National Aeronautics and Space Administration

IT Talk

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Predicting The Next IT Decade

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In this Issue

Message from the NASA CIO

New Year's is often a time to start anew and fresh. And just like any other year, we have many hopes, dreams and things we want to accomplish. We've come a long way in the Office of the Chief Information Officer. Over the last year, the Information Technology (IT) Capability served as the pilot for the Agency Business Services Assessments (BSA). The BSA process establishes a more effective operating model that maintains a minimum set of capabilities and meets current and future mission needs. This all falls in line with meeting the Federal Information Technology Acquisition Reform Act (FITARA) requirements at NASA. FITARA is legislation passed in 2014 that among other things gives Agency CIOs the authority to sign off on technology acquisitions.

OCIO has made significant progress in the development of a solid implementation plan. We continue to improve effectiveness, shore up our IT Security, and provide service excellence. Across all 10 Centers we stand strong and committed to our IT mission.

Here are some key goals I'd like to see us accomplish in 2016.

1. Articulate my vision for the NASA CIO Community.

2. Continue to strengthen NASA's ability to align IT resources with Agency missions, goals, programmatic priorities, and statutory requirements.

3. Provide more transparency of IT resources and

4. Improve communications among and with the Center CIOs, OCIO staff, and our stakeholders.

5. Continue to upgrade our cybersecurity arsenal by

- updating existing, and implementing new, real-time monitoring capabilities;
- mitigating unprotected network access points;
- providing continuous employee cybersecurity training, to include anti-phishing exercises;
- adopting agency-wide security requirements for cloud computing; and
- increasing our level of focus on IT vulnerabilities.

It takes a team to accomplish these goals, but I know with your help we can get this done!

Happy New Year!

~Renee

Happy New Year from the OCIO Family!

Demystifying Internet of Things (IoT) Data

By Sandeep D. Shetye, OCIO Technology & Innovation Division

The Internet of Things (IoT) is really the collection of physical devices connected over the Internet. These devices can include routers, servers, applications, network devices, sensors, and gadgets that are connected to the Internet via specific application protocols and thus can be accessed and monitored from anywhere in the world. The terms *Internet of Things, Internet of Everything, Machine-to-Machine (M2M), Smart Systems,* etc. all refer to the idea that a device can be connected to the Web as well as to its user, thus increasing the capability of the device. This opens up new avenues of discovery for ways to use devices for real-time monitoring and response; innovations and improvements to sensors mean that future versions of such devices will adapt and respond to a user's needs.

A critical aspect of putting this technology in place is figuring out how to bring all of these devices together in a "log monitoring and analysis" platform, where organizations and users can efficiently use this data, analyze it, understand device activity, and produce insights and make decisions. The massive amount of machine data in the form of application logs, configuration files, message queues, log API, mail server/Web server logs, sshd events, SCADA data, syslog, etc., must be analyzed quickly and efficiently and take into consideration the issues of computer capabilities, rapid log synthesis/analysis, critical decision making, and storage.

So, what does this mean for IoT data management? One approach is to accept the diversity of data and develop an end-to-end IoT system monitoring framework that can leverage machine data. An integrated platform design (machine-to-cloud-to-dashboard) based on such a framework would specifically focus on data from network hubs, routers, servers, and other geospatial sensor datasets and would use data mining, integration, search and discovery, analytics, and collaboration techniques. This type of platform can be deployed behind a firewall, in a private cloud, or in public cloud such as Amazon Web Services (AWS). The platform's capability to work with a variety of Earth observations and other machine data makes it a leading-edge solution specifically catered toward efficient data filtering, tagging, machine data intelligence, log monitoring, and intelligent insights, all of which users can visualize in a dashboard.

Another possible solution is a streaming framework, which would be ideal for IoT applications where space and time are critical. Embedded devices emit streams of data either as time series measurements or as complex log entries, which include time and location. The streaming framework would receive and transform incoming readings in real time, potentially from thousands or millions of devices. The resulting data would be indexed and in the cloud and with free text. Using these processed data streams, it would be possible to do both interactive and programmatic data discovery and delivery.

