



# NOAA IDP NextGen IT Web Services

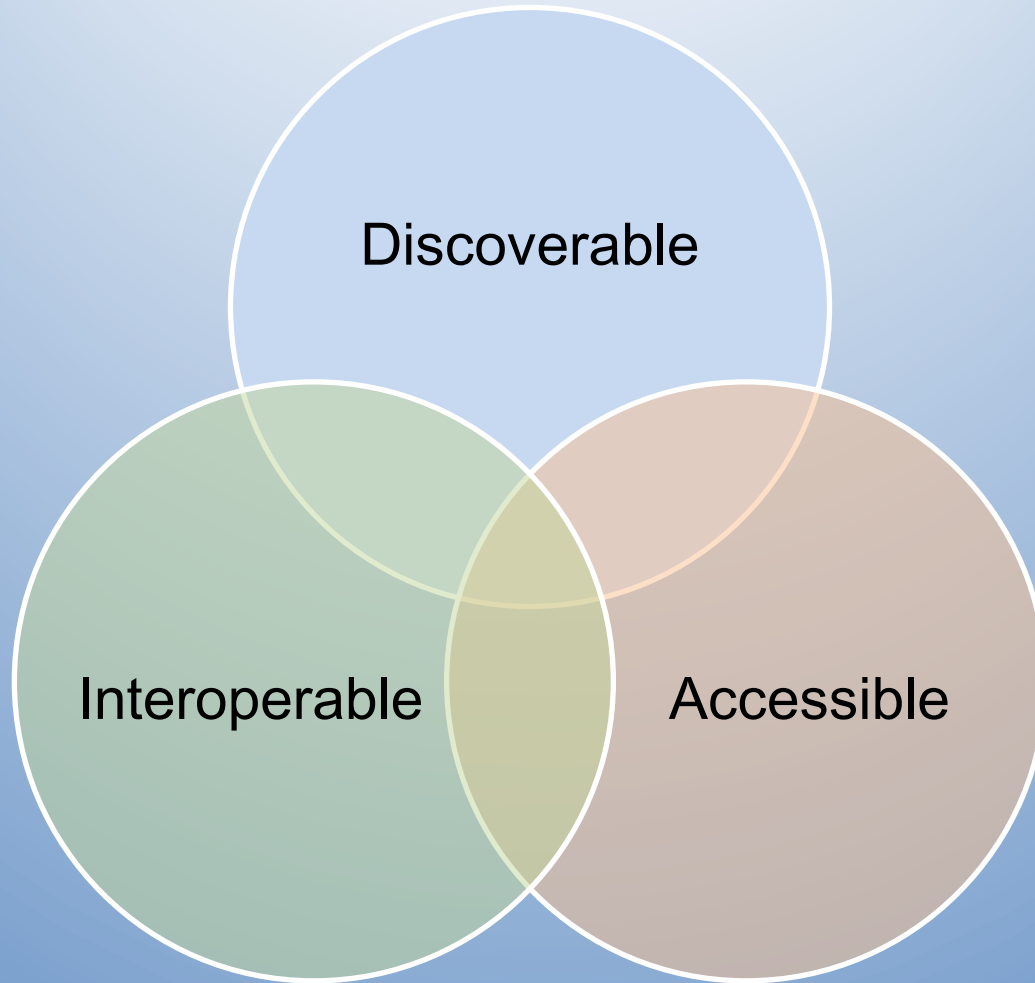
*Presented by:  
Ryan Solomon (NOAA)  
October 22, 2014*



# Project goals

- Satisfy the FY14 Congressional Justification... *As a part of the Aviation Weather program that serves as the focal point for NOAA's role in the multi-agency NextGen initiative, NextGen IT Web Services “will provide enhanced weather forecast information for integration into an air traffic management system. Capabilities for NextGen will result in a significant increase in weather prediction and dissemination capabilities with wide-ranging benefits across NOAA.”*
- Implement a new net-centric weather information dissemination capability to fulfill NWS’s role in the NextGen directive.
- Improve access and delivery of data (weather, water, climate, and environmental) to stakeholders (internal and external) using national and international systems and standards
- Provide common access for internal and external users to discover and retrieve NOAA weather data

