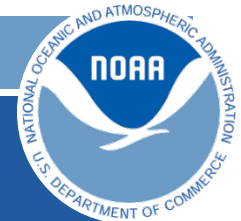




NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



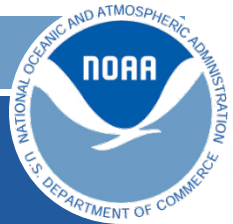
National Weather Service

NWS Delivery Services

Where are we now? Where are we going?

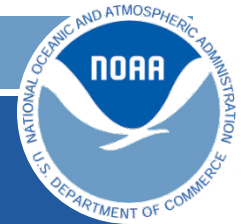
Emergency Interoperability Consortium

Michelle Mainelli
Director, Office of Dissemination
November 14, 2018

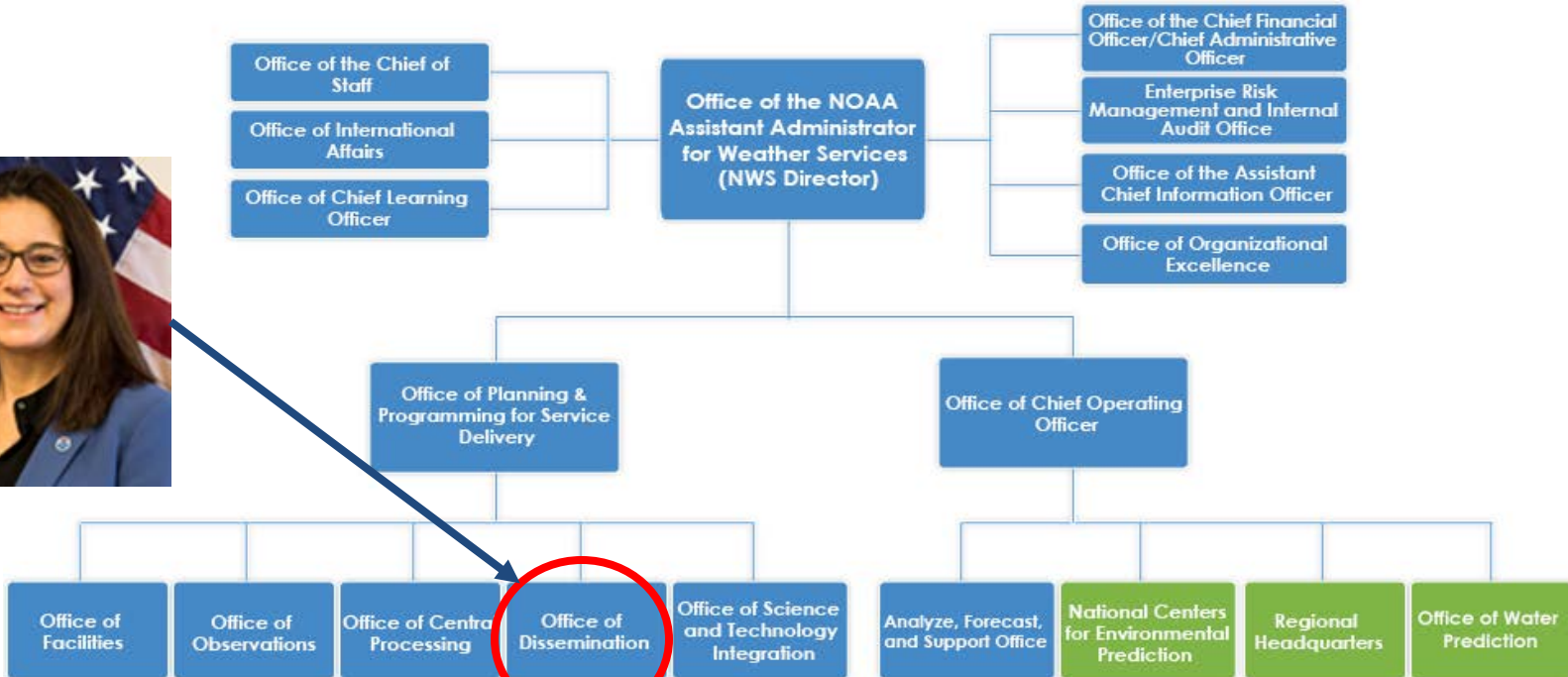


Agenda

- Organizational Structure
- Dissemination Value Chain
- Where we came from...
- Where we are today...
- Where we hope to go...
- Open Discussion



