



DoD EA Policy, Governance and Federation

<https://www.us.army.mil/suite/page/617374>

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EA Policy



- DoDD 8210 (Draft), EA in the DoD, provides Department level policy on the development, maintenance and use of EA.
 - Establishes Roles and Responsibilities
 - Requires DoD Components to do an EA and submit completed EAs through the DoD CIO Governance Process
 - Designate a Chief Architect at the DoD and Component level
 - Establish and maintain an EA governance process
 - Follow the DoDAF and DoD IEA (Compliance)
 - DTM requiring EA registration signed and published
 - Supports other DoD Directives and Instructions that require utilization of EA such as
 - CJCSI 6212 and DoDD 4630.8 (Interoperability)
 - DoDD 8000.1 (IT Investments)



EA Policy



- DoDI 8210 (Draft) supports the DoDD with detailed instructions on what the DoD EA will be as a federation
 - Federation Criteria
 - Enterprise Vocabulary, DoDAF, DIEA, etc..

- Support US Federal (Including IC), Allies and Coalition Partners (NATO, ROK, ETC...)



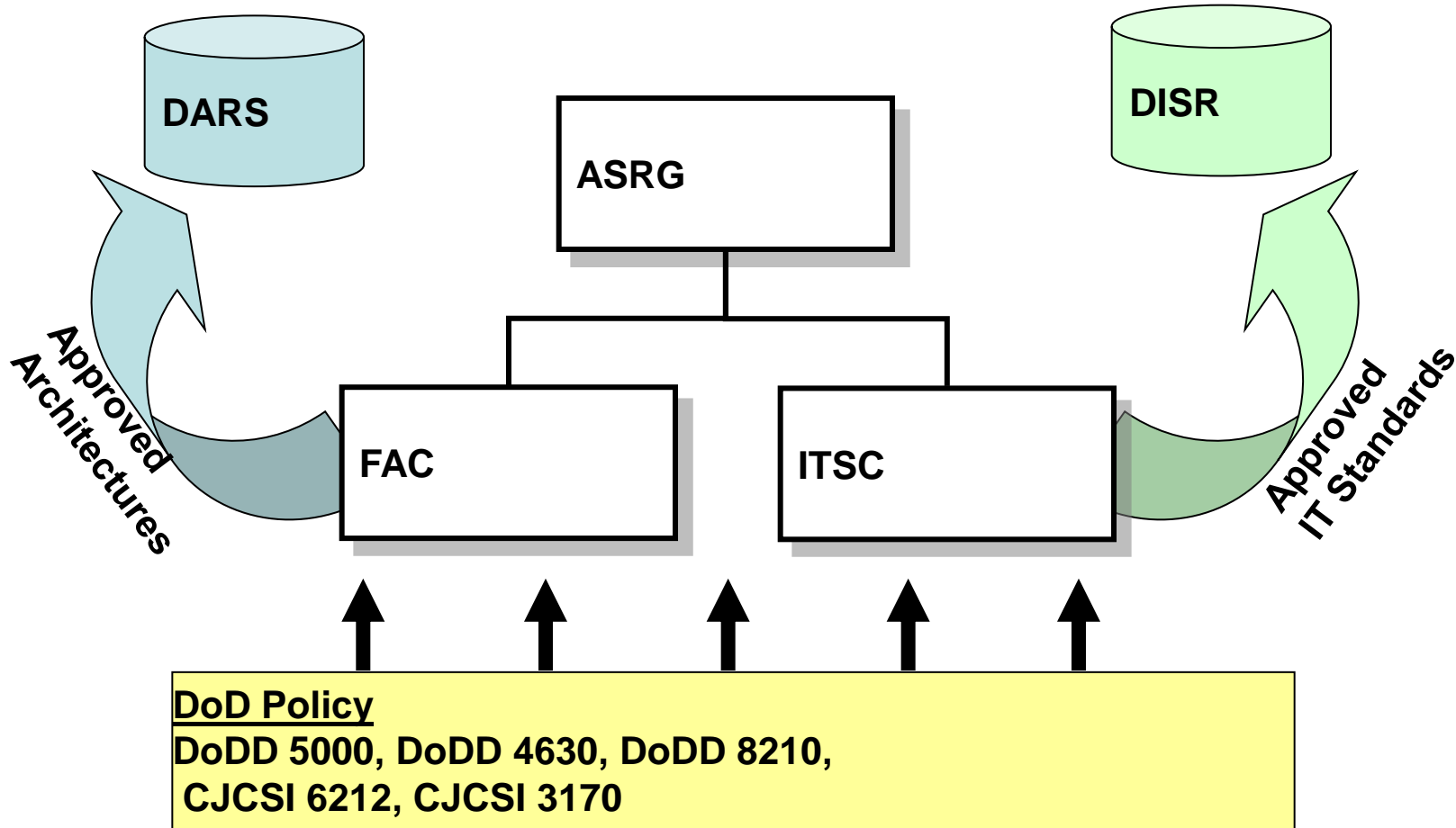
EA Governance



- New DOD CIO governance structure
 - Streamlined process to provide Enterprise Solutions
 - Works to align with IC governance structure
- Architecture and Standards Review Group (ASRG)
 - Action/Decision body
 - ASRG Management Plan details processes
 - Supports EA Policy
 - Approves EAs for the Dept as authoritative and “Fit for Federation”
 - UCORE to support Information Sharing
 - Better Integrates Standards with EA
 - Better for PMs, PfM, AT&L/Systems Engineers
 - Establishes/Incorporates Committees such as the FAC, ITSC and allows the establishment of Ad Hoc Groups as needed.



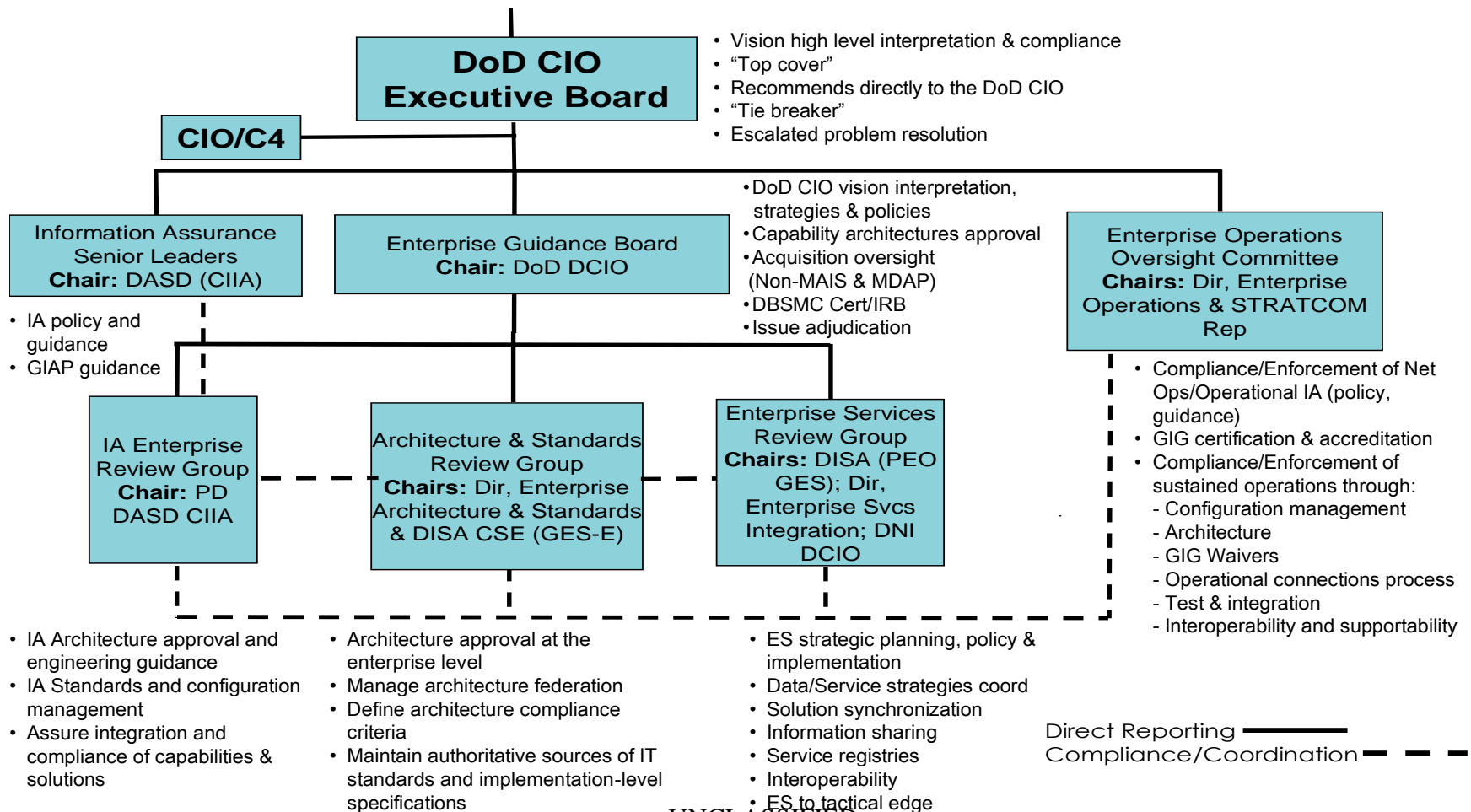
Authoritative Sources of Approved Architectures & Standards





