ABSTRACTS

Understand the Meaning of Your True Colors

Maday Anderson
MADAY CONSULTING

Room: Baltimore 1 and 2
Track: Collaboration

Do you know what drives you? Why do you react, behave, communicate, and think the way you do? How do others perceive you? How well do you work with others? What causes you stress?

This brief session is only the beginning to understanding your contribution to becoming a cohesive team. True Colors addresses the Forming stage of team development and work-group dynamics to achieve collaboration toward a common vision and mission. By applying your True Colors, you will:

- Learn how to enhance interactions with others
- Discover your communication preferences and style
- Reach mutually beneficial outcomes with others
- Learn to minimize conflict
- Enhance your leadership style
- Form cohesive teams
- Improve communications at all levels of management
- Learn how to customize your communication approach
- Bring visibility to your strengths and contributions to a team

Defining the Mobile Cloud

Dr. Steven A. Warner
Principal Technologist Enterprise Systems
NORTHROP GRUMMAN

Alexander F. Karman
Technologist
NORTHROP GRUMMAN INFORMATION SYSTEMS/
ADVANCED TECHNOLOGIES GROUP

Room: Baltimore 3 and 4
Track: Waves of the Future

In this presentation we attempt to answer "What is the mobile cloud, and how does it differ from 'regular' nonmobile cloud computing?" Many questions further arise from this. Is "mobile cloud" accessing the cloud with mobile devices, or is it actually extending the cloud onto these devices? What if we could build vendor-neutral rich Internet applications, possibly even moving the business logic into the cloud, and retain in the mobile environment only local storage and screen handling? Have we now achieved the "mobile cloud?" Or, is this just a multitenanted grid?

We may also consider extension of virtualization or other sophisticated deployment technologies into mobile environments. Virtualization may allow mobile devices to shrink even smaller, relying on spatially-aware just-in-time firmware downloads to provide only the applications the user needs for the current time and place. Is this then the "mobile cloud?"

New capabilities bring new concerns. Quality of service is a consideration. Confidentiality, integrity, and other foundational tenets of information assurance must be addressed in "mobile cloud" computing. Legal and technical considerations also arise. What are the optimum design patterns to take advantage of these environments? Can the topology of a large and volatile mobile network be understood in real time? How do we balance between providing adequate disconnected capabilities, yet still maintain a reasonably lightweight and portable application environment? How do we provide high service levels in the face of highly intermittent connectivity?

Shared Services in the Public Sector

Rick Arbuthnot
Executive Director
NASA SHARED SERVICES CENTER

Room: Annapolis 1 and 2
Track: Infrastructure and Operations

Federal agencies are facing a challenge to optimize performance and at the same time deliver real-world results. The NASA Shared Services Center (NSSC) offers high-quality support services to NASA in the areas of financial management, human resources, information technology, and procurement. Through a historical perspective, this presentation will enhance your knowledge of the shared services concept and how NASA realized improvements in mission support by concentrating, combining, and colocating certain administrative and business activities into a new shared services organization.

Putting the Risk Management Framework to Work: Automated Continuous Monitoring

Jerry L. Davis
Deputy CIO, IT Security
NASA AGENCY

Room: Annapolis 3 and 4
Track: IT Security and Privacy

The presenter will discuss NASA's method for managing IT security risks through automated continuous monitoring. Risk management, security controls selection, and tools used to implement continuous monitoring will be discussed.

Cyber Infrastructure for Aircraft Mission Support

Lawrence C. Freudinger
MISSION INFORMATION AND TEST SYSTEMS DIRECTORATE
DRYDEN FLIGHT RESEARCH CENTER

Room: Chesapeake E and F
Track: Innovation

For several years, NASA's Airborne Science program has been developing and using infrastructure and applications that enable researchers to interact with each other and with airborne instruments via network communications. Use of these tools has increased near-real-time situational awareness during field operations resulting in productivity improvements, improved decision making, and the collection of better data. Advances in premission planning and postmission access have also emerged. This presentation will discuss integration of these capabilities with other tools resulting in a coherent service-oriented enterprise architecture for aircraft flight and test operations.

CIO Experiences and Lessons Learned

Dave Bowen
Assistant Administrator for Information Services
Chief Information Officer
FEDERAL AVIATION ADMINISTRATION

John Meyer
Assistant Chief of Staff for Information Architecture
Command Information Officer (CIO) for the Commander
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

Dave Wennergren
Deputy Assistant Secretary of Defense for Information Management and Technology
Deputy Chief Information Officer
DEPARTMENT OF DEFENSE

Room: Chesapeake H and I
Track: CIOs Speak

Chief Information Officers (CIOs) face daily challenges as they attempt to deliver business results that are faster and better using fewer dollars and less man hours. They are in a field where they, perhaps, stand alone with the worry on how to move forward through this economic crisis while maintaining a state-of-the-art infrastructure. They are driven to manage in an effective, efficient, and secure manner ensuring a resilient system that meets the needs of the customer they support. Federal CIOs will discuss their experiences and lessons learned as they strive to provide exceptional customer service.

A New Perspective on IT Projects: Lessons Learned Doing a Detail to Another Agency

Emma K. Antunes
IT Specialist
GODDARD SPACE FLIGHT CENTER

Room: Baltimore 1 and 2
Track: Collaboration

Emma K. Antunes spent the last 6 months on detail to the General Services Administration (GSA), working on a collaboration project aimed across the Federal Government. She will talk about IT, management, and managing your money.

Security and the Cloud

Dale Wickizer
Chief Technology Officer
U.S. PUBLIC SECTOR
NETAPP

Room: Baltimore 3 and 4
Track: Waves of the Future

A cloud-based, data-management platform that serves multiple tenants, which in turn might have multiple applications, can and should protect all of those applications in the same, unified way. This ideal "secure multi-tenancy" architecture avoids the need to have a different approach for each application and for each tenant. In addition to edge security, a true secure multi-tenancy solution must enforce separation of tenants (along with quality of service) through each layer of the architecture (i.e., server, network, and storage), while still allowing tenants to utilize best-of-breed solutions from multiple vendors. Adopting a unified security posture for multiple tenants dramatically reduces risk to Federal agencies and improves continuity of Government.

Enterprise Service Desk: NASA's Single Point of Contact for Customer-centric Service and Support

Terry D. Jackson
Deputy Director, Business and Administration Office
NASA SHARED SERVICES CENTER

Paul J. Rydeen
Project Manager, Enterprise Service Desk and Enterprise Service Request System
NASA SHARED SERVICES CENTER

Room: Annapolis 1 and 2
Track: Infrastructure and Operations

The Enterprise Service Desk (ESD) is a foundational component of NASA's IT Infrastructure Improvement Program's (I3P) strategy for delivery of core IT infrastructure services. Managed by the NASA Shared Services Center (NSSC), ESD will serve as the Single Point of Contact (SPOC) for enterprise services support. Additionally, it will provide a unified interface between the customer and the I3P contracts that are identified as ACES, NICS, WEST, EAST, and NEDC. Using customer-focused, service-level agreements, the ESD provides Tier 1 and Tier 0 help desk support, a service ordering system, IT infrastructure outage notification support, an IT infrastructure configuration management repository, and performance metrics collection and reporting for I3P services.

