



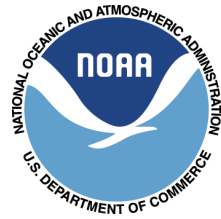
7 x 24 Exchange Rocky Mountain Chapter 4 June 2013

The Federal Data Center Consolidation with a NOAA Focus

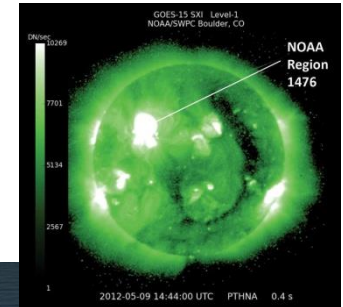
Scott Nahman, Sr. IT Manager, Global Systems Division
Earth System Research Laboratory



About NOAA



- 25,000 Employees & Associates
- 7 Line Offices (NWS, NMFS, OAR...)
- 450 Facilities
 - 284 IT Facilities (Data Centers)
- 10 Observation Satellites
- 19 Ships, 14 Aircraft
- 150 Major IT Systems
- **5 Supercomputers**
- **30 PB/yr data growth**





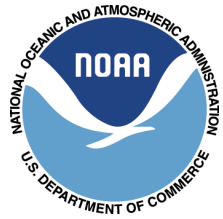
Federal Data Center Consolidation Initiative



- Began in 2010
- NOAA Began in FY2012
 - Formed a Tiger Team
 - Developed Inventory Guidance
 - Produced Certified Inventory
- NOAA Effort in FY2013
 - Develop Action Plans for Consolidation
 - Annual Inventories



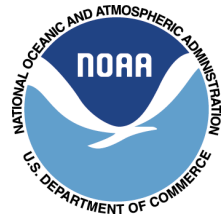
The BIG Question



What is a Data Center?



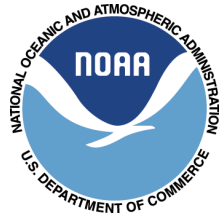
The OMB Definition



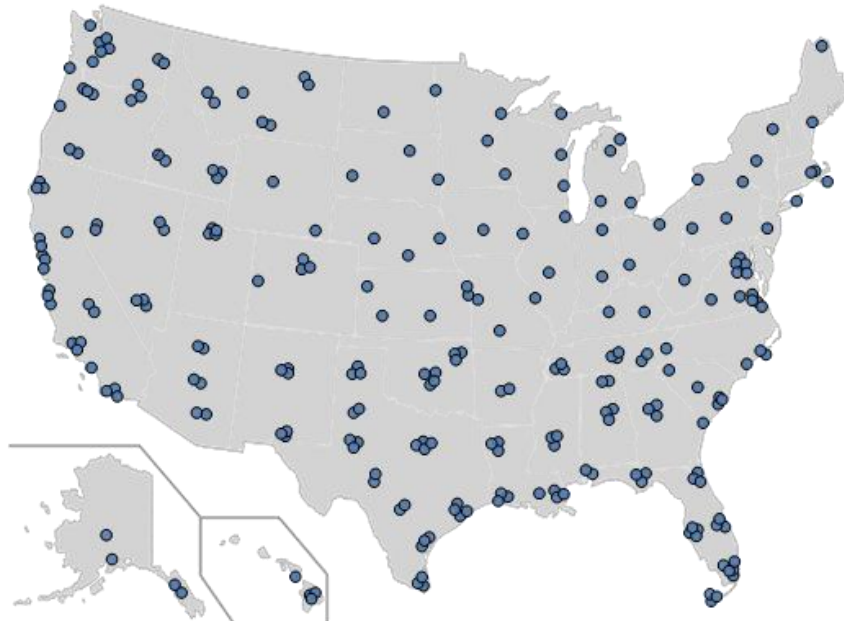
OMB defines a data center as “a closet, room, floor or building for the storage, management and dissemination of data and information. Such a repository houses computer systems and associated components, such as database, application, and storage systems and data stores. A data center generally includes redundant or backup power supplies, redundant data communications connections, and environmental controls (air conditioning, fire suppression, etc.) and specialty security devices housed in leased, owned, collocated, or stand-alone facilities”.