NWS Office of Dissemination

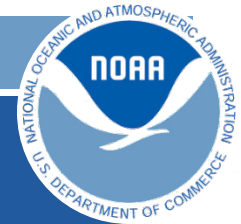


ODIS Strategic Objectives

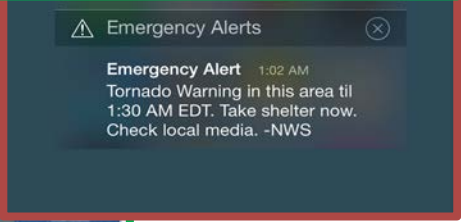
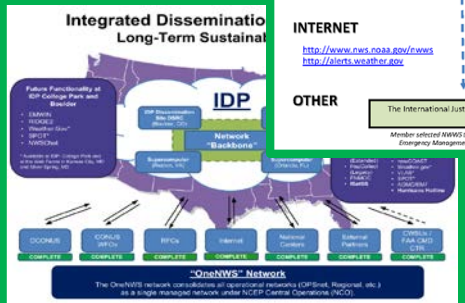
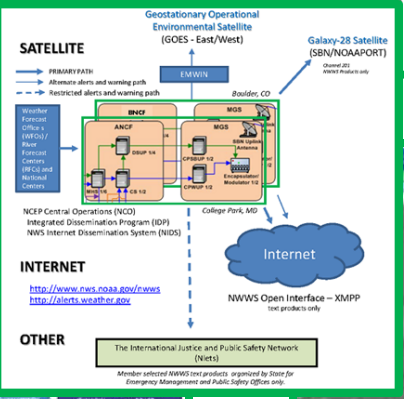
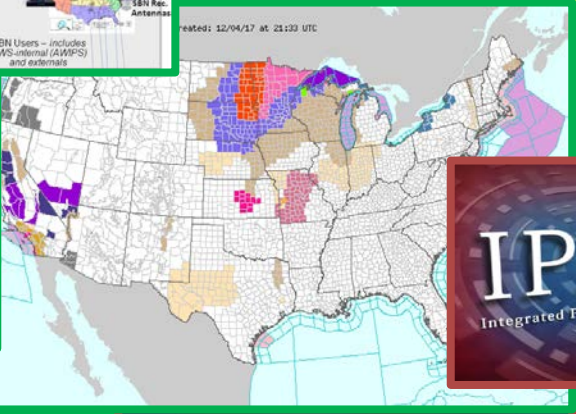
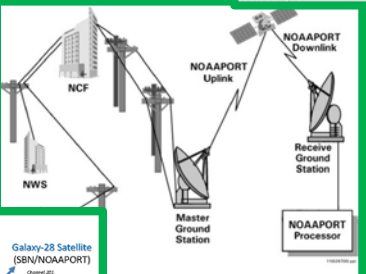
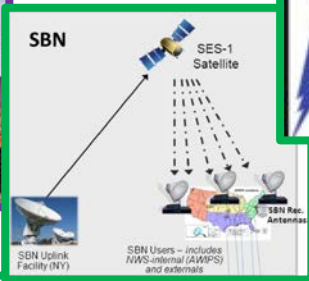
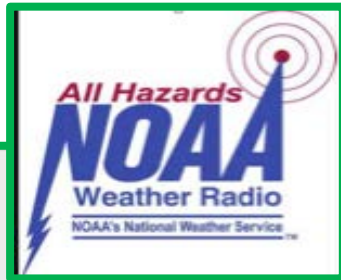
HQ Offices

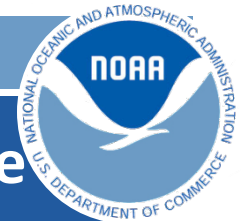
Field Office

- Maximize effectiveness of telecommunications solutions to enable NWS to accomplish mission application advancements in quantifying uncertainty, capturing complexity, and resolving finer detail
- Simplify, standardize and consolidate dissemination systems to avoid costs, increase reliability, and reduce time to transition applications from development to operations

