

**United States Department of Agriculture**  
**The National Information Technology Center Partnering for**  
**Success**  
**Annual Report 2009**

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## To Our Stakeholders

NITC is a growing business and getting bigger. We are expanding across the federal government community. In FY2008 we added an enterprise data center in St. Louis and in FY2009 we added capacity to data centers in both Kansas City and St. Louis. We are committed to the disciplined execution of our long-term strategy. We will continue to pass along savings through volume and efficiencies to our valued customers.

Beginning a new year offers the opportunity to review some of our highlights and accomplishments during 2009.

Organizationally, NITC has realigned common functions, consolidated similar skills and abilities, and integrated and centralized the management of operations for two enterprise data centers.

Aligning the operational structure to business requirements increases productivity, increases employee retention, reduces overtime, and allows staff to focus on activities in their technical and functional areas of expertise in concert with the Department's data center consolidation and enterprise data center objectives.

Benefits to business operations include streamlined business processes, better operational communications, reduced cost as a result of consolidating redundant functions, reduced time-to-market for products and service delivery, and enhanced ability to be proactive to customer requirements.

Sustaining our performance requires superior execution around three imperatives: we will sustain a strong portfolio of service offerings; we will drive common initiatives that expand performance; and we will develop people to grow a culture that is adaptive.

On behalf of the entire NITC team, we thank you for your continuing support. We are indebted to you, our long-term partners. We will deliver for you, now and in the future.

Kent W. Armstrong  
Associate CIO, Data Center Operations  
and Director NITC  
September 30, 2009

## **PERFORMANCE SUMMARY**

The NITC's long-term financial goals are a year after year increase of customer growth; and a net decrease in rates for customer services.

### **HOW NITC PERFORMED IN 2009:**

Managed services rates were reduced from 10% to 30%.

Storage rates were reduced from 16% to 25%.

Customer growth continues to increase; revenues increased by only about 2% to \$98 million due to new workload and rate reductions.

Revenue per employee decreased less than 1% to \$293 thousand due to rate reductions.

Continued to earn the respect of the Government community. NITC received an EPA Green Enterprise Award and supported multiple Departments' American Recovery and Reinvestment Act (ARRA) sites.

Received an unqualified opinion for IT general controls (clean audit) for the 5th consecutive year.

Introduced new Platform as a Service (PaaS) and tiered storage offerings.

## **Serving Customers**

### **NITC Overview**

The National Information Technology Center (NITC) is part of the Office of the Chief Information Officer (OCIO) for the United States Department of Agriculture (USDA). The mission of NITC is to provide reliable and cost-effective Information Technology Solutions to achieve effective mission performance delivery for the USDA, its agencies, and other clients. With its headquarters located in Kansas City, Missouri, NITC supports the missions of the USDA offices and agencies. NITC specializes in Enterprise Information Technology (IT) Solutions that includes products, services, and resources. The programs and applications deployed in the NITC environment are national in scope, mission critical, and essential for the operations of the United States Government.

### **Centralized Services Offered**

The NITC operations are seven days a week, twenty-four hours a day, all year long. Services are 100 percent reimbursable by NITC customers through competitive billing rates.

In 1972, NITC introduced centralized computing services to USDA agencies. The centralized computing economies of scale propelled NITC into a leading edge operation. The Web-enabled technologies available at NITC allow public users to access applications on a 24X7 basis. The systems provide reliable interactive processing using over 500 commercial off-the-shelf (COTS) programs and applications. NITC assures the confidentiality, integrity, and availability of the server architectures. NITC customers are able to access facilities from their remote locations throughout the United States via secure private and public networks to support their business requirements and services. NITC services include Professional Services, Software Development, Storage Services, Managed Services, Non-managed Services, and Enterprise Services.

## **Recognition**

### **USDA.gov**

3rd year in a row!!! Brown University's ninth annual analysis of U.S. e-government finds —'USDA.gov' and the Department of Agriculture lead federal offices in effective governmental use of Web-based technology.

USDA.gov received recognition as one of the top 2 federal portals by Federal Computer Week.

### **Government Computer Week (GCN) Awards-2008**

2008 GCN awards included six civilian agencies two of which are hosted at NITC:

1. The USDA's Animal and Plant Health Inspection Service (APHIS) Phytosanitary Certificate Issuance and Tracking System (PCIT), and

2. The Department of Labor's govbenefits.gov portal, which features 390 federal programs integrated into the site and 610 state-administered programs.

