AWIPS II Status and Plans

Ronla Henry

Proving Ground / User Readiness Conference

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Agenda

- AWIPS II Migration Status and Plan
- AWIPS II Satellite Product Readiness
  - SBN expansion status and plans
  - GOES-R products
  - S-NPP products
  - Data Delivery for on-demand satellite products

AWIPS II Migration Status and Plan

- AWIPS II Deployed at all National Centers, River Forecast Centers and Regional HQ Systems

- WFO Deployment Strategy
  - Groups of 8-10 WFOs installed with at least 30 day testing period required for AWIPS II activation
  - Next group cannot install until previous group successfully completes its activation test

- WFO Activation Status
  - Groups 1 and 2 activation completed
  - Group 3 activation in progress, target completion – June 15th 12 Z.

- WFO Activation Completion Target – 4th QT FY15

- National Centers AWIPS (NAIWPS) Migration
  - Pre-OTE – In progress
  - Center by Center FOTE strategy
    - Q4FY14 – Q2FY16

Satellite Broadcast Network (SBN) Expansion Status and Plans

- SBN being upgraded from 30Mbps to 60+Mbps
- Project scheduled to complete approx. October 2014, with new product additions to begin by Jan 2015
- NCF and MGS software, hardware and network upgrades underway; corresponding SBN CP software upgrades to be in place by Aug 2014
- Adding new data channels for AWIPS Data Delivery, GOES-R imagery, and other new streams
- Leveraging Raytheon/AWIPS contract for implementation
- Further details in Ground Readiness brief (next)

GOES-R Products

- Sectorized Cloud and Moisture Imagery (SCMI) delivered via low-latency direct SBN

- 26 GOES-R Products derived from ABI and GLM delivered via NESDIS PDA system
  - SBN for “routine” products
  - AWIPS Data Delivery for scenario specific needs

- GOES-R Rebroadcast (GRB) products available at AR, PR, AWC, NHC, SPC, SWPC, College Park National Centers

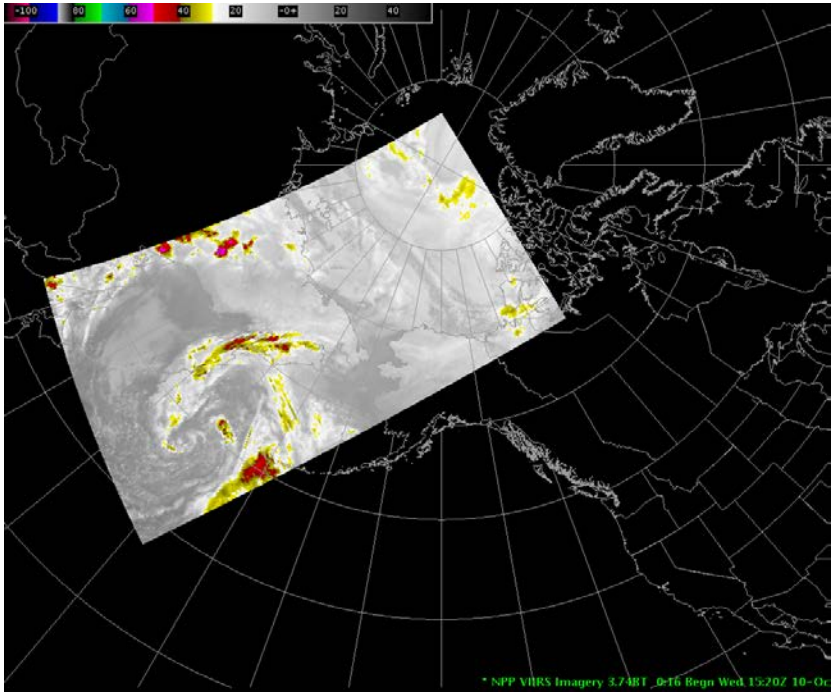
- AWIPS II Development and Testing
  - Two tests completed in December 2013 and May 2014
    - Simulated “real-time” data flow to test functionality and performance
    - Focused on ingest, decode, display, store and purge of SCMI
  - Follow-on testing in October 2014 and April 2015
    - AWIPS II software development for new GOES-R products (ongoing into 2015)
    - Exercise TOWR-G mission thread scenarios
    - GOES-R tests will utilize SBN’s new GOES channel

