

CASE STUDY: "Cloud Migration and Deployment Solution"

TRUETANDEM CLIENT: United States Department of Agriculture (USDA)
NUMBER OF USERS: 120,000
MICROSOFT SOLUTIONS: [SharePoint](#), Live Meeting and Office Communications
TRUETANDEM PROJECT LEAD: [David Tilghman](#)

TrueTandem partners with the USDA to improve productivity, inter-agency communication and collaboration while reducing costs across the Department.

This project represents the first cloud-based messaging and collaboration service implementation for the Federal Government.

The Challenge.

The USDA needed a reliable resource to consolidate all its email, SharePoint, Live Meeting and Office Communications systems under a single environment. The USDA required the consolidation of 21 email systems across 17 Federal Agencies to a single enterprise-wide system supporting 125,000 mailboxes. Their objective was to improve productivity, inter-agency communication and collaboration while reducing costs across the Department. They needed a vendor who could deliver this solution with >99.9% availability and successfully complete the Federal Certification and Accreditation(C&A) process to validate FISMA compliance.

The TrueTandem Solution.

The USDA selected TrueTandem as Prime Contractor and Microsoft as subcontractor (Team TrueTandem) to implement the first cloud-based messaging and collaboration service for the Federal Government. To meet this requirement, Team TrueTandem's solution was a dedicated private cloud environment using Microsoft Business Productivity Online Services (BPOS) / Federal (F) architecture and suite of services.

USDA selected TrueTandem and the Microsoft cloud solution based on the maturity of the Microsoft product suite, TrueTandem's history of successful engagements at USDA; and the strong inter-group collaboration and coordination within the TrueTandem team.

TrueTandem implemented this solution using a combination of subject matter experts and technical personnel from Microsoft Consulting Services (MCS), Online Services (MOS) and Premier Support Services (PSS) to provide project management, design, preparation, integration, implementation, migration and ongoing support of the cloud-based messaging and collaboration system.

This solution included:

- **Exchange Online** – The USDA Office 365 environment is built on Microsoft® Exchange Online, a hosted enterprise messaging solution running on a dedicated Microsoft Exchange Server 2010 infrastructure. Exchange Online gave USDA the e-mail security it required, ubiquitous access to all services by system users, and lower costs with higher operational efficiency. The Exchange Online service includes advanced e-mail features, calendaring, contact, and task management capabilities. Exchange Online also provides built-in spam control and virus scanning to reduce common security risks that are associated with e-mail files. It includes a standardized Web-based administrative console that makes it easy to manage and set up services for users.
- **SharePoint Online** – [Microsoft® SharePoint®](#) Online is a collection of Web-based tools and technologies that allow USDA employees to store, share, and manage digital information within or between Federal Agencies. Built on the Microsoft Office SharePoint Server 2010 platform, this hosted service is ideal for storing project documents in a central location and sharing them with others. SharePoint Online Dedicated

is a Microsoft Online Services offering designed for rapid service adoption. It includes a standardized Web-based administrative console that enables administrators to easily manage and set up services for users.

- **Office Communications Online** – Microsoft® Office Communications Online is a hosted, enterprise-class communications solution based on Microsoft Office Communications Server 2007 R2. Office Communications Online provides real-time communications capabilities including secure instant messaging and delivery of "presence" information, allowing users to see at a glance if someone is available online to receive an instant message.
- **Office Live Meeting** – Office Live Meeting allows Community Cloud users to connect with colleagues and customers through real-time meetings, training sessions, and events using a PC or Apple with an Internet connection. Hosted Web conferencing services from Microsoft Office Live Meeting give USDA users the power to collaborate wherever they are, to set up project meetings, brainstorm ideas, and collaborate on whiteboards. The USDA was able to set up users to take advantage of Live Meeting without incurring additional IT overhead. End users are quickly and efficiently authorized for Web conferencing services through Active Directory® service updates from their IT environment to the Microsoft data centers.
- **Exchange Archiving Online (Proof Point)** – Exchange Hosted Archive automatically captures internal and external communications that flow through the Exchange Online service, and then stores them in encrypted form at a separate archiving data center operated by ProofPoint. Any participating Agency can submit requests for e-Discovery and litigation holds to support their mission objectives. The system archive is a single instance that allows for quicker searches and the ability to cover more data within a single search. This speeds the time to fulfillment for legal requests. Compliance Managers are able to monitor and supervise email usage by randomly sampling mail for potential violations. In addition to archiving for the purpose of compliance, individual users and authorized administrators can gain access to the archived messages.
- **Active Sync and Blackberry Enterprise Server** – The USDA solution supports both Blackberry hand-held devices and all Active Sync compatible devices. Policies for these devices are developed and controlled by USDA to meet the requirements of the Federal Government.

