Partnersing for Success
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To: Our Stakeholders

As we embark on a new year, our resolve has never been greater. Thank you for entrusting your IT solution needs to OCIO/Data Center Operations (DCO) by leveraging the shared services of enterprise hosting, commercial cloud brokering, Digital Service Center (DSC), AgLearn learning management system, and enterprise application services. We will continue to earn your trust and confidence and provide you the world class services that we are recognized for.

The results once again demonstrate that you have been well served by OCIO/DCO’s straight-forward business model, prudent approach, and consistent execution of our business strategy which includes efficiency and expense management, leadership, and staying focused on customers. I continue to rely on the commitment, dedication, and outstanding service this organization provides to all its customers. Their persistent commitment, innovation, creativity, and work ethic will continue to be the drivers of OCIO/DCO’s success for many years to come and I want to again thank every member of my team for their dedicated support.

The accomplishments shown throughout this Annual Report demonstrate how the OCIO/DCO team works extremely hard to build strong, deep relationships with customers to support their mission objectives and provide solutions that meet customer requirements and demand. Through collaboration in FY17, we delivered innovative solutions such as more self-service functions through the Customer Portal, expanded the commercial cloud services to include AWS GovCloud, broadened the DSC’s CRM portfolio to include MS Dynamics CRM and Service Now, created Tier 3 and 4 storage services, and delivered the Service Assurance and Application Visibility monitoring service. Additionally, we modernized the enterprise data center energy efficiency to support Data Center Optimization Initiative targets, continued to optimize organizational efficiencies to improve the customer experience, and established a Service Level Management program. Our research and engineering efforts on the next generation of flexible, self-service platforms will result in several new and enhanced services in FY18 to include PaaS – Oracle Database powered by Exadata, General Support System in the Cloud, and RedHat OpenShift Container as a Service. I look forward to showcasing those capabilities to you in the near future.

Again, thanks for your business, your advocacy, and your continued partnership! We know you have a choice and strive to earn your business.

Victoria Turley
Acting Associate Chief Information Officer (ACIO)
Data Center Operations
Mission • Vision • Values

MISSION
We serve the public by delivering the information and technology that energize USDA’s Mission

VISION
Business partners creating innovative solutions for FOOD, FARMS, FORESTS, AND FAMILIES

VALUES
MISSION FOCUSED • Serve USDA’s programs and customers first
TRANSPARENT • Build trust and inclusiveness by showing motives, being open and sharing knowledge
COLLABORATIVE • Partner with others to deliver optimal value
HIGH-PERFORMING • Achieve the highest standards of excellence by developing yourself and your teams
Serving our Customers

The National Information Technology Center (NITC) is the centralized source for Data Center Solutions for the USDA and other Federal Customers

In 1972, the NITC introduced centralized, shared computing services to USDA agencies. The NITC has evolved and grown over the years and continues to introduce secure leading-edge technologies to the federal space.

The web-enabled technologies available today from the NITC allow government users the ability to access business delivery applications on a 24X7 basis, from a Tier IV data center. The NITC assures the confidentiality, integrity, and availability on all applications and data via supported server architectures. NITC server architectures enable access facilities from customer locations throughout the United States via secure private and public networks that support their business requirements and service needs.

The NITC Service Platforms include Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS) and Professional Services (PS). These services, as defined by our IT Service Catalog, are developed and managed within the ITILv3 Service Management Framework and are secured to align with NIST800-53 security controls.

The NITC hosting operations are delivered 24x7x365 at the Kansas City, MO; St. Louis, MO; and Beltsville, MD; locations.

Delivering World Class Platforms for Mission Critical Operations

The NITC primary data center is headquartered in Kansas City, Missouri, with two additional data centers in St. Louis, Missouri, and Beltsville, Maryland. The St. Louis, MO, location is primarily used for disaster recovery, and the Beltsville, MD, location primarily serves the Washington, D.C., area for disaster recovery, local file and print services, and development and test systems. The NITC specializes in Enterprise Information Technology (IT) Solutions that include products, services, and resources. The business delivery software applications deployed in the NITC environments are national and international in scope, mission critical, and essential for the operations of the United States government.
Enterprise Applications Services (EAS) provides the USDA with innovative business application services

Enterprise Applications Services (EAS) is based in Ft. Collins, CO. The business application services provided enable successful mission and business information technology performance required by our customers. EAS offers a full spectrum of professional services to custom build, launch, and support world class business applications. EAS supports numerous technologies, such as Esri, SharePoint, Oracle, Java, .Net, and Drupal. Agile project management provides flexibilities to meet customer needs and provide quicker product delivery. EAS streamlines these services to provide a direct and efficient resource for customers throughout the project lifecycle.