Using IT concepts, processes are standardized, workflow consistency is documented and realized, and continuous improvement is constantly reviewed and implemented. Implementing the ESD within the NASA Shared Services Center ensures a focus on customer service by providing a structured management of customer interactions, a customer feedback program, transparency in performance and costs, and a formal governance structure. Over time, the ESD will be expanded to a full enterprise service desk with service request capability, as the service framework matures beyond the I3P service offerings to support Center-specific IT and non-IT services. This presentation describes the customer-centric service and support provided by the ESD.

FISMA Next Generation: Managing Risk in an Environment of Advanced Persistent Cyber Threats

Dr. Ron Ross
Senior Computer Scientist and Information Security Researcher
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Room: Annapolis 3 and 4
Track: IT Security and Privacy

Protecting core enterprise missions and the information systems supporting those missions in an environment of increasingly sophisticated cyber threats must be a top priority for senior leaders today. Adversaries exploiting vulnerabilities in organizational information systems through well-orchestrated cyber attacks can lead to a degradation or loss of service and exfiltration of proprietary or sensitive information. Information system breaches and data losses can have a long-term debilitating effect on the productivity and survivability of businesses. Establishing a strong and robust information security program and employing a flexible and dynamic risk-management framework can help corporate leaders protect organizational operations and assets from the potential adverse impacts resulting from both routine and advanced persistent cyber threats. NIST, in partnership with the Department of Defense and Intelligence Community, is revising and updating its key FISMA-related standards and guidelines to address these new information security- and risk-management challenges.

Creating Transparency Through *Data.gov*

Sanjeev Bhagowalia
Government Services Administration (GSA)
DATA.GOV PROJECT MANAGEMENT OFFICE

Jeanne Holm
Government Services Administration (GSA)
DATA.GOV PROJECT MANAGEMENT OFFICE

Room: Chesapeake E and F
Track: Innovation

Data.gov has been a trailblazer in the arena of opening Government data to the public. The initiative from the Federal CIO, Vivek Kundra, was created to enable anyone to develop apps, conduct research, and help the Government be more effective and efficient by providing access to raw data. NASA contributes datasets to *Data.gov* from across the Agency, from engineering standards to Agency performance to images from missions to Earth and the planets. Join in the discussion as we look at how *Data.gov* is moving forward to facilitate community events and discussions with developers, educators, students, international partners, and state, local, and tribal governments.

IT PMB: Executive Oversight and Decision Authority for Application and Infrastructure Projects at NASA

Larry N. Sweet
Director, Information Resources
JOHNSON SPACE CENTER

Room: Chesapeake H and I
Track: CIOs Speak

What is "IT Governance" and how does it affect your IT projects at NASA? Compliance initiatives are partly responsible for the rising interest in IT governance. Unmanaged IT projects can easily get out of control and profoundly affect the performance of an organization. Key decisions can no longer be deferred to the IT professionals. Instead, stakeholders must have input into the decision-making process. NASA's IT governance encompasses the structure, inputs, outputs, activities, and decision rights necessary to facilitate the effective and efficient use of IT. This presentation covers the governance board structure of NASA's IT Program Management Board (IT PMB) that provides executive oversight and decisions on the life cycle of all IT investments approved by the IT Strategy Investment Board (IT SIB).

A Roadmap to Continuous Integration

Bruce Altner
Senior Software Architect
INDYNE, INC.

Brett Lewinski
Technical Area Expert
INDYNE, INC.

Room: Baltimore 1 and 2
Track: Collaboration

This presentation describes a plan for adopting continuous integration (CI), a set of automated software build-and-test practices, within an application development environment. There are numerous benefits in adopting CI, including increased productivity, improved quality, and reduced risk. There also are challenges, and these will be discussed as well. The paper presents a total perspective of CI, including a description of the CI build cycle, different types of processes that might be included in an automated build, and the important roles played by the central CI build server and the software version-control system.

Not all teams are at the same maturity level at the same time. The presentation will include a published *CI Maturity Model* that groups specific practices into different maturity levels that a development team might adopt. The *CI Maturity Model* helps to frame subsequent discussions concerning CI practices that make the most sense to implement first. Also included will be a brief discussion of industry best practices in CI in the areas of building, testing, and deploying projects, as well as reporting and governance.

Internet2: Supporting Next Generation Networking

Christian Todorov
Director, Services Management
INTERNET2

Room: Baltimore 3 and 4
Track: Waves of the Future

Internet2 is a not-for-profit, foremost U.S. advanced networking consortium comprised of more than 200 U.S. universities in cooperation with 70 leading corporations, 45 Government agencies, laboratories, and other institutions of higher learning, as well as more than 50 international partner organizations. Led by the research and education community since 1996, Internet2 promotes the missions of its members by providing both leading-edge network capabilities and unique partnership opportunities that together facilitate the development, deployment, and use of revolutionary Internet technologies

By bringing research and academia together with technology leaders from industry, Government, and the international community, Internet2 promotes collaboration and innovation that has a fundamental impact on the future of the Internet and the ways in which the Internet2 community uses the network today. The use of the advanced capabilities of the Internet2 network facilitates e-science across multiple disciplines from physics, astronomy, weather prediction, health sciences, and many others.

Internet2 has provided networking services to the Department of Energy research network, Energy Sciences Network (ESnet), and will be providing the networking services that will be the foundation of the new National Oceanic and Atmospheric Administration (NOAA) Research Network. These partnerships with Government networks occur in tandem to and in partnership with the traditional Internet2 research network. Though Internet2 is a high-performance network focused on the needs of research, it is operated as a production carrier-class network.

The Changing Face of Infrastructure and the Operational Agility Needed to Manage It

Darrell Graddy
Vice President
LOCKHEED MARTIN ENTERPRISE IT AND DATA SOLUTIONS

Mahesh Kalva
Chief Technology Officer
LOCKHEED MARTIN ENTERPRISE IT AND DATA SOLUTIONS

Room: Annapolis 1 and 2
Track: Infrastructure and Operations

Emerging technologies and advances in cloud computing, virtualization, mobile devices, green IT, social networking, cyber security, and data center consolidation are changing the face of infrastructure solutions in organizations. This session will discuss how IT organizations need to stay nimble and agile to handle this challenge and also weighs in on the consumerization of an enterprise. Executive and technologist perspectives on the financial, strategic, and operational aspects of this dynamic

environment and how IT organizations can be effective in successfully delivering outcomes to meet the missions of organizations will be presented.

IT Challenges for Space Medicine

Kathy A. Johnson-Throop
Branch Chief, Medical Informatics and Healthcare Systems
JOHNSON SPACE CENTER

Room: Annapolis 3 and 4
Track: IT Security and Privacy

Space medicine provides healthcare services of various types for astronauts throughout their lifetime, starting from the time they are selected as astronauts. IT challenges include the following: protection of private medical information, access from locations both inside and outside NASA, nearly 24 x 7 access, access during disasters, international partner access, data archiving, off-region backup, secure communication of medical data to people outside the NASA system (e.g., expert consultants), efficient movement of medical record information between locations, search and retrieval of relevant information, and providing all of these services or capabilities within a limited budget. In Space medicine, we provide for these in various ways: limit the amount of private medical information stored locally; utilize encryption mechanisms that the international partners can also use; utilize two-factor authentication and virtualized servers, as well as employ concept-based search; and use standardized terminologies and messaging.