TechPort: Chronicling Real Martian Technologies

By Ann Whitener, JSC TechPort Representative

NASA is on a journey to Mars and is turning science fiction into science fact. The Advanced Exploration Systems Program (AES) targets human exploration high priorities, including crew mobility, habitats, and vehicle systems. The AES Modular Systems Project aims to develop and demonstrate modular power design concepts for long term use in human exploration flight vehicles. Data on these and other programs and projects are chronicled in NASA's TechPort.

TechPort is a Web-based software system serving as a comprehensive resource for locating information about NASA technology development activities. TechPort contains a variety of useful information on these activities including technology descriptions, images, and the NASA Center or facility where work is being performed. The system provides advanced search capabilities to hone in on specific areas of development. Users can also export information and create customized reports on selected NASA Programs and Projects.

Within the past year a portion of TechPort data was made available to the public. Academic institutions, commercial ventures, and the general public can search TechPort to learn about game changing technology. As NASA develops new technologies and finds innovative solutions to challenges facing aeronautics, space exploration, and the greater scientific community, additional data will become available in TechPort.

Currently TechPort contains data on more than 1,200 active technology development programs and projects, and thousands of historical records. TechPort influences NASA strategy, budget decision-making process, and technology roadmap development. To learn more, visit TechPort (*http://techport.nasa.gov*) where NASA chronicles real Martian technologies.

What's All the Hype About?

By Nick Skytland, Data Management Analyst, OCIO Technology and Innovation

The development of the hyperwall has a long and storied history at NASA. As early as 1984, the need to visualize data was key in the development of supercomputers at Ames Research Center. Hyperwalls were developed to allow engineers and scientists to view their results spatially and in ways that allowed for a greater understanding of the mechanisms at work in their designs.

In 2002, NASA Advanced Supercomputing visualization experts developed a 49 LDC display system that allowed scientists to view complex datasets on a large, dynamic seven-by-seven screen array. Each screen had its own processing power, allowing each to display, process, and share datasets so that a single image could be displayed across all screens or configured so data could be displayed in "cells" like a giant visual spreadsheet. More recently, hyperwalls have been developed at other Centers, including Goddard Space Flight Center, where NASA's Scientific Visualization Studio has created a "big beautiful wall of high definition screens" used to display NASA's latest and greatest data visualizations, images, videos, and other presentation material, and

acting as a primary outreach platform for NASA's Science Mission Directorate. The hyperwall is an invaluable tool to help explore themes in Earth science, heliophysics, planetary science, and astrophysics.

After visiting the hyperwall at Goddard Space Flight Center, we were curious to see if we could build a similar hyperwall at the 1958 coworking space at Johnson Space Center. Less than two weeks later, and using existing hardware from around the office space, interns Donald Venus and Mackenzie Carlson were able to build a functional 12-screen hyperwall that allows for concurrent visualization of data. A first-person account of their work, spanning 2,000 Christmas songs and countless cups of coffee, is featured on the NASA Information Architecture and Data Management Web site at https://niam.nasa.gov/whats-all-the-hype-about.

PREDICTING THE NEXT IT DECADE

By Tom Soderstrom, IT Chief Technology and Innovation Officer, Jet Propulsion Laboratory, California Institute of Technology

Every three years, JPL IT predicts and socializes the key IT trends that will be relevant enablers in the coming ***IT Decade*** (the next three years). This strategy provides a good focus for the following three years and has proven exceptionally successful as it has enabled JPLers to take early advantage of emerging technologies to help fulfil NASA's mission. JPL IT has prototyped the key disrupters together with the most interested end users and industry innovators and have been able to adopt those that would become relevant and discard the ones that would not.

To demonstrate, here are the past JPL predicted IT Decades with just a few key results from the exploratory prototypes and resulting technology infusions.

