



Department of Defense Policy Goals – The Defense Installations Spatial Data Infrastructure (DISDI)

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ESRI IUC



Agenda

Acquisition, Technology and Logistics

- Context: The DoD Capability for Geospatial Information & Services
 - What is Installation Geospatial Information & Services?
 - Why we need a Defense Installations Spatial Data Infrastructure and how it is used today
- Proposed Policy Initiative
 - What is the policy gap?
 - What are the expected outcomes of a DISDI policy?
- Draft IGI&S and DISDI Policy – summary slides



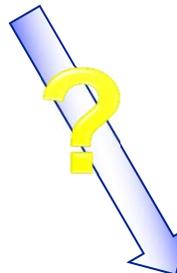
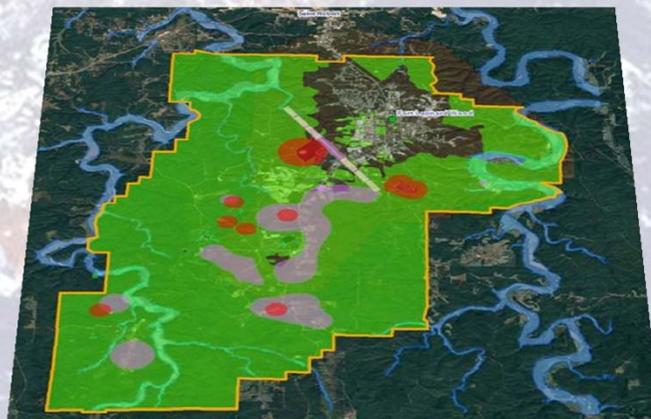
Why a “Spatial Data Infrastructure” for Defense Installations?

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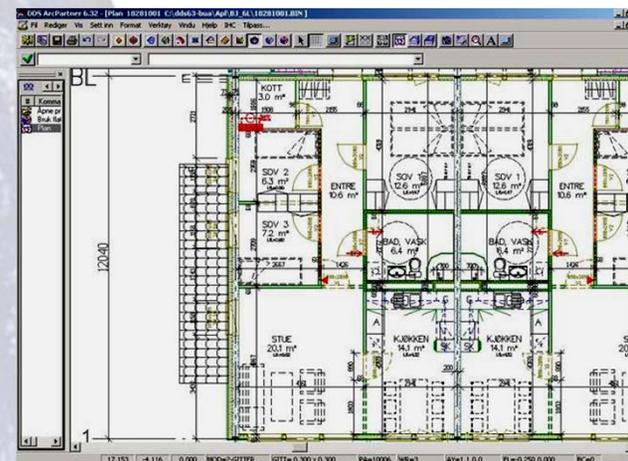
The World Extent
National Geospatial-Intelligence Agency



The Installation & Environment Extent
Installation Geospatial Information & Services



The Facility Extent
*Space Management,
Building Information Modeling*



Know the World...

Know the Installation...

Know the Facility...



The Current Policy Gap for Installations GI&S

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- Current Title 10 and DoD policy puts NGA in charge of all DoD geospatial capabilities despite their limited installation & environment expertise or capacity
- The 2009 IGI&S Guidance Memorandum from DUSD(I&E) was only a beginning; it established:
 - Common data standards
 - Sound governance
 - Common goals
- Need to tie installation geospatial governance to NDAA & Clinger-Cohen Act requirements for portfolio management
- Need to tie installation geospatial governance to emerging federal initiatives like Geospatial Platform, Open Government
- The entire I&E community has clear (but uncoordinated) needs for geospatial data and services (see next slide)