# It's about the data



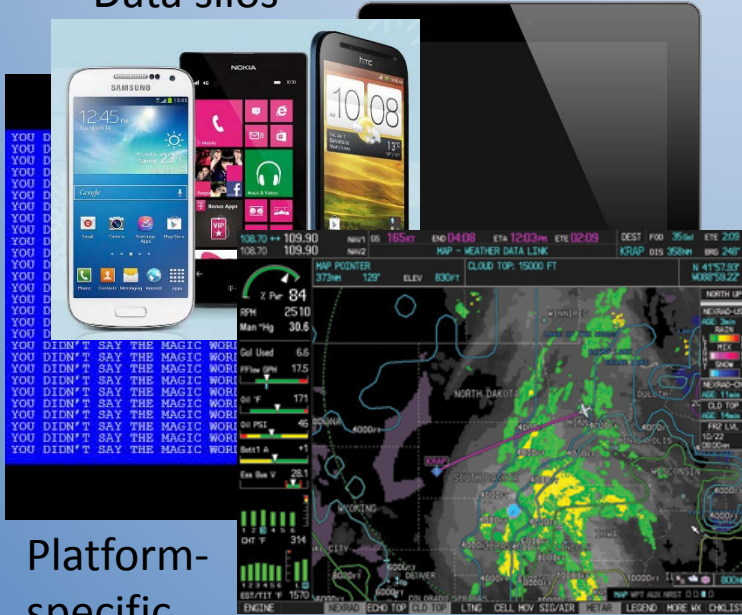
# Revolutionary Change



Data silos



Net-centric



Platform-specific



Proprietary



Open

Platform-agnostic

# How do we get there?



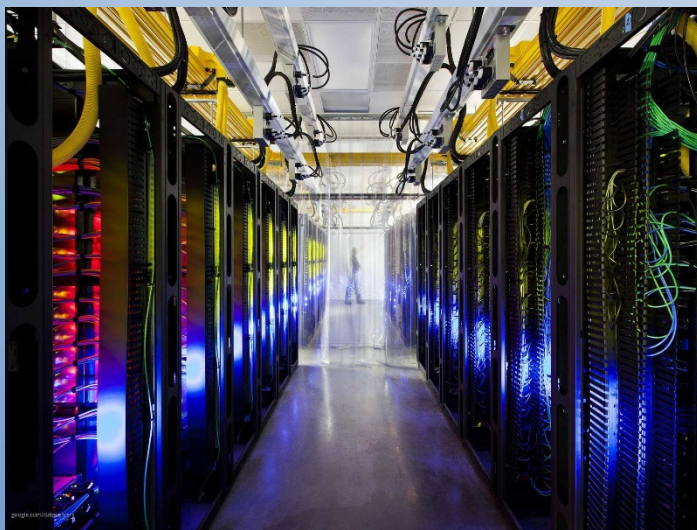
NetCDF  
IWXMM

Standard data formats



OGC compliant services

State of  
the art  
data  
centers

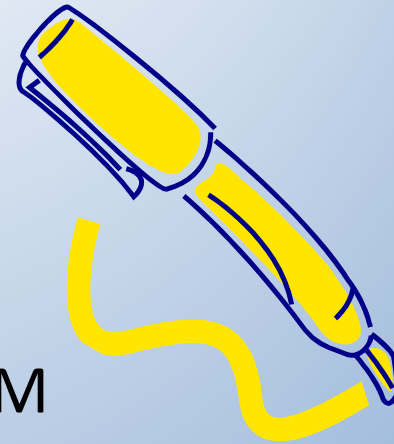


Experience



# Project highlights

- OGC-compliant web services
- Standard formats –
  - NetCDF 4 Classic CF
  - IWXXM, IWXXM-US, NAWX, WXXM
- Redundant high availability state of the art data centers
  - College Park
  - Boulder
- Experienced in delivery of operational capabilities
  - NCEP Central Operations





# Project status

- ✓ Metadata development on track
- ✓ Schema development progressing
  - [nws.weather.gov/schemas/](http://nws.weather.gov/schemas/)
  - [nws.weather.gov/codes/](http://nws.weather.gov/codes/)
- ✓ Two NetCDF products are being produced in real time (available via conventional http download)
  - Current Icing Product (CIP)
  - National Convective Weather Detection (NCWD)
- ✓ One non-gridded data set (METAR) available soon from development platform
- ✓ In development:
  - Pub/sub
  - CSW
- ✓ Initial Operational Capability – **June 2015**

# Critical Aviation Products Targeted for June 2015



Product Name	Service
Meteorological Terminal Aviation Routine Weather Report (METAR)	WFS
Significant Meteorological Information (SIGMET)	WFS
Terminal Aerodrome Forecast (TAF)	WFS
Current Icing Product (CIP)	WCS
Forecast Icing Product (FIP)	WCS
National Convective Weather Detection (NCWD)	WCS
National Convective Weather Forecast (NCWF)	WFS
Graphical Turbulence Guidance (GTG)	WCS
Rapid Refresh (RAP)	WCS
Global Forecast System (GFS)	WCS
North American Mesoscale (NAM)	WCS



# Goal of NextGen IT Web Services



The *right* information



to the  
*right*  
people

at the *right* time





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