Overall Classification of this briefing is UNCLASS

NSG Expeditionary Architecture (NEA)

GEOINT Enterprise Cloud Reference Architecture

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Overall Classification of this briefing is UNCLASS
Agenda

• Unified architecture to provide access to and discovery of Geospatial data and services

• GEOINT Cloud Reference Architecture

• GEOINT in the Cloud Data Services
  – GEOINT Cloud as a Service (GCaaS)
NEA Cloud Layers

- GEOINT Cloud as a Service (GCaaS)
- NEA GEOINT Services
- NEA Platform and GEOINT Framework
- Virtualized compute, storage, and transport
- Commodity-based, optimized to provide on-demand High Performance Computing (HPC) compute cycles, built especially for virtualized environments distributed horizontally across the enterprise

Designing independence from the hardware allows operating system, application, and data to live across the enterprise.
NEA Cloud Reference Architecture

GEOINT Cloud as a Service (GCaaS)

- GEOINT Framework
- Platform API
- ISP API
- Compute
- Transport
- Storage
- Logical Abstraction

Logical Abstraction

GEOINT Cloud as a Service (GCaaS)

- TERRAIN
- RASTER
- ANALYTICS
- VECTOR
- VIDEO

GEOINT Widgets

- GEOINT App
- GEOINT App

Cloud Provider
- GEOINT Cloud as a Service (GCaaS)
- Platform as a Service (PaaS)
- Infrastructure as a Service (IaaS)

- Private Cloud Services
- On-Demand Provisioning
- Metering
- Service Level Management
- Governance
- Quality of Service (QoS)
- Security
Summary

• NEA Global Enterprise Framework
  – Horizontal provisioned compute, storage, and transport

• Enterprise Data & API Layer
  – Discoverable, accessible, usable

• GEOINT Cloud as a Service (GCaaS)
  – Self-Service, On-Demand…”GEOINT in the Hands of the User”

It is the focused collective of how each of these physical, virtual or Cloud services are orchestrated in order to utilize an enterprise suite of GEOINT offerings. How we develop our “Crunching of GEOINT” (to participate as a Cloud offering) enables the service capabilities that can be provisioned on demand for the NSG and the community and positions NGA to provide our GEOINT Cloud as a Service (GCaaS).