“Requirement Chaos” I&E and Other Policy Drivers for IGI&S

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I&E Policies

1. DoDD 3200.15, Sustaining Access to the Live Training and Test Domain, 2013
2. DoDI 4165.14, Real Property Inventory Forecasting, 2014
3. DoDI 4715.03, Natural Resources Conservation Program, 2011
4. DoDI 4715.16, Cultural Resource Management, 2008
5. DoDI 4715.14, Operational Range Assessments, 2005
6. DoDD 4715.11, Environmental and Explosives Safety Management on Operational Ranges Within the United States, 2004
7. DoDD 4715.12, Environmental and Explosives Safety Management on Operational Ranges Outside the United States, 2004
8. DoD 6055.09-M, Vol. 1, DoD Ammunition and Explosives Safety Standards, 2008
9. Unified Facilities Criteria (UFC) 2-100-01, Installation Master Planning, 2012
10. DoDI 3030.3, Joint Land Use Study Program (JLUS), 2004
11. DoDI 4165.57, Air Installations Compatible Use Zones (AICUZ), 2011
12. DoD Manual 4715.20, Defense Environmental Restoration Program (DERP) Manual, 2012
13. DoDI 6055.17, DoD Installation Emergency Management Program (IEM), 2009
14. DoDI 6055.07, Mishap Notification, Investigation, Reporting, and Record Keeping, 2011

Other Policies

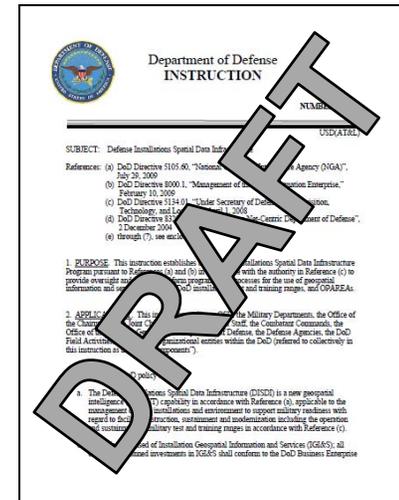
1. Executive Order 12906, The National Spatial Data Infrastructure, 1994
2. OMB Circular A-16, Coordination of Geographic Information and Related Spatial Data Activities, 2002 & 2010
3. Executive Order 12333, United States Intelligence Activities, 1981
4. DoDD 5105.6, National Geospatial-Intelligence Agency (NGA), 2009
5. DoDD 8000.01, Management of the DoD Information Enterprise, 2009
6. DoDI 8320.02, Sharing Data, Information, and Information Technology Services in the DoD, 2013
7. Presidential Policy Directive 21 - Critical Infrastructure Security and Resilience, 2013
8. DoD Mission Assurance Strategy, 2012
9. DoDD 3020.40, DoD Policy and Responsibilities for Critical Infrastructure, Change 2, 2012
10. DoDI 3020.45, Defense Critical Infrastructure Program (DCIP) Management, 2008



Desired Outcomes for DRAFT Instruction

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- Formalize IGI&S as a sub-set of GI&S, conforming to NGA standards and policy
- Formally define IGI&S and “common installation picture”
- Establish the IGI&S Governance Group and GIO (OSD level)
- Establish data collection requirements that support existing policies (reduce uncertainty and improve coordination)
- Requires NGA to support IGI&S requirements and standards within existing GEOINT processes and capabilities
- Establish IGI&S Programs as the “central warehouse” for certified geospatial data – drives more efficient implementation and cross-functional sharing
- Build a policy basis for resourcing, sustainment, architecture, and portfolio management of IGI&S within the Components
- Cement the requirement to support Homeland Defense, Mission Assurance





Draft Policy – Major Elements Needed

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1. Purpose – Establish Installation Geospatial Information and Services (IGI&S) as a DoD IT resource management activity, conformal with GEOINT policy (DoDI 8000 series) and EO 12906
2. Applicability
 - All of DoD (standard)
 - All geospatial information and services pertaining to installations and environment missions
3. Policy – Four key provisions
4. Responsibilities – Enclosure (3 ½ pages)
5. Procedures – IGI&S Governance Group (IGG) and GIO (Enclosures)
6. Information Collection Requirements (formalizes CIP)
7. Releasability – Unlimited



Purpose (Draft)

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- Purpose
 - Establish IGI&S as a new capability under authority of the USD(AT&L), DoDD 5134.01
 - Installations and environment functions are the exclusive responsibility of the USD(AT&L) at the OSD level
 - The IGI&S capability is authorized pursuant to:
 - DoDD 5105.6, The National Geospatial-Intelligence Agency – This policy directs USD(AT&L) to coordinate all “new GEOINT initiatives” with NGA (aka the DoD GEOINT Manager)
 - Executive Order 12906, “Coordinating Geographic Data and Access – The National Spatial Data Infrastructure”
 - IGI&S Programs are necessary in order to:
 - Ensure the IGI&S Community of Interest implements uniform programs and processes in accordance with GEOINT policy and guidance regarding IT investments and standards
 - Meet agency obligations under OMB Circular A-16 (implements EO 12906)



