rentals/taxi service. But teams aren't just realizing a monetary savings. Reducing travel also equates to a reduced carbon footprint—less energy and fuel used for transportation. Additionally, virtual meetings often result in increased participation. Team members can participate in a virtual meeting across the country as easily as if they were meeting with a colleague who is colocated, without any of the associated travel costs. Moreover, with the continued growth in technology, participants are no longer restricted to conference rooms or offices: videoconferencing tools available on laptops, tablets, and smartphones have enabled team members to participate from nearly anywhere an Internet connection is available. While many users of videoconferencing agree that the technology may not replace the personal engagement associated with face-to-face meetings, teams recognize the value and benefits of virtual technology. They continue to identify opportunities to engage colleagues and customers utilizing videoconferencing in lieu of face-to-face meetings.

NEACC Support for NASA's 2012 Virtual Executive Summit

Teams across the Agency collaborated to successfully produce the 2012 Virtual Executive Summit (VES). The NASA Enterprise Applications Competency Center (NEACC) was an integral contributor for the event.

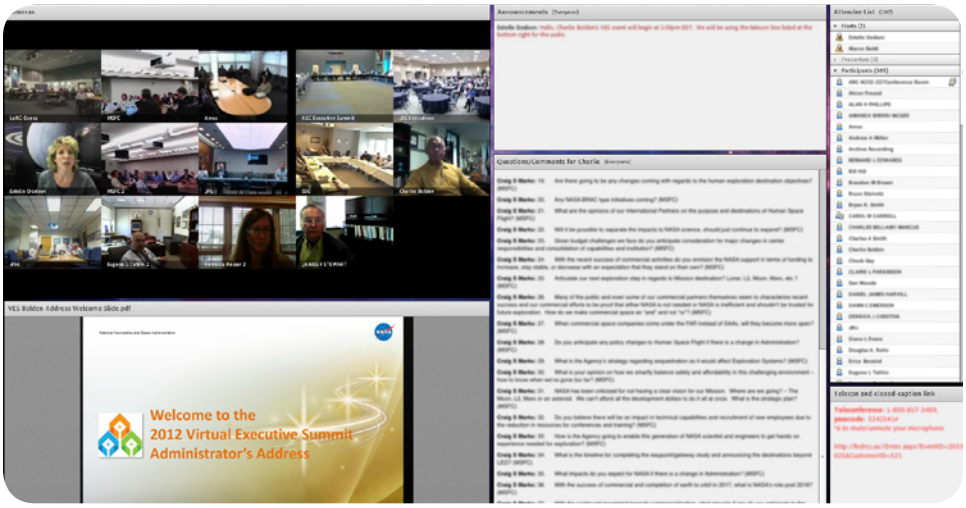
The NEACC engineering group provided virtualized infrastructure and increased central processor unit (CPU) and random access memory (RAM) dynamically with no impact to the customers and without requiring any outages. Through the use of NEACC tools, test scenarios and automated test scripts were quickly developed for verifying that the environment could support the expected user load. Application monitoring helped to prevent any user impacts.

The NEACC Enterprise Service Bus (ESB) line of business oversaw the temporary infrastructure augmentations on both the portal and appstack infrastructure to ensure support for 500–600 potential concurrent users. Solid performance was delivered throughout the event.

The NEACC was able to secure the executivesummit.nasa.gov URL/DNS entry. A new portal "storefront" was created and deployed on the NEACC's portal framework, featuring an "event week" calendar showing daily offerings with links to those sessions. A chat room portlet was made available 24/7 during the month of the summit, and a registration portlet was deployed for live sessions, including a user itinerary. A threaded message-board forum was provided for in-depth topics, questions, and answers. Support for the portal included 508 compliance adjustments as well as analytics and tracking for reporting daily statistics. Adobe Connect was used for user acceptance testing to view demonstrations of the new functionality and provide test results instantly.

Three live two-hour training sessions were conducted with the Center IT point-of-contact (POC) community on the functionality of the VES storefront. The IT POCs were the first line of support at each Center for members of the SES community. Usage statistics were reporting daily to the product owners, evolving from basic usage counts to more comprehensive reporting (key stats: 566 unique users, 31,619 page views). The content of the storefront portlets was a collaborative development effort involving the Johnson Space Center (JSC) and NEACC resources. Constant brainstorming sessions resulted in many new components for VES. To quote the NEACC lead for the human capital and workforce line of business: "The NEACC development team was presented with the task of pulling this off without much in the way of requirements—they definitely proved their ability to be agile, flexible, and innovative and adjust quickly to pressing timelines."

