Requirement 7: Defined Unique Government Requirements and Solutions

Cloud-based Disaster Response

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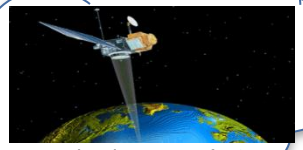
Unique Government Requirements

- USG agencies are subject to policy and regulatory requirements
- USG agencies have public trust responsibilities
- An example of government responsibility that will not be met by the commercial sector
  - ***Disaster Response -- at the state, national and international levels***

Stakeholder Cloud #1 | Stakeholder Cloud #2 | Stakeholder Cloud #3 | First Responders

Reprinted courtesy of NOAA



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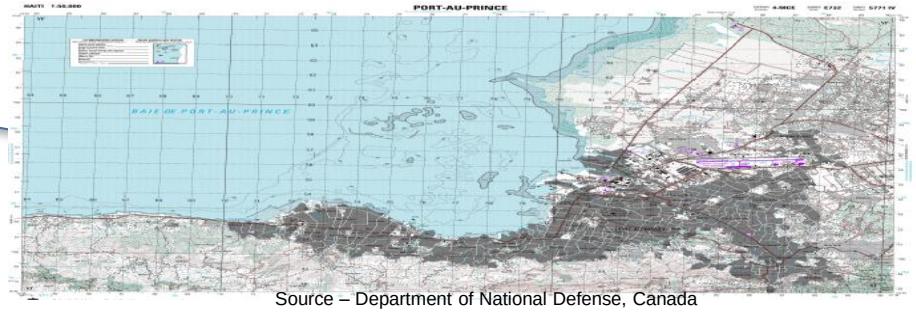
Federated Cloud