### **Reorganization to Better Serve Customers**

In December 2008, NITC realigned its organizational structure. The new NITC organization aligns common functions, and consolidates similar skills and abilities, and integrates and centrally manages the operations (of three enterprise data centers). The realignment resulted in the following benefits to business operations:

Streamlined NITC business processes

Improved operational communications

Increased productivity

Reduced cost by consolidating redundant functions

Reduced time-to-market for products and service delivery

Enhanced ability to be proactive to customer requirements

### **Customer Recognition**

American Recovery and Reinvestment Act (ARRA)

To my USDA colleagues,

It's official—you are a success. Thanks so much for all your efforts to get this done under such time constraints. Your skill and professionalism made this process one of the most rewarding interagency efforts I have been associated with. I look forward to our continued efforts to make the site even better.

- U.S. Department of Housing and Urban Development

## **Reorganization to Better Serve Customers**

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- Streamlined NITC business processes
- Improved operational communications
- Increased productivity
- Reduced cost by consolidating redundant functions
- Reduced time-to-market for products and service delivery
- Enhanced ability to be proactive to customer requirements

## **COMMUNITY SERVICE**

### **Combined Federal Campaign (CFC)**

The National Information Technology Center received the “Silver Certificate for Achievement” and the “2009 Caring for Community Award” at the conclusion of the CFC campaign. NITC surpassed their goal of \$42,000 for the 2009 campaign with a total pledged of \$52,711.24.

### **Day of Caring**

This year’s Day of Caring was a great success. Day of Caring was held on June 6, 2009 and involved nearly 3,000 volunteers (over 1,200 being federal employees), for what has become one of the largest single-day volunteer effort involving both the public and private sectors, anywhere in the country. Together they tackled more than 183 projects throughout the Kansas City area.

The federal community again led the way with 35 Federal Agencies & Labor Groups working on 92 different projects throughout the city. The value of the service provided on this day is estimated at over \$232,500 —what an incredible accomplishment for the community!

The NITC employees worked with the DLR Group again at the Mastin House. The Mastin House is a group home in Kansas for ‘mentally and physically challenged individuals.’ This was our 5th year at this site and everyone in the past has really enjoyed participating and working with the same people. We did general cleanup and mulching that has been done in the past, but also planted herbs and other plants in pots for a sensory garden, and added to the “Path” and “Stations.”

### **Blood Drives**

The Community Blood Center conducts quarterly blood drives at the Kansas City facility. Our goal is generally, 23 donors and we have reached or surpassed that goal in the past year.

### **Harvesters**

The Kansas City facility continues to house barrels for Harvesters food donations. For a small building, we have been able to rise to the needs of the Kansas City metro area by donating many hundreds of pounds of food to Harvesters.

### **Heart of America Annual Stand Down**

The National Information Technology Center once again participated in the 16th annual Stand Down which provides ID cards, clothing, medical help, warm meals, entertainment, tax preparation and housing assistance for homeless and struggling veterans. Good weather helped draw more than 500 veterans to the first day of the event this year.

### **Feds Feeding Families**

As part of First Lady, Michelle Obama's program: "Feds Feed Families," all employees were requested to donate 5 pounds of nonperishable foods. USDA (NITC & OIG) together donated 646 pounds to Harvesters of Kansas City!

## **CREATING VALUE**

The NITC managed Enterprise Data Centers are highly available, geographically dispersed, state-of-the-art, secure facilities located in Kansas City, MO and St. Louis, MO. By being hosted at a NITC EDC customers can focus on program delivery while NITC provides the capital investment for infrastructure support systems. NITC also manages a data center in Beltsville, MD to be used for disaster recovery, development and test systems only.

### **Enterprise Data Center (EDC) equivalent Uptime Institute Ratings\*\***

NITC Kansas City EDC—Tier IV  
NITC Saint Louis EDC—Tier III  
NITC Beltsville —Tier I

### **Department of Justice Secure Facility Ratings**

NITC Kansas City EDC—Level IV  
NITC Saint Louis EDC— Level IV  
NITC Beltsville— Level IV

\*Plans and designs to upgrade the Beltsville Data Center to Tier III standards have been formulated and are awaiting funding.