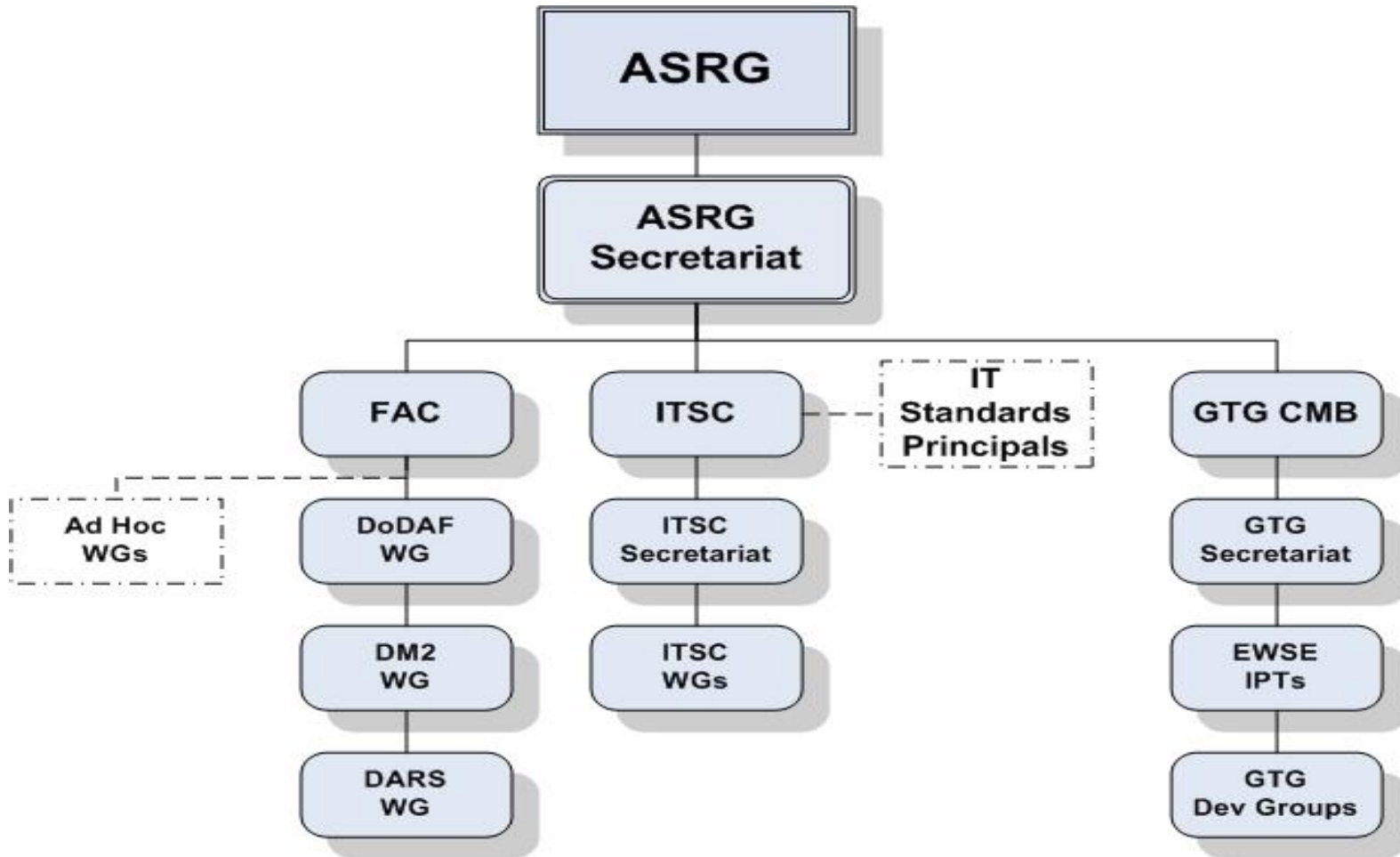
CIO Governance Framework

DoD CIO





ASRG Organizational Structure





EA Federation



- Goal is to provide useful information to users at all levels. Make EA a Combat Multiplier
- Discovery: DODAF AV-1s are being registered in DARS
- DoDAFs PES and DM2/ UPDM/ support Architectural Data exchange
 - Exchange of Data Machine to Machine and in a Net Centric Environment

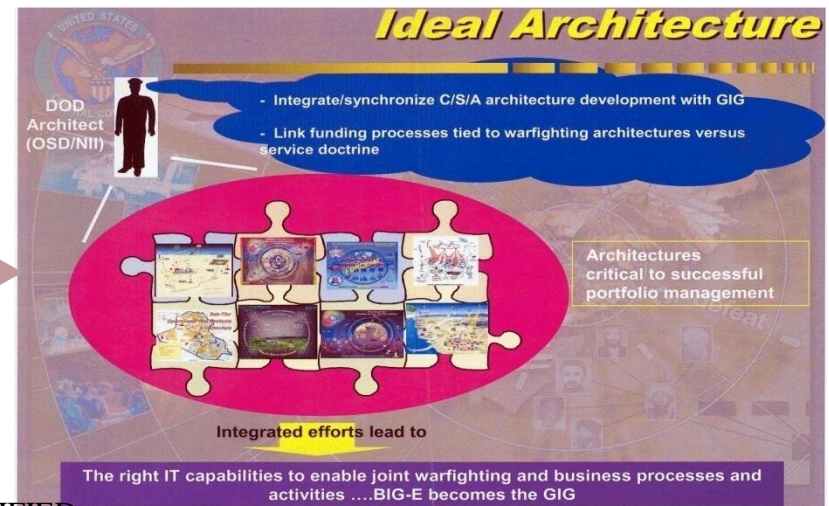


Enterprise Architecture Objective



Make Architecture Data:

- Discoverable
- Accessible
- Understandable





Background (Late 2005 – 2008)



- Enterprise Architecture (EA) was addressed by the Enterprise Architecture Summit (EAS)
- The EAS Created the Federated Joint Architecture Working Group (FJAWG)
 - Component, COCOM, Services representation
 - Developed a Statement of Objectives
 - Developed a Federation Approach
 - Developed & Published Approved Architecture Federation Strategy
- Recommended Pilots to Demonstrate Technical Feasibility and Value



Building The DoD EA



- Convert all architecture description data to one standard architecture data model?
- Scrap all existing architecture descriptions?
- Apply Net-Centric concepts to architecture data?
- Create one monolithic repository vs. maintenance by owners?

