IT Program Assessment
DHS – Infrastructure Transformation Program (ITP)

The Department of Homeland Security (DHS) Chief Information Officer (CIO) conducted a program review of the Infrastructure Transformation Program (ITP) in March 2012. Due to the criticality of migrating DHS to a unified enterprise network and application infrastructure coupled with the complexity and scope of the migration, the DHS CIO reviews program status on a monthly basis.

Description and Background:

DHS Information Technology (IT) infrastructure investments are critical to providing a foundation by which information can be disseminated across all DHS Components (including external customers and intelligence partners). The DHS CIO's vision to fortify this foundation is embodied in the Infrastructure Transformation Program (ITP). It is through ITP's execution that collaboration barriers within and across DHS Components are reduced and operations are more efficient. ITP represents an enterprise-wide transition toward developing, implementing, and managing cross organizational efforts.

The program delivers a number of enterprise-level IT services including data centers that provide application hosting, email services, and OneNet, which includes wide area network transport, the Trusted Internet Connection (TIC), and Policy Enforcement Points (PEPs). The TIC is a (Demilitarized Zone) DMZ that provides Internet access, outbound Internet, Virtual Protected Network (VPN) and extranet services. The PEPs enforce policies and provide network management visibility into OneNet. ITP operates an enterprise Network Operations Center (NOC) to manage OneNet services. ITP is responsible for enterprise service delivery as well as DHS migration to the enterprise services. Successful migration is dependent on the ability of the individual Components to migrate themselves, with the help of ITP, to the enterprise services. Migration to, as well as, the implementation of enterprise services is managed as a number of individual projects.

Risks and Issues:

The ITP continues to make progress towards migrating DHS to OneNet and Data Center services. Funding uncertainty and delays in migrating DHS systems to the Data Centers have caused corresponding schedule slippages as well as adversely impacting ITP's long term financial health. Data Centers operate under a fee for service model with unused capacity (white space) funded by ITP which limits the ability to invest in other enterprise IT infrastructure enhancements and negatively impacts enterprise migration return on investment.

Components are responsible for migrating their sites to OneNet; sometimes, conflicting IT priorities and limited IT resources within the Components cause schedule slippages. Occasional technical problems related to the steady increase of the capacity utilization of infrastructure such as the TICs and PEPs have also caused migrations delays. A DHS Headquarters requirement for near-zero downtime during PEP migration is also a

challenge being worked. ITP continues to overcome the technical problems as they arise; however, technical problems usually result in delays.

The implementation of Internet facing IPv6 Office of Management and Budget (OMB Milestone 1) capabilities continues to be delayed by resource and funding issues that the ITP continues to work.

In spite of the many obstacles to the success of ITP, continued progress has been made in most areas and major accomplishments since the last OCIO assessment include the following:

- Network Services
  - As of 2/10/12, 96% of Federal Technology Service (FTS) contract network connectivity has been transitioned to the Networx contract with most components at 99.5% or better.

  - Component migration to the OneNet backbone and TICs continues. With the exception of Transportation Security Administration (TSA), all Components are now using the TIC for Internet and VPN connectivity. Four components are now using the TIC for their extranet connectivity.

  - 4185 Department network sites are now visible to and managed by the Enterprise NOC.

- Data Center Consolidation:

  - The ITP has established computing services, application services, disaster recovery/continuity services and storage management services at both DC1 and DC2. The continued migration of systems to DC1 and DC2 have increased rack space utilization to 80% and 65%, respectively, lessening the white space funding burden on the ITP while increasing department level savings through data center consolidation. As of February 2012 there are 27 system migrations in process.

- Email:

  - The Enterprise Global Address List (GAL) and white pages are operational. Email as a Service (EaaS) is now operational and the Components began migration to it in October 2011 with EaaS orders received from Customs and Border Protection (CBP), Federal Emergency Management Agency (FEMA), DHS-HQ, and a portion of TSA.

- Wireless:

  - ITP has migrated responsibility for the wireless services it has been performing to the Joint Wireless Program Management Office (JWPMO).

Mitigation Strategy:
The ITP closely monitors all projects, adjusting schedules based on available funding, resources, and issues that arise. ITP is actively working to improve organizational maturity, program governance, and contract management. In addition, ITP status is

briefed to the Office of the Chief Information Officer (OCIO) on a monthly basis to bring senior leadership attention to progress and issues.

Assessment:

The ITP has continued to demonstrate programmatic success in a very challenging environment due to the scope and complexity of migrating DHS to a consolidated IT infrastructure. The two enterprise data centers are operational, offering a variety of hosting services and an Enterprise email capability. Component migration to the TICs and PEPs is well under way. FTS2000 to Networks transition is almost complete. Governance, resource, and funding issues that cause schedules to slip continue to exist; however, ITP is appropriately managing this fluid environment. The CIO recommends staying the course and continuing to report monthly. The CIO assesses the DHS ITP as **Medium Risk**.

Score: 3