\*\*Summary of Uptime Institute Tier Ratings:

**Tier I:** A basic data center with non-redundant capacity components and a single, non-redundant distribution path serving the computer equipment. The site is susceptible to disruption from both planned and unplanned activities providing 99.671%

**Tier II:** A single path for power and cooling distribution, with redundant components, providing 99.741% availability

**Tier III:** Multiple active power and cooling distribution paths but only one path active, redundant components, concurrently maintainable, providing 99.982% availability

**Tier IV:** Multiple active power and cooling distribution paths, redundant components, fault-tolerant, providing 99.995% availability

### **Highly Available Local Area Network**

The NITC provides redundant connectivity for customer computing platforms by connecting them to two separate (access/distribution layer) network switches. The layer 2 spanning tree protocol is configured such that one connection is in active mode and the other is in standby/failover mode. Additionally, the Layer 3 interface is configured for failover between two core routing devices.

The highly available network (HAN) provides protection between VLAN's using a Firewall Service Module (FWSM) to eliminate the need for an Access Control Lists (ACL). The FWSM is managed by a management station that is given access to a Firewall "context" configured in the FWSM. The two core devices each have a FWSM and they are setup for stateful failover to maintain connectivity should a failure occur.

The NITC has adopted a recurring maintenance window for the HAN that serves to protect network devices and customer systems from identified vulnerabilities. With the failover capability architected into the HAN environment, maintenance can be performed without impacting customer processing.

## **GROWING MARKETS**

The NITC customer base continued to grow throughout FY2009. In addition to the Departmental data center consolidation effort within USDA the following growth was experienced.

Web Supply Chain Management (WBSCM)  
Enterprise Logical Access Control System (ELACS)  
Identity and Access Management Services (eAuthentication)  
Infrastructure Stabilization Data Warehouse (ISDW)  
Electronic Commodity Ordering System (ECOS)  
Standup of the National Finance Center Backup Computing Facility (NFC BCF)  
Conference and Training Tracking System  
Cyber Security Assessment and Management (CSAM)  
Expansion of GovBenefits.gov- in partnership with DOL and FEMA this platform now acts as one stop shopping for the public to access all Government aid during disasters

FAA- NITC is the only non-DOT data center service provider to be certified as an FAA Enterprise Data Center, and as such the FAA presence at NITC continues to grow.

### **Emerging Technologies**

In the last quarter of FY2009, NITC realigned to establish an Enterprise Services Branch (ES) within the Business Process Management Office. This action was taken to handle the rapidly growing demand for Web 2.0 initiatives. The major Web 2.0 initiatives that NITC has been working on include:

**American Recovery and Reinvestment Act (ARRA)** - This application tracks not only all USDA ARRA projects but those of Housing and Urban Development and the Department of Commerce as well. The ARRA Projects Map allows the American Public to find and view information about Recovery Act projects in a web-based map display.

**Rural Tour** - Working with the Office of Communications, NITC helped launch both a website and a blog solution in correspondence with the USDA Secretary's various tour stops.

**Know Your Farmer** - Working with the Office of Communications, NITC helped launch a website in a USDA-wide effort to create new economic opportunities by better connecting consumers with local producers. It is also the start of a national conversation about the importance of understanding where your food comes from and how it gets to your plate.

**Community Impact** - Working with HUD, USDA launched a pilot website called Community Impact as part of the White House Recovery Team initiative. The goal is to use the website to bring people together to solve community challenges. The website was demonstrated with great success at the National Association of Counties (NACo) at

Nashville from July 24<sup>th</sup>-July 28th 2009 and at the Congressional Black Caucus on September 24th, 2009, in Washington D.C. The White House also conducted two rounds of focus group testing with various state government offices to get feedback about the site. Ongoing discussions continue to occur with the White House Recovery Team on next steps for this website.

**Chefs in the Cafeteria** - Ensuring that our nation's children have access to healthy foods is a top priority for the Obama Administration. USDA's National School Lunch and Breakfast Programs play a role in doing this by providing nutritious meals to students each year.

The National School Lunch Program serves nutritionally balanced meals to more than 31 million children in 101,000 schools and residential childcare institutions each school day. Nearly 11 million children receive a school breakfast every school day in more than 88,000 schools.

On October 15, during National School Lunch Week, USDA will launch this internet tool to connect chefs with schools as well as share with others their efforts and ideas. There is a role for the culinary community to play in ensuring our schools provide nutritious food to students and already, there are chefs across the country who in a variety of ways are connecting with schools.

**Identity Access Management** - Under the umbrella offering of Enterprise Services (ES), NITC also added Identity and Access Management which includes:  
eAuthentication  
Enterprise Identity Management System  
HSPD-12  
Enterprise PKI

**Virtual Worlds Technology** - Developing a new offering with a consortium of Dept. of Defense, Dept. of Homeland Security, and The National Defense University.