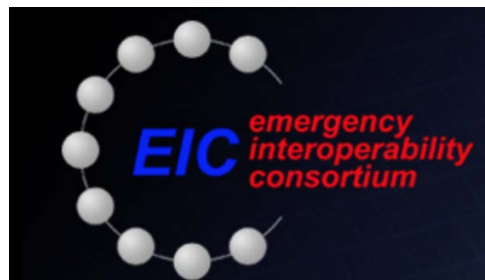
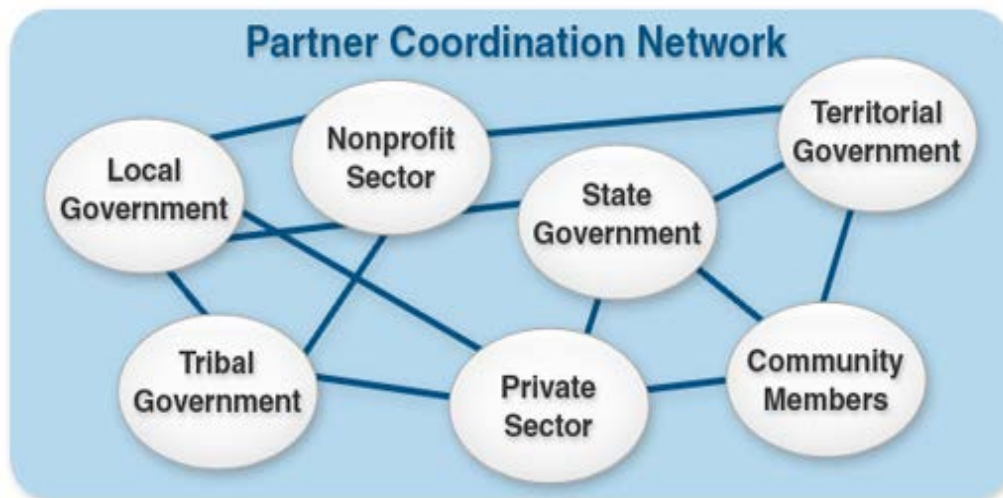


Weather Dissemination Chain





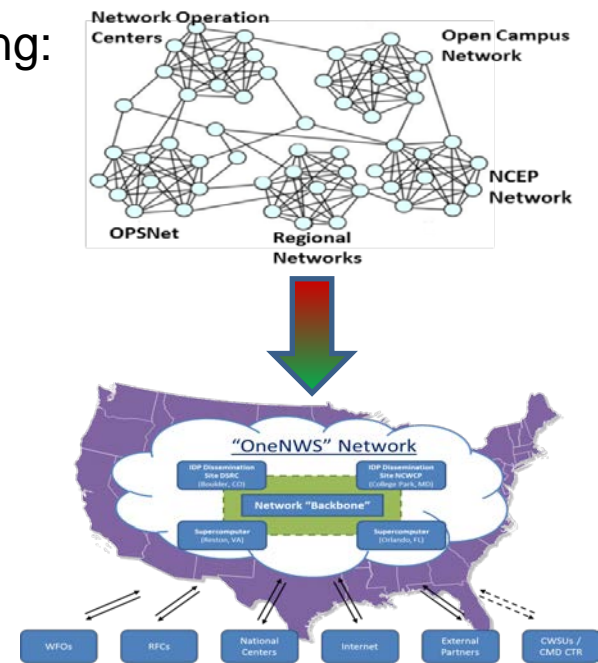
Supporting & Partnering with the Weather Enterprise

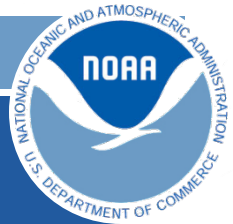


NWS Dissemination Objectives

Maintain and Support the following:

- The Integrated Dissemination Program (IDP) Systems in College Park and Boulder
- NWS OneNWS Network – Interconnects IDP, WFOs, Regions, National Centers
- The GOES-16 / GOES-17/ Himawari-8 Re-Broadcast antennas at 8 locations
- NWS collaboration & dissemination services including:
 - NOAA Weather Radio
 - Enable WEA / EAS
 - Web and GIS Services
 - NextGen IT Web Services
 - NWSChat
 - Video-enabled Hurricane Hotline



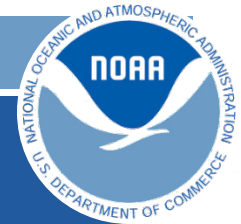


Current Applications on IDP Systems

Functionality in place at IDP College Park and Boulder (as of November 2018)