2007-2009: "*Work with anyone from anywhere with any data at any time*".

- Enabled JPL to test and evolve Cloud Computing with missions and vendors such as Amazon and Microsoft.
- Led to Consumerization of IT and the adoption of consumer devices such as the iPhone, JPLTube, and a new customer board structure at JPL to help steer the IT path. This also led to the creation of the popular "Technology Petting Zoo", where users could take new technologies and devices for a test spin.

2009-2011: "*IT means Innovating Together*"

- Led to a retooling to produce and deliver mobile Apps
- Began the exploration of Big Data, analytics, and the advent of the IT Data Scientist.

2012-2014: "*Social, Mobile, Analytics, Cloud, Key disrupters (SMACK)*"

- Led to Search and Analytics as key enablers of Big Data.
- Began the rapid push into wearable computing, augmented reality, and 3D printing.

Well, it's time again to predict the Next IT Decade. The key driver this time is the tremendous

onslaught of innovations coming from consumer space, and the realization that they will penetrate the enterprise in a much bigger way than what we have seen before, whether we are ready or not. It goes way beyond new devices. Hence, the disruption. A key insight from these cycles of predicting, prototyping and infusing is:

> *Technologies advance quickly, human behavior changes more gradually, and Enterprise adoption evolves the most slowest. But they all depend on and impact each other.*

NASA and JPL employees are IT consumers and they will want what they see. And they will want it now. Although this is not news, what is new is the powerful and disruptive business models that come with it. Consider if the following were brought into JPL and NASA today and how the enterprise would respond. Could we share vehicles or equipment the way that ZipCar or Uber works? Could we share office space a la Airbnb? Would we host internal Hackathons and open development? How about using internal crowd-funding like Kickstarter of paying for projects with BitCoin? In the Next IT Decade, we may well need to.

2015-2017: *Engage and Enable Everyone and Everything (E4)*

Innovations from IT consumer space will evolve how we work with each other, with our environment, and with our tools. JPL IT will use E4 to …

- **Engage** employees through internal social media, internal hackathons and other crowdsourcing events, gamifications, quick-surveys, etc.
- **Enable** our employees through rapid prototyping facilities (both hardware and software), open development practices,

advanced search capabilities, cloud computing on demand and from multiple clouds with unlimited compute power and storage capacity, ground-breaking 3D printing capabilities, advanced immersive self-service analytics, consumer-driven business models and practices, reduced bureaucracy, and much more.

- **Everyone** will be energized through rapid prototyping and crowd sourcing events, creative open facilities, seamless identity federations, new programming metaphors, startup-like environments inside NASA and JPL, extremely low-cost devices and computers, and a renewed focus on the individuals' participation.
- **Everything** will be reachable and configurable because of rapid prototyping, Smart Data, adoption of the devices and business models from Internet of Things, and Software Defined Networking.

As we predict and prototype the E4 strategy in Next IT Decade, we hope that the results will aid JPL and NASA employees who directly and indirectly support the search for Earth 2.0, try to capture a boulder from an asteroid, search for signs of life on Mars and beyond, explore icy planets that may harbor life, help protect Mother Earth, share the wonders of space with the global citizenry, try to understand how the Universe was created and where it is going, and so much more. **This is the reason we Innovate Together. Please join and help us rapidly chart and prototype this next phase of our exciting journey.**

How Can We Experience Tomorrow's Innovations Today?

By Tom Soderstrom, IT Chief Technology and Innovation Officer, Jet Propulsion Laboratory, California Institute of Technology

Why do users sometimes not like the awesome IT we provide to them? We in JPL IT think the simple answer is that the user experience just wasn't good enough.

If the most important factor to user adoption is a positive user experience, we should pay more attention to it. Especially to new, unproven experiences or user interfaces. But how? One way could be to build a facility that's customized to test new user experiences quickly, inexpensively, and ask the users to tell us what they think.