In addition, the NITC continues to work closely with OMB to ensure it is positioned to meet the requirements for certification as a data center services provider for the Infrastructure Line Of Business (ILOB).

# SOLVING CHALLENGES

## National Information Technology Center Report On Kansas City Data Center Energy Efficiency

### Background

The NITC has been actively involved in evaluating new technologies and implementing energy efficient (green) solutions for infrastructure systems and computing environments. Upon the enactment of the EAct 2005, which accelerated energy consumption reductions to 2 percent annually, NITC reprioritized many infrastructure upgrades to ensure that these goals were met. These efforts have served to reduce NITC's average Power Usage Effectiveness (PUE) ratio to 1.69 and its worst case PUE ratio is 1.88.

### Actions Taken

The NITC has identified and implemented many energy savings initiatives the most significant are as follows:

Installed a Virtual Tape System that allowed the decommissioning of outdated and inefficient tape drives

Implemented deduplication technology to achieve approximately 4:1 compression to limit installation footprint and power consumption

Replaced inefficient Computer Room Air Conditioning (CRAC) Units with newer technology CRAC Units rated at >90% efficient

Replaced Uninterruptible Power Supply units, with high efficiency units that allow for the right sizing of supply power to load while operating at >93% efficiency

Replaced main electrical distribution system transformers with newer technology transformers that operate at >95% efficiency

Replaced rooftop mounted air conditioning dry-coolers with new units rated to operate at >90% efficiency.

Implemented virtualization across shared computing environments allowing the physical number of machines to be reduced.

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<sup>1</sup> Whitepaper - Green Grid Metrics: Describing Data Center Power Efficiency, February 20, 2007

<sup>2</sup> Worst Case Conditions based on electrical consumption during peak-period computing hours with a 102F outside air temperature

### **Future State**

The NITC has evaluated several technologies where additional energy efficiencies can be gained and intends to implement them over the next two to three years.'

The NITC participates in the EPA's Energy Star® Data Center Infrastructure Rating Development which will result in a new energy performance rating for data centers.

### **Conclusion**

The NITC average PUE ratio of 1.69 meets the EPA recommendation of data center PUE ratios of 1.7 by 2011. The NITC estimates that by implementing additional technologies that it can achieve a PUE ratio of 1.6 or less by 2011.

### **Customer Recognition**

Community Impact On behalf of the Office of the Vice President, Recovery Implementation Office, we would like to thank the technology team who has been so instrumental in developing, maintaining and supporting the Community Impact technology tool. This tool has allowed our team to directly engage with the community and hear about the innovations surrounding the Recovery Act as well as the barriers to implementation. It has been extremely helpful in the work we do and we appreciate all the efforts of the members of the National Information Technology Center for their help. We look forward to working with this team in the future as we continue to collaborate across agencies and execute the goals of the Administration.

- Office of Management and Budget

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<sup>2</sup> Table 3-5, Page 53, EPA Report to Congress on Server and Data Center Energy Efficiency Public Law 109-431, dated August 2, 2007

## **MEETING CUSTOMER NEEDS**

### **Customer Satisfaction Survey**

The NITC scored in the top 10 percent, best in class, of Gartner's Information Technology Customer Satisfaction database for system performance and mainframe services. Scored an overall satisfaction rating of 3.80 out of 5.00, surpassing the average of 3.72 for all 383 commercial and government organizations rated by Gartner.

### **Enterprise Shared Services (ESS) Upgrade**

During 2008 NITC's Enterprise Shared Services launched the following applications into a Go-Live state:

Animal and Plant Health Inspection Service Web Content Management  
Food Safety and Inspection Service Assurance Net Phase 3  
Forest Service Internet Portal  
wirec2008.gov website  
Conference Training and Tracking website  
Agricultural Marketing Service Web Content Management

In addition, the following enhancements to the platform were made:

Completed eAuthentication integration for Site Studio  
Upgraded WebSphere Application Server (WAS) and WAS Portal to version 6.1  
Upgraded zLinux Guests to Oracle 10gR3  
Upgraded the ESS SharePoint site to MOSS 2007  
Eight unique sites were migrated off end of life platforms to usda.gov.

### **USDA Whole Disk Encryption**

During Fiscal Year 2009, NITC deployed a department-wide encryption solution providing endpoint encryption enterprise administration for the hardware and software environment, and on-site or WebEx training for approximately seventy-five Endpoint encryption Agency Administrators and two hundred agency endpoint encryption Helpdesk Support Staff. NITC also provided on-site contracted support and technical transfer for agencies.

