

NAS EA 2025 OV-1 & OV-2: Operational Context



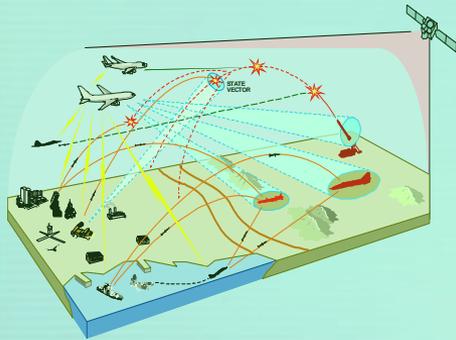
June 24, 2009

Presented by: MITRE/CAASD

Presented for: FAA NAS EA Conference

Product Overviews

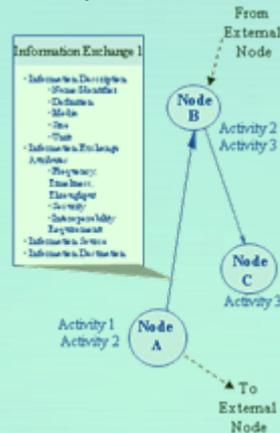
High-Level Operational Concept Description (OV-1)



High-level graphical description of the operational concept of interest

Provides a quick orientation for architecture audience and decision makers

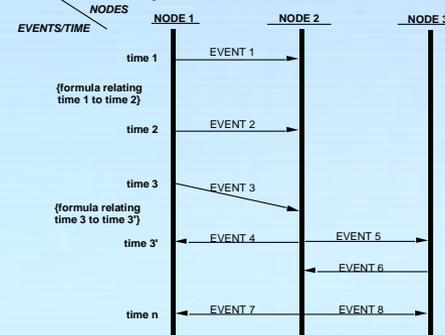
Operational Node Connectivity Description (OV-2)



Operational nodes, activities performed at each node, node-to-node relationships, and information needlines

Shows who produces information and who uses it

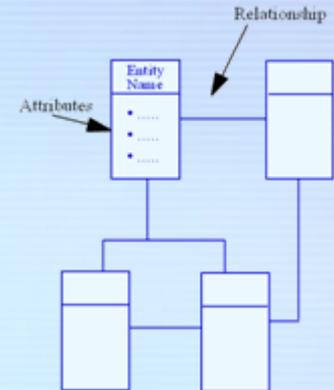
Operational Node Connectivity Description (OV-6c)



Provides a time-ordered examination of the information exchanges between participating operational nodes as a result of a particular scenario

Valuable for moving to the next level of detail from initial operating concepts

Logical Data Model (OV-7)



Describes the structure of an architecture domain's system data types, their attributes as well as interrelationships

Supports interoperability between architectures, since these definitions may be used by other organizations to determine system data compatibility