To that end, JPL IT has just created the "Innovation Experience Center". This is an open development facility where we rapidly prototype new innovations and where users (IT and non-IT users) are encouraged to "come in and experience the future today". We relocated a group of developers and parts of the JPL IT Petting Zoo into this open environment. We hold frequent open house events, immersion on selected experiences, development deep dives and hackathons, and discussions on how to evolve the network and cyber security to allow these experience to flourish. It's also where many of the advanced cloud innovations occur.

Videos of these experiences are created and shared to allow people to interact with them on a Website from anywhere.

Experiences currently being prototyped include:

- **Voice control through Amazon Echo's Alexa interface** (we have taught Alexa to speak "JPL", send messages via Slack, drive a rover, scrape websites, and more).
- **Touch Screen control and visualization** through several devices.
- **Internet of Things** (through devices such as Philips Hue lights, Little bits prototyping, Raspberry PIs, switches and other controllers, SmartThings, WeMo, etc.)
- **Cyber Security analytics** (involving a variety of dashboards, lights, and more)
- **Immersive analytics that involve many senses** (including displays, lights, sounds, speech, and voice control)
- **Social Media analytics**
- **Collaborative multi-touch virtual whiteboards coordinated with handheld devices from local and remote**
- **JPLVIEW** (a virtual window to the outside enabled by a Raspberry Pi for buildings without windows)
- **3D printing and scanning**
- **Portable power**
- **Holographs**
- … and more is coming every day.

When we can show users a new prototype experiences, they will provide feedback and improve those experience extremely quickly. Next time you are at JPL, come in and experience the future today… and help us improve it. We'll be listening and NASA and JPL employees will benefit.

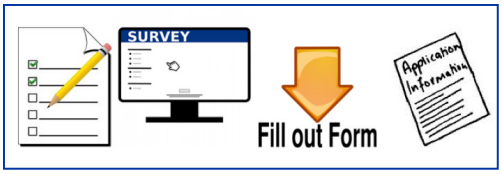
Deborah Diaz Named Winner of the 2015 Digital Innovation Award

Congratulations to Deborah Diaz, NASA CTO for IT, for being the winner of the 2015 Digital Innovation Award. Diaz was presented with the award at FedScoop's Digital Innovation Summit in Washington, DC, on October 14, 2015. Diaz was one out of 22 people nominated for the award. The nominated individuals were innovators from across the enterprise, who cut through Government red tape while leading the move toward new Federal digital standards, such as:

- practicing open principles and transparency;
- championing the Digital Government Strategy and Digital Services Playbook;
- leveraging agile practices in product development and acquisition; and
- pioneering the move from legacy systems to new, modern technologies.

The Digital Innovation Award is the first of its kind to celebrate the digital disruptors leading Federal Government into the 21st century. American citizens demand around-the-clock digital services in all walks of life, and these innovators recognize that Federal agencies must elevate their digital influence to better serve the public and achieve mission success.

Paperwork Reduction Act



Do you need to create a survey, questionnaire, form, application, Web survey, or report? Do you want to collect information from the public? Do you need to make modifications to a current form?

If you need to do any of these things, then you need to know more about the Paperwork Reduction Act (PRA)!

What Is the PRA?

The PRA was created to minimize the public's paperwork burden resulting from the collection of information by or for the Federal Government. The PRA is a response to public complaints about the burden of Federal paperwork. Each year, the Office of Management and Budget (OMB) tracks the total burden and sets goals for reducing the paperwork burden.

When Does the PRA apply?

In general, Federal agencies must obtain approval from the OMB before using identical questions to collect information from 10 or more members of the public within a 12-month period. "Information collection" includes Web surveys, reporting forms, or customer satisfaction surveys, just to name a few. OMB approvals for information collection expire after three years.

Why Do I Need OMB Approval for My Survey/ Web Site/Form?