EAS offers professional services that include: enterprise application development, Geographic Information Systems (GIS), web and mobile application development, Software as a Service (SaaS), maintenance and operations, security services, 508 compliance testing and learning management services (AgLearn). As part of EAS, the Digital Service Center (DSC) establishes and manages the enterprise processes, resources, tools, and best practices for Software as a Service (SaaS) platforms at the USDA to include Salesforce, Microsoft Dynamics CRM, and ServiceNow. Managed platform services include:

- Enterprise Management
- Business & Technology Support
- Release & Configuration Management
- Operations & Maintenance and Post-Implementation Application Support
- Platform Management Services
- Security

EAS works closely with customers and vendors to coordinate efforts, manage schedules, track progress, provide reports, and deliver the product as agreed upon and promised. EAS’ goal is to build long term relationships with its customers through working as a collaborative unit throughout the project lifecycle.
Financial Analysis

Enabling Our Customers

The PaaS Server offerings (primarily in PaaS Windows and PaaS Linux) had rate reductions in the base server as well as the Disaster Recovery option for the servers.

- The PaaS Windows base server rate was reduced by $50 from FY2016 to FY2017 while the PaaS Linux base rate dropped by $5.00 per server per month.

- The DR costs were cut in half with the PaaS Linux dropping from $265/server to $130 per month and the PaaS Windows DR dropping from $350 to $150.

- The overall savings in the PaaS Server category was $5.2M.

NITC customers realized significant savings in FY2017 due to rate reductions in NAS Storage, Colocation and PaaS server.

- The $0.01 rate reduction for the Network Attached Storage (NAS) offering generated a $2.3M savings for all customers.

Rounding out the top 3 – the Colocation full rack offering rate was reduced from $3,400 per rack per month to $2,600.

- This decrease allowed our colocation customers to realize an overall savings of $2.3M.

$37,095,081
last 5 fiscal years
Customer Cost Savings

We continually strive to provide the highest quality service at the absolute best

Proven Customer Savings Year over Year

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<tr>
<td>FY2017 Overall Revenue</td>
<td>$175,963,390</td>
</tr>
<tr>
<td>Overall FY2016 - FY2017 Cost Savings</td>
<td>$9,742,980</td>
</tr>
<tr>
<td>Overall FY2015 - FY2016 Cost Savings</td>
<td>$4,950,768</td>
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<tr>
<td>Overall FY2014 - FY2015 Cost Savings</td>
<td>$958,034</td>
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<tr>
<td>Overall FY2013 - FY2014 Cost Savings</td>
<td>$2,058,253</td>
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<tr>
<td>Overall FY2012 - FY2013 Cost Savings</td>
<td>$19,385,046</td>
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<td>Overall Cost Savings to our customers (last 5 fiscal years)</td>
<td>$37,095,081</td>
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Environmental Responsibility

The NITC continues to be known for its leverage on green technologies

Gaining Efficiencies through Green Enterprise IT

The NITC has continued to pursue, and implement Green Enterprise IT initiatives in support of our overall mission. Through use of virtualization technologies and the implementation of more efficient power and cooling systems, the NITC has been able to host more customers and services within a smaller footprint, thereby reducing the overall environmental impact of the Enterprise Data Center (EDC).