The endpoint encryption services provided include 24x7 centralized data center services, project management, EE application administration, documentation, training, and technical support for all USDA EE support personnel. The environment will accommodate encryption of end point devices for approximately 180,000 users, with up to five end-point devices each. These include laptop computers, and may include other mobile devices with processing capabilities and desktop computers. The services also provide for encryption of content, both on removable media, such as USB drives, and LAN file and folder shares, as well as for device or port control.

During FY 2009, the OCIO-NITC EDC completed the deployment of the endpoint encryption production and disaster recovery environments, managed the project for encryption of all USDA laptops, provided a solution for inter-operability of encrypted devices with the USDA PIV card, hosted one USDA, and one Interdepartmental user group meeting, hosted classroom training, held over 20 WebEx training sessions, created and published training videos, published several user guides, provided troubleshooting for USDA EE support staff, and provided on-site technical consulting for approximately 15 agencies and staff offices.

### **Tiered Storage**

This past year NITC implemented tiered storage in order to provide more flexibility in choice and price for our customers. These services are described in more detail in the Financial section of this report.

### **GovBenefits.gov**

The NITC worked closely with the Department of Labor and the Federal Emergency Management Agency to upgrade the GovBenefits.gov platform from a static to a transactional web site. GovBenefits.gov now serves as the public portal for access to all disaster assistance programs.

### **Customer Recognition**

Washington International Renewable Energy Conference (WIREC)

Office of Communications Memo:

You'll easily recall our Monday morning meeting when I said, "The WIREC website must be up and running by the end of the week." Well, by my clock it's 7:35 a.m. Thursday, and [www.wirec2008.gov](http://www.wirec2008.gov) was up and running at 4 p.m. yesterday. Amazing! Please thank your staffs, the folks in KC and elsewhere who dropped everything and got this done and done well. We're hitting on all cylinders now and the communication foundation for WIREC 2008 is coming together.

## **STAYING COMPETITIVE**

Meeting Secretary Vilsack's priorities (letter to all employees dated 2/12/2009)  
"Building a modern workplace with a modern workforce." NITC will focus on information technology and process improvements, led by an empowered and diverse workforce that reflects America and will bring the best ideas to the table.

### **Employee Awards**

CIO Summit Award for Outstanding Contribution to eGovernment

CIO Signature Award for Outstanding Management Contribution —Individual

### **Employee Certifications or Experience**

#### **Database Administration**

DB2 Universal Database

Informix

MySQL

Oracle

SQL

#### **Development**

.NET, C Sharp

ColdFusion

COBOL

Eclipse IDE

Java/Java EE

MySQL/SQL Developer

Oracle

Ounce labs

PHP

SQL

Visual Basic

XML

#### **Development Best Practices**

Automated Builds

Automated Functional Testing

Automated Security Scanning

Certified Application Developers

Lean Six Sigma Black Belt Certifications

Project Management Professionals (PMP)

Config. Management

Continuous Integration

Issue Management

Unit Testing

Usage Metrics

## **Hardware**

Brocade

Cisco

Dell

Google Search Appliance

Hitachi Data Systems

HP

IBM zSeries, pSeries, & xSeries

Juniper

NetApp Network Appliances

Sun

## **Information Technology Infrastructure Library (ITIL)**

Foundations

Practitioner

Service Manager

## **Operating Systems**

Juniper IOS

Linux (SuSE, Redhat, zLinux)

Mainframe (zOS, zVM)

Microsoft Windows

Sun (Solaris)

UNIX (AIX, HP)

VM (Virtual Machine)

VMware

## **Optical Circuits OC-3/OC192**

## **Low Turnover**

Personnel turnover for the last ten years has been less than one percent annually. NITC's steady growth has provided opportunity for continuous professional development of its employees. The stability of the work force, in turn, has helped the organization capitalize on the technical breadth and depth of its employees.

## **Public/Private Competitions**

The NITC participates in numerous private/public open competitions, and has been successful in gaining new business through this method. This activity has allowed us to verify that we are competitive from both a technical and cost perspective with other private and public sector data center service providers.

## **Independent Validations/Verifications**

In addition to several required audits, NITC commissions independent validations and verifications to make sure we are staying competitive, meeting our customers' expectations and staying current as an enterprise data center.