Cloud Computing Uses in NASA Missions, Ground Systems, and Science Processing Systems

Daniel Whorton
Chief Technology Officer
STINGER GHAFFARIAN TECHNOLOGY, INC.

Room: Chesapeake E and F
Track: Innovation

NASA's demanding mission requirements drive IT systems that are very complex and expensive to support. Can cloud computing reduce costs and development time of NASA systems? What is the impact on support of the systems through the life cycle of the system? Using older technologies, NASA projects often develop large custom applications and systems that are very expensive to develop and support, especially over a long-life mission.

This presentation will deliver an evaluation of the potential areas of NASA mission IT that would benefit from the use of cloud-computing technologies. We will evaluate development cost performance, manageability, availability, and security with current and near-future technologies. Areas to be considered include mission ground systems, mission planning systems, science processing systems, development systems, and simulators. The presentation will identify the areas that are the "low-hanging fruit" for reducing costs and delivering mission success through the use of cloud computing, as well as starting a roadmap to future implementations. This presentation will demonstrate that NASA can achieve improved performance on mission IT with the use of shared-cloud computing.

Dare to Dream: Managing IT at JPL

James Rinaldi
Chief Information Officer
JET PROPULSION LABORATORY

Room: Chesapeake H and I
Track: CIOs Speak

The Jet Propulsion Laboratory (JPL) is a Federally funded research and development center and NASA Field Center managed by the California Institute of Technology. It is the lead U.S. Center for robotic exploration of the solar system. Imagine the life of the Chief Information Officer (CIO) in such a fascinating and trailblazing environment. Dare to dream about the opportunities that are presented as the CIO manages high-end computing and provides unique support to the scientific and project communities. This presentation will cover management of IT systems and infrastructures as well as the challenges faced in managing IT as new paths are laid at JPL in support of NASA's mission.

Effectively Using Social Medial Within Business Organizations

Kevin D. Jones
Internal Social Media Strategist
MARSHALL SPACE FLIGHT CENTER

Room: Baltimore 1 and 2
Track: Collaboration

Enterprise 2.0 uses social tools within organizations for performance improvement, innovation, and communication. Because it is new, most people do not know what it should look like or how it should work within an organization.

What does collaboration look like with these tools? What works and what does not? How open should my solution be? What about monitoring? How do I get people to adopt social technologies? What types of tools are out there? What are some critical things I can't miss when putting together a social strategy? What do I do about those who will resist this? What part does culture play in the adoption of these tools? What about records retention, security, and governance? Should it come from the top down or from the bottom up? What do we do about the social applications that are springing up at my Center? Should I even use the word "social?"

The presentation will take a look at these and other questions in addition to answering questions you may have about putting together your internal social media and networking strategy.

Government and the Revolution in Scientific Computing

Lewis Shepherd
Director and General Manger
MICROSOFT'S INSTITUTE FOR ADVANCED TECHNOLOGY IN GOVERNMENT

Room: Baltimore 3 and 4
Track: Waves of the Future

A recent increase in Government R&D investments in selected areas of national interest, coupled with the first-ever appointments of a Federal CIO and CTO, are coinciding with an exciting new stage in scientific research among massive amounts of data. Innovations in technology are transforming our ability to measure, monitor, and model how the world behaves, with profound implications for scientific research. NASA scientists are among those who will have the opportunity and ability to transform the way we tackle global challenges like space travel and climate change. This talk will examine the Government's role in driving scientific investment, its influence on engineering and business, and the radical new class of super-powerful technologies enabling large-data research and computing on platforms of real-time and archival Government data.

Success Stories from IT Consolidations

Karen Petraska
Acting Program Executive for Data Centers
HEADQUARTERS

Corinne Irwin
Project Executive for Authentication and Authorization
HEADQUARTERS

John Sprague
Project Executive for End-User Services
HEADQUARTERS

Room: Annapolis 1 and 2
Track: Infrastructure and Operations

As the state of IT has matured, enterprises have begun to move away from workgroup and organization based IT infrastructure to scalable, centrally managed infrastructure services. Cost efficiency is a common reason to make that migration, but there are many other benefits to the organization and end users. NASA has migrated a variety of services to enterprise infrastructure, and the speakers in this session will talk about some of those migrations, the path to success, the obvious and some less obvious benefits of consolidation, and the overall integration challenges.

Deliver IT Innovation and Optimize IT Service Delivery with ITIL Practices

Terence Okus
Senior ITIL, ITSM Consultant
HP ENTERPRISE SERVICES

Room: Annapolis 3 and 4
Track: Governing IT and Managing Projects

In government, business and technology circles, the IT Infrastructure Library, or ITIL®, is viewed as the most widely accepted approach to IT Service Management (ITSM) in the world. ITIL provides a cohesive set of best practices, drawn from both the public and private sectors and is the backbone for structuring the delivery of IT in a way that optimizes service quality, improves service levels and reduces costs. The latest version, ITIL V3, has become the de facto standard for IT service delivery, especially with its emphasis on managing the service lifecycle and providing value to the business and how technology can best be leveraged to enhance that value. HP, as the largest provider of outsourced IT infrastructure in the world, wrote more of ITIL V3 than any other company, including "Service Operation," one of the five ITIL V3 core books. A key part of "Service Operation" addresses how to effectively respond to changes in an organization's mission, business and IT environments to achieve stability and flexibility and provides the framework to enabling the delivery of innovation into an existing environment. This presentation will highlight key lessons and best practices to successfully implement ITIL, the introduction of IT innovation into IT service delivery, and our interactions with the ITIL governing body.

Facilitating Project Management and Systems Engineering with Collaborative Technologies

Mario Ortega
Senior Associate
BOOZ ALLEN HAMILTON

Sean Gallagher
Senior Associate
BOOZ ALLEN HAMILTON

Room: Chesapeake E and F
Track: Destination: Space—Developing an Innovative Workforce

Today's Enterprise Performance Management (EPM) suites provide robust, standard program and project management capabilities to include schedule and resource management, and even advanced capabilities such as earned value management (EVM). For robust systems engineering organizations, these commercial off-the-shelf tools (COTS) often come up short on the full functionality. Integrating existing, owned collaborative technologies, such as SharePoint, organizations can enhance an enterprise's program and project management environments with robust workflows, process standardization, cost and risk transparency, financial systems integration, strategic dashboards and scorecarding, records management compliance, social networking, and emerging collaborative capabilities. Maximize the return on investment by focusing on developing mission critical capability while benefiting from industry leading COTS platforms reducing cost of ownership and maintenance. Increase visibility and transparency of data and artifacts to integrate and geographically disperse technical development teams.

Perspectives on the IT Needs, Challenges and Opportunities within NASA's Mission and Mission Support Directorates

Joseph Bredekamp
Senior Science Program Executive for Information Systems
NASA SCIENCE MISSION DIRECTORATE

Scott Goodwin
Chief Information Officer
NASA SPACE OPERATIONS MISSION DIRECTORATE

Beverly Hamilton
Chief Information Officer
NASA EXPLORATION SYSTEMS MISSION DIRECTORATE

Phil Milstead
Chief Information Officer
NASA AERONAUTICS RESEARCH MISSION DIRECTORATE

Kelly Carter
Chief Information Officer
NASA HEADQUARTERS

Moderator
Charles Holmes
Vice-chair
IT INFRASTRUCTURE COMMITTEE OF THE NASA ADVISORY COUNCIL

Room: Chesapeake H and I
Track: CIOs Speak
Time: 10:15 a.m. to 12:15 p.m.