The entire project was turned around in less than five work weeks from the authority to proceed with development. Much of the functionality can be reused, not only with future summits, but also with other NEACC storefronts such as the HR portal and bReady. Because of this project, nearly 600 executives were able to participate in the monthlong event from their workspace or wherever they may have been at any given time, saving the Agency a considerable amount of travel expense.



MSFC Virtual Meetings

Marshall Space Flight Center (MSFC) has been leveraging technology to work smarter for many years. With shrinking budgets in all areas, including travel, the Center has seen an increase in use of NASA's Video Teleconferencing Services (ViTS) and WebEx to meet virtually in support of accomplishing its critical business objectives.

In the last three years, Marshall has averaged almost 70 ViTS per month. Many of these ViTS connect Marshall senior leaders with the Agency, including NASA Headquarters and all other Centers. This includes a weekly senior management ViTS, where Marshall's Center Director shares insights into Marshall and hears how issues are impacting other Centers. There are also weekly or monthly calls within most directorates and institutional support offices, such as weekly chief information officer (CIO) meetings, monthly human capital meetings, legal Agency-wide meetings, and periodic procurement ViTS. The Center operations group discusses facilities through monthly Master Planning ViTS, and the public affairs officers (PAOs) at Marshall participate in a monthly ViTS with PAOs from all Centers. Marshall also frequently uses ViTS to connect with the Michoud Assembly Facility (MAF) and to work remotely with MAF management on important issues.

The Space Launch System Program Office leverages ViTS as a cost-effective way to communicate as it builds the nation's new heavy-lift rocket. This includes connecting with the Human Exploration and Operations Mission Directorate (HEOMD) and integrating with other groups across the Center, such as having monthly meetings with Langley to discuss the Orion Launch Abort System. The Marshall Science and Technology Office also leverages ViTS for planning visible activities, such as the MARS Curiosity Rover event this year.

Many of the ViTS meetings are accompanied by WebEx, an online tool that allows users to share materials and facilitate productivity while cutting back on sharing large files through email. Marshall will continue to leverage both Video Teleconferencing and WebEx technologies to work more effectively and efficiently.

Desktop and Mobile Video Conferencing Prototyping for NASA

By Ed McLarney, LaRC Chief Technology Officer

Innovators across the Agency have been busy prototyping desktop and mobile video conferencing solutions for NASA users and are working through the process of taking these products from prototypes to pilots and eventually to production capabilities. The Agency Communications Service Office (CSO) and chief technology officers (CTOs) for IT from several Centers divided the problem set to look at several leading solutions. The CSO and Langley Research Center (LaRC) worked together with a product called Vidyo, which links existing ViTS systems with desktop and mobile collaboration. The CSO currently has Vidyo available for prototype users across the Agency. Johnson Space Center worked with a product called VSee, which is used for low-bandwidth collaboration with the International Space Station. The Astrobiology Institute at Ames Research Center has been a longtime advocate for collaboration and provides Adobe Connect for its users. Adobe Connect was used by senior executives Agency-wide for the first-ever NASA Virtual Executive Summit in October 2012. The Jet Propulsion Laboratory (JPL) experimented with a number of cloud-based collaboration solutions to include Blue Jeans, which can act as a bridge between multiple solutions. Each of these products has pros and cons, and the CSO and CTO community are working through experimentation and analysis, with additional briefings to IT leadership coming soon.

In the meantime, users interested in prototyping with emerging video collaboration systems should contact one of the following POCs:

- Vidyo—CSO: Kathy Hatley/ Bobby Collins (both at Marshall). LaRC user: Ed McLarney
- VSee—James McClellan at JSC
- Adobe Connect—Estelle Dodson/Marco Boldt
- Blue Jeans/Cloud video collaboration—Tom Soderstrom/ Gabriel Rangel at JPL

Chief technology officers and IT innovators across the Agency have participated in testing these solutions. If you're interested, please contact your Center CTO for IT or one of the POCs listed above. Have fun collaborating!