**EDC Consolidation Business Case Analysis** - confirmed that the Departmental initiative to consolidate data centers will provide greater economies of scale in terms of personnel, equipment, and security over the status quo environment.

**NITC Benchmarking/Optimization** - Completed all but final phase in fourth quarter, Gartner established a baseline for NITC costs and operational service levels as compared to peer organizations (both commercial and public sector). The contractor delivered an assessment of the NITC current state and modernization strategy along with a roadmap for optimization.

**Customer Satisfaction Survey** - Scored in the top 10 percent, best in class, of Gartner's Information Technology Customer Satisfaction database for system performance and mainframe services. Scored an overall satisfaction rating of 3.80 out of 5.00, surpassing the average of 3.72 for all 383 commercial and government organizations rated by Gartner.

**A-123/FISMA and SAS 70 General Control Audits** - The NITC has actively participated in both internal and external audit processes for many years. Within the last decade, OMB and Congress have mandated that civilian agencies improve their security posture by advancing their compliance with security standards such as those spelled out in SAS-70, A-123, FISMA and most recently NIST SP 800-53.

For NITC, responding to these requirements has resulted in significant improvements in the implementation of policies, technical security controls, and manual processes to comply with these security requirements.

The Personnel and Physical Security controls NITC has implemented surrounding its operation of the Enterprise Data Centers have been the foundation for its Security Program.

As more focus is needed to address IT vulnerabilities, Congress continues to reform FISMA and the Administration adapts guidance to agencies. In response to these changes and with evermore emphasis on providing assurance that security controls are implemented and effective, NITC is developing an Internal Audit Program to assist with the ongoing testing of the effectiveness of its policies, processes and controls. The resulting activities result in management assurance that the NITC meets and at times exceeds expectations of its customers in its operation of the USDA Enterprise Data Centers.

#### **Data Center Security Assessment**

Crucial Security (Harris) assessed the USDA systems using industry best practices, while drawing upon their specific experience with US Government (USG) networks, USG guidelines, knowledge of current threats, and exposure to advanced forms of intrusion and complex security incidents. The NITC is using the findings to strengthen security systems.

#### **The Information Technology**

Infrastructure Optimization Line of Business (ITILOB)— The NITC is a contributor to the ITILOB which focuses are (1) on the development and assessment of cost and

performance metrics for Federal IT infrastructure programs and (2) on managing the agencies' development of five-year infrastructure optimization plans throughout the Federal government. In addition, the ITILOB leads Federal efforts in collaboration and sharing of best practices in the areas such as infrastructure segment architecture design, strategic sourcing, and technology optimization and consolidation.

### **EPA Green Award Energy Star Data Center Infrastructure Rating Development Initiative -**

NITC is a contributor to this initiative with the goal of increased energy performance across the data center industry.

**Berkeley Labs-** Findings of the Green Data Center Assessment of the Kansas City Data Center showed that many best practices have already been instituted at this location. The study also provided recommendations for additional energy savings initiatives that NITC started to implement in FY2009.

**Data Center Assessment including thermal modeling-** commissioned to an independent third party to evaluate and provide recommendations on the design of equipment cabinet layout, mechanical systems (cooling), electrical systems (UPS and generator), and communications/networks that will provide maximum server density.

### **Customer Recognition**

Govbenefits.gov

The project lead for the Govbenefits portion of Disaster Assistance Improvement Plan expressed his appreciation for NITC's assistance in keeping the rollout of the Govbenefit's web sites on track to what appears to be a successful launch. "As evidenced by the distribution of this email, it takes a lot of resources both technical and logistical, to provide IT services for a customer but it takes extraordinary personnel working together toward a common vision to provide best in class service that insures the success of our client's IT projects and earns our right to claim NITC as a - center of excellence. "Thank you all for your diligent and focused efforts on Govbenefits."

## **FINANCIAL SECTION**

### **Management's Discussion of Financial Responsibility**

We believe that successful data center service providers are built on a foundation of quality service and reliable financial information. For NITC, that foundation includes rigorous management oversight of, and an unyielding dedication to internal controls and procedures. The financial disclosures in this report are one product of our commitment to high quality financial reporting. In addition, we devote our full resources to ensuring that accounting policies are applied properly and consistently and we do our best to fairly present our financial results in a manner that is complete and understandable.

### **Rigorous Management Oversight**

Members of the NITC leadership team review each of our service offerings routinely on matters that range from overall strategy and financial performance to staffing and compliance. We continually examine our governance practices in an effort to enhance stakeholder trust and improve NITC's overall effectiveness.