NASA's Mission Directorates and the new Mission Support Directorate use IT to enable and support missions. In this panel, CIOs from the four NASA Mission Directorates and the Mission Support Directorate discuss their views on what is needed for mission success. After a brief orientation by each Directorate on their business, the moderator will facilitate a discussion to explore the challenges and opportunities where IT can play a critical role. The panel will conclude with a question and answer session involving the audience.

Using Social Media Tools to Reach Digital Natives

Nicholas Skytland
Engineer
JOHNSON SPACE CENTER

Room: Baltimore 1 and 2
Track: Collaboration

Digital natives, people for whom digital technologies already existed when they were born, are already a major part of our society and have a heavy influence on our future. Digital natives have different attitudes, approaches, and habits than those in preceding generations. They have spent their entire lives surrounded by and using digital media to express themselves, connect with friends, explore their worlds, and create new content. By understanding the digital natives' interactions with digital media, we will be able to understand better how to harness the opportunities their digital fluency presents and ultimately engage them in NASA's mission. This session aims to address this challenge and explore how we can use social media tools to engage digital natives in our mission.

Specific questions to be discussed during this session include the following:

1. Who is the digital native? Do digital natives really process information in a different way than digital immigrants?
2. How do we use social media to recruit, engage, and organize digital natives around our mission? Do they even want to participate?
3. How can an existing organization adapt to the attitudes, approaches, and habits of the digital natives?

The POWER of Green IT

Charles Onstott
Chief Technology Officer
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC)
HOMELAND AND CIVILIAN SOLUTIONS BUSINESS UNIT

Room: Baltimore 3 and 4
Track: Waves of the Future

With the growing importance given to the conservation of resources, the focus on Green IT is growing sharper. From the desktop to the data center, corporations and Government agencies are evaluating ways to reduce power consumption and consolidate underutilized assets. By examining the current and future state of the IT infrastructure, SAIC has taken the first step toward a more efficient IT environment.

Through SAIC's careful attention to the physical architecture configuration of a data center (aisle containment, tile placement, server and storage optimization, server virtualization, and desktop/application virtualization), recognizable reductions in resource utilization can be realized. Our approach to Green IT looks at ways to implement solutions in all areas of the IT infrastructure. In addition, "greening" the office environment is a key aspect of reducing power consumption through a secure converged solution approach.

This presentation on Green IT will provide concrete recommendations and approaches to reducing the carbon footprint of your IT infrastructure and also identify numerous benefits to be realized when these recommendations are implemented.

NCCIPS: An Innovative Federal Shared Data Center

Bradley Brown
Deputy Program Manager
NATIONAL CENTER FOR CRITICAL INFORMATION PROCESSING AND STORAGE (NCCIPS)
STENNIS SPACE CENTER

Room: Annapolis 1 and 2
Track: Infrastructure and Operations

NASA began management of NCCIPS on April 1, 2010, transferring the facility from the Navy. NCCIPS is designed as a national shared-services data facility whose current Federal customers are the Department of Homeland Security, the Navy's Defense Super-Computing Resource Center (DSRC), and the Department of Transportation.

NCCIPS provides a secure data processing and storage facility on Government property with in-depth, layered security. The NCCIPS facility is currently Tier 2+ (aligned with Uptime Institute) with funding and projects underway to create a Tier 3+ facility. The facility will have three independent, high-capacity power feeds and two Points of Presence (POP) available for routing high-bandwidth circuits. The NCCIPS facility is appropriate for sensitive and secure applications and has space available for NASA use. Some of the available space is built out in a 30-foot raised floor, but much of the space is configurable, raw square footage.

ETADS: Empowering NASA Users thru Emerging Technologies

Sasi Pillay
Chief Information Officer
GLENN RESEARCH CENTER

Tony Facca
ETADS Project Manager
GLENN RESEARCH CENTER

Room: Annapolis 3 and 4
Track: Governing IT and Managing Projects

The Emerging Technology and Desktop Standards (ETADS) group consisting of a state-of-the-art testbed facility is located at the Glenn Research Center. ETADS is dedicated to the implementation of Agency projects related to standards for end-user computing, desktop security, and system configuration. This presentation will take a look at ETADS and the requirements for an innovative workforce, a workforce that includes diversity in expertise and an extensive knowledge of current IT trends. Join us as we take a glimpse into the technical intricacies of modern operating environments and the complexities associated with NASA-wide implementations.

Understand the Meaning of Your True Colors

Maday Anderson
MADAY CONSULTING

Room: Baltimore 1 and 2
Track: Destination: Space—Developing an Innovative Workforce

Do you know what drives you? Why do you react, behave, communicate, and think the way you do? How do others perceive you? How well do you work with others? What causes you stress?

This brief session is only the beginning to understanding your contribution to becoming a cohesive team. True Colors addresses the Forming stage of team development and work-group dynamics to achieve collaboration toward a common vision and mission. By applying your True Colors, you will:

- Learn how to enhance interactions with others
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- Form cohesive teams
- Improve communications at all levels of management
- Learn how to customize your communication approach
- Bring visibility to your strengths and contributions to a team

Climate@Home: Delivering Climate Modeling as a Service (CMaaS) with Existing IT Infrastructure

Dr. Steven Armentrout
Founder and CEO
PARABON COMPUTATION

Michael Seablom
Technology Development Manager
Earth Science Technology Office
GODDARD SPACE FLIGHT CENTER

Room: Baltimore 1 and 2
Track: Brown Bag—NASA Projects and Strategies

Few topics generate such widespread and passionate debate as climate change. As a matter of global consequence, it has arguably become the "Copernican Controversy" of the 21st century. Given the far-reaching economic and political implications of the climate policies that are now being formulated, at no time has there been a greater need to improve our collective understanding of Earth system science. Because climates do not admit to direct experimentation, climate modeling and simulation has emerged as an intellectual pursuit with motivations far beyond the advancement of science. Recognizing the need and opportunity to more deeply understand the strengths and weaknesses of contemporary climate modeling, researchers at NASA's Software Integration and Visualization Office, along with industry partners Northrop Grumman and Parabon Computation, have created the Climate@Home project. Using idle and otherwise wasted computing capacity on NASA's IT infrastructure to perform its calculations, Climate@Home employs a highly secure-grid computing framework to deliver CMaaS to several Federal agencies.

In this presentation, the audience will learn about the IT innovations that have made this project possible. The Climate@Home software combines grid and cloud computing technologies across NASA's IT infrastructure to execute large-scale Monte Carlo simulations of Earth's climate. NASA's Nebula Cloud hosts Parabon's Frontier Grid, which in turn manages a computing service powered by the idle capacity of workstations and servers at Goddard and Ames. The result is a low-cost solution to a computational problem that could otherwise cost millions of dollars to solve. Because climate predictions are subject to intense scrutiny, reproducibility of results has been of paramount importance and for this reason a novel solution was required to execute all Climate@Home simulations under a fixed Linux virtual machine (VM) image that runs identically under all major operating systems on the grid. Innovations in distributed data storage and decomposition of the problem domain will also be discussed.