Applicability (Draft)

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- OSD, MILDEPs, OCJCS and Joint Staff, COCOMs, IG, Defense Agencies and Field Activities (aka DoD Components)
- All geospatial data, information and IT services pertaining to installations and environment, and all programs, projects, and initiatives developing or implementing them
- Does not alter or supersede existing authorities and policies of the Director of National Intelligence regarding GEOINT



Policy (Draft)

Acquisition, Technology and Logistics

- IGI&S is a new capability
 - “applicable to the management of DoD installations and environment to support military readiness with regard to facility construction, sustainment and modernization including operation and sustainment of military test and training ranges” (direct quote from AT&L charter, DoDD 5134.01)
- DoD will:
 - Develop, coordinate, and publish standards and guidance related to IGI&S
 - Ensure IGI&S capabilities are available when and where needed in support of mission goals (echoes the CIO Data Strategy and the I&E Strategy)
- IGI&S shall conform to the BEA, core business mission requirements, and DoDD 8320.2
- IGI&S standards “shall be promulgated through the DoD GEOINT Manager”
 - Supporting goal is to harmonize concepts with the GEOINT Structure Implementation Profile to the greatest extent practicable



Responsibilities (Draft)

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- USD(AT&L)

- Exercise oversight of IGI&S policy, standards, and investments
- Function in coordination with the DoD GEOINT Manager

- DUSD(I&E)

Establish the IGI&S Governance Group (section serves as IGG charter)

- Support I&E governance by reviewing BEA and Functional Business Strategy
- ❖ Develop and maintain IGI&S standards for approval by DUSD(I&E)
- Establish guidelines to reduce duplicate investments, enable interoperability of IGI&S capabilities and ensure data quality is sufficient for decision-making
- Establish guidelines for IGI&S portfolio management
- Recommend to the DUSD(I&E) a set of common installation geospatial data sets and services (Common Installation Picture (CIP))
- ❖ Develop mechanisms to make IGI&S data visible and accessible to the maximum extent allowed by law or DoD policy across the federal data sharing environment
- Function as the IGI&S Community of Interest (COI) per DoD 8320.02G; develop practices which focus IGI&S capabilities on I&E and other requirements established in the referenced policies (see earlier slide)