### **Dedication to Internal Controls and Procedures**

We maintain a dynamic system of internal controls and procedures — including internal control over financial reporting —designed to ensure reliable financial record-keeping, transparent financial reporting and disclosure, and protection of physical property and personal information. We recruit, develop and retain a world-class financial team.

### **Visibility to Customers**

We are keenly aware of the importance of full and open presentation of our rates and operating results. We welcome the strong oversight of our financial reporting activities by the Office of Inspector General (OIG) and the Office of the Chief Financial Officer (OCFO).

### **Segment Operations**

Operating segments comprise NITC's five revenue streams: Professional Services, Software Development, Storage, Non-managed Services (bronze), and Managed Services (Platform as a service or PaaS, Software as a Service or SaaS, and gold level service). For segment reporting purposes, managed services includes all platforms, mainframe and midrange.

## **Professional Services**

The NITC offers a diverse suite of advanced technical services typically billed on a time-and-materials basis. Services include:

Application Administration

Database Administration (both Application and System level)

Middleware Administration

Disaster Recovery Contingency Management

Project Management

Software Engineering Support and other consulting services

## **Software Development**

A full-range of information technology application development services including analysis, research and development through design, build, implementation, maintenance, and service desk support.

## **Storage**

The NITC continues to operate highly-available, enterprise-class disk storage solutions for mainframe and open systems platforms. Significant developments in disk storage technology and customer-driven interest in cost savings supported the introduction of additional disk storage options.

### **Disk Storage Options for Fiscal Year 2010**

For fiscal year 2010, NITC will deliver the following options in a cost effective manner, making the most of industry-leading and proven storage virtualization technology. NITC has tailored the “personality” of each proposed option so customers can balance cost-savings and the enhanced performance based on their business needs. All three tiers are offered as Storage Area Network (SAN) or Network Attached Storage (NAS) depending on customer requirements.

#### **Tier 1— “Performance”**

The “Performance” disk storage option utilizes highly-available enterprise-class storage controllers and internal disk spindles to provide optimal features and performance. The internal disk spindles for this option are some of the highest-performing disk options available. The focus of this option is for workloads that are truly performance-focused.

#### **Tier 2— “Economy”**

The “Economy” disk storage option utilizes highly-available modular storage that is externally virtualized behind the same highly-available enterprise-class storage controllers used for the “Performance” option. This allows the “Economy” storage to take on the same personality as the “Performance” option from a configuration and overall management perspective. The disk spindles for this option are lower cost but are still capable of handling the operational activity that primary disk storage solutions require. The focus of this option is to minimize solution cost for typical primary disk storage requirements.

### **Tier 3— “Backup”**

The “Backup” disk storage option utilizes highly-available modular storage that is externally virtualized just like the “Economy” option. Like the “Economy” option, it takes on the same personality as the other options from a configuration and management standpoint. The disk spindles for this option are very cost-effective and are used for backup and/or archive purposes only. The focus of this option is to strictly minimize solution cost for backup disk storage requirements.

### **Optional Data Replication**

Local and Remote Data Replication is a feature that can be provided with all three of the disk storage options. Provided the customer requirements and application data supports storage controller-based data replication, this optional feature can provide disk cloning and remote replication solutions for disaster recovery purposes.

### **Summary**

These disk storage options provide measureable performance and significant cost differences. It is now possible that a customer can invest in the “performance” option for the best performance at their primary operating site and the “Economy” option at their secondary site. With the virtualization architecture, NITC can perform the optional data replication between the sites and can also support the replication from one option to another.

### **Data Center Hosting Services**

The NITC offers several models of hosting to choose from including:  
Software as a Service (SaaS) — see Enterprise Services (this section)  
Platform as a Service (PaaS)  
Managed Services (Gold Level)  
Non-managed services (Bronze Level)

### **Platform as a Service (PaaS)**

The NITC offers Platform as a Service (PaaS)\* on x86 architecture for VMWare, Windows, and Linux as well as VM, zOS, and zLinux and has plans to add additional platforms in 2010.

\*PaaS provides a predefined architecture - The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created applications using programming languages and tools supported by the provider (e.g., Java and .Net). The consumer does not manage or control the underlying cloud infrastructure, network, servers, operating systems, or storage, but the consumer has control over the deployed applications and possibly application hosting environment configurations.

### **Managed Services (Gold)**

For managed services, NITC provides all of the services included with non-managed services, plus:

- Availability monitoring
- System security administration (expanded)
- System administration
- Baseline backup/restoration

Within managed services NITC offers support for mainframes, open systems, x86, and virtualized platforms.