Lessons Learned: Science and Exploration Activities in Remote Field Locations

Ray Gilstrap
Network Engineer
AMES RESEARCH CENTER

Room: Baltimore 3 and 4
Track: Brown Bag—NASA Projects and Strategies

NASA conducts a number of science and exploration activities in remote field locations as well as maintains a rapidly deployable disaster-response capability. These activities typically require data, voice, and/or video connectivity from the field to external sites. In order to meet these requirements, Ames has deployed hybrid network architectures that incorporate wired and wireless Ethernet networks at the field site, satellite links for connectivity outside of the site, and existing terrestrial networks for access to remote institutions and the Internet. This presentation outlines these architectures and describes the lessons learned through a number of field deployments.

Penetration Testing and Vulnerability Assessment

Ernest Lopez
Acting Security Operations Center (SOC) Operations Manager
AMES RESEARCH CENTER

Matt Linton
IT Security Specialist
AMES RESEARCH CENTER

Room: Annapolis 1 and 2
Track: Brown Bag—NASA Projects and Strategies

"The difference between theory in practice is small in theory, but great in practice." The IT security industry has matured into a behemoth with hundreds of services, platforms, applications, and frameworks to choose from to implement security in the enterprise. So why are the bad guys still winning? Security products can be purchased from any vendor (or installed for free from SourceFourge) to suit nearly any need and under Federal mandate. NASA is doing more planning, documentation, and review of their IT security than ever before. What do the bad guys have that we do not? Perhaps the answer is what they lack—untrue assumptions about our security posture gleaned from those exact review and documentation processes.

This presentation will provide an overview of Ames's penetration-testing program and examine what is being done right, what is still necessary, and how a comprehensive penetration-testing program can provide NASA with the security edge to even the score with the bad guys.

Achieving IT and Business Alignment Through Enterprise Architecture, Strategic Planning, and Portfolio Management

Eric Nilson
Strategic Planning and Portfolio Management Office Office of the CIO
JET PROPULSION LABORATORY

Room: Annapolis 3 and 4
Track: Brown Bag—NASA Projects and Strategies

The essence of IT and business alignment is really about ensuring that the right IT capabilities are created at the right time for the business. It is also about ensuring that the business is in a position to properly leverage those capabilities. In short, alignment occurs when the IT organization focuses on providing the IT that matters. JPL's strategy for achieving IT and business alignment is to harmonize the too-often stove-piped disciplines of enterprise architecture, strategic planning, and portfolio management within a governance framework that explicitly allocates certain decision rights and accountabilities to the IT organization and other rights and accountabilities to the business itself. This strategy is helping JPL better leverage common services for missions and to more rapidly incorporate innovative IT into the JPL ecosystem.

Information Technology Research Services: Powerful Tools to Keep Up with a Rapidly Moving Field

Paul Hunter
Chief Technology Office
GODDARD SPACE FLIGHT CENTER

Room: Chesapeake E and F
Track: Brown Bag—NASA Projects and Strategies

Many firms offer IT research reports, analyst calls, conferences, seminars, tools, leadership development, etc. These entities include Gartner, Forrester Research, IDC, the Burton Group, Society for Information Management, InfoTech Research, the Corporate Executive Board, and so on. This presentation will cover how a number of these services are being used at Goddard to improve IT management practices, workforce skills, approaches to innovation, and service delivery. These tools and services are used across the workforce, from executive leadership to IT workers. This presentation will cover the types of services each vendor provides and their primary engagement model. The use of these services at other NASA Centers and Headquarters will also be included. In addition, you will learn how two of these services are available now to the entire NASA IT workforce through enterprise-wide subscriptions.

Single Point of Entry for Students Seeking Internships, Fellowships, or Scholarships with NASA

Deborah Sharpe
Program Integration and Management Division
INFORMATION TECHNOLOGY AND COMMUNICATIONS DIRECTORATE
GODDARD SPACE FLIGHT CENTER

Room: Chesapeake H and I
Track: Brown Bag—NASA Projects and Strategies

Goddard Space Flight Center partnered with the NASA Headquarters Office of Education to develop and implement a system that serves as a single point of entry for students seeking internships, fellowships, or scholarships with NASA. The Goddard Project Team has worked with an Agency-wide team comprised of members from all NASA Center Education Offices, Mission Directorates, the Headquarters Office of Human Capital Management, and the Headquarters Office of Diversity and Equal Opportunity to define requirements and plan the implementation. The project established Agency common business processes that standardize the application and selection of students for internship and fellowship opportunities. This system provides functionality used by nonprofit organizations that specialize in recruiting students from all types of institutions across the country to expand the institutions represented in the applicant pool. The streamlined processes allow NASA to compete with industry and academia in obtaining student interns and fellows, which ultimately increases the workforce pipeline of former NASA interns and fellows.

Open Government at NASA

Robbie Schingler
Chief of Staff
OFFICE OF THE CHIEF TECHNOLOGIST
NASA HEADQUARTERS

Room: Baltimore 1 and 2
Track: Open Government and Transparency

Open Government at NASA is based on a perspective of continuous learning, the integration of policy, technology, and culture and adapting to a rapidly changing external environment. NASA believes that integrating Open Government Principles into existing systems (e.g., governance councils and performance management systems) provides the best framework for success. NASA's Open Government Plan is the response to President Obama's Open Government Directive. The Open Government Initiative is a movement within Government to adapt to the changing external environment, embrace new technologies, engage with our citizens, and encourage collaborations and partnerships. The Open Government Directive calls on NASA to do what it does best-innovate. NASA must now innovate how we innovate, focusing on technologies that advance humanity into space while more directly involving citizens and public-private partnerships. The Open Government Directive also calls on NASA to change the way it does business, and as a result, turn NASA into a 21st century space program for a 21st century democracy. NASA's Open Government Plan, submitted in April 2010, has been recognized by the White House and external auditors as top in the U.S. Government.

Where Is IT Heading? 10-Year Technology Trend

Tomas Soderstrom
IT Chief Technology Officer
JET PROPULSION LABORATORY

Room: Baltimore 3 and 4
Track: Waves of the Future

IT is becoming evermore important in our daily lives, both professionally and personally. Reacting to the accelerating change of IT is a difficult and daunting task for the organization as well as for the individual. Although it may seem impossible to keep up, we can find practical relief by proactively predicting what will change and when the change will occur. These predictions can be used to improve productivity immediately as well as for the long term. This presentation will focus on how to predict IT trends, what the trends will be over the next 10 years, and how we can act on those predictions. We will review lessons learned thus far as well as actions going forward. We will also look at what we can expect in the next decade.

"A New Direction for EA at NASA"—Demand Side Focus and IT Innovation

Will Peters
Chief Enterprise Architect
NASA AGENCY

Room: Annapolis 1 and 2
Time: 2:45 p.m. to 5:00 p.m.
Track: Infrastructure and Operations

The Headquarters Office of the Chief Information Officer (OCIO) is chartered with a new direction. The appointment of a new Chief Information Officer, Deputy Chief Information Officer, and the addition of the role of Chief Technology Officer for Information Technology (CTO-IT) has enhanced its ability to engage customers strategically. Their vision is to create a demand-side focus that establishes the Agency mission's needs as the primary driver of IT solutions and technology innovation. The Chief Enterprise Architect (CEA-Will Peters) will present how NASA intends to use Enterprise Architecture (EA) as the key enabling tool by which to achieve this vision. EA will be used to engage customers strategically, identifying opportunities to use new technologies, effectively implement integrated solutions customers want, and optimally operate those solutions through their useful lifetime. This will be done by integrating EA within every aspect of NASA's IT strategic life-cycle management process, enabling the OCIO Organization to be the very best it can be.