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<th>22% Overall Efficiencies Gained</th>
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<td>22% of all energy consumed by the NITC EDC in St. Louis, Missouri, is generated from renewable energy sources.</td>
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<tr>
<th>14% Overall Efficiencies Gained</th>
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<tr>
<td>14% of all energy consumed by the NITC EDC in Kansas City, Missouri is generated from renewable energy sources.</td>
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<th>13% Overall Efficiencies Gained</th>
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<tr>
<td>13% of all energy consumed by the NITC EDC in Beltsville, Maryland, is generated from renewable energy sources.</td>
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Other Notable Green Initiatives

The NITC is dedicated to incorporating the latest, most energy efficient state-of-the-art technology into the electrical and mechanical infrastructure. Initiatives underway will ensure we achieve a Power Usage Effectiveness (PUE) of 1.5 and monitor our energy utilization in compliance with Office of Management and Budget’s M-16-19.

- Consolidation of space within the St. Louis Data Center and recovering over 140 racks of space.
- Installation of Motion-Sensing automatic on/off light switching in EDC floor areas.
- Implementing a cold/hot aisle containment within St. Louis improving Computer Room Air Conditioning (CRAC) Unit energy consumption by 15-20%.
- Completion of the reconstruction of NITC POD1A designed to enhance our overall efficiency.
- Designing and implementing our newest energy efficient POD1B.
- Aisle lighting conversion with energy efficient LED lamps.
- Implementing 95% efficiency water chilled CRAC units, up from 80%.

FY2017 Green Initiatives

FY2018 & Beyond
Creating Value

Creating Value Through Compliance

The NITC EDC hosting platforms are accredited by USDA, FedRAMP and NIST Risk Management Framework, making NITC one of the few organizations that provide fully compliant platforms for their customers. These accreditations mean that applicable NIST SP 800-53 (Rev4) security controls are in place up through the system (OS) layer. Information about the controls and their inheritability is available to customers.

Centralizing infrastructure and platform activities in a fully-accredited Enterprise Data Center reduces the cost and complexity burden of Federal Information Security Management Act (FISMA) compliance on agencies.

Security and Risk Management Accreditation:

- The NITC has maintained FISMA compliance on its PaaS services since 2004
- Attained FedRAMP agency certification in June 2013
- Received DoD provisional authorization in 2015

The USDA EDC meets or exceeds all Federal compliance standards at the highest level

The Federal Information Security Management Act (FISMA) was adopted in 2002 by the E-Government Act (Public Law 107-347). It was developed to promote the implementation of security standards, guidelines and controls for Information Systems in support of federal agency missions. The NITC EDC has supported and followed FISMA standard guidelines since early 2004 and has built their cloud service offerings with those same standards and controls.

The NITC received DoD Provisional Authorization (DoD PA) as Cloud Service Provider for the Infrastructure as a Service (IaaS) offering in 2015.

FedRAMP was created in 2012 to address the security requirements and controls that public Cloud Service Providers need to maintain in order to host any Federal Information System.

The NITC EDC effectively supports 100 additional security controls over other Gov Cloud Service Providers that generally only support accreditation up to the FEDRAMP level.
Staying Competitive

A Portfolio of Excellence

The NITC has a rich history of meeting the demands of its customers and developing services and platform offerings that are not only technically sound, but also cost competitive in the federal market space.

The NITC spends a great deal of time and effort analyzing our platform costs and comparing them with our competitors. Through years of efficiencies, additional footprint and economies of scale, we feel that not only are we cost competitive, in most cases we beat our competitors’ prices for like services.

Independent Verification and Validation

In addition to several required federal audits, the NITC funds independent verification and validation studies to ensure our competitiveness. On a biennial basis, the NITC contracts with a third party vendor to perform benchmarking against similar types of data centers in the federal and commercial sectors.

Portfolio Growth Overview

Services Introduced in FY2017

- Amazon Web Services Cloud Brokering
- Role-Based Central Authentication (RBAC)
- Federation Services
- Microsoft Azure Cloud Brokering
- NAS Nearline Storage

New Services for FY2018 and Beyond

- Cloud Access Security Platform (CASP)
- Labor Reporting System
- NAS Flash Storage
- PaaS Oracle Database powered by Exadata
- RedHat OpenShift Containers
- STIG Security Compliance
- Virtual Desktop
- Windows Server 2016

