TIC from an Industry Perspective

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June 15, 2010
TIC Initiative

OMB’s Trusted Internet Connections (TIC) Initiative (M-08-05)

- Reduce Government’s Internet connections
- Improve Government’s security posture
- React more effectively to cyber security threats
- Improve incident response capability
- Reduce malicious penetrations
- Reduce theft of critical data
- Secure and seamless environment
Managed Trusted Internet Protocol Service

Internet Access
- Allows agencies to exchange traffic with Internet and external IP networks
- Connects via Tier 1 Internet Service Providers (ISPs)

EINSTEIN Enclave
- Includes Einstein devices with supporting tools and data storage
- Furnished, maintained, and operated by US-CERT

Security Operations Center (SOC)
- Monitors all information exchanged to protect agency IP traffic
- Supports TIC Portal authorities/analysts
- Identifies security events of interest that may negatively affect portal’s environment and Government security infrastructure

MTIPS Transport
- MTIPS transport collection network for TIC Portal connectivity
- Insulates agency’s internal network from Internet and other external networks
MTIPS Security Services - Standard

- Managed Firewall Service (MFS)
- Anti-Virus Management Service (AVMS)
- Intrusion Detection & Prevention Service (IDPS)
- Email Scanning
- Service Enabling Devices
Qwest Offering

- MTIPS Gateways through two Hosting Centers
- Security appliances for event generation
- Access to NBIP-VPNS based on Multi-Protocol Label Switching (MPLS) to connect to agencies
- Internet Access
- Connectivity to US-CERT and Qwest SOCs

Government Services
Architecture With Failover Between Portals
Access Methods

- Dedicated IP – DS0, Tiered T1, Dedicated T1, Tiered T3, T3, OC3, OC12, OC48
- Ethernet – 1Mbps, 10 Mbps, 100 Mbps, 1Gbps, 10Gbps
- ATM Interconnectivity – T1, T3, E1, E3
- FRS – 56Kbps, Tiered T1, T1, Tiered T3, T3, E1, E3
Options

- Encryption – ICB MRC
- Policy Enforcement – ICB MRC
- Forensic Analysis – ICB MRC
- Custom Reports – ICB MRC
- Agency NOC/SOC Console – ICB NRC
- Custom Certification and Accreditation (C&A) Support – ICB NRC
- External Network Connection – ICB MRC
- Encrypted DMZ – ICB MRC
Qwest Architecture Details

FG-5140 Chassis

- Maximum Firewall Throughput 182 Gbps
- Maximum IPSec VPN Throughput 98 Gbps
- Maximum Antivirus Throughput 7 Gbps
- Maximum IPS Throughput 56 Gbps
- Maximum Concurrent Sessions 28 Million
- Chassis Slots 14
- Configured for high availability
- 10 Gbps capable but not currently deployed
- Separation through VDOMs
R&E Community Discussion Items

- Large volume traffic flows not specified in GSA Statement of Work
- 40 Gbps, 100 Gbps
- IPv4 and IPv6 – Current Einstein deployment IPv4
- Jumbo Frame Support
- Multicast
- Experimental Protocols
- Lower Layer Interconnects
- Policy Change Control
Questions / Discussion?
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