Panel Discussion

EA: A Multi-Agency Conversation on Innovation, Mission, Research, Development, and Governance in Context to the Enterprise Architecture

Join four Federal agencies in a discussion on how Enterprise Architecture (EA) has recently shifted to partner with the Agency mission, research and development, governance, and

innovation. How do you engage your mission with your EA team to complement the tasks at hand? How is EA impacting innovative strategies? Find the answers to these and other related questions in a panel discussion including representatives from NASA, DOD, IRS, and NRC.

Will Peters
Chief Enterprise Architect
NASA AGENCY

Nitin Naik
Technical Director
INTERNAL REVENUE SERVICE

Joyce Grigsby
Deputy Director of Personnel and Readiness Information Management (P&R IM) for Enterprise Architecture
DEPARTMENT OF DEFENSE

Sandeep Shetye
Chief Enterprise Architect for Constellation Program's Information Systems Group
AMES RESEARCH CENTER

Moderator
Eduardo Krumholz
Senior Associate
BOOZ ALLEN HAMILTON

Capability Maturity Model Integrated (CMMI)—A Proven Path to Stellar IT

Moderator
George Albright
Program Executive
SCIENCE MISSION DIRECTORATE
HEADQUARTERS

Margaret Kulpa
Chief Operating Officer
AGILEDIGM

Kent A. Johnson
Chief Technical Officer
AGILEDIGM

John Kelly
Program Executive for Software Engineering
NASA HEADQUARTERS OFFICE OF CHIEF ENGINEER

Sally Godfrey
Software Process Improvement Project Manager
GODDARD SPACE FLIGHT CENTER

Tim Crumbley
Special Assistant in Space System Department
MARSHALL SPACE FLIGHT CENTER

Room: Annapolis 3 and 4
Time: 2:45 p.m. to 5:00 p.m.
Track: Governing IT and Managing Projects

Executive Overview of the CMMI—Margaret Kulpa

The primary purpose of this presentation is to introduce basic Capability Maturity Model Integration (CMMI) concepts and to explain the benefits and costs associated with the CMMI. Data collected from the use of CMMI in 35 organizations show a median improvement in productivity of 61 percent, in quality of 48 percent, and a median return on investment of 4 to 1. Participants will be introduced to the CMMI Model and the meaning of each level, basic benefits resulting from using the CMMI to improve your processes, maturity levels versus capability levels, and different approaches for implementing the CMMI in your organization. This presentation is intended for anyone interested in learning more about the CMMI, including senior executives, middle managers, project managers, and project team members in organizations developing and maintaining software-intensive systems.

Agile/Scrum Development Using the CMMI Framework—Kent Johnson

Individuals and organizations continue to look for ways to improve their approach to software development and maintenance. Their goal is often to establish more effective and efficient processes and to get more value from their efforts. To this end, some embrace Agile Methods, including Scrum, and some embrace CMMI. Not all organizations have been successful with either CMMI or Agile Methods. Furthermore, Agile Methods and CMMI are often perceived to be at odds with each other. However, it has been demonstrated that there is a synergy from using Agile Methods together with CMMI.

This presentation explains how this combination of flexibility, increased communication, training, and discipline result in measurable benefits including improved satisfaction, quality, and predictability. Experience from both successful and unsuccessful organizations form the basis of specific examples presented.

NASA Long-Term Experience with CMM and CMMI—Coordinated by Dr. John Kelly

The session will be short, as its intent is to introduce NASA participants in the ensuing panel discussion. Each speaker will briefly highlight their long-term experience with the CMMI, including lessons learned in initially implementing the CMMI, experiences in CMMI appraisal activities, positive and negative experiences (from a long-term perspective), and benefits that have been realized from adoption of the CMMI model. Speakers will be well informed on NASA CMMI case study results, and they will be prepared to cite them as appropriate in the roundtable discussion.

CMMI Panel Discussion

The CMMI panel discussion will be used to address audience questions in the following areas:

- Questions stemming from the three preceding presentations.
  - Executive Overview of the CMMI.
  - AGILE/SCRUM Development Within the CMMI Framework.
  - NASA Long-Term Experience with CMM and CMMI.
- NASA's strategy for the CMMI—what it is, and what it needs to be.
- Positive and negative experiences from a long-term NASA perspective.
- Key lessons learned in deciding to implement the CMMI.
- Key lessons learned in the CMMI appraisal process.
- Early frustrations versus long-term benefits.

IT Infrastructure: Key to Successful Application of Model-Based Systems Engineering on NASA Programs

Jody Fluhr
Senior Systems Engineer
FLUHR ENGINEERING, LLC
BOOZ ALLEN HAMILTON

Room: Chesapeake E and F
Track: Innovation

NASA's missions require successful development and deployment of complex system-of-systems. In pushing the envelope in space exploration, NASA's programs drive advances in systems engineering. The Constellation program has invested heavily in its systems engineering capability to address the complexity of its missions and the space-based and ground-based systems required to achieve mission success. This investment has resulted in a model-based systems engineering capability, based on the *NASA Systems Engineering Handbook* (NASA/SP-2007-6105). It is deployed as formal processes, procedures, training, and an integrated tool suite accessible to a team of Government and contractor engineers distributed across NASA Centers and the United States. This presentation will provide an overview of Constellation's model-based systems engineering capability and the demands it places on the IT infrastructure.

Stellar Stars: Reflections of a Center CIO

James Williams
AMES RESEARCH CENTER

Ken Norlin
DRYDEN FLIGHT RESEARCH CENTER

Sasi K. Pillay
GLENN RESEARCH CENTER

Room: Chesapeake H and I
Track: CIOs Speak

Center CIOs will highlight the best of the best at their Centers.

Collaboration—The Next Generation

Gabriel Rangel
Senior Solutions Architect
JET PROPULSION LABORATORY

Room: Baltimore 1 and 2
Track: Open Government and Transparency

Working together has never been more important, and we have never had more choices. But are they effective? Do people collaborate more effectively now than before? Do they collaborate at all? What tools and technologies are available, and which ones are effective? This presentation will review how IT can and should enable collaboration and the new technologies that make it possible. Lessons learned and actions going forward will be presented.

Cloud Computing—Architecture, IT Security, and Operational Perspectives

Steven Hunt
IT Governance Manager
AMES RESEARCH CENTER

Matthew Chew Spence
Senior IT Security Compliance Consultant
AMES RESEARCH CENTER

Matt Linton
IT Security Specialist
AMES RESEARCH CENTER

Room: Baltimore 3 and 4
Track: Waves of the Future

First there was the mainframe, then the personal computer, and now there are Web applications and data centers. With the progression of IT arriving at its next level of decentralization and abstraction, cloud computing seems poised as the next step on our way to the matrix. As a result, we now face unprecedented leaps in the ability of users to share data and computing resources whether intended or not.

Virtualization and cloud computing present unique technical, operational, and policy compliance challenges that require unique solutions to adequately address the challenges. This presentation will outline cloud computing, in general, and the NASA Nebula Cloud Computing platform, in particular, from architectural, IT security, and operational perspectives.

