Treasury Network (TNet)
- TNet Overview and Telecom Convergence

Internal Revenue Service
US Department of the Treasury
TNet Overview

The Treasury Network (TNet) - Department’s single wide area network (WAN) that satisfies the technical, security, and business needs of the entire organization

• **A COLLABORATIVE PROJECT:** TNet is the product of more than four years of cooperation and consultation between the Treasury OCIO, IRS Procurement, Treasury Bureaus, and GSA to develop and refine enterprise requirements

• **A FLEXIBLE SOLUTION:** A single contract vehicle through GSA Networx and a single network – TNet – will meet the broad spectrum of technical and security requirements that Treasury Bureaus currently satisfy via multiple contracts and multiple networks

• **AN EFFICIENT USE OF GOVERNMENT RESOURCES:** TNet will leverage GSA’s recently awarded Networx Universal contract vehicle, while providing an enterprise solution for telecommunications for the Department

• **A PLATFORM FOR CONVERGENCE:** TNet will provide an infrastructure upon which converged services can be implemented and provisioned to bring the Department’s telecom services up to industry standards
Overview of TNet Network Architecture

TNet introduces a new architectural approach for delivering WAN services to Treasury customers

In the TCS architectural approach, each Bureau has a separate transport network (ATM and/or Frame Relay), connected to a TCS provider. Services are distributed and managed at the individual network level.

In the TNet architectural approach, each Bureau is connected to a single, managed MPLS IP-based network. TNet is a single network. Services are distributed and managed centrally.
Enterprise-wide and Bureau Security

TNet - state-of-the-art, Federally-compliant common security architecture, while allowing each Bureau to define and maintain its own level of IT security within its own domain.

![Diagram of network security architecture](image-url)
## TNet Enhanced Services

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1. **Link Encryption**
   - **Web Hosting**
   - **Host and Operate PKI**
   - **Host PKCA**
   - **Transition of Existing PKI Infrastructure**
   - **Provide System Administration Support**
   - **Single Sign-On Capability**
   - **Optional Back-Up Storage**
   - **Other Future Services**
     - Unified Messaging
     - Secure Enterprise Instant Messaging
   - **Intrusion Detection Services**
   - **Secure Remote Access**
   - **Remote Access Medium**
   - **VPN Client Requirements**
   - **Support for Small Fixed Sites**
   - **Bundled Access Solution**
   - **Remote Upgrades**
   - **Remote Patch Testing & Maintenance**
   - **Monthly Report**
   - **Maintenance Window**
Vision for Telecom Convergence

**TODAY**

- **Portfolio of Contract Vehicles**
  - **VOICE**
    - Local: WITS (GSA)
    - National: FTS2001 (GSA)
  - **DATA**
    - TCS (Treasury)
    - FTS2001 (GSA)
  - **VIDEO**
    - Various
  - **TELECOM EQUIPMENT**
    - CTS (Treasury)
  - **MESSAGING SOLUTIONS**
    - TMS (Treasury)

**FUTURE**

- **TNet Contract Award 10/12/07**
- **Subsequent Converged Services (TNet Expanded)**
  - Treasury customers migrate to converged services (VOIP, video, equipment, messaging, etc.)

**GSA Network Contract Vehicle**

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*The PMO structure is merely a depiction of multiple PMOs and does not represent actual numbers.*
Convergence Maturity Map

TNet Convergence Timeline

Today

Level One (QoS-Driven Network)

TNet Transition

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1 Year

Sept 30, 2008

1-2 Years

Levels Three-Five (Subsequent Convergence Initiatives)

Long Term Future

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Voice, Video and Data Convergence

Mobile Productivity, Wireless Campus Phone and Cellular Toll By-Pass On Campus Technologies

Land Mobile Radio, Cross-Platform Functionality, VPN-Enabled Anywhere Available Softphone Capability

Collaboration Applications, Instant Messaging and Cross-Functional Productivity

Solid QoS-Driven Network

Treasury Convergence Initiative

Level Three

Level Four

Level Five

Subsequent Convergence Initiatives
IRS Transition to Convergence – Impact to IRS

Transitioning to a converged network will require changes affecting how Treasury telecom management is organized, how it does business, & the Department’s current technology

Status of IRS Today

- IRS has transitioned 96 sites to VOIP
- Can only use VOIP internally now
- Foundation laid for larger converged network
- Convergence only at the LAN level
  - Currently only telephony & data

Potential for Future IRS

- End-to-end data, voice & video convergence
- Efax, Audio/Visual Web Conferencing, voice via VOIP, VMS & more now take advantage of new QoS technology
- Lowers costs, improves quality
IRS Transition to Convergence – Impact to IRS

Transitioning to a converged network will require changes affecting how Treasury telecom management is organized, how it does business, & the Department’s current technology.

### The Status of the IRS Today

- IRS employees communicate via separate data, fax & voice networks.
- Multiple vendors and multiple contracts mean multiple standards.
- Separate networks mean information is not always readily available from one network to another.

### The Reality of the IRS Tomorrow

- Unified communications are bundled with IM, Voice Mail, data, voice, video & fax via the secure, converged IP based network.
- Separate voice, data & fax networks no longer required.
- Savings & improved service achieved by integrating communications on a single secure network.
TNet Improvements and Efficiencies

• **Significant cost savings in both hard and soft costs**
  – Major reductions in circuit costs (up to 50%)
  – Elimination of shared costs previously allocated to maintaining a network core infrastructure, facility, and support personnel (~$25M per year)
  – Elimination (over time) of multiple PMOs operating multiple services contracts and vehicles as they are transitioned to TNet (e.g. DTS2)

• **Increased functionality**
  – QoS-driven, SLA-managed state-of-the-art network
  – Ready for convergence of voice, video, data within 12 months of transition completion
  – Roadmap for developing customer-focused, productivity-enhancement applications in a netcentric environment
    • Mobile productivity; Any-data, anywhere, anytime; Presence; Collaboration; IM; Cross-functional productivity; Voice-data-fax integration on single platform for mobile users; etc.
  – Improved Security
    • Replaces all WANs in Treasury, eliminating multiple entry points to the Internet
    • Consistent application of uniform Security policies across the enterprise

• **Ease of administration**
  – Eliminates multiple PMOs over time, and provides single point of management and administration for all Treasury WAN communications
  – Technical performance parameters through read-only access to vendor’s on-line, real-time management platform
  – Fixed monthly circuit and service costs and invoices
  – PMO functions and processes