How Ames Research Center (ARC) Meets Virtually

By Estelle Dodson, Collaboration Technologies Manager

As technological advances open up a globally connected world, NASA Ames Research Center (ARC) is using them to improve communication and enable greater collaboration across distances and disciplines. Building on the collective expertise of NASA's virtual institutes, ARC is currently producing virtual programs called "Workshops Without Walls." These multiday virtual conferences connect presenters with hundreds of participants without any travel required. These workshops combine a variety of online resources, including high-definition videoconferencing, desktop video, real-time meeting applications, and social networking. The result is an optimal experience for remote and in-person participants, from any location, using almost any device—even on the go via tablets and smartphones.

The largest workshop thus far had 26 speakers presenting from 19 locations to more than 400 participants. One workshop participant stated, "Having workshops like these, which are very interactive, and accessible to virtually anyone…encourages collaboration and is a push towards new frontiers of knowledge collectively."

All-Access events are a similar approach. The Kepler Science Conference recently broadcast a well-attended in-person meeting to hundreds of online viewers. Remote attendees of an All-Access event interact with each other via chat and have their questions answered real-time by the presenters over the video broadcast. A hybrid of these two approaches was used recently, when students of a two-week Earth Sciences program attended 29 broadcast lectures at Ames along with hundreds of online attendees from around the world. Eleven of these lectures were presented remotely by renowned scientists who would not have been able to participate without the use of these virtual technologies.

Whether it's Workshops Without Walls, All-Access events, or Student Summer programs, all of these activities are posted online for attendees to reference and for NASA to share with a broader audience.

The success of these events and virtual work depends on not only integrating multiple technologies, but also on an innovative approach—combining the best research from human factors and organizational management, while providing a rich, engaging, and easy-to-use virtual experience. It's another step to a future in which NASA employees can truly work from anywhere, even other planets.

IT Infrastructure Integration Program (I3P) Update

Communications Services Office (CSO)/NASA Integrated Communications Services (NICS)

The Communications Services Office (CSO) completed the critical designs for two key standardization projects that will improve NASA Integrated Communications Services (NICS) efficiencies: the Corporate Consolidated Network Operations Center (C2NOC) (e.g., Network Management and Monitoring) and the NICS Consolidated Configuration Management System (NC2MS) Release 1 (LAN, Firewalls, DNC, etc.). The CSO is on schedule to begin implementation of these two transformational initiatives in early 2013.

The CSO has also made significant progress in the deployment of Internet Protocol version 6 (IPv6) network infrastructure and access over the past several months. IPv6 address plans have been approved for most Centers, IPv6 routing and domain name services have been enabled to the Internet, and Centers are progressing to enable IPv6 routing locally.

The CSO is also working with the CIO chief technologist on several endeavors: Voice over Internet Protocol (VoIP) and Desktop Mobile Video Conferencing (DMV) (an extension of the current CSO Video Teleconferencing Service [ViTS]). A VoIP Identity Protection Technology (IPT) team formed and met the week of December 3 to discuss requirements, available technologies, and current Center needs as well as plans to support implementation of an Agency-wide phone replacement strategy. The DMV team has completed a prototyping stage and is preparing a pilot for Agency-wide use. The DMV service, based on the Vidyo product, will provide video conferencing between Center conference rooms (Polycom and LifeSize) to desktop (MAC, Linux, and PC) and/or mobile (iPads, iPhones, and Androids) devices. The DMV service will expand the ability to work from anywhere and with most any device. Additional information will be provided once the service becomes available in the Enterprise Service Desk.

The CSO has begun to update and expand the Enterprise Architecture (EA) for CSO/NICS services. An initial review of the switched voice, collaboration, and digital television services has been conducted. The EA effort is gathering the information on current as-is architecture of the service, customer base, service partners, and any plans for changes in the service. Once completed, the CSO EA will provide a base for our service architectures and provide information for supporting not only our future service changes, but also any support needed for other I3P service offices.

Agency Consolidated End-User Services Office Deployments: The Agency is making progress on transitioning its IT services to an enterprise-wide solution. As part of the Agency Consolidated End-User Services (ACES) contract, held by Hewlett Packard, the Agency has now deployed over 18,000 systems Agency-wide. All existing systems should be refreshed under the ACES contract by late 2014.