YES	NO
	✓
	✓
✓	
	✓

Conclusion: Federate



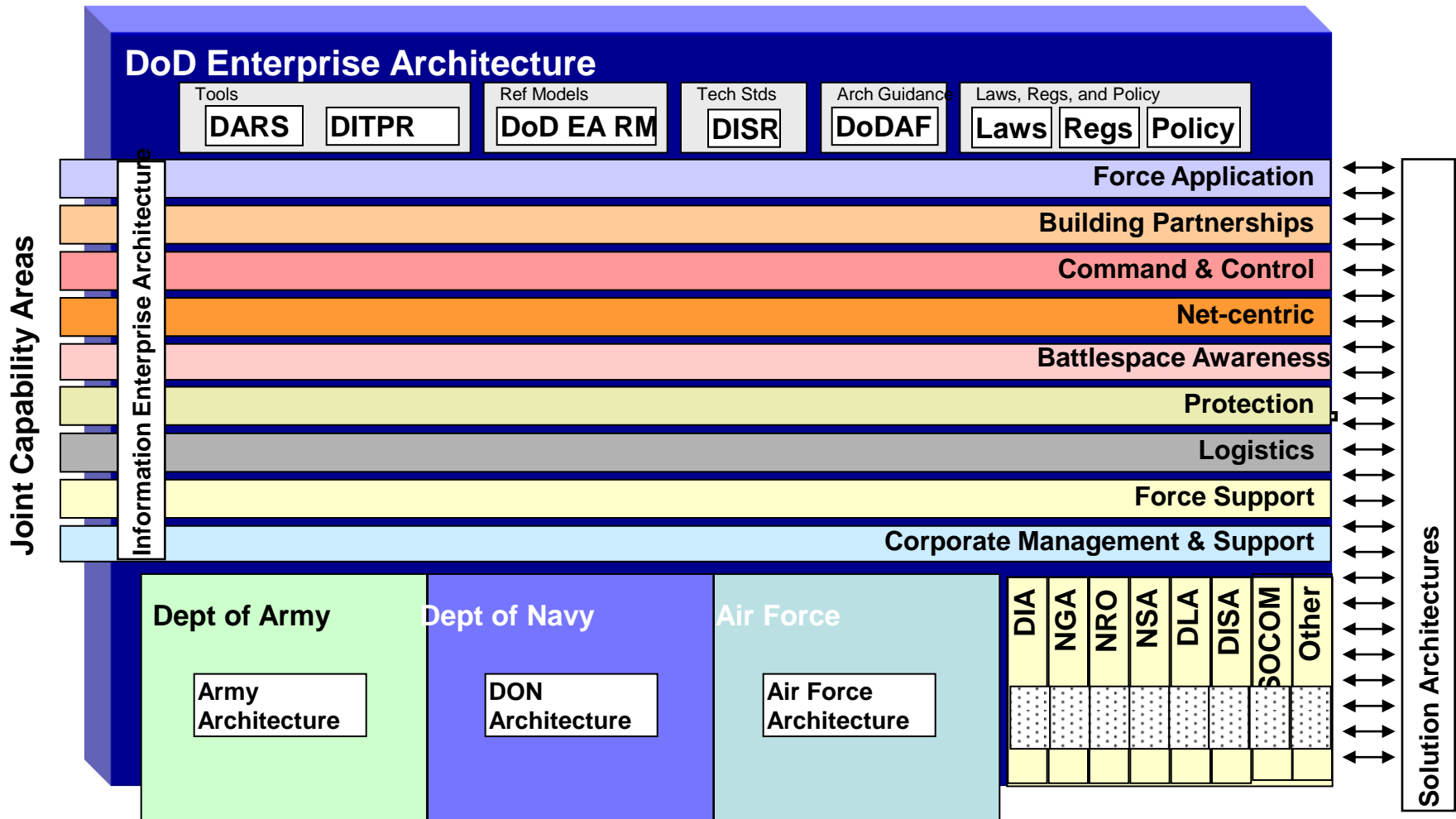
Initial Federation Process



- Architecture Description Federation Is A Two Step Process:
 - Registration of approved architecture description metadata
 - Alignment
 - Determining relationship between architecture descriptions by examining their activities (enhances search capability)
 - Equivalent To
 - Similar To
 - Part Of
 - Not related
- Develop DoD Directive and Instruction as well as automated registration templates



DoD Architecture Federation





Questions



Back Ups



DoD IT Standards Registry (DISR) IC/DoD IT Standards Registry

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Office of the DoD CIO/ASD NII

21 December 2007



Information Technology Standards



- DoD IT Standards Policy
 - Executive Agency

- DoD IT Standards Registry (DISR)
 - Definition
 - DISRonline Tool
 - Governance Process
 - Configuration Management

- DoD IT Standards Policy & Enforcement
 - JCIDS



Information Technology Standards Authority

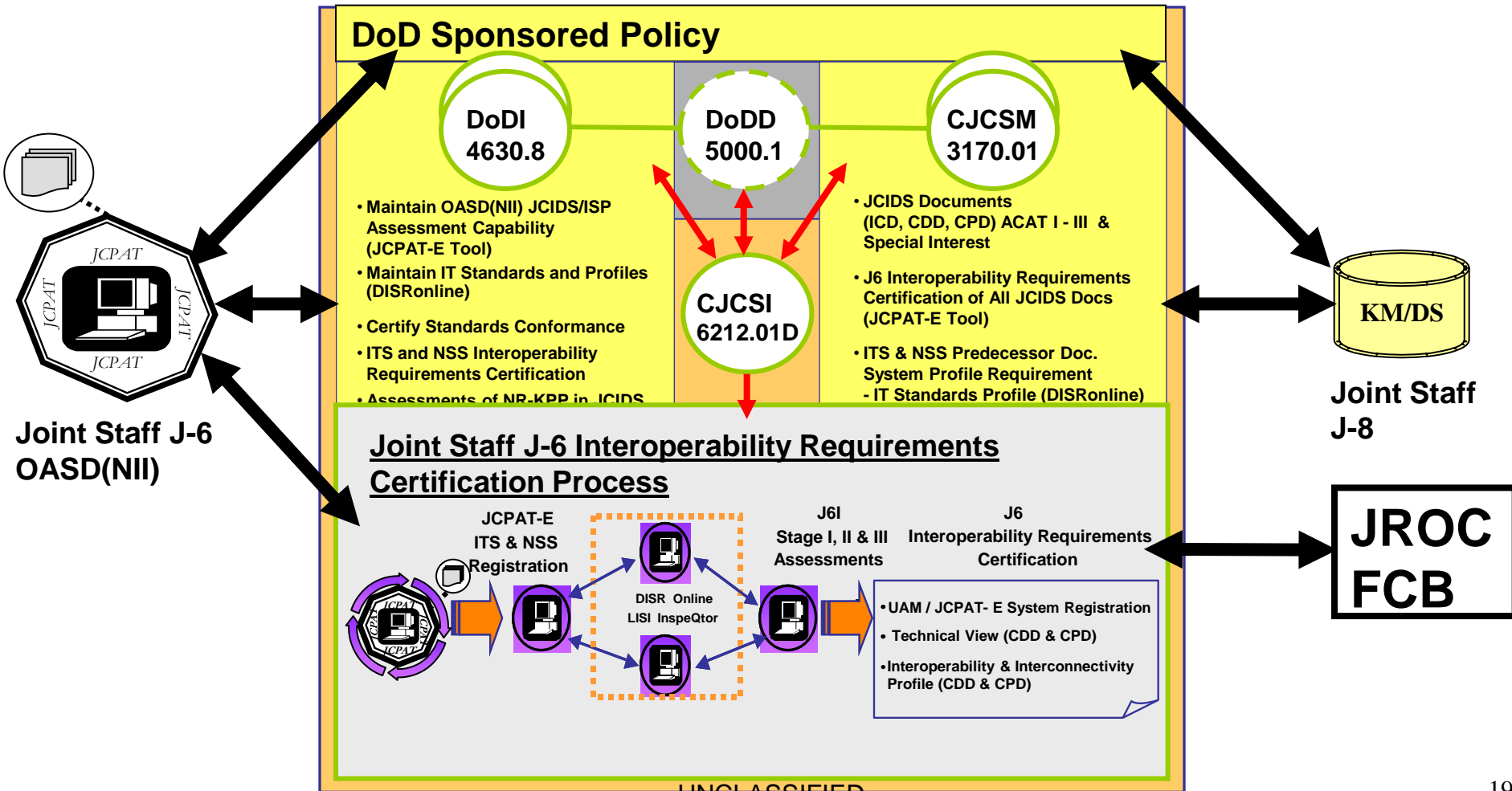


- **Clinger-Cohen Act**
 - **Requires Performance Based Management Principles for Acquiring Information Technology (IT), Including National Security Systems (NSS)**

- **DoD Directive (DoDD) 5101.7**
 - **DoD Executive Agent for Information Technology Standards**
 - **Develop, Prescribe, and Implement IT and NSS Standards Throughout the DoD.**