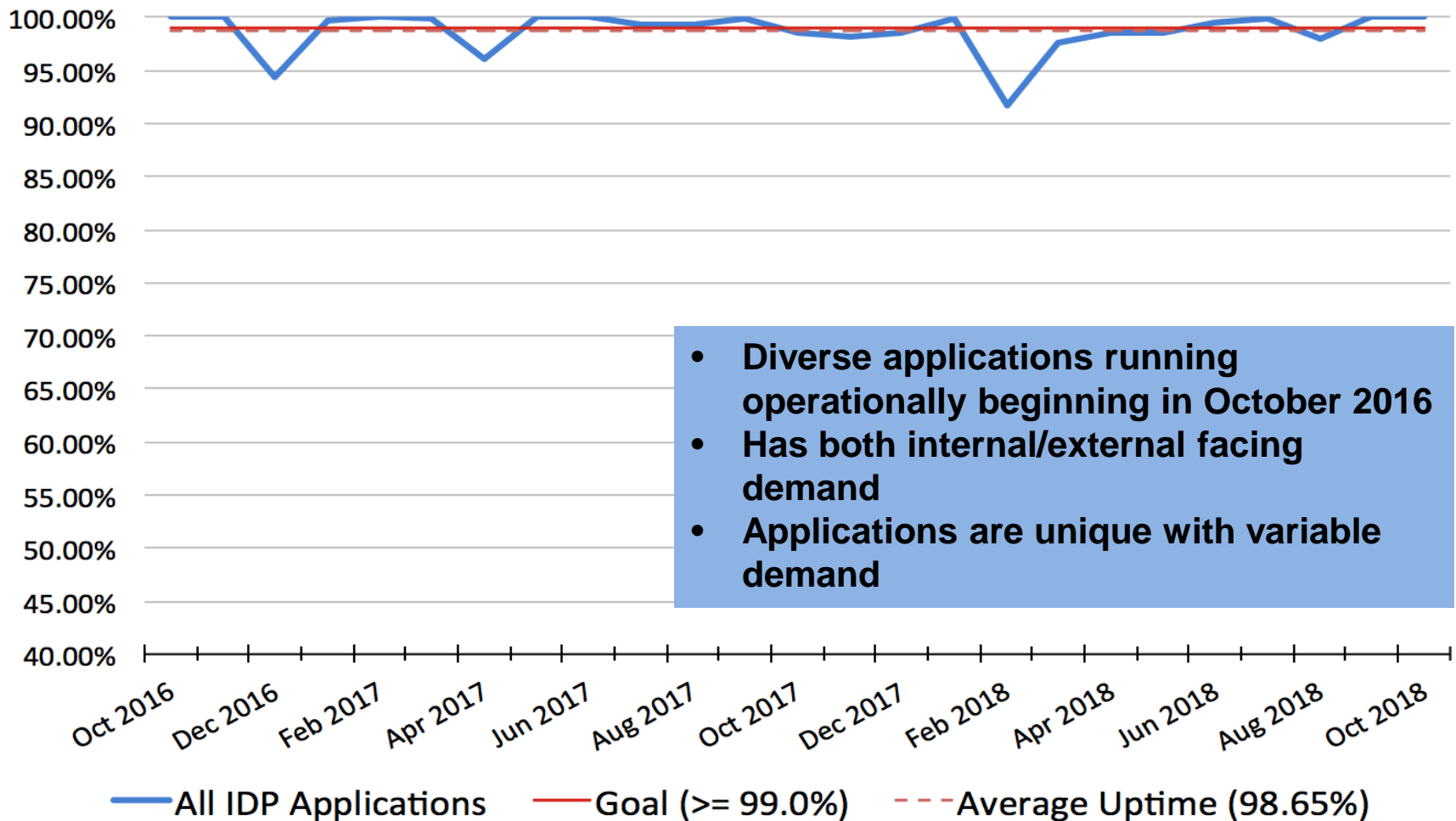
- NOMADS
- FTPPRD
- TGFTP
- MADIS
- MRMS
- MAG
- Radar
- NW
- BU
- Tool
- NLET
- Rad
- EDIS
- HAZCOLLEC
- (Extended and L
- TGGATE
- FNMOC
- ISatSS
- FTP / SFTP
- FTPPush and FTP-In
- Global
- System (GISC)
- Data System
- .GOV*
- SPOT*
- AVIATIONWEATHER.GOV*
- TSUNAMI.GOV*

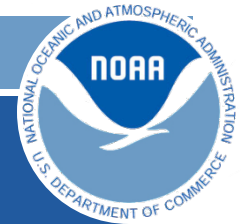
- **Delivery of watches, warnings, advisories, and products in various formats**
- **Access to observational data (radar, surface, and upper air)**
- **Access to model guidance data and graphics**
- **Web and GIS services**