❖ *Responsibilities which must be done under direction of NGA*



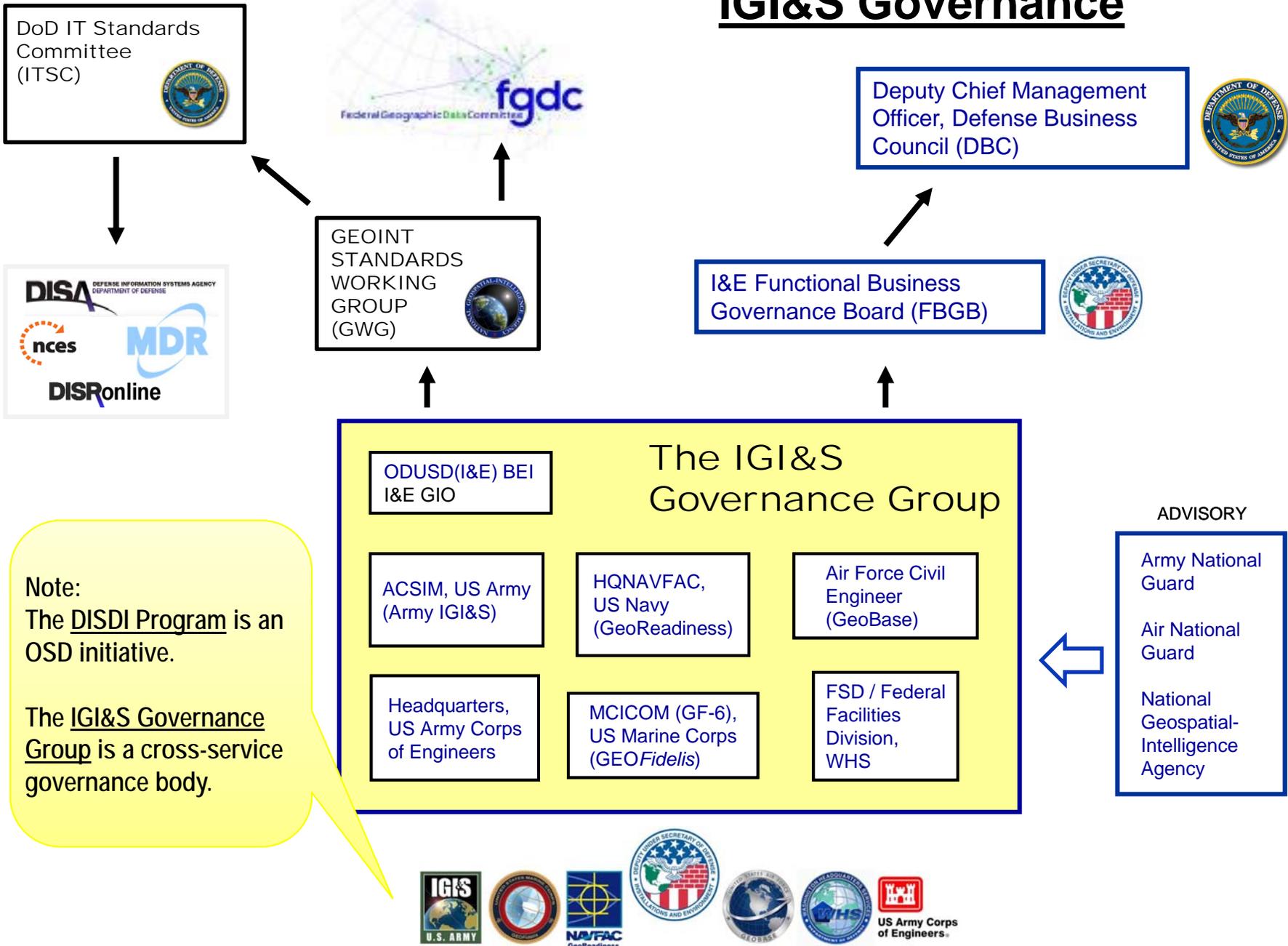
Draft Responsibilities (cont.)

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- IGG core members:
 - DUSD(I&E) (the I&E GIO, as chair)
 - Secretary of the Army
 - Secretary of the Navy
 - Secretary of the Air Force
 - Commandant, US Marine Corps
 - Director, WHS
 - Commanding General, US Army Corps of Engineers

- IGG advisory members:
 - DoD GEOINT Manager (NGA)
 - Additional members as designated by DUSD(I&E)

IGI&S Governance





Current Vision and Key Goals for IGI&S

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“To provide authoritative, cost-effective defense installation geospatial information and services for fact-based decision making across the DoD spectrum of operations.”



Each symbol represents \$Millions invested by the DoD Components to map installations worldwide

I&E Goals for IGI&S:

- Drive coordination, smart standards, and interoperability within each Component and across the whole of DoD
- Implement portfolio management and system architecture configuration processes to preclude wasteful or redundant acquisitions, conform to BEA, DoD-wide enterprise standards
- Leverage the latest technology to bring Components’ data together - make it visible, understandable, and accessible to any authorized user
- Contribute common installation map data to DISDI Portal - serves as an efficient, one-stop “sharing platform” and makes data from NGA, DHS, USGS, USDA available to all at no cost to the Components



Draft Responsibilities (continued)

Acquisition, Technology and Logistics

- DUSD(I&E) (continued)

- ❖ Provide guidance for handling controlled unclassified IGI&S in accordance with:

- DoDD 5205.02E, “DoD OPSEC Program”
 - DoDI 5030.59, “NGA LIMITED DISTRIBUTION Geospatial-Intelligence”
 - DoDM 5200.01, “DoD Information Security Program: Controlled Unclassified Information (CUI)”
 - DoDI 5230.24, “Distribution Statements on Technical Documents”