- AWIPS II Operational Testing – Flowing GOES-R Products from new NESDIS Ground System Across SBN and via Data Delivery into AWIPS
  - June – August 2015: Support for GOES-R Ground Segment integration and test
  - September 2015 => Data Operations Exercise: Several week continuous flow of data from the GOES-R Ground Segment to AWIPS II (TBD locations) via SBN and Data Delivery

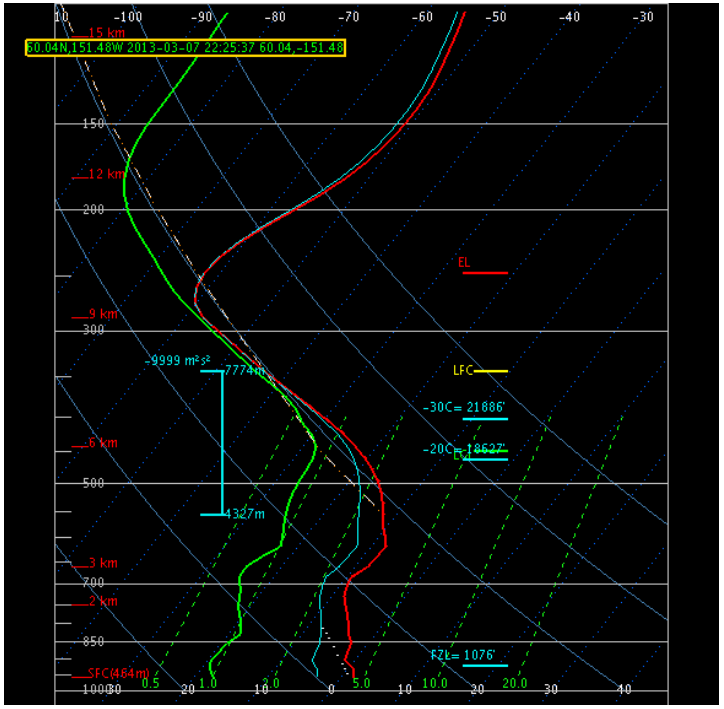
S-NPP Products in AWIPS II

- Recent Product Additions to AWIPS II

S-NPP VIIRS Imagery



S-NPP NUCAPS Sounding



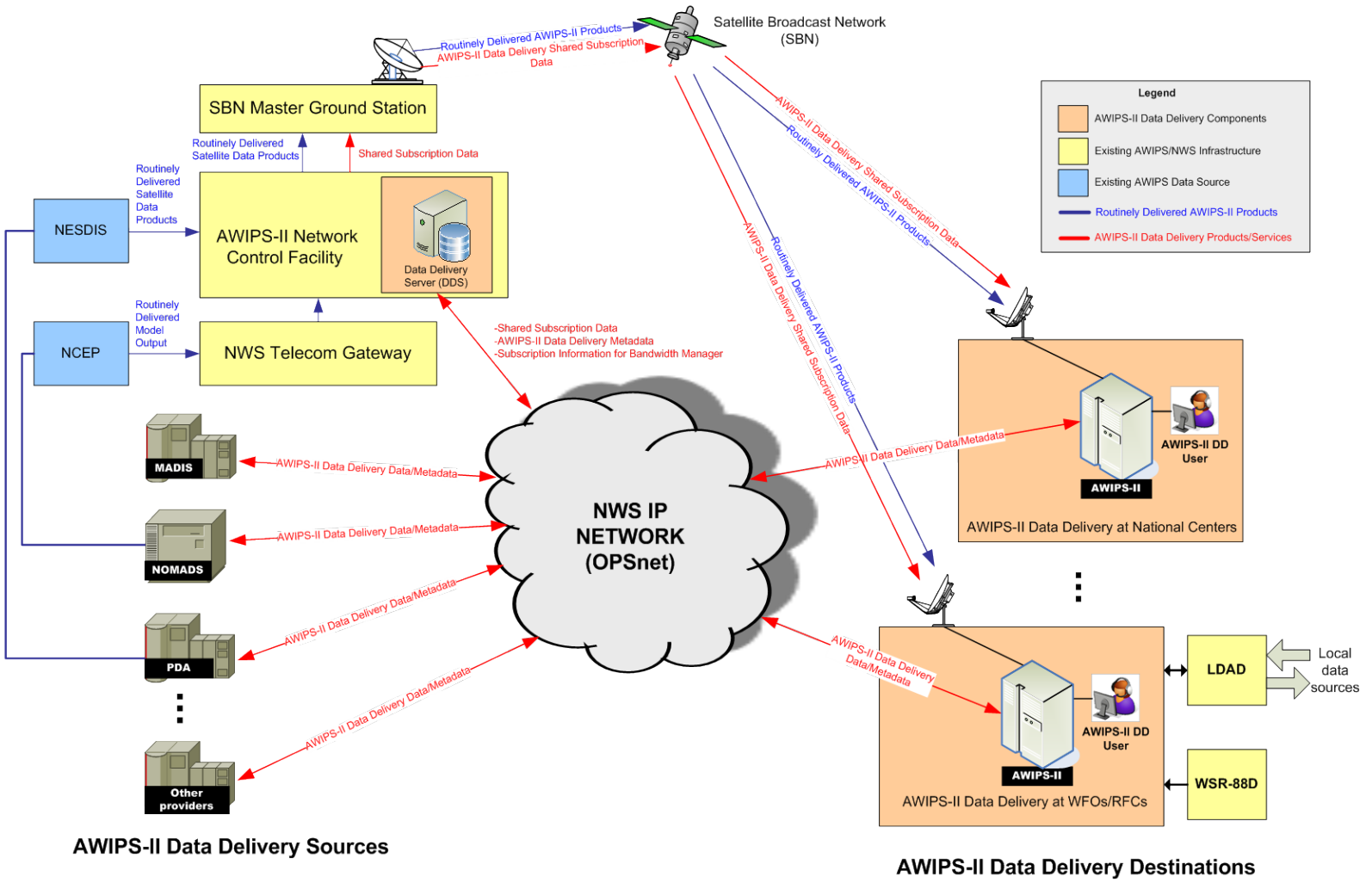
- Near Constant Contrast Imagery – To be added in Late 2014 release

Data Delivery Overview

- What is AWIPS II Data Delivery?
  - Data Delivery is an AWIPS II Extended Project (a pre-planned major enhancement to AWIPS II infrastructure)
  - Data Delivery allows AWIPS-II users to access data **not** routinely delivered via SBN or direct broadcast using “smart” push/pull technologies
  - Enables AWIPS to handle increased data volumes associated with major agency initiatives, e.g., GOES-R, Higher resolution models, etc.

- Key Features
  - Data discovery of datasets residing on Data Provider systems, e.g., NOMADS, MADIS, PDA
  - Data Access using subscriptions or on an ad-hoc basis
  - Users can temporally, spatially, and/or parametrically subset datasets –
    - Sub-setting is executed on the data provider system
      - Reduces bandwidth