IT and NSS Interoperability and Supportability Policy and Process Overview





DISR and DISRonline Architecture View



Governance and General Information Area	Change Request Tool Software		Voting Tool Software
	Profile Assistance Software		Collaboration Tool Software
Policy	GIG Mission Area Management ↓		Future Enhancements
FAQs	DISR Profile Registry Area		
CM Procedures	PM System IT Standards Profiles TVs *	Prescribed Technology Profiles * (IPv6, PKI etc.)	Key Interface Profiles * (KIPs)
User Guides			
Links	DISR Mandated Standards		Organization-Unique Bins
SOP	Mandated "Net-Centric" & Mandated Sunset "Interoperability" Standards		Information / Guidance (I/G) Informational Standards Best Practices Procedures Policies Manuals Handbooks Other IT Documents
DoD IT Standards <u>Registry</u> (DISRonline) POCs Lifecycle Tagged: Emerging and Retired Standards			

- **Objectives:**
- Champion DoD's Re-Engagement of the IT Standards Communities
- Online IT standards Registry
- Tri-Annual Update of IT Standards Registry
- Tied to JCIDS IT Standards Conformance and Compliance Process
- Intelligence Community Cross Coordination (ICSR)
- Improved DoD Visibility and Participation in IT Standards Development Organizations
- Develop and Register PM Standards Profiles (TV)
- Standing IT Standards Working Groups Aligned to GIG Portfolio Management

* May Contain Standards from Lifecycle Categories other than Mandated



Lifecycle of a Standard



➤ Emerging

- Upgradeability Should be a Concern
- May be Implemented but **Not in Lieu of Mandated** Standard
- Expected to be Mandated within **Three Years**

➤ Mandated

- Essential for Interoperability and Net-Centric Services in DoD
- ***Minimum Set of Essential Standards for the Acquisition of All DoD Systems that Produce, Use, or Exchange Info, and, When Implemented, Facilitates the Flow of Info in Support of Warfighter***
- **Sunset Tag** Identifies an Event and Date to Retire a Standard

➤ Inactive / Retired

- New Standards / Technology Now Available and Implemented
- Require **Waiver** and **Migration Plan**
- Remain in the Registry



IT Standards Governance Organization Membership

CIO EB

Chair: ASD NII/DCIO

USD (AT&L) USD (C) USD (P&R) Services/USMC CIO's Joint Staff CIO IC CIO USJFCOM CIO
 DPA&E Joint Staff-J6 USN-N6 USAF-AF/XI Dep DIR NSA Dir DISA DoD OGC

- Overarching Guidance & Direction
- Policy
- Adjudication
- Strategic Planning

IT Standards Oversight Panel

Tri-Chairs: USD(AT&L, ASD(NII)/DCIO, & J6

AT&L DISA SERVICES/AGENCIES IC CIO JFCOM J2 J4

- Issue Resolution
- Planning
- Direction
- Implementation
- Priorities
- Enforcement
- Programmatic
- Approval

Defense Standardization Council

External Entities & Activities

MCEB/MIB

IT Standards Committee

Chair: DISA GE33

ASD(NII)/DCIO USD (AT&L) USA USN DON-CIO USAF USMC USCG J2 J4 J6
 DISA DIA NSA DLA DMSO DTRA MDA NGA NRO DARPA SOCOM
 BMMP TRANSCOM USD (P&R)/HA DFAS JFCOM IC CIO

- Management Direction
- Priority Setting
- Periodic Review
- Adoption
- Issue Adjudication
- Project Oversight
- Coordination
- IT Standards Program
- Recommend
- Cross Functional Integration
- Technical Collaboration
- Promulgation

TCO
NASA

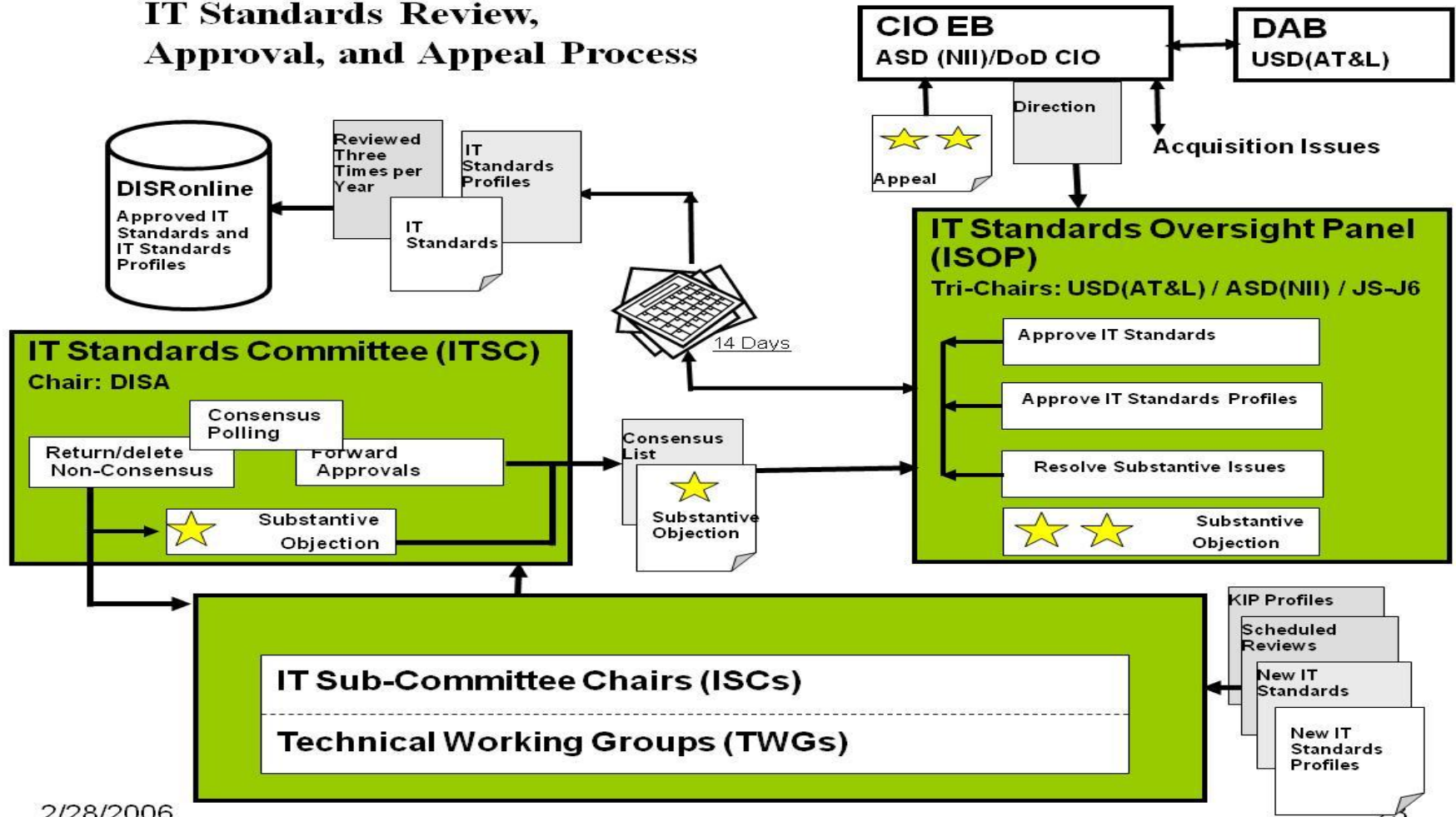
Technical Working Groups



IT Standards Review, Approval, and Appeals Process



IT Standards Review, Approval, and Appeal Process



2/28/2006

* Enterprise Information Environment, Business, Warfighting, and DoD Intelligence

UNCLASSIFIED



Standards Configuration Management



Microsoft Internet Explorer window titled "Add a New Change Request".

DISRonline DoD Information Technology Standards Registry
UNCLASSIFIED

Navigation: DISRonline Home, Contacts, Guidance, Links, Change User Info, Suggestions, Problems?, Need Help?, Log Off

Change Request *Add a New Change Request*

Input Date: 2006-05-04

Author: Larry Spieler

Warning! Do all necessary research before beginning to enter a Change Request.

The system will time out after 30 minutes on the same screen, and all unsaved work will be lost.

Download the [CR Standard Details Worksheet](#) to use as a scratchpad while researching Standard Information off-line.