NASA DAR Update: The agency deadline to complete Data At Rest (DAR) Encryption on each ACES machine was late December. DAR protects the data on your computer while it is powered off. DAR protection prevents anyone except you from logging on to your computer and protects all data on your hard drive using hard drive encryption. Most laptops now have DAR installed and active, ensuring the greatest level of security. All new machines will come pre-loaded with DAR. For more information on DAR, go to https://aces.ndc.nasa.gov/subnav/dar.html. In the event a NASA IT device is lost or stolen, it is critical to report the incident immediately. Proper reporting procedures minimize security vulnerabilities and productivity loss, while enabling faster return to service. For more information on what to do regarding lost, stolen and damaged devices, go to https://aces.ndc.nasa.gov/subnav/lost.html.

iPhone 5 Status: The iPhone 5 is now available through the ACES contract and is the standard seat for users requesting an iPhone. Orders may be made through the Enterprise Service Desk, with the choice of having AT&T or Verizon as the carrier. The Standard delivery time for the iPhone 5 is five business days from the date of request.

Windows 8 Update: In October, Microsoft released the newest version of its desktop operating system (OS), Windows 8, which uses a touch-based interface similar to many popular mobile operating systems. The Agency's IT service providers are actively working to develop a timeline for the best approach and timing for NASA to adopt this new Windows OS environment. Until a plan is complete and fully implemented, NASA and ACES will not be able to adopt or provide support for any aspect of this new operating system. As a result, any Windows 8 installation that causes security considerations or concerns may be removed from the NASA network. Before the system can be placed back on the NASA network, the system may require reloading of the currently supported, NASA-approved ACES system software. Any NASA project personnel intending to use Windows 8 functionality before NASA formally adopts the new Windows environment should contact their local ACES subject matter expert (SME) to discuss requirements, intended use, and potential risks.

Enterprise Applications Service Office/NASA Enterprise Applications Competency Center (EASO/NEACC):

A modification to the Enterprise Applications Service Technology (EAST) contract was targeted for late December 2012 to end stabilization and respond to a significant budget cut. Three large

IT projects are slated for FY13 and are currently in the preplanning phase. The ICAM Modernization project will replace aging infrastructure, and the eTravel System II (ETS2) project will implement an eGov replacement for our current FedTraveler system. The Electronic Forms Initiative (EFI) project will replace the IBM FileNet-based NASA Electronic Forms System (NEFS), hosted by Ames Research Center (ARC), with the Adobe LiveCycle Enterprise Suite 4. This Agency solution will be hosted by the NASA Data Center and supported by the NASA Enterprise Application Competency Center (NEACC). The current system is no longer supported by the vendor, is not 508 compliant, and has SHA-256 interoperability issues. To support Phase 1 (FY13), the initial software acquisition was completed in September. Planning is under way, including a supporting EAST Task Order, with the goal of providing a development environment for the Forms teams across the Agency to begin learning the capabilities of the new solution and to begin form conversion by the end of the year. Phase 1 implementation is targeted for the spring.

Center for Internal Mobile Applications (CIMA): CIMA (http://apps.nasa.gov) operates under the EASO/NEACC. The CIMA team was represented in the "Creating Your Agency's AppStore" panel at the Mobile Government Conference and recently met with U.S. Department of Agriculture representatives regarding the development of mobile apps and the sharing of lessons learned.

The NEACC was visited by the U.S. Department of the Interior's Business Management Office representatives to exchange ideas and best practices for enterprise business applications, including discussions on business readiness and IT project management. The Office of Education Infrastructure Division (OEID) transition project was successfully completed with Go Live at the end of September 2012. The NEACC operations have expanded to include the One Stop Shopping Initiative (OSSI) and Office of Education Performance Measurement (OEPM) applications. Major enhancements are in the planning stage for delivery of reengineered data collection screens in OEPM and a Business Intelligence (BI) capability across both apps. The Product life-cycle management/product data management (PLM/PDM) line of business, which supports project management across Agency missions, has been primarily focused on upgrading Windchill 9.1 to version 10.1, which is near completion.

Enterprise Services Desk (ESD)

The ESD enhancements project continues to progress toward test readiness review, which is scheduled for February 25. The "Go Live" date is planned for April. One potentially major change the project will bring concerns IT and resource approver queues within the ordering system. Currently, each Center has one queue. In some cases, this is inconvenient, as many approvers receive an email for each request. Once the enhancements project is completed, Centers will have the flexibility to design these queues to best meet their needs. If the current methodology works, Centers can keep these queues as they are currently set up—or, through a series of NASA Account Management System (NAMS) requests, they can implement a new approach. The ESD team will be working with each Center's SME (or appropriate delegate) to learn about planned approaches of this new feature for each Center. Centers will be responsible for communicating changes to their users, but the ESD team will be available to assist in the crafting and dissemination of messages. We want to keep the call agents informed and ensure that they are the best possible resource for callers. We will be encouraging Center communications for any Center implementing significant changes. For example, IT and resource approvers need to understand the new methodology and should have a firm grasp on which requests that they are responsible for reviewing (and what they should do if they receive a request that they should not receive). Also, Org approvers need to understand which IT approvers and resource approvers that they should select for requests within their organization. The ESD team will be available to help craft communications and provide distribution lists for disseminating messages.