New Customers and Business

- Office of the Chief Financial Officer (OCFO)
- Food Safety and Inspection Service (FSIS) - Colocation to PaaS and DR
- Farm Service Agency (FSA) - Microsoft SQL Server DR via SAN Replication
- Natural Resources Conservation Service (NRCS) - Conservation Delivery Streamlining Initiative (CDSI)
Going into the Cloud

As a part of OCIO’s 2017 strategic goals to ‘Accelerate the Delivery of New Technologies by Adopting Cloud’ we saw the creation of the Cloud Strategy and Policy Office (CSPO) and the Cloud Broker Office (CBO). This ensures that USDA is optimally positioned to leverage internal and external cloud capabilities in a hybrid cloud environment. As the USDA Cloud Broker, the NITC has taken responsibility for (but not limited to) the following:

- Be the trusted advisor to Agencies in support of Commercial Cloud activities
- Offer access to commercial cloud services:
  - Infrastructure as a service (IaaS)
  - Platform as a service (PaaS)
  - Software as a Service (SaaS)
- Manage billing efforts pertaining to Commercial Cloud solution
- Develop Enterprise services to support Agency requirements
- Maintain Commercial Cloud knowledge and expertise

FY2017 was a significant year in the progresses made towards this USDA initiative. The USDA Cloud Strategy was finalized. USDA also entered into an Interagency Agreement (IAA) with the Department of Interior (DOI) to utilize DOI’s cloud contracting services and to acquire Microsoft Azure and Amazon Web Services (AWS) cloud services. Then, the National Information Technology Center (NITC), working with the Office of Information Security (OIS) and OCIO’s Enterprise Network Services (ENS) developed a program that integrates security, network, shared services and investment planning which Agencies can utilize to obtain cloud services. The CBO provides access to the DOI contract, lays out the security Risk Management Framework (RMF) that must be met, provides a network into the cloud (Express Route) and works with Agencies to “on-board” them into the program.

These Agencies: Animal Plant Health Inspection Service (APHIS), Economic Research Service (ERS) and the Forest Service (FS), National Institute of Food and Agriculture (NIFA) as well as Client Technology Services (CTS) were formally enrolled in the Cloud program. Since then these Agencies have signed IAAs with NITC, have been provided subscriptions to Azure to familiarize themselves with the interface and offerings, and began addressing the RMF, including how they will meet security controls. When Agencies have satisfactorily addressed the RMF, they will be given an authority to test (ATT) and a network connection to begin testing and building their cloud architectures.

The CSPO is in the process of developing materials to aid Agencies in their cloud decisions. These include a Cloud Migration Roadmap and a Business Analysis Guide to assist with undertaking a Return on Investment (ROI) study. The program is also working on standing up AWS services and exploring a new cloud contract to increase the ceiling on services and ensure it can provide all required services. In addition, NITC has and is developing migration and shared services to further assist Agencies move to the cloud.

**FY2017 Accomplishments**
- Streamlined contractual processes.
- Formal enrollment of eight Agencies.
- Worked with Cloud Integrator and NITC technical teams for enrollment of Agencies.
- Provided USDA wide resolutions to various technical issues on the MS Azure Portal.
- Multi-Factor Authentication to MS Azure and Amazon AWS with eAuth using NITC’s EDC Domain.

**FY2018 & Beyond**
- Develop a Customer Portal for Cloud customers to have access to documentation, knowledgebase and other helpful resources.
NITC as an Enterprise Datacenter Shared Services provider has aligned its strategy and operational execution with the objectives outlined in the Strategic Plan as well as to achieve excellence in the 5 OCIO Strategic Initiatives: Adopting Clouds, Leveraging FITARA, Modernizing our Network, Securing Systems, and Working Collaboratively.

The following pages on ACCOMPLISHMENTS represent the FY17 USDA OCIO/DCOI NITC activities supporting OCIO Strategic Initiatives aligned with the OCIO Strategy and 2017-2020 OCIO Strategic Plan:
Accomplishments

“How can I take advantage of low cost, highly available cloud services?” - CIO

• The Cloud Broker Office (CBO) was also established to offer access to commercial Infrastructure, Platform, and Software as a Service (IaaS, PaaS and SaaS) services. The premise of the cloud broker service is to use a holistic, enterprise approach to cloud adoption.

