DoD ATS Framework IPT

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DoD ATS Framework IPT Background

- **The Framework IPT helps steer future ATS designs in order to meet DoD ATS Executive Directorate (ED) goals**

  – **Focuses on identifying commercial interface specifications that satisfy the elements in the Framework**

  – **Assists in the development of formal specifications within industry standards organizations**

- **Supports future DoD ATS acquisition**

  – **As specification(s) are published, the IPT selects applicable standards that meet the DoD ATS Framework Element requirements**

    - **These are then applied to future DoD ATS designs**

  – **The selected standards are listed on the DoD ATS website (http://www.acq.osd.mil/ats/)**

Framework IPT Strategy

- **The DoD ATS ED defined the following goals for DoD Automatic Test Systems -- These goals provide direction for all Framework IPT efforts:**

  – Reduce the total cost of ownership of DoD ATS

  – Provide greater flexibility to the warfighter through Joint Services interoperable ATS

  – Reduce Logistics footprint

  – Improve the quality of test

- **Define the Framework Elements**

- **Help ensure that the DoD ATS Framework Elements are incorporated in future DoD ATS**

Framework Objectives
Associated with the DoD ATS ED Goals

- TPS transportability
- Improve instrument interchange
- Make ATE more scalable
- Faster technology insertion
- Improve TPS rehost
- Improve TPS interoperability
- Use model based programming techniques
- Modernize test programming environment
- Define a TPS performance specification
- Greater use of commercial products
- Capture design to test data
- Use weapon system to test data
- Use knowledge based TPSs

IEEE Standards
Being Implemented in DoD ATS

- **Air Force VDATS**
  - **IEEE 1445**
  - **IEEE 1636.1**
  - **Future -- implement more ATML and SIMICA standards**

- **Army IFTE**
  - **IEEE 1445**
  - **IEEE 1636 and 1636.1**
  - **IEEE 1641**
  - **IEEE 1671-1671.6**

- **Army NGATS**
  - **IEEE 1636.1**
  - **IEEE 1641**

- **Navy eCASS**
  - **IEEE 1445**
  - **IEEE 1671.2, .4, .6**
  - **IEEE 1636 and 1636.1**

Each ATE also implements other commercial standards such as IVI and VPP

Two Framework IPT "Working Groups"

- **Framework <u>Management Working Group</u> provides overall direction and oversight**
  - Service representatives

- **Framework <u>Technical Working Group</u> provides the technical work**
  - Membership made up of Service and industry representatives
  - Assists governing bodies in the preparation of the needed formal specifications

Framework Management WG

- **Air Force (AFLCMC, Warner Robbins)**
  - Larry Adams, Nathan Hinks, John Stabler

- **Army (AMRDEC, Redstone)**
  - Brit Frank, Mike Smith

- **Marines (MARCORLOGCOM, Albany)**
  - James Butterworth, Bill Spearow

- **Navy (NAVAIR, Lakehurst)**
  - Jennifer Fernandi, Mike Malesich, Mukund Modi

- **Several other supporting members from each Service participate as needed**

Current Framework Efforts

- **Define the Generic ATS open system architecture (Framework) based on commercial interface specifications**
  - **Continuing to advance Framework elements and standards, mainly via small R&D efforts**

- **Updating key element definitions**

- **Continuing to monitor and support standards organizations**

- **Developing demonstration environments**

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Current Framework Efforts (Cont)

- **Supporting Projects that Leverage the Framework**
  - **Test Development Environment**
  - **NxOMS**
  - **NxTest IPT**
  - **DoD/MOD collaboration**

- **Status of 25 identified interfaces:**
  - **7 elements recommended**
  - **11 elements in process of being recommended**
  - **7 elements waiting to be addressed**

Benefits of Framework Activities

- Provides a systems/organizational view of how to apply open systems concepts

- Quantifies levels of standardization and commercialization for acquisition policy

- Maintains focus on DOD ATS ED and acquisition goals

- Provides an independent evaluation of standards applicability and usefulness, and vendor claims