To continue efforts to empower the voice of the customer, the ESD team has added a Yammer icon to our social media links (which currently include YouTube, Facebook, and Twitter). The link will allow customers to access either the NSSC group (https://www.yammer.com/nasa.gov/groups/nasasharedservicescenter/info) or the Ask I3P group (https://www.yammer.com/nasa.gov/groups/aski3p/info) within NASA's Yammer resource. We encourage you to join the discussions.

Web Services and WESTPRIME

NASA has selected InfoZen Inc. of Rockville, Md., for the Web Enterprise Service Technologies prime blanket purchase agreement to support agency websites.

Orders against this blanket purchase agreement (BPA) will be issued on a firm-fixed-price basis. NASA estimates the volume of purchases through this BPA will be $40 million. The base period of performance will be one year with four one-year options.

This procurement will enable an agency-wide capability to create, maintain, and manage websites. The contract will provide a cloud-based solution for Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS) for internal and external websites and web applications. Those services include content management, and search and collaborative services, such as blogs and wikis.

Enterprise Licensing Management Team (ELMT) Is There for You!

The Enterprise Licensing Management Team Program has been around for years. It was established on April 1, 2008, at the NASA Shared Services Center (NSSC) to provide support for the discovery, analysis, establishment, and management of Agency enterprise software licensing. The ELMT maintains licensing and contract consolidation initiatives activities for NASA and negotiates economy of scale pricing for selected software. These enterprise agreements optimize cost savings by leveraging the full purchasing capacity of the Agency. By leveraging the ELMT, NASA can greatly improve the Agency's ability to identify, acquire, distribute, and manage software—and save NASA funds to use elsewhere. The establishment of Enterprise-level agreements (with the goal of achieving cost savings, cost avoidance, and providing increased capabilities at a better value) is being encouraged across the Federal Government.

ELMT services include

- Business case analysis for potential transitions to an Enterprise Agreement (e.g., Enterprise License Agreement, Blanket Purchase Agreement or consolidated Agency-wide contract)
- Establishment of new agreements with software original equipment manufacturers and/or value-added resellers
- Management of agreements, to include
  - Establishing an ELMT administrative infrastructure
  - Processing requests for the transfer of available licenses from a pool of available licenses to a Center
  - Supporting the procurement of additional licenses
  - Performing periodic software license validation audits
  - Reconciling vendor maintenance invoices and payment coordination
  - Facilitating license "true-up" activities prior to renewals or exercising of options
- Tracking licenses that have been phased out in lieu of participation in an agreement but are still Agency-owned and available to be reutilized by other NASA Centers.

The ELMT enables more efficient NASA software procurement and business processes through the standardization of many processes, contractual terms, and conditions. The ELMT develops a full awareness of many of NASA's software inventory. It leverages and adopts the best private- and government-sector practices as it seeks to streamline processes to maintain or improve the level of operations and support while delivering increased efficiencies and value to NASA. The management of NASA's software licenses through the ELMT can help eliminate duplicative coverage and overspending on software, thus increasing the overall value to the Agency. The ELMT's focus on strategic sourcing supports NASA's cost containment efforts and strives to support end-user productivity at a better value.

The ELMT's effort to consolidate software requirements and negotiate enterprise agreements for the Agency has the potential to realize significant total cost of ownership savings in software-licensing acquisition and maintenance for NASA. As NASA moves through FY13, the ELMT will continue to enhance its business focus by applying the same planning capability, attention to detail, and dedication to business operations that the NSSC consistently strives to provide the Agency.

For information on the latest ELMT news and activities, visit the ELMT website at http://www.nssc.nasa.gov/elmt/.

IT Talk

National Aeronautics and Space Administration

Office of the Chief Information Officer
300 E Street, SW (1225 Eye Street)
Washington, DC 20546

www.nasa.gov

NASA CIO