Current Performance of the IDP Systems

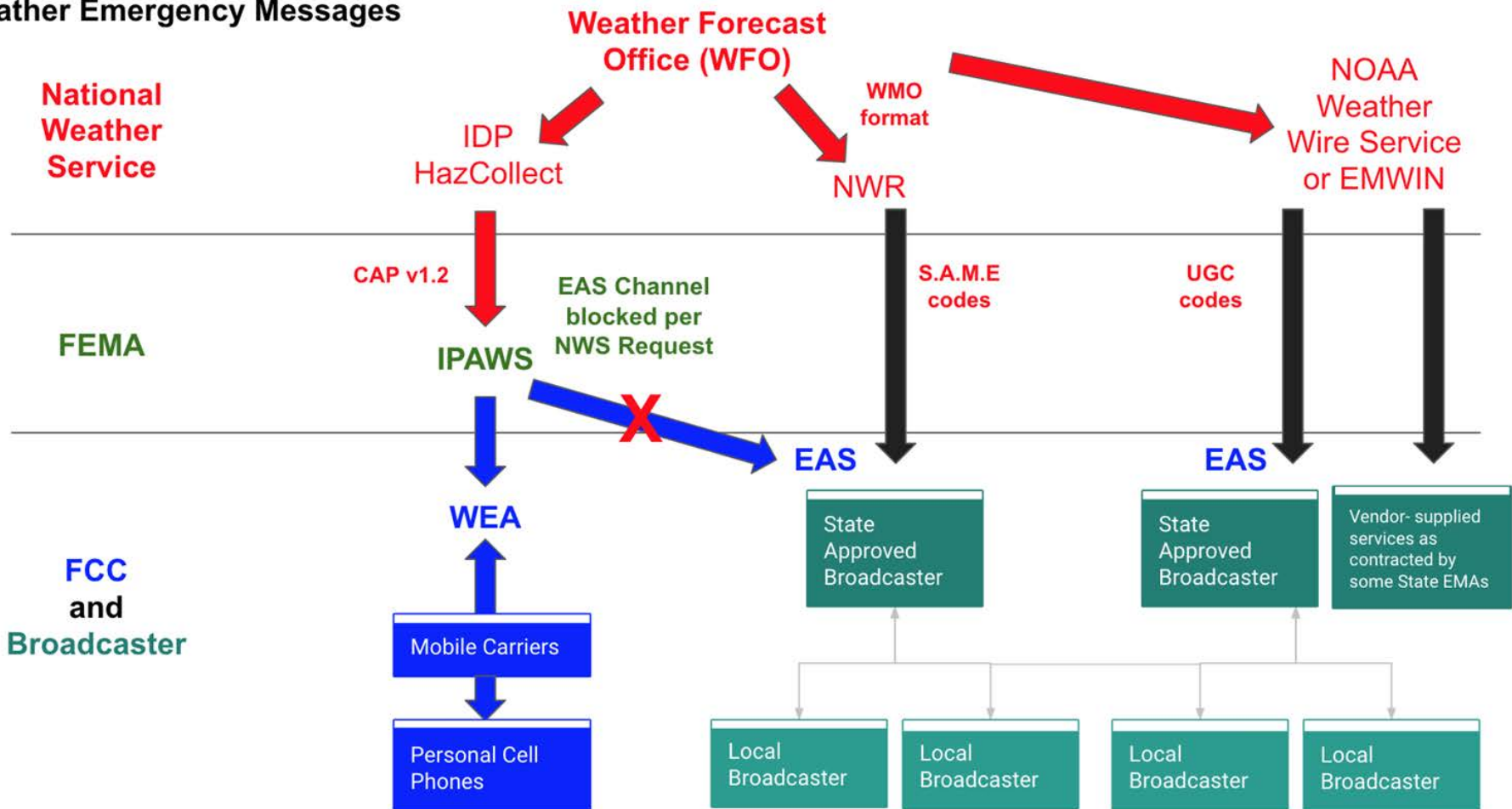
IDP Performance: Uptime (percent)