Case Study: Data Center Optimizes Server Capacity with New Energy Efficient Model

Clemens Pfeiffer
Chief Technology Officer
POWER ASSURE

Room: Chesapeake E and F
Track: Innovation

The application utilization for larger server farms in today's data centers is typically highly volatile due to numerous factors. Time-of-day usage patterns, promotions and advertisements, and unexpected events all cause spikes in demand. As a result, data center operators have to deal with a high level of uncertainty when planning capacity. To mitigate the risk, operators over-provision equipment, keeping their entire pool of servers "always on." As a result, their average utilization drops below 20 percent with occasional peaks of 85 to 90 percent. Learn how one large data center moved to an "always available" model to lower power consumption and save more than 56 percent of power over the "always on" model.

Stellar Stars: Reflections of a Center CIO

Adrian Gardner
GODDARD SPACE FLIGHT CENTER

Kelly Carter
HEADQUARTERS

Larry N. Sweet
JOHNSON SPACE CENTER

Room: Chesapeake H and I
Track: CIOs Speak

Center CIOs will highlight the best of the best at their Centers.

Real Solutions for Real Needs: Providing Assistive Technology in the IT Environment

Mike Young
Alisa Louther
COMPUTER ELECTRONIC ACCOMMODATIONS PROGRAM'S TECHNICAL EVALUATION CENTER (CAPTEC)

Room: Baltimore 1 and 2
Track: End-User Services

This presentation will provide an overview of the services provided by the Computer Electronic Accommodations Program (CAP). CAP is a centrally funded program out of the Department of Defense. CAP's mission is to provide assistive technology and accommodations to ensure that people with disabilities and wounded servicemembers have equal access to the information environment and opportunities in the Department of Defense and throughout the Federal Government. The presentation will include demonstrations of commonly requested technology for employees with all types of disabilities.

OCIO Student Innovator Award

Moderator
Dr. Mabel Matthews
Manager, Higher Education
HEADQUARTERS

Room: Azalea 1
Track: Education

Student winners will present. The award category is the use of technology in inspiring the K–12 and peer community through NASA-related outreach activities and educational interactions.

NASA's Strategic Roadmap Leading to Enhancements in Agency Business Systems

Neil Rodgers
Deputy Director
OFFICE OF THE CHIEF INFORMATION OFFICER
MARSHALL SPACE FLIGHT CENTER

Room: Azalea 2
Track: Infrastructure and Operations

Over the last decade, NASA has made strategic investments in the acquisition and deployment of enterprise business software and associated IT infrastructure to transform its operations and promote transparency with its stakeholders. So after millions of dollars, endless scrutiny, and the heroic efforts of hundreds of business and IT professionals throughout the Agency, this question frequently gets asked: "Are we there yet?" This presentation will take a look at how the "OneNASA" objective influenced investments in enterprise-application ecosystems like SAP, what has been accomplished, and what is on the Agency's strategic business systems roadmap.

Balancing NASA IT Governance Requirements While Implementing Cutting-Edge IT Projects

Gary Cox
NASA Associate Chief Information Officer (CIO), Policy and Investment Division
HEADQUARTERS

James Williams
Acting CIO
AMES RESEARCH CENTER

Room: Baltimore 3 and 4
Track: Governing IT and Managing Projects

Implementing cutting-edge IT projects is a reality at Ames. Regardless of the technology involved, each project must adhere to the NASA IT governance structure. This presentation

will give an overview of NASA's IT governance structure, which provides guidance and oversight on IT projects. Decisions made by the IT Strategy and Investment Board (SIB), IT Program Management Board (ITPMB), IT Management Board (ITMB), and Management/Business Systems Integration Group (M/B SIG) are key components to the project life cycle within NASA. How do these decisions truly affect your project? A Center's perspective on balancing policy requirements while implementing cutting-edge IT technology will be given.

Government and Virtual Worlds

Daniel Laughlin
Research Scientist
GODDARD EARTH SCIENCE AND TECHNOLOGY CENTER AT THE UNIVERSITY OF MARYLAND

Eric Hackathorn
Program Manager
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Room: Chesapeake E and F
Track: Innovation

Virtual worlds have gone from a niche game phenomenon with a few hundred thousand players in 2000 to a booming industry with tens of millions of users in 2010. Gartner predicts that 80 percent of heavy Internet users will have avatars in virtual worlds by 2011. Some predict that the 3D, immersive, and digital environments are the next evolution of the Web. It is often claimed that virtual worlds are now where the World Wide Web was in the early 1990s. Yet after a decade of growth and claims of enormous potential, virtual worlds continue to lie outside the experience of most of those who work with the Government. This panel will provide an overview of the power of virtual worlds and summarize some of the Government activity taking place within virtual worlds.

Stellar Stars: Reflections of a Center CIO

James Rinaldi
JET PROPULSION LABORATORY

Michael J. Bolger
KENNEDY SPACE CENTER

Cathy H. Magnum
LANGLEY RESEARCH CENTER

Room: Chesapeake H and I
Track: CIOs Speak

Center CIOs will highlight the best of the best at their Centers.

Have a SEAT with ODIN DOCOTRs

Debrina Harrell
NASA SHARED SERVICES CENTER

Camilla Logan
GODDARD SPACE FLIGHT CENTER

Burt L. Bright
MARSHALL SPACE FLIGHT CENTER

Room: Baltimore 1 and 2
Track: End-User Services

NASA's Outsourcing Desktop Initiative (ODIN) is an innovative approach to desktop computing and communications support. Through ODIN, NASA has embraced a new paradigm in IT management—one which focuses the civil service workforce on mission-related activities, leverages the experience and flexibility of the commercial sector, and reduces the costs of providing these services to NASA customers. The ODIN Delivery Order Contracting Officer Technical Representatives (DOCOTRs) are responsible for ensuring the ODIN program remains afloat. They make certain that services at their Centers meet customer expectations and that the requirements of the contract are fulfilled. This presentation will allow the panel of ODIN DOCOTRs to explore the evolution of ODIN, its current state, and the benefits and challenges experienced; panelists will address questions from the audience.

OCIO Faculty Research Award

Moderator
Dr. Mabel Matthews
Manager, Higher Education
HEADQUARTERS

Room: Azalea 1
Track: Education

Faculty winners will present. The award category is the use of innovation in NASA-related research.

Balancing Agency Software Supply and Demand Using Enterprise License Consolidation

Michael Mudgett
NASA SHARED SERVICES CENTER

Room: Azalea 2
Track: Infrastructure and Operations

The Presidential Memorandum on Government Contracting mandates agencies to eliminate waste and inefficiency from Government contracting and achieve savings and performance improvements for our citizens. To meet these objectives, NASA's Office of the CIO has implemented a strategy for the consolidation of a variety of software and maintenance contracts into Enterprise License Agreements (ELAs) that provide Agency-wide support under single contracts rather than multiple contracts across the Agency. NASA's Shared Services Center Enterprise License Management Team (ELMT) regularly reviews the Agency's contract requirements to identify and consolidate software and maintenance products, utilizing small business participation whenever possible. During FY 2009, the ELMT consolidated four contracts, resulting in approximately $4.5 million in savings. The ELMT efforts were recently recognized with the NASA Acquisition Improvement Award and on the following White House Web site: *http://www.whitehouse.gov/omb/procurement_index_gov_contracting/#memo*. This presentation will address enterprise-license consolidation at NASA.