      - Reduces data processing at receiving AWIPS sites
  - Smart bandwidth management
    - Data retrieval latency estimated based on bandwidth and data size
    - Subscription priority is configurable
    - SBN Subscription Channel – Used for shared subscriptions, multi-site subscriptions that are similar in nature

Data Delivery High Level Architecture



Data Delivery Status and Plans

- Data Delivery Initial Operating Capability (IOC) – Fall 2013
  - Provides data discovery and access to NOMADS (model data)
- Summer 2014 Capabilities
  - Access to MADIS
  - Implementation of SBN subscription channel for shared subscriptions
- Satellite Product Access Plan
  - Data Delivery will access the NESDIS Product Distribution and Access (PDA) Open Geospatial Consortium (OGC) interface for data discovery and access services
  - AWIPS II development in progress
  - Initial testing of Data Delivery and PDA OGC interface scheduled for Fall 2014
  - Additional End-to-End tests planned for CY15
  - PDA Operational Readiness Review (ORR) for OGC Services – 4Q FY2015
  - On-going coordination with IDP as IDP services are planned and developed
- Candidate Satellite Product Categories for Data Delivery
  - GOES-R – Derived Products
  - SNPP/JPSS Derived Products, non-KPP imagery
  - GPM, SMAP, NESDIS PDA Products not distributed via SBN, Sentinel, MeTOP imagery, OceanSAT

Questions

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