NASA needs to be in compliance with the PRA. If NASA has an active information collection that is covered by the PRA, but is not approved by OMB, it is considered a violation of the PRA. NASA is required to report to OMB annually on its PRA violations.

Doesn't the PRA Just Create More Paperwork?

The PRA is intended to reduce the paperwork burden for the public; it is not intended to reduce the paperwork burden for Federal employees.

Are Contractors Considered Members of the Public Under the PRA?

Yes, contractors are considered members of the public.

How Long Does It Take To Go through the PRA Review Process?

The PRA review process can take from 6 to 9 months to complete. There is also a fast-track process that can be used in limited cases. Approved information collections must display an OMB control number, a PRA statement, and an expiration date.

What Must I Do Before My OMB PRA Number Expires?

An OMB approval only lasts for three years. If the collection is still necessary, the information collection must go through the review process before the information collection expires. If the collection is no longer needed, the information collection needs to go through the cancellation process.

Who Can Help Me with the PRA Process?

Please contact the NASA PRA Compliance Officer, Fran Teel, at *Fran.Teel@nasa.gov* or the NASA Business Manager, Tereda Frazier, at *TeredaJ.Frazier@nasa.gov*.

Where Can I Find More Information on the PRA Process at NASA?

Please visit: *https://inside.nasa.gov/ocio/capital-planning-governance/information-management/nasa-paperwork-reduction-act*.

IT Labs Update

Technology and Innovation (T&I) Labs is a program from the Technology and Innovation Division of NASA's Office of the Chief Information Officer. It is an innovation incubator, soliciting ideas from NASA's workforce and enabling their development as part of a rapid, low-cost, low-risk process. We recently concluded the 4th annual Innovation Challenge for FY15. Ten ideas were awarded funding of up to $30,000 each, including two Phase 2 returning projects and eight new innovations.

The T&I Labs 5th Annual Innovation Challenge will open January 4, 2016, and will close on February 8, 2016. If you have an idea or a concept you feel would enhance NASA's mission, please visit our Web site to find information about submitting your innovation.

T&I Labs highly encourages previously funded projects to apply for the next phase funding.

For more info on T&I Labs program and to submit your idea, visit *https://labs.nasa.gov*. You may also contact us directly by e-mail at *HQ-TI-Labs@mail.nasa.gov* or through Twitter at *@NASA_TI_Labs*.

IT Infrastructure Integration Program (I3P) Update

Communications Service Office (CSO)

The Communications Services Office (CSO) recently completed the final activity of the Corporate Route Symmetry (CRS) Project. The project created a symmetric routing path for Internet traffic for the Agency as well as enabling follow-on projects to provide Department of Homeland Security (DHS) Trusted Internet Connection (TIC) Compliance. TIC Compliance is a Government mandate that provides a means to monitor and protect Federal Government IT assets. The old method of CSO Internet routing utilized a "best path out" method of routing that often caused asymmetric traffic patterns. This did not interoperate well with security devices that must have visibility of both directions of traffic and a symmetrical flow. With the completion of the new routing infrastructure, the symmetrical routing allows for the insertion of security devices at the border of the network, creating an Agency-level security perimeter and making the NASA internal network a "trusted network". The new infrastructure also modified NASA's external network (access to the public Internet) to reside solely outside the new security perimeter, making it a "peering" or "untrusted network". In addition to enabling the symmetrical routing within the CSO routing infrastructure, the project laid the groundwork of the provision of an overall Agency end-to-end Quality of Service architecture, extending the work into the NASA's Center Local Area Networks.

The Consolidated Network Operations Services (CNOS) project is nearing its completion date of March 2016. Over the last two years, the team has worked with each of the NASA Centers to consolidate day-to-day operations of NASA's corporate network. The project was divided into four releases to address specific operations services for the purpose of accomplishing the changes to operations in a seamless manner that was non-intrusive to the end-user community. Consolidation of monitoring the network and managing the infrastructure components of firewall, VPN, wireless controllers and switches/routers has been completed, reducing the cost of these operations to NASA. The last release—underway at this time—will be the consolidation of firewall rule implementation and DDI support. Consolidated enterprise operations provide the Agency with end-to-end management of its entire corporate network, standardizes the operations processes, and reduces the cost for the overall operations of the network providing assets and resources for other improvements to the communications service to the end user.