Change Request Proposal:

- Add a New **Emerging** Standard.
- Add a New **Mandated** Standard.
- Move an Emerging Standard to Mandated.
- Retire** an Emerging Standard and Add a New Emerging Standard.
- Retire** a Mandated Standard and Add a New Mandated Standard.
- Retire** an Existing Standard.
- Add a New **Information/Guidance Document**.
- Retire an Existing Standard and Add it to **Information/Guidance**.
- Administrative Change Request: Update "Standard Details" on an Existing Standard.

Standards Status Definitions can be found [here](#).

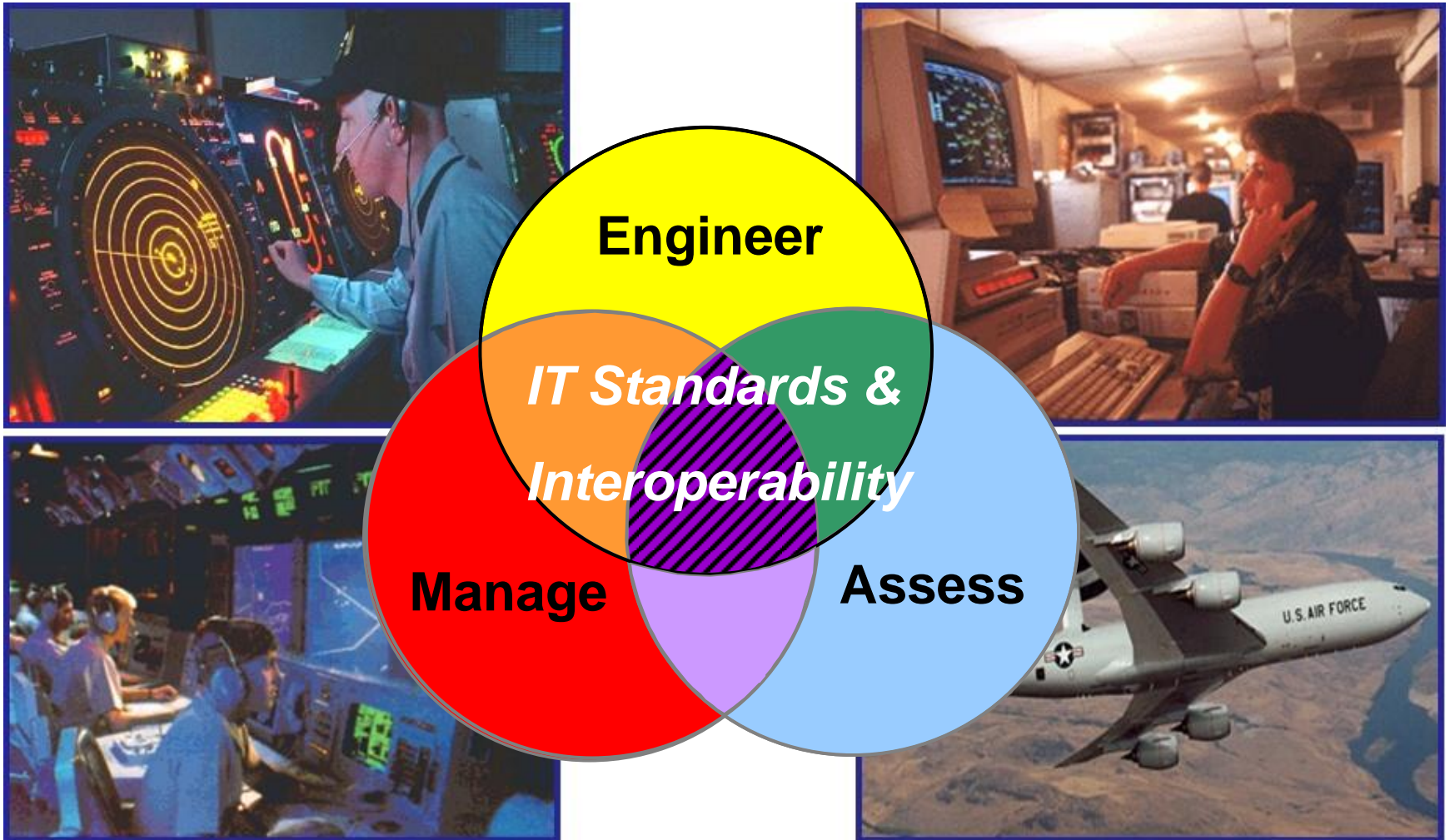
Will you be sending any attachments? Yes No

Next

Windows taskbar: Start, D:\Do..., Inbox, D:\Pre..., DISRb..., Add a..., 6212..., 8:03 AM



DoD IT Standards Development





DoD IT Standards Registry (DISR) Overview



Governance and General Information Area	Change Request Tool Software			Voting Tool Software Collaboration Tool Software
	Profile Assistance Software			
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- Standing IT Standards Working Groups Aligned to GIG Portfolio Management

* Transitioning to GIG Technical Profiles



Definition of the DISR

The DoD IT Standards Registry (DISR) Prescribes the Minimal Set of IT and NSS Standards Needed to Achieve Interoperable IT and NSS Net - Centric Capabilities and Decision Superiority in Support of Net -Centricity.

Use of the DISR Standards Citations in Technical Standards View (TV) is Mandated for the Development and Acquisition of New or Modified Fielded IT and NSS Systems throughout the Department of Defense. (Source: DoD Instruction 4630.8)

STANDARDS IN AND OF THEMSELVES ARE A NECESSARY BUT NOT SUFFICIENT ENABLER OF INTEROPERABILITY AND NETCENTRIC INFORMATION SHARING!!!



Evolving Net-Centric Requirements



- Improve NR-KPP compliance by providing PMs with Technical Direction on finding and implementing the standards needed to build and access GIG Capabilities
 - Leverage the DISR for the approved standards
 - Leverage KIPs to identify GIG Key Interfaces
 - Leverage the NCIDS/NCOW for Enterprise-Wide GIG Functional Capabilities Descriptions
 - Leverage Net Centric Programs for Architectures and Best Practices
 - Leverage DoD Components for analysis and validation

Support the PM to ensure he is “Net Ready”



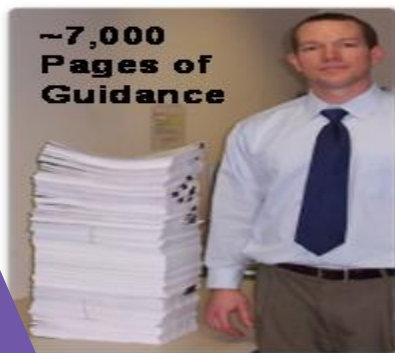
GTG Standards Implementation Approach for Interoperability



GIG Technical Guidance is:

- An evolving web-enabled information sharing capability providing the PM with technical guidance necessary to build or access interoperable and supportable GIG capabilities built on net-centric principles and solutions.
- An authoritative, configuration-managed source of technical standards implementation guidance that synchronizes GIG requirements and NR-KPP compliance
- Contains GIG Enterprise Service Profiles (GESPs) that are developed in a managed process vetted by a cross DoD Configuration Management body
- Regularly promulgated by OSD/Joint Staff as versioned technical baselines

