

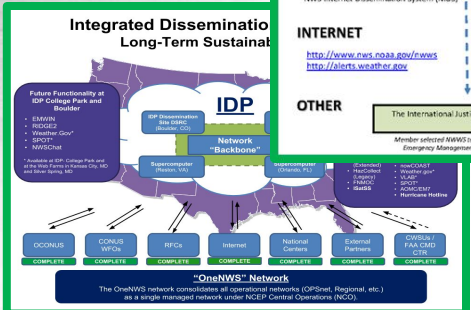
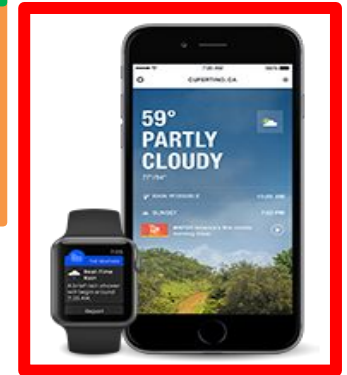
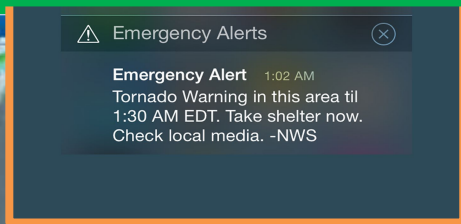
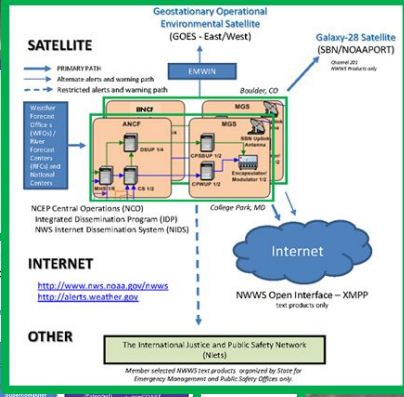
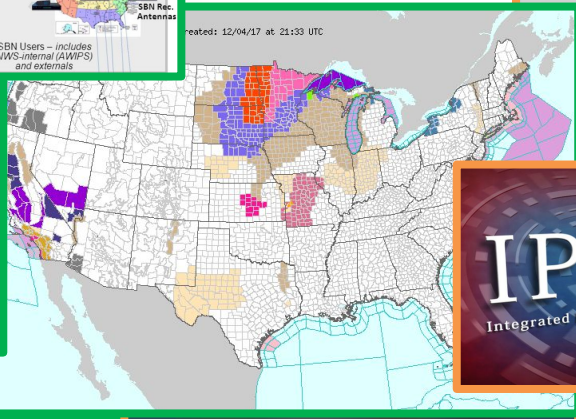
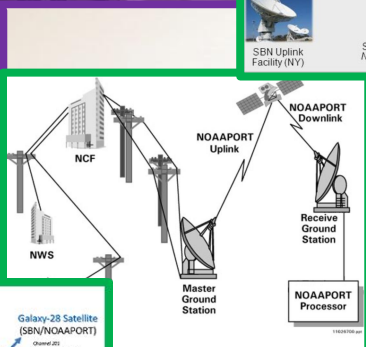
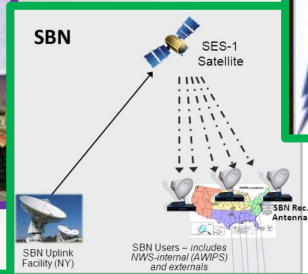
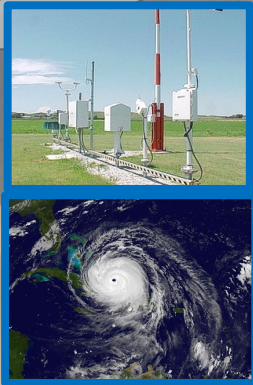
# National Weather Service Office of Dissemination Status Update