• Eight Agencies were formally enrolled in the cloud program.

• Developed Level 2 managed cloud services (domain connectivity, DNS, integration into CMDB, auto-provisioning using Kinetic) for Azure GovCloud; working on Level 3 managed cloud services (PaaS in the cloud) for delivery in Mar 2018; added AWS to the brokered, commercial cloud portfolio for IaaS.

• Compliance Governance: Accredited two cloud service providers to USDA standards.

“Can I trust USDA with my information?” – USDA Customer

• Successfully completed DHS Continuous Diagnostics and Mitigation (CDM) Phase 1, ForeScout Appliance installation.

• Compliance Governance: Implemented new standards and processes to better support customer accreditation projects.

• Implemented disk encryption for the HDS enterprise storage arrays as well as Luminex’s Virtual Tape technology.

• Achieved FedRAMP High Impact Agency ATO, DoD Impact Level 5 ATO, and implemented FISMA 800-53 Rev 4 to enhance security controls.

• Compliance Governance: Complete the DoD Impact Level 4 ATO process.

• Compliance Governance: Was granted a DoD Impact Level 4 Provisional Authorization.

• DR Capability in STL - Successful, semi-annual DR exercise with 29 Agencies participating. Major milestone – FSA and RD proved out new, end-to-end DR solutions using Mainframe and PaaS in the Feb DR exercise.

• Completed OMB mandate for 100% PIV enforcement for elevated privilege user access with multi-factor authentication.

• Supported key OCIO projects: ISSC Project team, CDM W-IPT for CONOPS and Governance, UTN2020 project, eVPN2, and OCIO Consolidated Security Functions Assessment.
Accomplishments

“What can we do to modernize our business systems efficiently?” - USDA Senior Executive

- Delivered cost savings to customers through data center migrations: Service Center Agencies (FSA/NRCS/RD) $6M annually, FS $7.2M annually, CTS $2.5M annually, FSA $1M annually, NRCS $2.5M annually.

- Delivered Kinetic ERMS for PaaS - Server self-provisioning and decommissioning, Azure GovCloud managed services deployments, and PaaS-SQL Server self-provisioning to empower the customer.

- GWCC closure - 7 tenants provided migration plans. Closure is targeted for Dec 2018.

- Implemented a new backup process for NAS storage, which saved 215TB of used space in STL (or over 700TB allocated space) and reduced the read I/O load on the primary disks in KC during week-end processing by approximately 40%, as well as the replication Level3 link load on the week-ends. The associated cost savings for customers is equivalent to $323K.


- Service Center Agencies WebFarm migrations - complete and decommissioned equipment removed

- Installation of Motion-Sensing automatic on/off light switching in EDC floor areas.

- AgLearn team added 132 custom courses from OCIO and the Agencies and moved to a new, cost-effective platform.

- Piloted RedHat OpenShift to support the automation of software delivery by orchestrating container management.

- PaaS Database - SQL Server - enabled self provisioning of SQL Server databases.

- Consolidation of space within the St. Louis Center and recovering over 140 racks of space.

- Delivered Service Assurance and Application Visibility application monitoring and dashboard capabilities for the FSA Crop Acreage Reporting System (CARS), which reduced downtime by 7% over previous year’s peak reporting periods.

- Saved $688K by streamlining Mainframe software and another $98K by optimizing compilers.

- PaaS Server - Windows Server and Linux enabled self-provisioning and self decommissioning of VMs along with enhanced security controls; Windows Server 2016.

- Implemented an enterprise pricing model for DSC services, increasing transparency and agencies’ flexibility to scale up or down based on services needed, and more closely aligning the prices with the DSC’s actual costs.

- IaaS - CloudVault – enhanced with “right-sizing” storage and an updated authentication component.

- Implementing a cold/hot aisle containment within St. Louis improving Computer Room Air Conditioning (CRAC) Unit energy consumption by 15-20%.

- FS High Performance Environment – new service for a dedicated environment to support GIS.

- Forest Service vDC – Migration is 84% complete with target to closure of ALB in Dec 2017; Data Warehouse migration complete; partnered with CTS to develop a modern, GIS solution for the remainder.