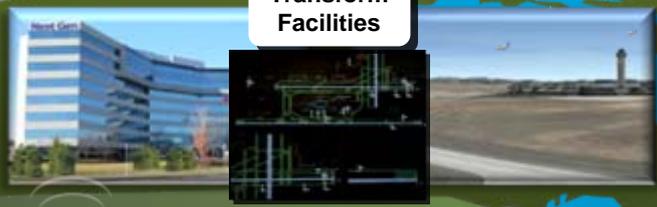
NextGen 2025 OV-1

INTERNATIONAL HARMONIZATION

Increase Flexibility in the Terminal Environment



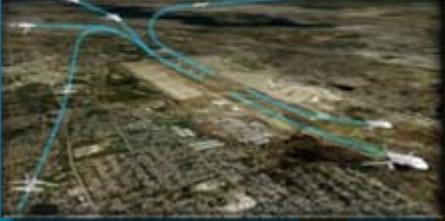
Transform Facilities



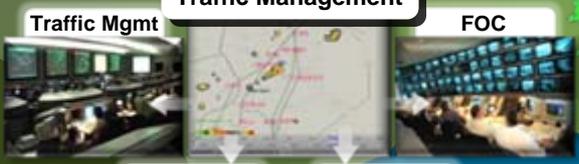
Trajectory Based Operations



Increase Arrivals/Departures at High Density Airports



Collaborative Air Traffic Management



Reduce Weather Impact



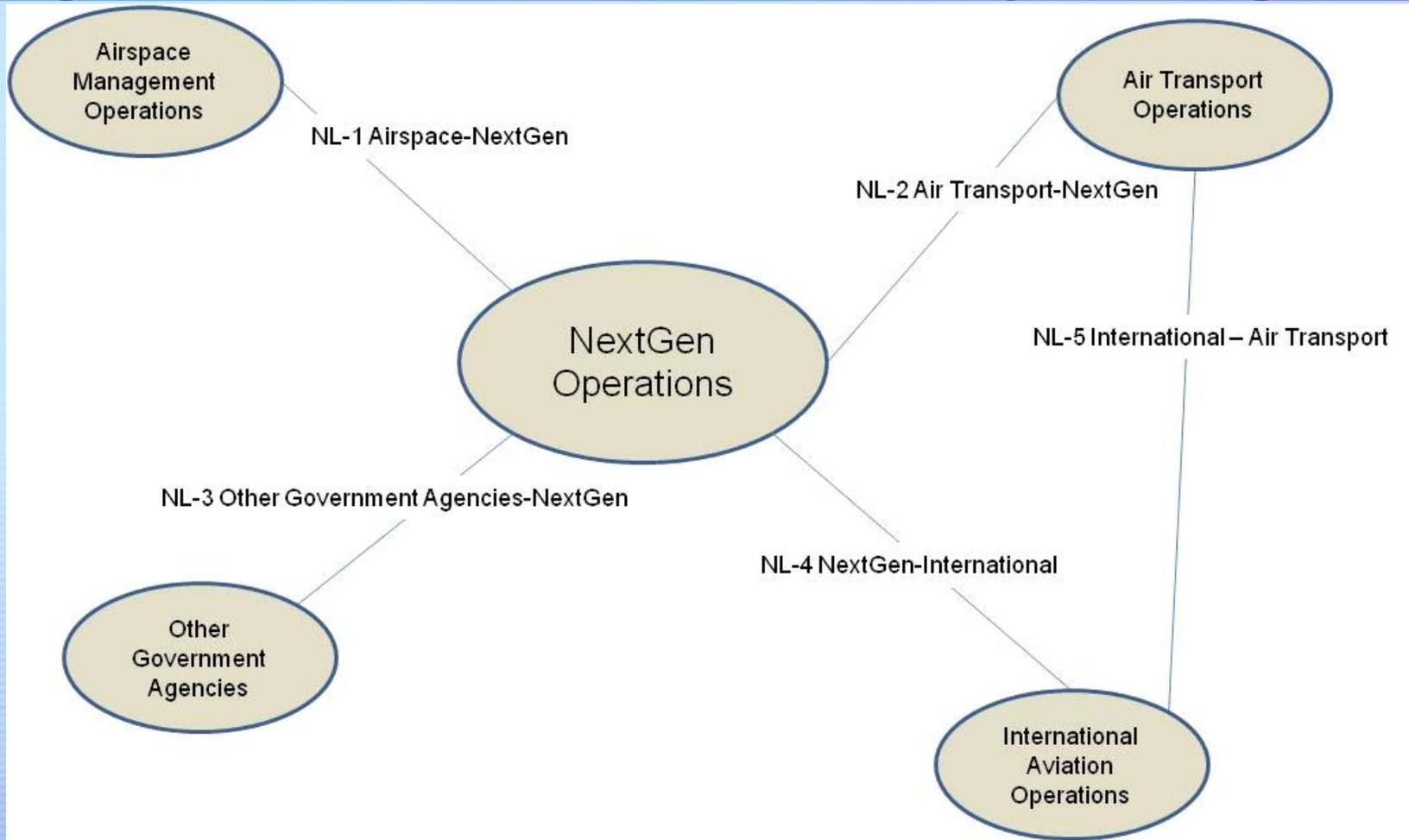
Net Centric Operations

| | | | | | | | | | | | |
|--------------------|----------------------|------------------|-------------------------|------------------------|--------------------|------------------|-----------------------|---------------------|-------------------------------|--------------|---------------------|
| SOA CORE SERVICES | | | | | SUPPORT SERVICES | | ENTERPRISE GOVERNANCE | | ADMINISTRATIVE SERVICES | | |
| Messaging Services | Interface Management | Security Service | Enterprise Services Mgt | Collaboration Services | Content Management | Data Acquisition | SOA Governance | Run-time Management | Data/Network Support Services | Provisioning | Services Management |