- Designate a geospatial information officer (GIO)

- Chair the IGG, provide technical support of Group functions
 - Maintain and issue the CIP, assess quality and completeness
 - ❖ Serve as principal liaison to the DoD GEOINT Manager on IGI&S
 - ❖ Represent the Department to other federal agencies and in federal forums related to IGI&S and IGI&S standards, such as the FGDC
 - Respond as required to OSD requirements for IGI&S including analysis, production, request for technical information, and data dissemination

- ❖ *Responsibilities which must be done under direction of NGA*



Draft Responsibilities (continued)

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- Under Secretary of Defense for Intelligence:
 - Overall responsibility for implementing this policy across the intelligence domain
- Director, NGA:
 - Consolidate IGI&S data requirements and provide or coordinate collection of same using NSG assets whenever feasible
 - Assist the IGG in managing IGI&S
 - Disseminate and facilitate sharing of IGI&S across the NSG
 - Incorporate IGI&S standards into the NSG Standards Registry and DoD IT Standards Registry (DISR) where applicable
- Heads of the DoD Components:
 - Assign responsibilities and establish procedures to implement this Instruction
 - Coordinate new IGI&S-related activities or programs with the I&E GIO
 - Coordinate all requirements for IGI&S with the appropriate Component that has real property authority for the assets being mapped
 - Ensure all business systems which use or produce IGI&S are in compliance with the standards and interoperability guidance established by this Instruction
 - Participate in the IGI&S COI



Draft Responsibilities (continued)

Acquisition, Technology and Logistics

- Secretaries of the Military Departments (including Component responsibilities, above):
 - Designate Service IGI&S elements to coordinate IGI&S capabilities
 - For each installation, establish a trusted, authoritative data source (ADS) for all geospatial data and products which fulfill installation and environment missions
 - Includes CIP
 - Includes data or products from INRMPs, master plans, MMRP maps, Explosive Safety Site plans, AICUZ studies, Joint Land Use Studies, etc.
 - Provide mechanisms for this data to be shared (to the maximum extent allowed by law or DoD policy) at the headquarters level as well as across the federal data sharing environment, to include the Geospatial Platform
 - Provide for the creation and maintenance of geospatial data describing:
 - Location and extent of all DoD real property and privatized assets
 - Location and extent of DoD infrastructure
 - Location of natural and cultural resources, environmental, safety, and installation master planning information
 - Provide for the creation, maintenance, storage and secure sharing of CIP data



Draft Responsibilities (continued)

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- Secretary of the Army:
 - In addition to the responsibilities for the Components and all Military Departments
 - Responsible for technical development, change management, general support and implementation support for IGI&S standards (a supporting function to the IGG)
 - Ensure IGI&S requirements of the US Army Corps of Engineers civil works program are met & represented in the IGG

- Secretary of the Navy:
 - In addition to the responsibilities for the Components and all Military Departments
 - Ensure IGI&S requirements of the US Marine Corps are met & represented in the IGG

Definitions: The terms CIP and IGI&S are defined and proposed for inclusion in the next edition of Joint Publication 1-02.



Common Installation Picture (CIP) GIS Layers Requested for 2013

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AccessControl
AdministrativeBoundary
AirAccidentZone
Bridge
Building
EnvironmentalRemediationSite
Fence
GolfCourse
ImpactArea
LandParcel
MilitaryRange
MilitaryTrainingLocation

PavementBranch
PavementSection
RailSegment
RecreationArea
RoadArea
RoadCenterline
RoadPath
RoadSeg
Site
Tower
VehicleParking
Wetland
Readiness and Environmental Protection Initiative (REPI) Sites

Note: SDSFIE 3.1 feature type names



Take-aways

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The Proposed DoD policy for IGI&S:

- Enhances GEOINT functional management by defining what, why, and how AT&L will implement this supporting role
- Makes IGI&S a “known requirement” across the Department, although subject to the same resource and mission priority constraints as other I&E requirements
- Clarifies how DUSD(I&E) will provide policy, guidance, and oversight of IGI&S and why it is needed
- Provides focus for existing and future IGI&S investments (i.e. an explicit focus on the policy requirements listed)
- Shapes existing IGI&S investments into a highly valuable capability