- Improved data center power usage efficiency (PUE) using cold aisle containment, hot aisle air handlers, and spot cooling.

- Delivered a new Service Level Agreement (SLA) performance monitoring program for NITC data center services for USDA customers; implemented new monitoring tools, processes, web portal, and dashboards to provide greater transparency in NITC data center operations.
“How can I download this large file quickly?” – Field Employee

• Implemented the Enterprise Backup Network (EBN) to isolate data backup traffic moved storage backup device to leverage additional storage thus saving $250K in storage procurement.

• Saved $135K by consolidating to the Fortigate 3700Ds with unified threat management thus removing Sourcefire HW.

• Saved $1.8M in circuit costs, network maintenance, cable mining, and backup and storage.

• Partnered with CTS to create a two-way, selective domain trust for FS-vDC to support the GIS platform.

• Led the DCO Organizational Realignment effort in creating the new functional mapping, descriptions, and activities as part of the 1010 package to shape the organization of the future.

• Promotes Departmental applications leadership by creating workshops, guides, and presentations to the USDA Technical Architecture Interest Group to create a forum for innovation, shared services, and agile development efforts across USDA.

• Delivered the Customer Portal for self-initiated service requests and system monitoring.

• Continuously meeting with customers during onsite visits, conference calls, and in-person in DC in an effort to improve our customer service reputation and strengthen the business relationships – we are listening and reacting.

• Together with FS, the NITC coordinated the parallel efforts using OnCommand Insight (OCI) to enhance the automated storage reporting, improved visibility to capture detailed storage metrics, and expanded the ability to offer customized storage reports.

Ensure IT Services best serve the entire USDA Community

• Collaborates with CTS, ENS, and ASOC on various departmental and data center initiatives to establish trusting relationships with our critical OCIO business partners.

• Standardized EAS development management practices enabling the staff sharing across projects and more timely service.

• Ensured USDA benefited from tiered pricing offered by Salesforce by coordinating the USDA-wide license renewal and saved USDA agencies over $5.1M.

• Avoided $27K annually in VPN license costs by sharing licenses between sites.

• Released an enhanced version of the Customer Portal with integration to Kinetic ERMS for self-service and mobile access.

• Partnered with CTS to create a two-way, selective domain trust for FS-vDC to support the GIS platform.

• Led the DCO Organizational Realignment effort in creating the new functional mapping, descriptions, and activities as part of the 1010 package to shape the organization of the future.

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Workforce Inclusion

Civil Rights, Equal Employment Opportunity and Diversity

- Sponsors the Fort Collins FTC EO/CR Committ with five standing members, and leads participation in local events and seminars.

- Executive sponsor and advisor to the NITC Diversity Council to foster a diverse and inclusive workforce.

- Ensures supervisors exercise effective managerial, communication, and interpersonal skills to supervise and develop a diverse workforce and complete annual civil rights training within the identified timeframe.

- Sponsored staff participation in the NITC Employee Advisory Board, OCIO Employee Advisory Council, OCIO Communications Leadership Team, and USDA's Department-Wide Federal Women’s Employment Program workgroup.

- Established bi-weekly, informal employee engagement sessions to provide an inclusive employee forum.

- Staff participated in KC Metro Federal Executive Board Programs to support Veterans and Federal Employees with special needs.

- Enforces and supports compliance to all legislation and USDA regulations regarding CR and EEO.

- Sponsored staff to serve on the FEVS (Federal Employee Viewpoint Survey) Workgroup to review questions from the 2016 FEVS that scored lowest for OCIO as an organization, and provide feedback to senior management.

- Fosters a positive, fair, and safe working environment for employees, encourages diversity and teamwork, and holds supervisors accountable for complying with civil rights objectives.
Employee of the Year

People are the most important asset of our organization

Our business success depends on the knowledge and skills of our employees. For the NITC to remain competitive, it is critical that we create and maintain a workforce with world-class skills. We attract the best and brightest talent and empower them to design competitive solutions for our customers. Our federal and contract workforce encompasses a global diversity that brings the best ideas to the table.