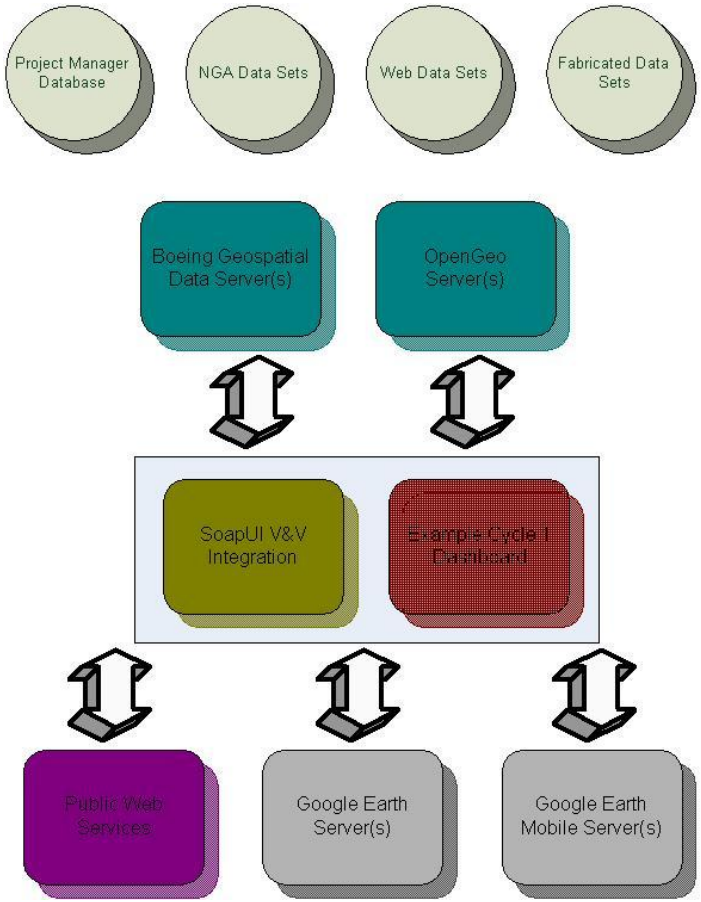


Source – Department of National Defense, Canada

Port-au-Prince, Haiti

NGA/NCOIC GEOINT Community Cloud Prototype

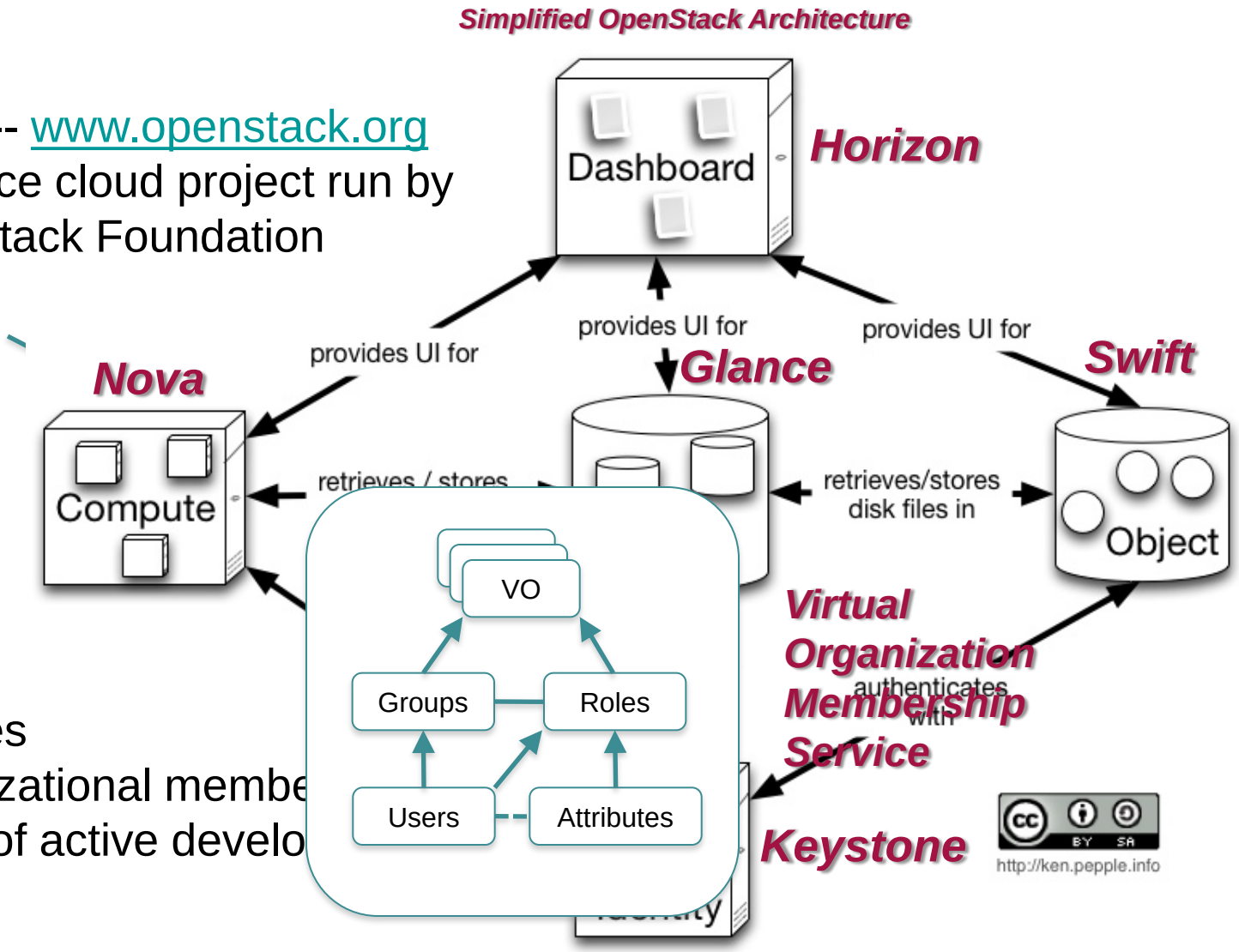
- The National Geospatial-Intelligence Agency (NGA) has contracted the Network-Centric Operations Industry Consortium (NCOIC) to run a pilot project for a ***Geospatial Intelligence Community Cloud for Disaster Response***
  - Leverage industry best practices to provide global
  - Enable data mobility
  - *Enable each participating organization to manage the data they provide*
  - *Protect* digital GEOINT data from unauthorized use
- NCOIC GCC Cycle One Team Members:
  - NJVC, Boeing, The Aerospace Corp., the Open Geospatial Consortium
- Three-Cycle Project Approach:
  - Cycle One Infrastructure
  - Cycle Two Software
  - Cycle Three Enhancements