Before: Overload



Organize and condense disparate guidance

After: GTG/GESP



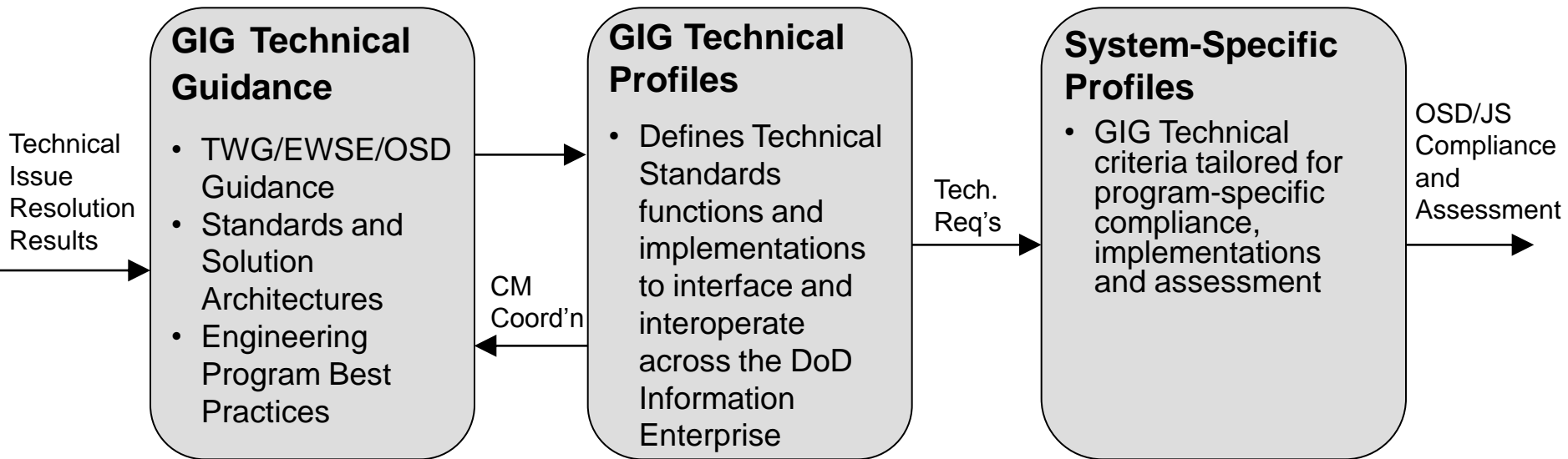
Manage and deliver evolving, actionable set of consistent technical requirements





Purpose of GIG Technical Guidance

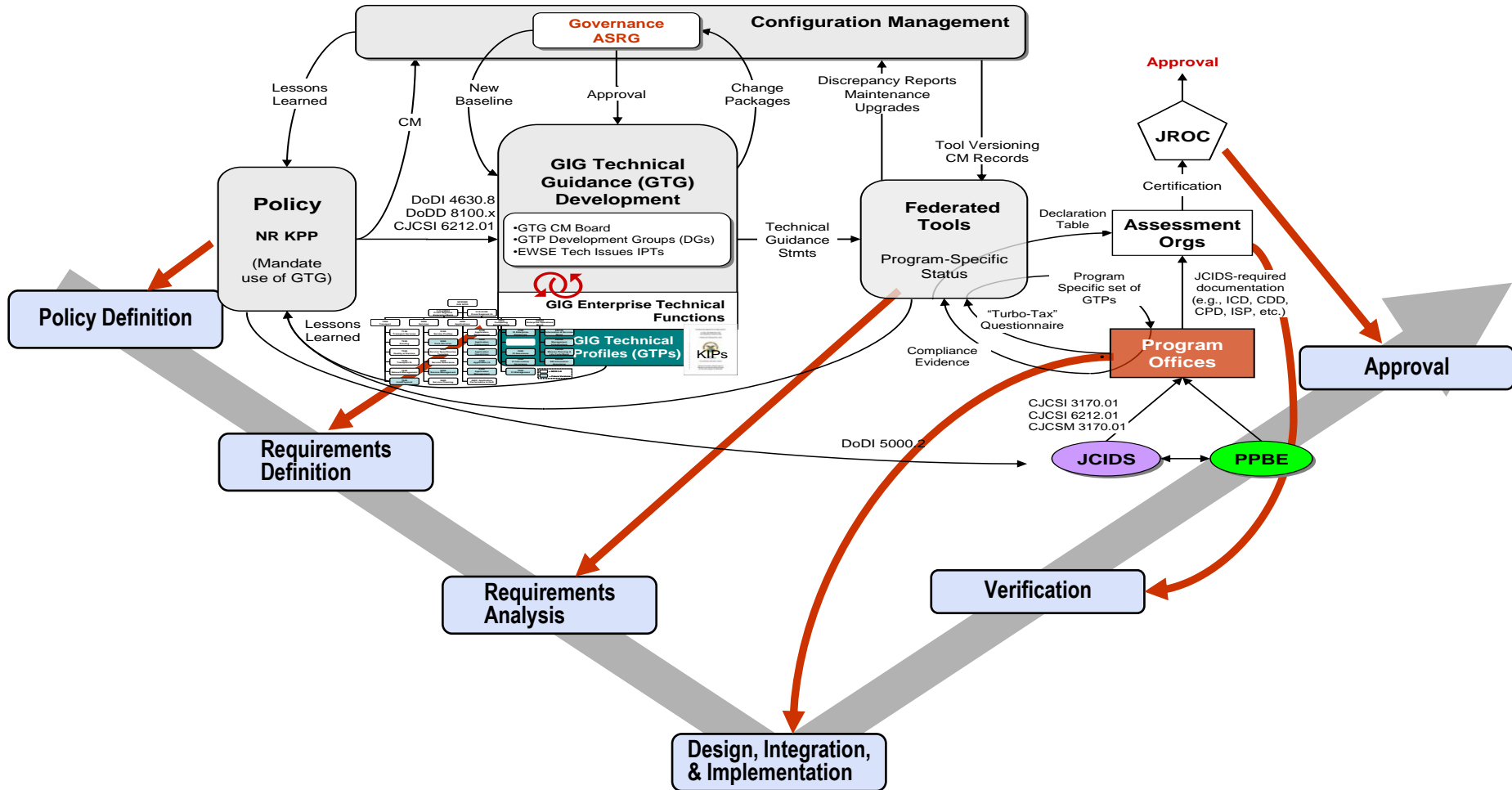
- **Purpose:** Make *visible* DoD GIG technical guidance to acquisition programs and assessors for consistent application and compliance
- **End product – System-Specific Profiles and Architecture Viewpoints**
 - **Tailored subset of technical guidance for a specific program**
 - Program offices use interactive tools that help them filter technical guidance
 - Assessment organizations review system-specific profiles for compliance



PMs create their System-Specific Profiles to identify what they must do today to be net-centric and review the GTG to know what to expect tomorrow



GTG System Engineering Process





Policy



On 15 Dec 2008 the GTG was included in CJCSI 6212.01E as part of the NR-KPP

Joint Staff:

- Assign GTP CM responsibilities, Identify candidate GTPs (now GTPs)

Services/Agencies/COCOM:

- Comply with GTG & DISR mandated IT Standards in the TV-1, Implement necessary GTPs

DISA:

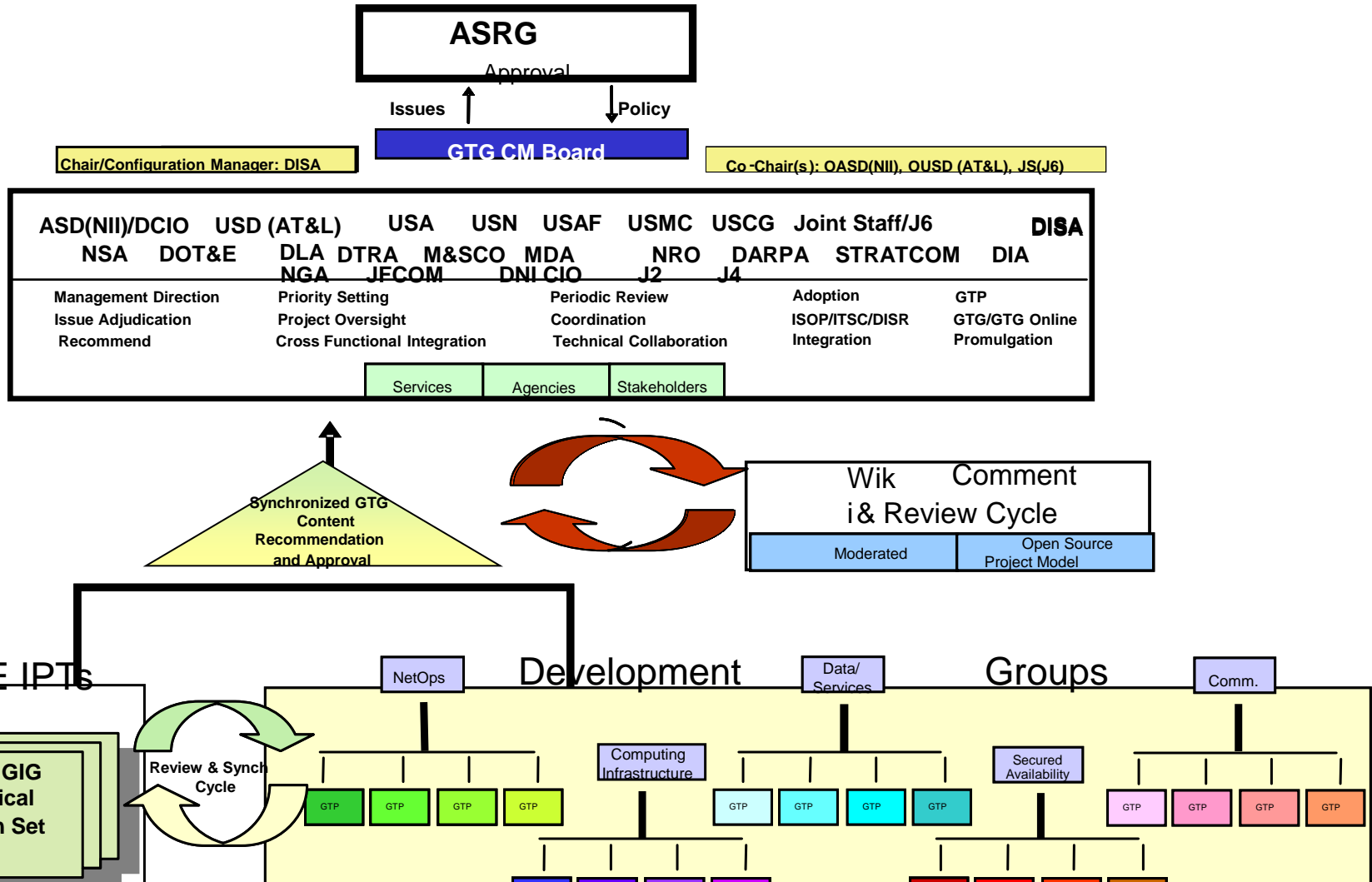
- Lead a collaborative participation in development / validation of GTG-guidance & artifacts.
 - Working groups and IPTs to develop guidance products
 - Senior engineering board for oversight, review, approval and posting of GTG content
- Provide for E2E SE, planning, community collaboration, and directive technical guidance to identify E2E issues and solutions specified as part of the GTG
- Manage and develop the GTG and supporting standards CM and test cert

DoD PMs:

- Use the GTG to conform with appropriate Functional and Technical Implementation guidance and DISR IT Standards



Configuration Management





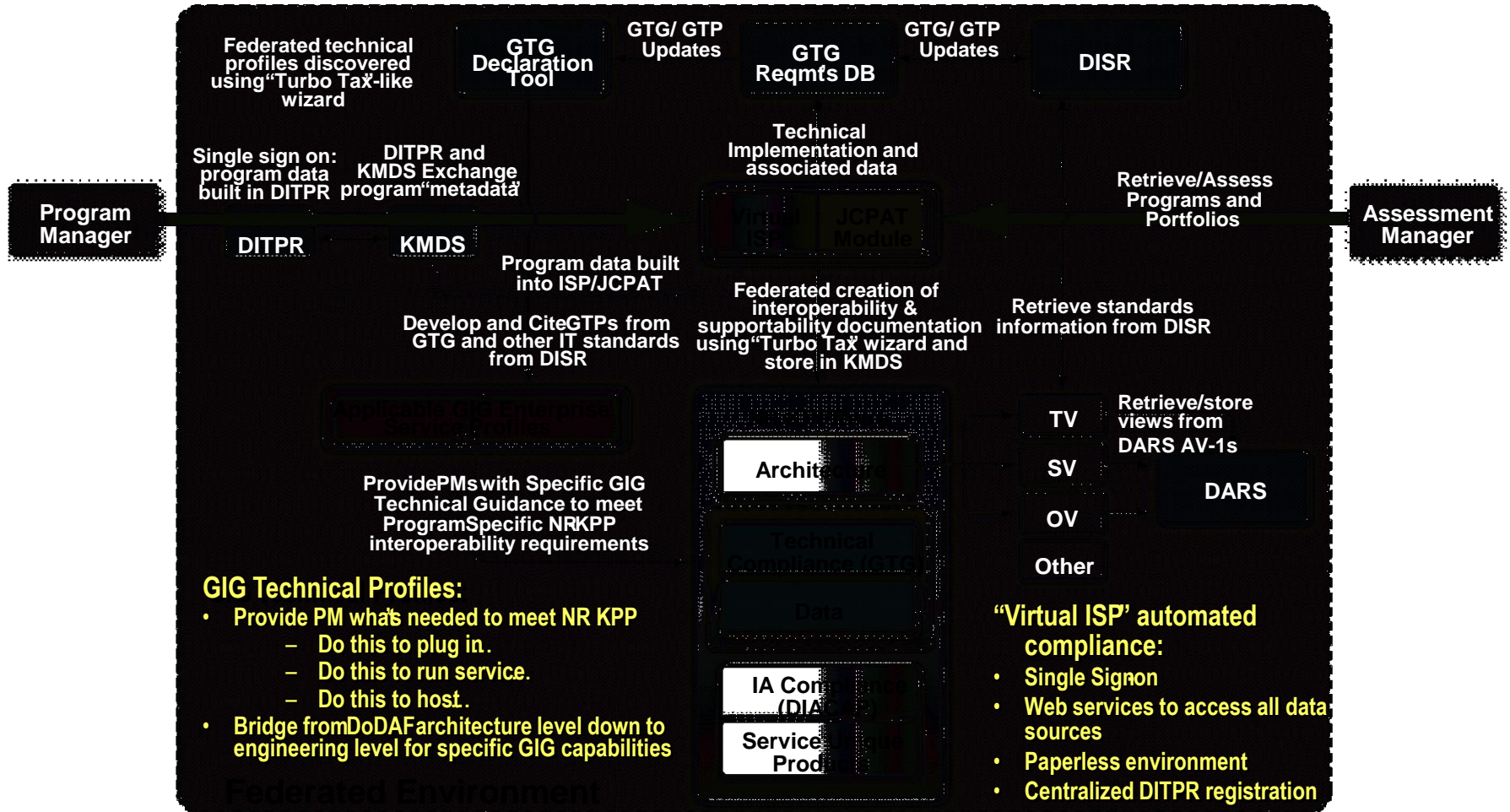
Configuration Management



- **Organizational CM: Clarifies DoD and JS policy to eliminate undue, duplicative costs to the DoD Program Managers and Sponsors in documenting and planning for interoperability and supportability certification**
- **Technical Level CM: Synchronization between DIEA, DISR baseline releases and GTP version updates and releases enables consistency between architectures, IT standards mandates, life cycle updates, and implementation guidance across the DoD**
- **Federated Process CM: SOA solutions ensure that the GTG federation is interoperable in the GIG as a capability based enterprise service**
 - Consistent with the NCDS, all data is registered in the MDR, as exportable XML and discoverable for use in other tools and processes
 - Tools able to exchange programmatic, technical guidance, compliance, and assessment data, and
 - SOA architecture can be extended to meet organization-specific needs