NOAA Data Center Inventory



NOAA Initial Inventory: 284 Data Centers



LOCATIONS

PUE

Metered Power

Virtualization

FTE Ratio

Power Capacity

Utilization

Ownership

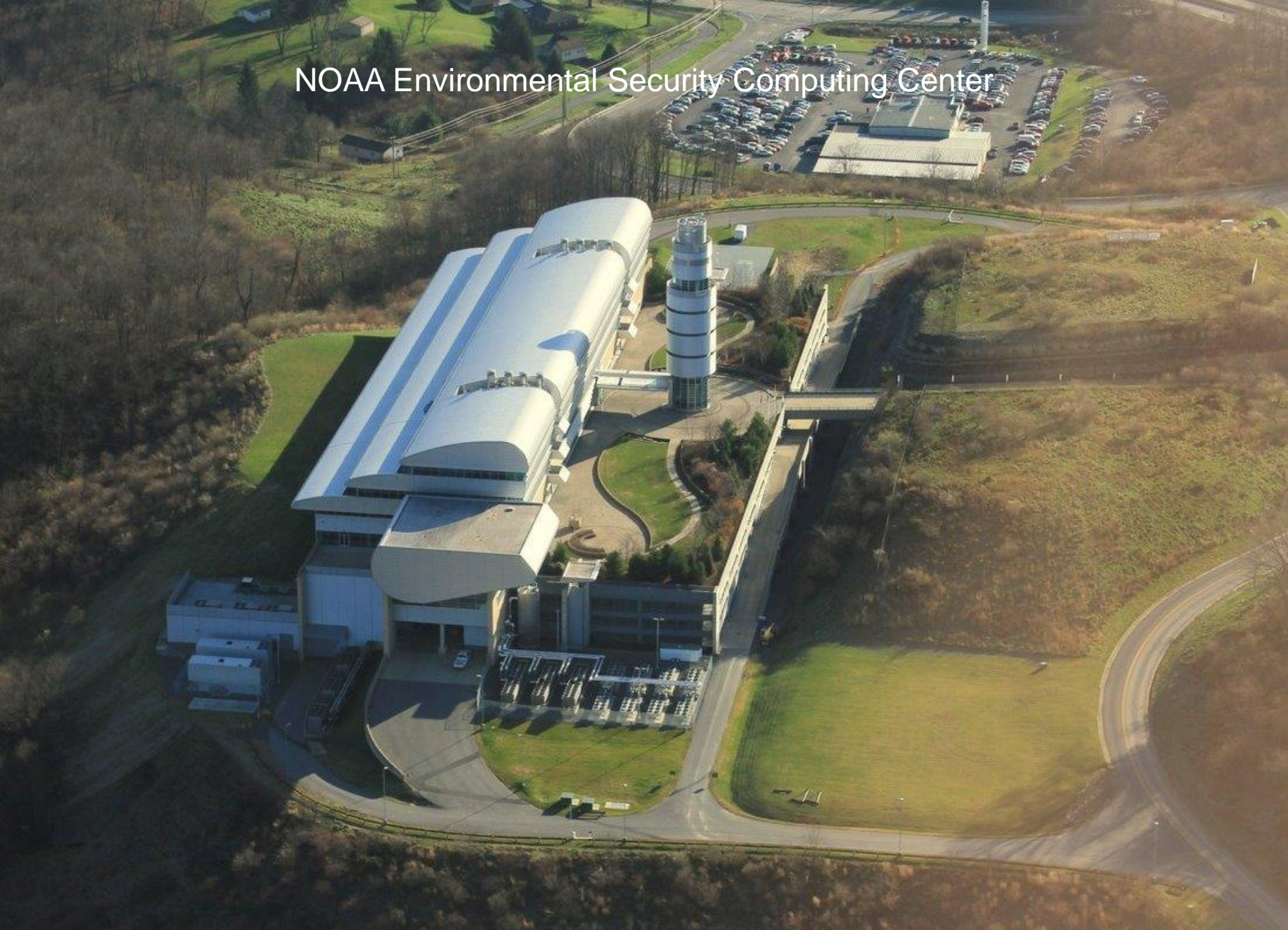


NOAA Action Planning



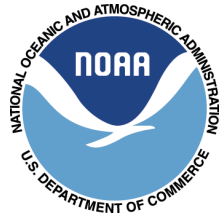
- Develop “Core” Data Centers
 - Enterprise data centers serving as landing pads
- Inventory our Applications
- Virtualize – Early and Often
- Focus on “Cloud First Policy”
- Develop Target Architecture

NOAA Environmental Security Computing Center





Federal Data Center Consolidation By The Numbers:



- **3,133**: Targeted federal data centers. — Data.gov
- **10-35**: The percentage of cost reduction the typical organization will experience through data center consolidation. — Deloitte
- **315**: The number of federal data centers scheduled to be closed between October 2012 and September 2013. — explore.data.gov
- **500**: The number of dollars in energy costs a data center could save by decommissioning a single 1U rack server per year. (additional savings for OS licensing and HW maintenance) — uptimeinstitute.com
- **1000**: The number of dollars saved by reducing the energy in a data center by 1 kilowatt. — Schneider Electric
- **2094**: Total number of data centers operated by the federal government in 2010. — OMB
- **\$2.4 Billion**: Amount estimated to be saved by 2015 if data center consolidation efforts stay on track — gao.gov/assets



QUESTIONS?