Federating Clouds

OpenStack -- www.openstack.org

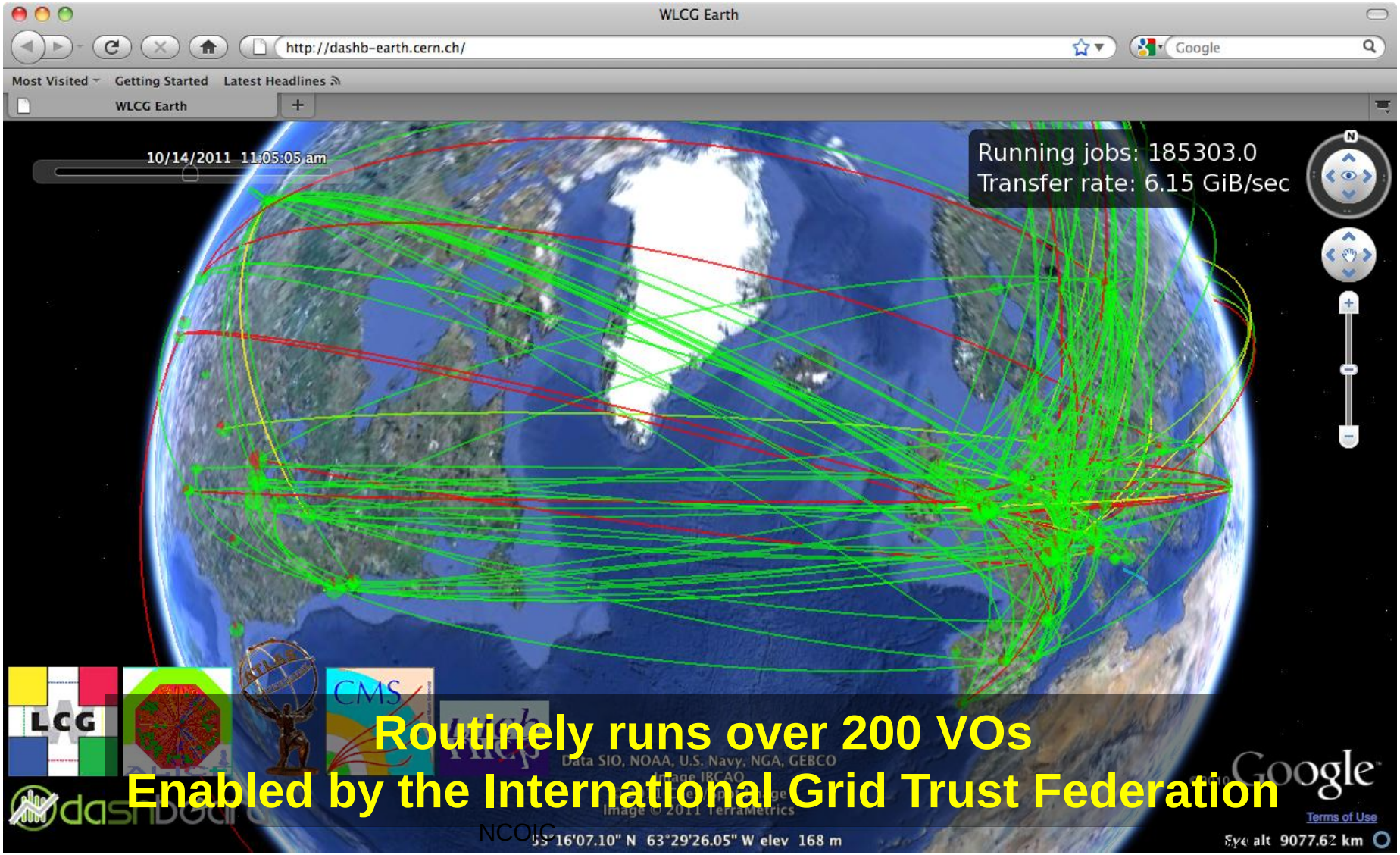
- Open source cloud project run by the OpenStack Foundation



- 87 countries
- 140 organizational membe
- Hundreds of active develo

Operational VOs: Worldwide LHC Computing Grid

WLCG Dashboard: http://dashb-earth.cern.ch



Summary

- The USG has unique policy and regulatory requirements that must be observed in cloud-land
- Some public responsibilities will never be met by the private sector
  - e.g., Disaster Response – at the state, national, and international levels
- On-demand collaboration requires the integration of:
  - Federated Identity Management
  - Federated Access Control
  - Trust Federations
- The NGA/NCOIC GEOINT Community Cloud prototype is a key effort to demonstrate these capabilities
- Broad applicability to wide range of functions:
  - Business-to-business
  - Agency-to-agency
  - All manner of cloud-based federated collaborations