Computing Services Service Organization (CSSO)

In anticipation of a rapid increase in Agency cloud usage, the Computing Services Service Office (CSSO) recently finished its initial integration with the NASA Enterprise Services Desk (ESD), enabling customers to request assistance by logging an ESD ticket. CSSO customers, using CSSO's Amazon Web Services (AWS) Infrastructure-as-a-Service (IaaS) offering, can open a ticket today, with other cloud services planned for the future.

CSSO completed the acquisition of a Cloud Computing Cost Management package that will be used to reduce the burden and complexity associated with generating monthly cost reports for the growing customer base of IaaS customers. Customers will likely see revised-format standard reports in the future, along with planned abilities to view daily cloud spending and produce custom cost reports.

The CSSO now has the ability to provide customers with access to AWS Professional Services, offered by a member of the AWS Partner Network. This enables customers to acquire consulting, design, and configuration assistance when migrating existing applications or deploying new applications within AWS.

In the area of cloud networking, CSSO, working closely with the Communications Service Office (CSO), has implemented redundant and resilient network connectivity between NASA and AWS regions within which NASA operates. Similarly, CSSO is teaming with CSO to ensure NASA connectivity to AWS is operated as an enterprise-class service, ensuring network capacity, performance, and availability are managed appropriately on behalf of the entire Agency.

Lastly, NASA employees are encouraged to sign up for the NASA Cloud Community of Interest (CCOI) email distribution list, to be notified of each month's planned presentation. Cloud computing is proving to be a disruptive technology with many benefits, and it is changing the way NASA computes. The CCOI is a great place to keep informed of the activities of NASA's cloud pioneers and developments in the fast moving cloud industry. Recent CCOI topics include "How Infrastructure-as-Code enables Continuous Software Delivery at Lightning Speed" and "Counting Trees from the Cloud: An Overview of GSFC's Head-in-the-Clouds-Challenge Project." Send an email to: *NASA-ADCC@mail.nasa.gov* to request being added to the CCOI distribution list.

End-User Services Office (EUSO)

Computer Refreshes: ACES computer refreshes are now underway, with upgraded seat offerings that provide users with more lightweight laptop options, greater memory (RAM), and more choices to meet their computing needs. The timing for refresh is based on several factors, including the age of a user's computer. Users will receive e-mail notifications prior to their refresh, which indicates the actions they must take to engage in the refresh process. During this refresh cycle, peripherals, such as monitor(s), mouse, and keyboard, will not be replaced unless there is a compatibility issue between old and new devices. This is part of NASA's effort to "green" technology and is more environmentally friendly. Users are encouraged to study the available computer models. For more information refer to *https://aces.ndc.nasa.gov/subnav/seat.html.*

Mobile Device Management (MDM): End users have until December 31, 2015, to enroll their current ACES-managed iPhones, Androids, and iPads in NASA's Mobile Device Management (MDM) program. NASA is implementing MDM to better protect NASA-related information and assets and reduce the potential risk to NASA systems. Users receiving a new device will also be required to complete MDM enrollment upon receipt of the new device. For more information, go to: *https://aces.ndc.nasa.gov/subnav/mdm.html*.

Important User Reminder: In order to receive security software upgrades each Tuesday night, ACES users need to leave their computers powered on, logged off (at the Windows login prompt), and connected to the NASA network. If you follow these steps your computer will be automatically updated and rebooted with no further interaction for most upgrades.