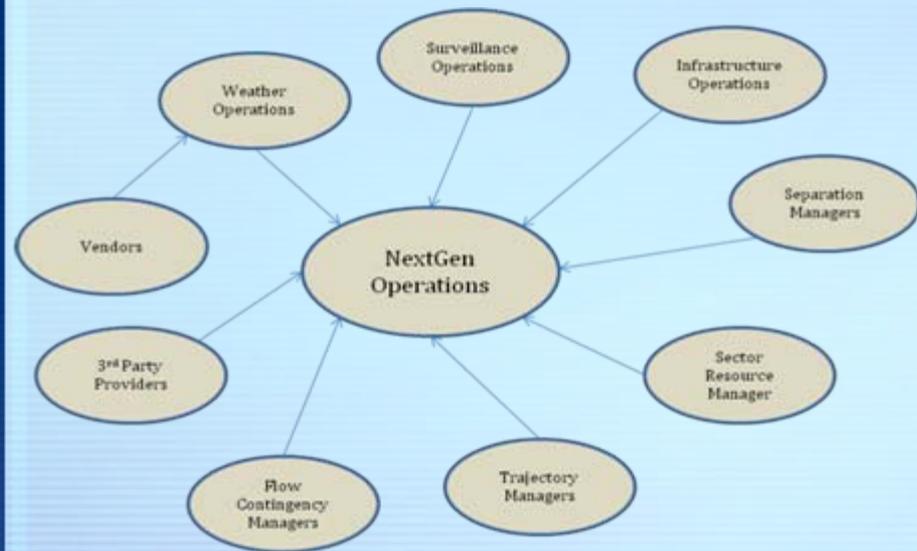
ENTERPRISE WIDE OPERATIONS (NATIONAL)

| | | | | | | | | | | |
|----------------------------|------------------------------|---------------------------|-----------------------|-----------------|------------------------|---------------------|--------------------------------|--------------------------------|-------------------------------------|-------------------------------------|
| System & Services Analysis | System & Services Management | Safety Management Service | Trajectory Management | Flow Management | Contingency Management | Capacity Management | Flight & State Data Management | Weather Information Management | Aeronautical Information Management | Surveillance Information Management |
|----------------------------|------------------------------|---------------------------|-----------------------|-----------------|------------------------|---------------------|--------------------------------|--------------------------------|-------------------------------------|-------------------------------------|

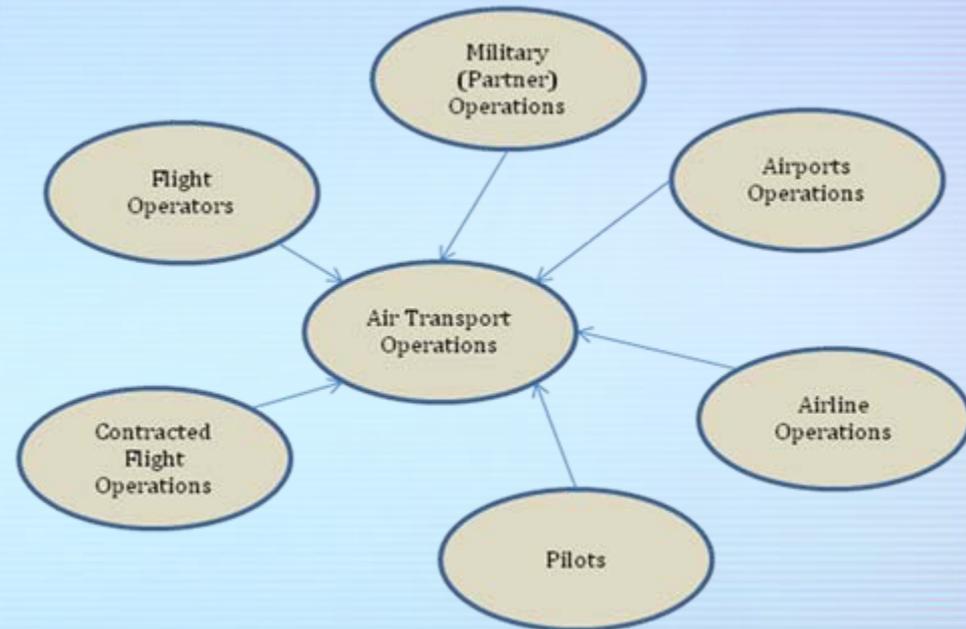
2025 OV-2: High-Level Connectivity Diagram