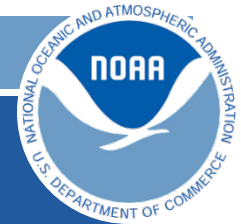




Current Delivery Paths of NWS Warnings

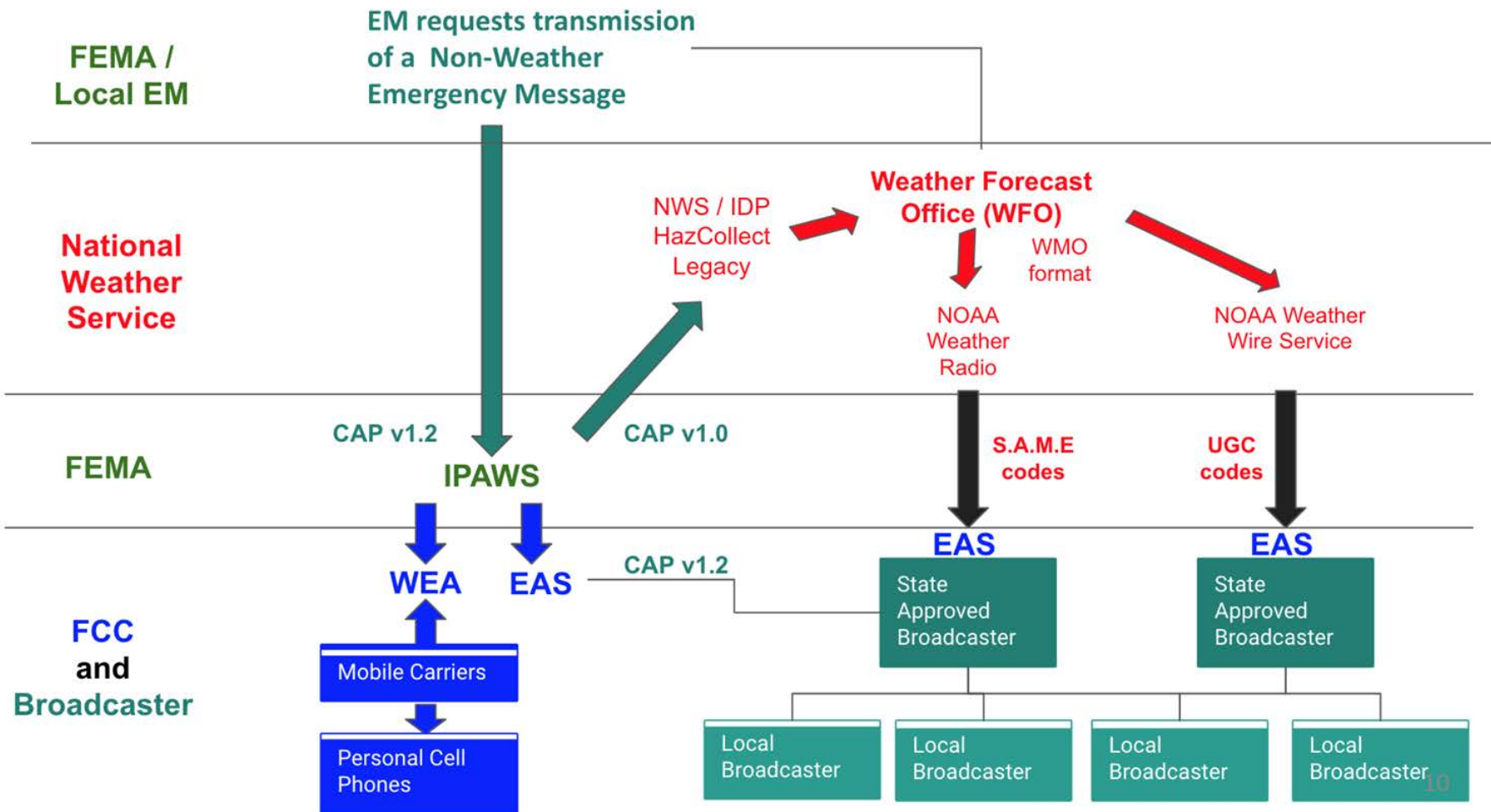
Weather Emergency Messages





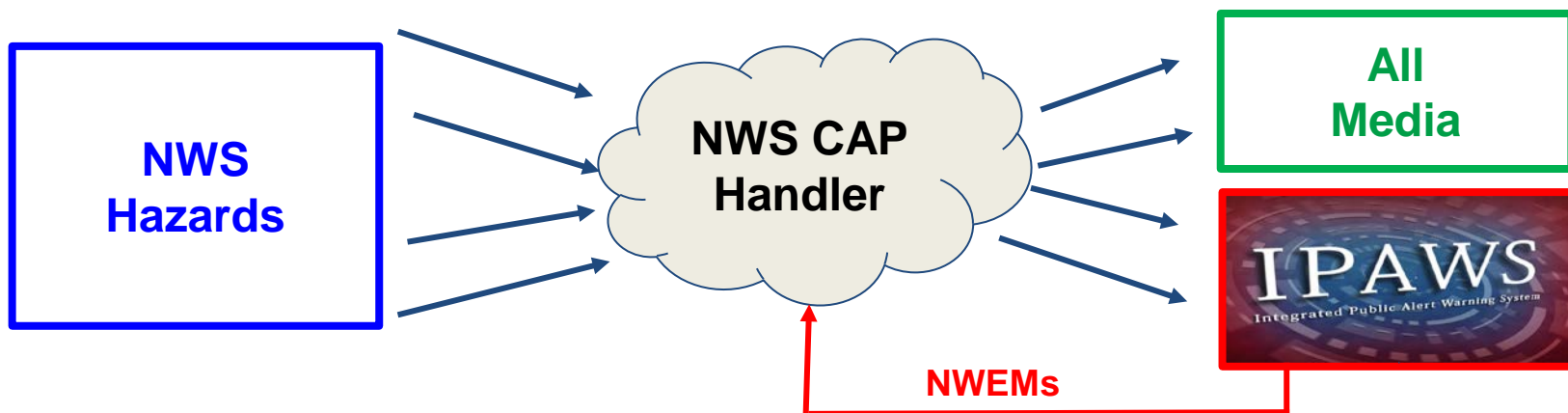
Path of Non-Weather Emergency Messages

Non-Weather Emergency Messages



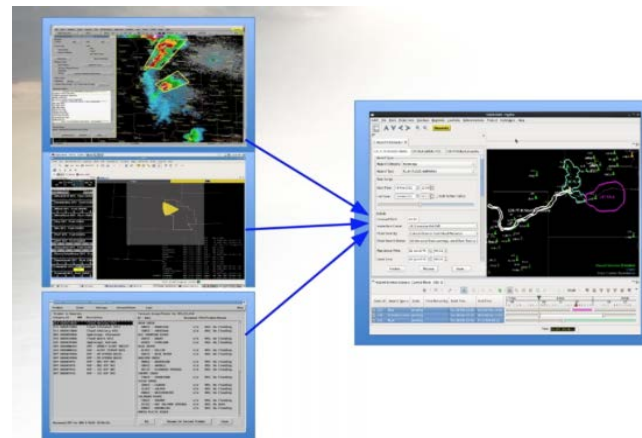
Where are we going? HazCollect (CAP v1.2)

- **Implement NWS CAP Handler** (schedule/scope dependent on appropriations)
 - Replace the aging HazCollect Legacy and HazCollect Extended applications with one system handling all the functions of each.
 - Resolve known issues of down time when switching between active data centers.
 - Modernize and improve the code base to support future extension and adaptive maintenance.
 - Provide automated system monitoring, testing, and metrics.



Where are we going? Hazard Services

- Single interface for forecasters to issue hazard products
- Future support for advanced Impact-based Decision Support Services & modern communications protocol