Enterprise Applications Service Office (EASO)

NEACC Release 16.1 was successfully completed, including fiscal year end close and start-up activities with limited end-user downtime experienced. Financial enhancements provided with this release included improved capabilities to establish and maintain NASA program/project structures along with improved Budget Execution capabilities to facilitate monthly planning and tracking. The Integrated Planning Tool will be the Agency's official phasing plan system. This tool will be fully integrated with SAP and Business Warehouse (BW)/ BOBJ (new SAP BW Tool) to capture budget controls as well as reporting monthly actuals performance. Procurement enhancements included improved electronic signature capabilities and security alignment.

New Four Certificate Personal Identity Verification (PIV) Smartcard: All NASA PIV Smartcards must be upgraded to the latest version to remain in compliance with Federal policy. Badging Offices across the Agency will begin distributing the next-generation PIV Smartcard known as the Four Certificate (Four Cert) Smartcard beginning December 1, 2015.

The new Four Cert Smartcard provides a stronger identity assurance and can be used for physical access, desktop login (currently only available to Windows machines), as well as for signing and encrypting e-mails.

NASA employees who already possess PIV Smartcards will receive notification to update to the Four Cert Smartcard when their current PIV Smartcard is ready to be upgraded. Instructions on desktop configuration for signing and encrypting e-mails will be provided to assist with the transition.

NASA employees acquiring the PIV Smartcard for the first time will receive the Four Cert Smartcard from their respective Badging Offices and provided desktop configuration instruction for signing and encrypting e-mails.

By the fall of 2016, all PIV Smartcard holders should be transitioned to the Four Cert Smartcard. Watch for further communications as to when your PIV badge will be upgraded.

Enterprise Service Desk (ESD) Notifications Tool Available

The ESD Notifications Tool has now migrated into ServiceNow within the ESD. NASA personnel are now able to post notifications and send e-mail notifications related to their services using *ESD Tier 0*. As an ESD end user, you have the ability to subscribe to a notification in order to receive all notifications related to that service.

If users were previously subscribed to receive notifications from the ESD in one or more categories, it is necessary to come to ESD Tier 0 and re-subscribe to any notifications categories of interest. Subscription preferences will not be created in ServiceNow based on current settings so all interested users must come to ESD Tier 0 and subscribe again to continue seeing posted notifications.

To view a quick tutorial, see *Notifications Tool Training.*

ESD Web Inquiries on the Rise

Since the October 5 migration to ESD's ServiceNow, Tier 0 web-inquiries have increased by two-percent. This illustrates end-users are comfortable using the web site to submit incident tickets requesting help to resolve issues. This allows Agents to respond during off-peak times, and end-users don't need to wait on the phone, on hold. ESD's Customer Satisfaction Score, was 99.5 percent, for November 2015, underscoring satisfaction with the quick turnaround received from ESD's call-agents.

Mentoring Minds

Congratulations to John Sprague, Technology and Innovation Division Deputy in the Office of the Chief Information Officer, who received the Headquarters 2015 Mentoring Honor Award on December 8. The award recognizes employees who have demonstrated excellence in mentoring; effectiveness in transferring personal knowledge of meaningful advice, insight, and experience; and/or insight into unique mentoring needs. For the past three years, Sprague has been a part of the Headquarters nine-month Employees Mentoring Employees for Readiness, Growth and Excellence (eMERGE) Program.

At left: *Associate Administrator Robert Lightfoot, John Sprague, and NASA Administrator Charles Bolden. John Sprague recieved the 2015 NASA Honors Award for Mentoring.*

Headquarters Honor Awards

Congratulations to OCIO team members John Walsh, Lori Parker and Dana Mellerio. The three received a team excellence award for outstanding contributions that made NASA's first FedStat meeting a success. In 2015, the Office of Management and Budget instituted a new meeting requirement for all agencies to provide strategic input into the FY2017 budget formulation process. Known as FedStat, this meeting was designed to replace several disparate reviews of agency performance into a single, holistic discussion. FedStat is an incredibly high visibility meeting between NASA, White House, and General Services Administration (GSA) senior leadership.

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