Employee of the Year - Lattrice Goldsby

Lattrice Goldsby is part of the Customer Account Management Branch (CAMB) and is being recognized as the Employee of the Year for her steadfast devotion to NITC’s mission. As a team member of the CAMB, Mrs. Goldsby displays a high level of professionalism when working with internal and external customers. She flawlessly executes the duties of a business relationship manager by ensuring that all of her assigned customer agreements are accurate and fall within established thresholds.

As the Forest Service’s (FS) Business Relationship Manager, she has earned the respect and trust of one of NITC’s top five revenue earners by managing all aspects of their agreement. Serving as a trusted advisor, Mrs. Goldsby led an effort to convert her Forest Service customer to the rack rate model, saving them $1.2 million dollars in hosting charges. She has shown that she is capable of going the “extra mile” without being asked to ensure her customer is being serviced with the highest of standards. Mrs. Goldsby led a special project to stand up the CAMB SharePoint site. As a certified SharePoint designer, she created CAMB forms out on the newly established site and included workflow behind the documents. Mrs. Goldsby also provided training to other Account Managers and taught them how to create forms to include workflow by utilizing SharePoint Designer. She continues to seek efficiencies in existing processes, and by creating new ones.

Mrs. Goldsby also “advances her knowledge” by learning more and more about current NITC services, and the emerging cloud services offering. She was instrumental in the creation of the Commercial Cloud Pricing and Budgeting Guide that will be utilized with onboarding customers seeking to subscribe to cloud services. Mrs. Goldsby provides exceptional customer service. She has raised the bar and is the standard for other Account Managers to follow. She is extremely conscientious when servicing NITC customers. Her dedication and attention to detail has proven to be invaluable. Her customers continue to praise her work ethic and natural ability to explain the most complex details in terms they can relate to, which put them at ease.

She goes out of her way to ensure that any beneficial information or knowledge that she holds is shared with her peers and supervisor. She demonstrates and maintains a high degree of professionalism, work ethic, and ability to resolve issues. Mrs. Goldsby is an active learner and is always seeking ways to enhance her skills as well as sharing what she learned with others. She continues to do what she can to assist her peers by sharing her skills and knowledge in an effort to enhance the overall abilities of the branch. Mrs. Goldsby brings a fresh viewpoint to the organization and has made an immediate impact on NITC’s success.
Growing Markets

Growth through Diverse Technologies and Flexibility

• The NITC takes our customers’ requirements and needs very seriously. Besides growing our world-class accredited hosting platforms, the NITC continues to implement a number of trusted technologies and programs that enable the customer’s assurance that their data is available and protected at all times.

• The NITC EDC customer base continues to grow. The USDA Agencies choose our cost effective offerings to facilitate diverse, agile and flexible hosting solutions, thereby enhancing their mission critical business delivery.

FY2018 and Beyond

• IaaS - Service Assurance and Application Visibility - full Dashboard visibility into customer application performance; FSA and FNS are pilot agencies; new service available in FY2018.

• Researching innovative storage technology to drive down IaaS storage rates in FY18.

• Approved and funded the implementation of Oracle Exadata Engineered Systems database platform to consolidate all NITC PaaS-Oracle customers into this cloud solution; this will save approximately $7M+ over 5 years.

• Red Hat OpenShift Container as a Service – under development and will launch Oct 2017; FSA is pilot agency.

• Completion of the reconstruction of NITC POD1A designed to enhance our overall efficiency.

• Designing and implementing our newest energy efficient POD1B.

• Aisle lighting conversion with energy efficient LED lamps.

• Implementing 95-96% efficiency Uninterruptible Power Supply (UPS) systems, up from 80%.

• Implementing 95% efficiency water chilled CRAC units, up from 80%.

• Planning and implementing storage upgrades to allow for data-at-rest encryption in KC and STL. This will include encryption for NAS, SAN, mainframe, and backups.

• Planning automated PUE monitoring and management tools for data center optimization in FY18.

• Compliance Governance: Became the first Federal data center to apply for a FedRAMP High Security Impact Agency Authorization, Certification pending.

• Provide a Managed Entrance Facility for carrier DMARCS to the EDC adhering to Federal Regulations. This will eliminate the need for carrier vendors to have access to the data center floor to modify, expand, or terminate circuits and services.