OV-2: NextGen and Air Transport Operations

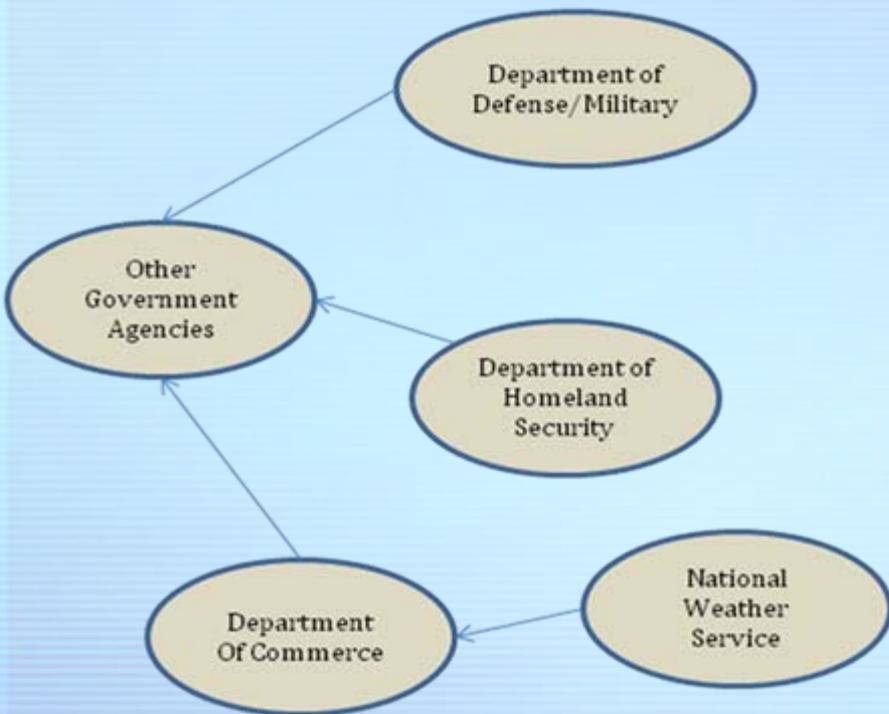


NextGen 2025 Operational Node Actor Relationships (Generalization) – NextGen Operations

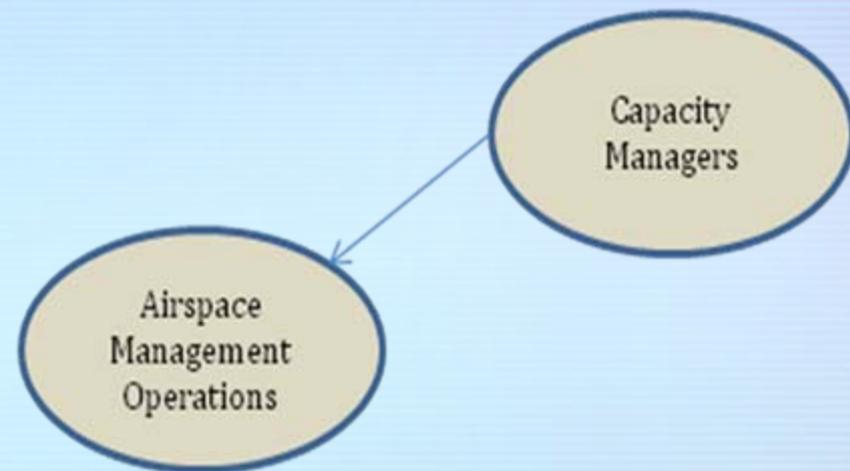


NextGen 2025 Operational Node Relationships (Generalization) – Air Transport Operations

OV-2: Other Government Agencies and Airspace Management Operations



NextGen2025 Operational Node Relationships (Generalization) – Other Government Agencies



NextGen 2025 Operational Node Relationships (Generalization) – Airspace Management Operations



Next Steps

- Incorporate feedback from FAA reviews for final submission in September
- Develop 2018 OV-1 and OV-2
- Explore implementation in data architect tool