### **Non-managed Services (Bronze)**

For non-managed services, NITC provides:

- 24x7 first level point of contact for all operational issues
- Security: Physical and environmental controls and background investigations
- Facility Security
- Procurement Services
- Computer room raised floor space
- USDA Universal Telecommunications Network (UTN) connectivity
- System Security Administration (limited)

### **Enterprise Services**

Enterprise Services is a mix of Software as a Service (SaaS)\* and Platform as a Service (PaaS) that supports programs across USDA and across the federal government.

Following is a description of services.

\*SaaS— The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure and accessible from various client devices through a thin client interface such as a Web browser. The consumer does not manage or control the underlying cloud infrastructure, network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings.

#### **Web Application Server**

NITC provides an enterprise-class web application server environment for robust, fault-tolerant web application hosting.

#### **Web Portal**

NITC provides an enterprise-class portal solution for web application hosting that allows aggregation of applications and content for delivery as a single, role-based application.

#### **Web Content Management**

The NITC Web Content Management solution enables all authorized users within an organization to create, capture, store, manage, publish, view, search, archive all types

of documents, and provides the ability to support the entire content management lifecycle.

Contributors are granted the ability to publish content directly, without web masters intervention, vastly increasing the speed of making information available on the web

### **Document Management**

The NITC document management solution allows organizations to effectively and efficiently capture, secure, share and distribute digital and paper-based documents. The solution includes a workflow process to mirror the review of information and supports process automation for document creation, review, and revision.

### **Records Management**

The NITC Records Management solution enables organizations to apply their records management policies and procedures for data in remote repositories such as file systems, content management systems, and email archives.

This system provides DOD 5015.2 Chapter 2 and Chapter 4 certified electronic records management.

### **Web Search**

The NITC Enterprise Search offering provides customizable, web search-engine functionality for web applications. The solution can be configured to search collections of web pages that are customized per application. These collections can include anything from the entire domain to a single web page. The search catalog offers services for public facing and protected sites using USDA's SSO (eAuthentication) system.

### **Web Accelerator**

NITC can provide 3rd party Web Accelerator service to further enhance web application performance and availability. Front end redundancy and geographically dispersed nodes for last loop efficiency are included.

Built upon Akamai's EdgeAdvantageSM platform, Akamai's EdgeSuiteSM solution introduces intelligent content generation and comprehensive site delivery at the edge and provides E-businesses with the optimal solution for dynamic website availability, scalability and performance.

### **Enterprise Content Management (ECM)**

Enterprise Content Management (ECM) is a system that receives, collects, imports, documents and tracks incoming/outgoing correspondence and content from public, individual, private, political sources. Enterprise Content Management (ECM) allows USDA to manage business documents, including correspondence, effectively and efficiently.

## **Identity and Access Management (IAM)**

IAM consists of four projects that include e-Authentication, Enterprise Identity Management System (EIMS), Enterprise Entitlement Management System (EEMS), HSPD-12 initiatives, and Enterprise PKI. These are all focused on providing multi-factor identity management and access to federal systems and facilities.

## **Enterprise Web Services/Integrated Development Environments**

This includes development services and environments that focus on high profile, fast turnaround projects leveraging Web 2.0/3.0 technologies. These facilitate fast communications, collaboration, and informed decision making. Sample technologies include virtual worlds, blogs, wikis, rich profile management, and social media tools.

## **Whole Disk Encryption**

This service is currently USDA specific. The endpoint encryption services provided include 24x7 centralized data center services, project management, application administration, documentation, training, and technical support for all USDA support personnel. The environment will accommodate encryption of end point devices for approximately 180,000 users, with up to five end-point devices each. These include laptop computers, and may include other mobile devices with processing capabilities and desktop computers. The services also provide for encryption of content, both on removable media, such as USB drives, and LAN file and folder shares, as well as for device or port control.

## **Enterprise Data Center Management**

### **Senior Staff**

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## **ENTERPRISE DATA CENTER INFORMATION**

### **Enterprise Data Center Headquarters**

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8930 Ward Parkway  
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### **Other Locations**

Beltsville, Maryland  
Fort Collins, Colorado  
St. Louis, Missouri

### **Certifications**

United States Department of Agriculture—  
Enterprise Data Center  
Federal Aviation Administration—  
Enterprise Data Center  
Department of Justice Secure Facility Level IV

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