• Delivered a data center closure plan for GWCC in Beltsville, MD to realize $8.8M in cost avoidance/savings over 5 years; target Dec 2018.

• Additional Exadata capacity to support an enhanced PaaS-Oracle service offering (overall cost reductions, performance improvements, operational efficiencies, optimized cloud solution, reinforced security, etc.).
Service Level Management

SLA Pilot Program

The NITC introduced several high level Enterprise Data Center (EDC) service-performance metrics for FY2017. The NITC publishes monthly analytics to the Customer Portal\(^1\) that displays actual Enterprise Data Center (EDC) performance against pre-determined service level targets.

<table>
<thead>
<tr>
<th>NITC Managed Service</th>
<th>Monthly SLA Targets</th>
<th>Formulae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Ticket Resolution</td>
<td>Targets set by Priority</td>
<td>90% LOW, 85% MED, 80% HIGH, 70% CRITICAL</td>
</tr>
</tbody>
</table>

### Enterprise Data Center Availability

- **Facility**
  - \( \geq 99.95\% \)
  - Mechanical Uptime * Electrical Uptime

- **Network**
  - \( \geq 99.95\% \)
  - Time Network Available / Total Time in Month

- **IaaS Server**
  - \( \geq 99.9\% \)
  - Network Up-time * IaaS OpenStack Platform Uptime

- **IaaS SAN Storage**
  - \( \geq 99.9\% \)
  - Network Up-time * SAN Platform Uptime

- **IaaS NAS Storage**
  - \( \geq 99.9\% \)
  - Network Up-time * NAS Platform Uptime

- **IaaS Backup Storage**
  - \( \geq 99.9\% \)
  - Network Up-time * IaaS Backup Storage Primary Uptime

- **PaaS Server**
  - \( \geq 99.9\% \)
  - Network Up-time * PaaS Server Control Group Uptime

- **PaaS Mainframe**
  - \( \geq 99.9\% \)
  - Network Up-time * PaaS Mainframe Uptime

<table>
<thead>
<tr>
<th>FISMA ATO and FedRAMP</th>
<th>Formulae</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Days ATO &amp; FedRAMP Authorized − Days Unauthorized / Total days in Month</td>
</tr>
</tbody>
</table>

FY2017 led to the establishment within the NITC of a Service Level Management (SLM) program. The intent of the Service Level Management program is to build upon the high level published SLAs and expand the program to ensure that services fully align with the needs of the business, meet the customers’ requirements, and provide meaningful performance measurements for all services in the NITC catalog.

\(^1\) The NITC Self-service Customer Portal (https://serviceportal.nitc.usda.gov) is an online resource that provides customers with the ability to: view status of datacenter; status of customer systems; status of scheduled maintenance; or request services and configuration changes to their systems hosted at the NITC data centers. Also included is quick access to the NITC’s Customer Management System (CMS) and Customer Billing System (CBS).
Planned maintenance was not removed from this availability metric.
OCIO

Partnering for Success
Ray Coleman  
Associate Chief Information Officer (ACIO)  
Data Center Operations

Kim Jackson  
Deputy ACIO  
Business Development & Finance

Dana Laster  
Director, Resource Management Division

Earnest Jones  
Director, Data Center Consolidation & Customer Relations Office

Steve Sanders  
Director, Project Management & Process Engineering Office

Chris North  
Deputy ACIO, Enterprise Application Services

Gary Klesner  
Director, Application Engineering Division

Elizabeth McKenna  
Director, Applications Solutions Division

Jerome Davin  
Director, AgLearn

Kent Williams  
Director, Enterprise Geospatial Management

Deb May  
Chief, Business and Digital Services

Victoria Turley  
Principal Deputy ACIO  
EDC Operations & Application Services

Ed Reyelts  
Deputy ACIO, Data Center Operations

Chuck Gowans  
Director, Architecture & Integrations Division

Scott O’Hare  
Director, Infrastructure Operations Division

Jeff Claunch  
Director, Systems Engineering Division

Jeff Caldwell  
Deputy ACIO, Security Operations

*Organization chart current as of 12/31/2017