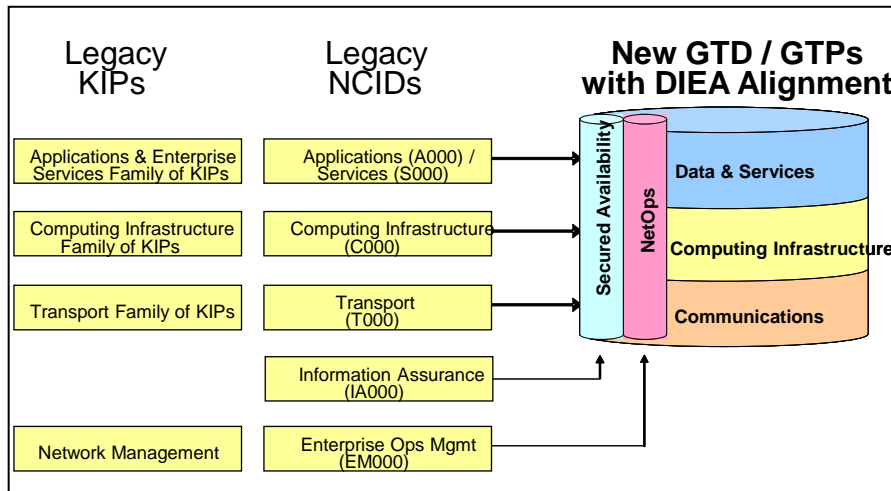


GIG Technical Guidance Tools Overview

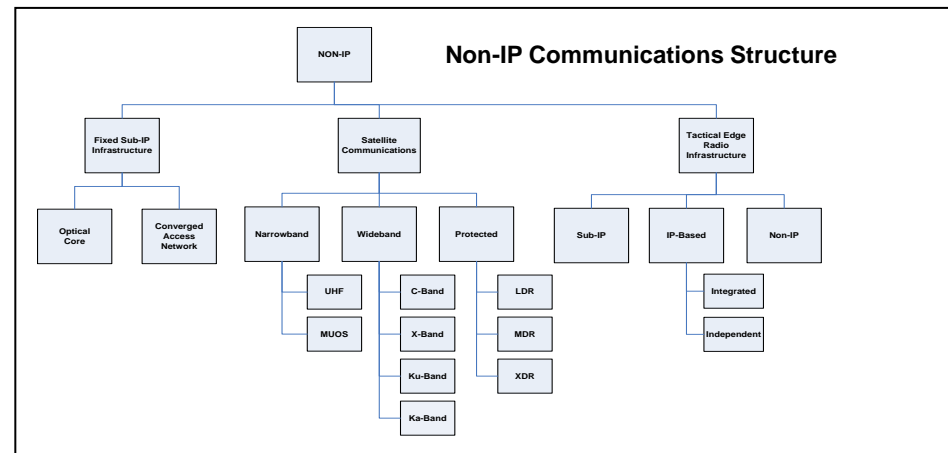
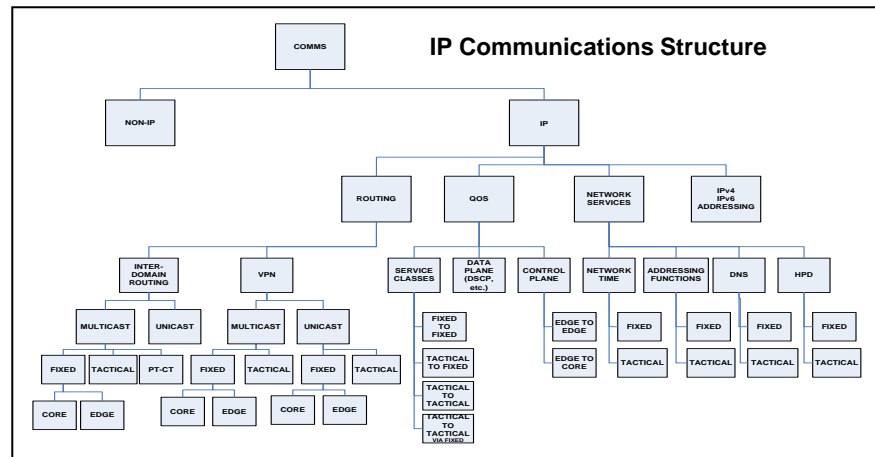
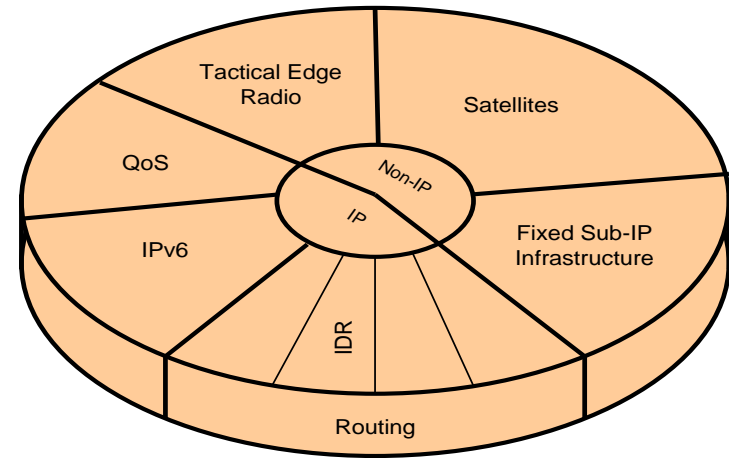




GTG Structure



Communications Area





What are the GIG Technical Profiles?



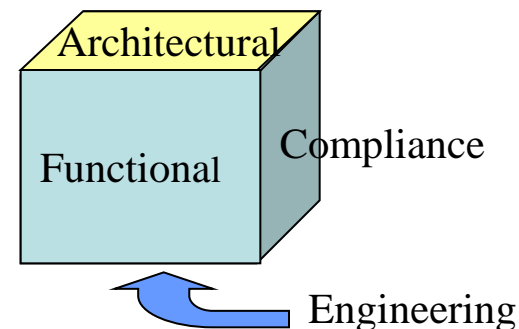
- Captures the overall potential GIG value by aligning DoD standards and information enterprise capabilities required to interface between producers and consumers
- GTP formats were crafted to contain as a minimum:
 - **Interoperability Requirements Description:** Functional breakdown of technical features, IA/security requirements and associated best engineering program practices for implementing net-centric interoperability principles and solutions for specific GIG capabilities
 - **Interoperability Reference Architecture:** Reusable operational and system technical context views that show where GTPs fit into a program's integrated architecture
 - **Technical Implementation Profile:** DISR standards guidance citations for specific GIG capabilities and applicable interface options and settings required to meet Interoperability and netcentric certification requirements
 - **Compliance Testing Information:** Describes how the GTP technical implementation will be tested for compliance and identifies the location of any available test artifacts (e.g, inspection and analysis criteria, demonstration methods, or test procedures)

Objective is to enhance the end-users experience in identifying applicable guidance and establish a consistent baseline for citing and evaluating interoperability and netcentric compliance



Multiple Dimensions of GTPs

- GTPs have functional, architectural, engineering, and compliance dimensions
- The type of information within each dimension varies by DIEA area



Dimension	Category	Communications Area Examples	Data Services Area Examples
Functional	Descriptions Requirements	Connections Exchanges	Delivery Discovery
Architectural	Standards Profile Reference Architecture	Interfaces Nodes	Information Content Data Artifacts
Engineering	Guidance Statements Implementations Best Practices	Waveforms Performance (e.g., BER, Latency)	Content Management Registration Orchestration
Compliance	Requirements Validation Testing & Verification	Technical Criteria against Requirements	Data Integrity Assured Service Service Efficiency

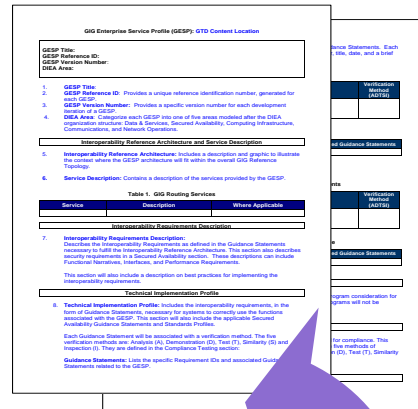


GTG Summary

Before: Overload

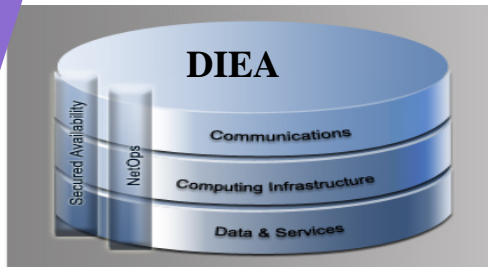


After: GTG/GESP



Manage and deliver evolving, actionable set of consistent technical requirements

Organize and condense disparate guidance



- **GTG Enforcement:**
 - Defines required GIG net-centric capabilities for programs to use
 - Identifies technical details for minimum consistent compliance
 - Includes the tests that verify correct implementation
 - Drives programs to use the latest GIG technology or justify why not
 - Provides metrics to gauge success
 - Leads PMs to future standards implementations that will provide trade decisions for future technology



GTG Point of Contact



- DoD ASD(NII)/DCIO Lead
 - Mr. Walt Okon, walt.okon@osd.mil, 703-607-0502
- GIG Technical Guidance Lead/CM Board Chair:
 - Mr. Dave Brown, dave.brown@disa.mil, 703-681-2556
- GIG Technical Profile (GTP) Development Groups Lead:
 - Mr. Robert Porch, robert.porch@disa.mil, 703-681-2553