Transition. In addition to the implementation and support of all of the services described above, it was critical for TrueTandem to provide USDA with a controlled and risk mitigated process to move from their traditional email systems to the cloud-based environment. Working with Microsoft Consulting Services and Microsoft Premier Support Services, TrueTandem's implementation process ensured that all prerequisite requirements and dependencies were met for successful deployment and migration to the cloud.

Directory Services Integration. TrueTandem worked with USDA to establish a one-way mailbox and group provisioning and ongoing synchronization of their directory information to the Active Directory of the Community Cloud environment. The USDA identified in which Forest(s) / Domain(s) it had user, resource and group objects to have mailboxes and groups associated with in the Cloud. Within the Cloud environment is a server named the Microsoft Managed Solutions Service Provisioning Provider (MMSSPP) (pronounced "Mississippi") which is actually a Microsoft Identity Lifecycle Manager (ILM) server. The MMSSPP server read the directory information from the specified Forest(s) / Domain(s) within the Agency's Active Directory and provisioned the necessary Active Directory objects within the Community Cloud environment with the proper attributes. Now, whenever the USDA adds, deletes or edits objects from within the originating Active Directory, they are added, deleted or edited on the Community Cloud Active Directory. This allows Agency administrators to manage the services and capabilities assigned to an end user or object within their directory service. Administrators can query the Community Cloud directory using a LDAP query tool to retrieve LDAP information in an XML format.

The work performed by TrueTandem in conjunction with Microsoft Consulting Services included:

- Firewall / Port configuration
- Build and configure co-located Domain Controllers
- Establish a one-way trust with the Community Cloud
- Perform a Directory Attribute clean-up
- Migrate, validate and support accounts
- Establish migration, validation and support workstations

- Solve complex integration issues

Data Migration and Cutover (including number of mailboxes, if applicable). When all prerequisites were met, TrueTandem worked directly with the MSO “Move Team” to coordinate the migration of mailboxes from the legacy email systems to the new cloud environment. The strong coordination and communication between these groups allowed for the migration of 125,000+ mailboxes in six months. The migration was so effective that the team set new records for the number of mailboxes migrated in a single night, a single week and a single month.

Before large migrations went into effect, it was necessary for the MSO team to train the USDA personnel and partners on how to properly support their system and how to engage Microsoft Online Services during an issue escalation. All training was delivered to USDA and their assigned partners and has resulted in a highly effective support model that delivers high customer satisfaction across the Department.

Results.

The USDA was the first cabinet-level Department to migrate to the cloud. As such, there were a number of successes associated with this project, including:

- All USDA mailboxes (124,000) were migrated in 6 months
- 3,500+ were migrated in a night (a record number)
- 10,000+ were migrated in a week (a record number)
- 1,173,648 OCS conversations with 106,000+ provisioned OCS users with an adoption rate of 36%
- 7,000,000+ messages / month on Exchange
- Audio, Desktop Sharing, Video and IM all being used on system

The system has been in production since March 2011 and all mailbox migrations were completed by the end of September 2011. The system has been extremely stable with TrueTandem meeting or exceeding all SLAs set for the system.

For more information on how TrueTandem can help your organization maximize its IT investment, contact sales@truetandem.com or 703-889-6011.