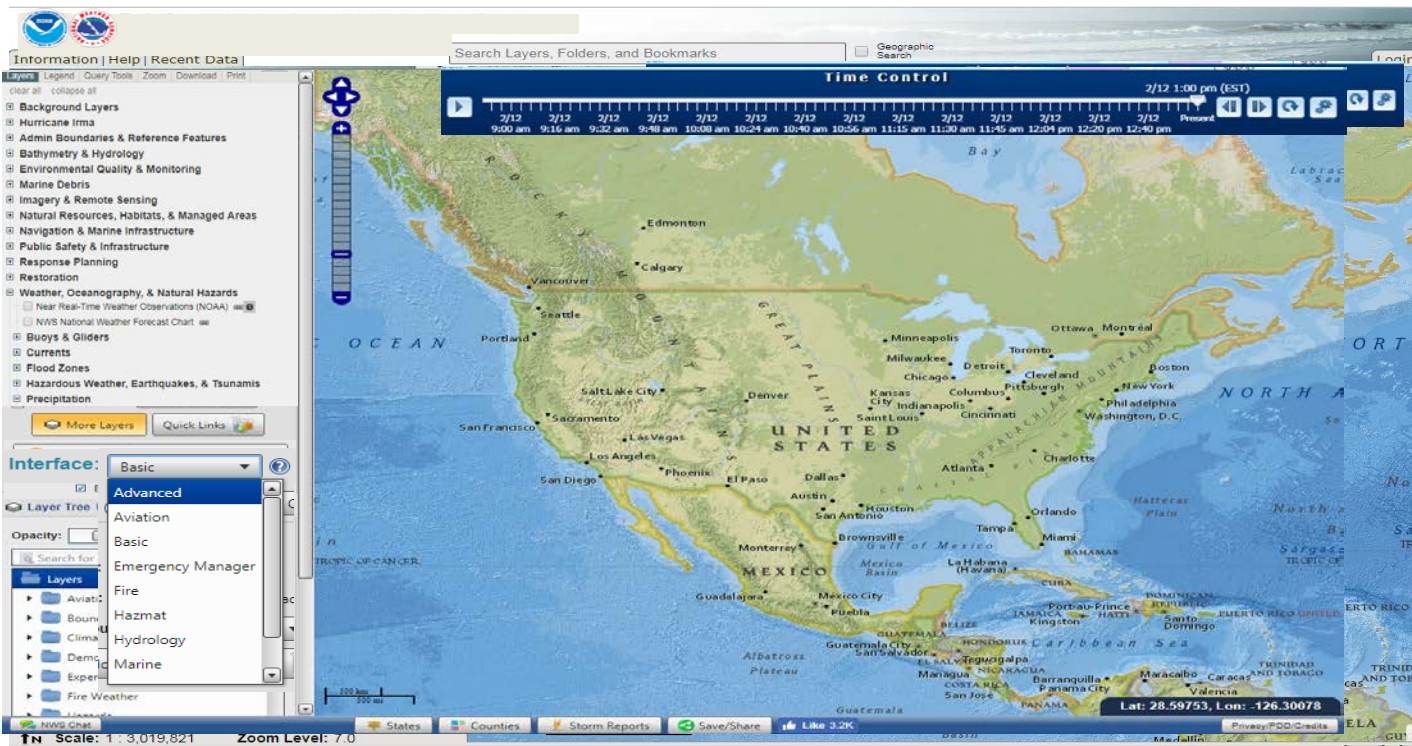


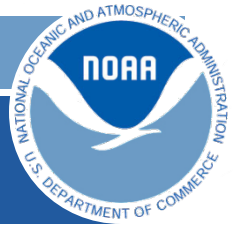
- Common Alert Protocol ,
 - XML format,
 - Hazard Simplification, and
 - Probabilistic Hazards
- all created at the “source”

| Deployment | FY19 | FY20 | | FY21 | | FY 22 |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|
| | Q4 FY19 | Q2 FY20 | Q4 FY20 | Q2 FY21 | Q4 FY21 | Q2 FY22 |
| Unified Hazard Life Cycle, Science, Product Generation and Customization | | | | | | |
| Hazards | Hydrologic (IOC) | Winter Weather (WSW) | Marine - Long Fused (MWW) Non-Precipitation (NPW) | Convective (TOR, SVR, SVS) Marine - Short Fused (MWS, SMW) Aviation | Tropical (HLS, TCV) Watch County Notification (WCN) | DRAFT Fire Weather (RFW) Coastal Flood (CFW) Air Quality(AQA) & Civil Emergency |
| For each Hazard Category, Recommenders, Meta Information and Products will be implemented | IOC deployment includes 6 months to move operations to HS | | | | | |
| DRAFT | | | | | | |
| Hazard Simplification & CAP functionality | | Hydrologic Winter Weather | Marine Non-Precip | Convective, Marine Aviation | Tropical WCN | Fire Wx Coastal |
| Decommission | | RiverPro Hazard Functionality Hazcollect CAP for Hydrologic Winter Weather | Hazcollect CAP for Marine Non-Precip | WarnGen Hazcollect CAP Convective, Marine Aviation | Hazcollect CAP Tropical WCN | GHG Hazcollect CAP Fire Wx Coastal |

Where are we going? GIS/Web Services

- Developing a common NWS web-based GIS viewer to evolve Integrated Decision-Support Services is a key component for consistent communication across the NWS.
- Single Code Base Creating Common Look & Feel with Service Area Based “skins”:
 - Leverage existing code ([EDD](#), [nowCOAST](#), [hazards viewer](#), [NDFD](#), etc)
 - Modular Coding (plug & play) to create Service Area “skins”





Open Discussion