New Developments in IT Project Management Policy at NASA

Bob Benedict
HEADQUARTERS

Lara Petze
HEADQUARTERS

Room: Baltimore 3 and 4
Track: Governing IT and Managing Projects

Since the issuance in November 2008 of NPR 7120.7, Information Technology and Institutional Infrastructure Program and Project Management Requirements, new requirements and Agency experience with using NPR 7120.7 have resulted in the need for modifications in several significant areas to advance the success of the Agency's IT programs and projects. Topics for discussion include project baselining and rebaselining; standard level 2 Work Breakdown Structure; Joint Cost and Schedule Confidence Levels; and the acceptance and management of Review Item Discrepancies (RIDs). This presentation will discuss the changes and their sources, how NPR 7120.7 and its processes will be affected, and the resulting benefits for the Agency's IT programs and projects.

NextGen—A Very Large Multiagency Effort

John Cavolowsky
Director, NASA Airspace Systems Program
AERONAUTICS RESEARCH MISSION DIRECTORATE

Room: Chesapeake E and F
Track: Innovation

NextGen is a multiagency collaborative endeavor that has developed a vision and plan to meet the serious challenges facing the U.S. air transportation system, both civilian and military, as the demand for air transportation services grows over the next 20 years and beyond. NASA works in partnership with the multiagency Joint Planning and Development Office and contributes primarily by developing advanced vehicles and concepts, capabilities, and technologies for high-capacity, efficient, environmentally responsible, and safe airspace and airportal systems. The significant IT issues include integration across multiple agencies, all with different policies and procedures, for purposes of distributed, real-time, human-in-the-loop simulations. In addition, the challenge of developing efficient and effective computer systems that handle very large source code files aimed at optimizing thousands of simultaneous aircraft operations with uncertainty, probabilistic and nondeterministic behavior, and driven by unpredictable off-nominal scenarios grows as the demand for air travel increases. Computational needs for air traffic management research and development go far beyond the standard desktop IT perspective.

Stellar Stars: Reflections of a Center CIO

Jonathan Q. Pettus
CIO
MARSHALL SPACE FLIGHT CENTER

Bruce O'Dell
CIO
NASA SHARED SERVICES CENTER

Dinna LeDuff Cottrell
CIO
STENNIS SPACE CENTER

Room: Chesapeake H and I
Track: CIOs Speak

Center CIOs will highlight the best of the best at their Centers.

Section 508 and You: Accessible Technology and New Technical Standards

Antonio O. HaileSelassie
Agency Section 508 Technical Accessibility Specialist
HEADQUARTERS

Betsy Sirk
Electronic and Information Technology (Section 508) Coordinator
Information Technology Manager
GODDARD SPACE FLIGHT CENTER

Tim Creagan
Senior Accessibility Specialist
UNITED STATES ACCESS BOARD

Room: Baltimore 1 and 2
Track: End-User Services

This presentation will highlight the changes to Electronic and Information Technology/Section 508 and compliance implications as a result of the proposed updated standards. Status of NASA-specific Section 508 activities will be presented.

In 1998, Congress amended the Rehabilitation Act to require Federal agencies to make their electronic and information technology accessible to people with disabilities. Specifically, Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals. Accessibility standards and technical provisions based on the amendment went into effect on June 25, 2001.

After nearly a decade, an update of the Section 508 accessibility standards and technical provisions was released for public comment in March 2010. The draft features a new structure and format that integrates the 508 standards and Telecommunications Act (Section 255) guidelines into a single document referred to as the "Information and Communication Technology (ICT) Standards and Guidelines." Requirements have been reorganized according to functionality instead of product type since many devices now feature an array of capabilities and applications. The released draft includes proposed revisions to various performance criteria and technical specifications that are designed to improve accessibility, add clarity to facilitate compliance, address market trends, and promote harmonization with other guidelines and standards.

Products and technologies covered by this rulemaking include telephones, cell phones, and other telecommunication products, computer hardware and software, Web sites, media players, electronic documents, and PDAs, among others. Access is addressed for various disabilities, including those that are sensory, physical, or speech-related in nature.

OCIO Excellence in Teaching Award

Moderator
Dr. Mabel Matthews
Manager, Higher Education
HEADQUARTERS

Room: Azalea 1
Track: Education

Teachers who are winners will present. The award category is the use of quality technology education programs within the curriculum.

Got Technology? Technology Got Records Management (RM)?

Daryll Prescott

Room: Azalea 2
Track: Infrastructure and Operations

Your budget is important. Federal law and agency policy are important. How do you balance the acquisition of technologies to support mission objectives while at the same time capture and manage the evidence of your programs activities? The need to use technologies to preserve the evidence and documentation of mission activities and decision making is often not considered until late or at the end of the program life cycle. Understanding that records management can be a no- or low-impact activity through simply applying industry standards is key to your agency meeting its responsibilities under the law and agency policies.

Challenges of Agency Projects and Lessons Learned

Linda Rawlins
MARSHALL SPACE FLIGHT CENTER

Carol S. Bryant
MARSHALL SPACE FLIGHT CENTER

Ken Freeman
AMES RESEARCH CENTER

Room: Baltimore 3 and 4
Track: Governing IT and Managing Projects

NASA's Office of the Chief Information Officer (OCIO) continually pursues standardization and centralization of its IT services while ensuring sound security, performance, and fiscal accountability. While most in the OCIO community intuitively acknowledge the value of such endeavors, the distributed responsibility profile for NASA's IT services presents significant challenges to such standardization and centralization. This discussion with three NASA project managers will focus on parallels and differences in various Agency projects, lessons learned, effectively incorporating best practices, and unique requirements from multiple Centers and programs, as well as strategies to mitigate risks associated with transition and ultimately, operations. Parallels with commercial entities and recent NASA IT projects will be examined to highlight challenges and evaluate the effectiveness of various strategies.

Innovation in Times of Economic Crisis

James Champy
Chairman Emeritus
CONSULTING, DELL SERVICES

Room: Chesapeake E and F
Track: Innovation

Challenging economic times often provide the stimulus for innovation. But to take advantage of hard times, enterprises must make hard decisions about where to put their resources. Mr. Champy will talk about the sources of innovation, how to engage people in your causes, and the need for flawless executions.

Drawing from his recent series of books—*OUTSMART!, INSPIRE!,* and *DELIVER!*—he will show how people, processes, and technologies can combine to produce extraordinary results, even in hard times. He also will provide several examples of new business models that are emerging.

NASA CTO's Vision and Strategy

Chris Kemp
IT Chief Technology Officer
Room: Chesapeake H and I
Track: CIOs Speak

As chief technology officer for IT at NASA, Mr. Kemp will be responsible for the Agency's Enterprise Architecture Division and for introducing new and emerging technologies into NASA's IT roadmap. Mr. Kemp will formulate and oversee a new CTO Council with participants from NASA's mission organizations and Field Centers that will foster creative ideas and nurture innovation within NASA's IT organization; it also will lead a number of IT pilot projects, such as the Nebula Cloud Computing Platform. One of Mr. Kemp's primary focuses will be determining ways to make NASA's IT environment more energy efficient. His organization also will handle NASA's contributions to the White House Open Government initiative. This presentation will focus on Mr. Kemp's vision and strategy as the NASA CTO for IT.