August 9, 2018

**NWS Summer Partners Meeting**  
**AMS Summer Meeting**  
**Boulder, CO**

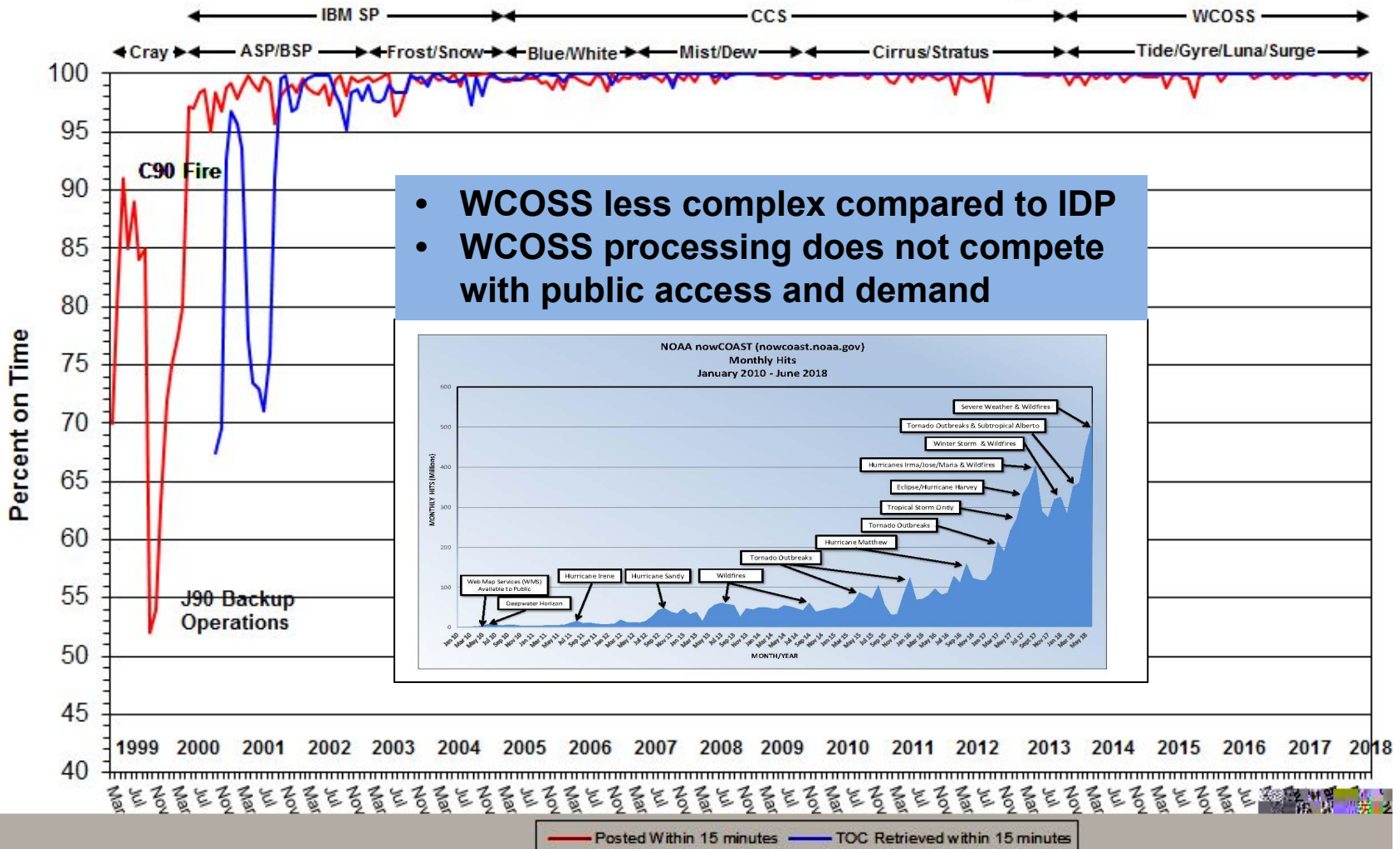


# Weather Dissemination Chain



# NWS High Performance Supercomputer WCOSS Metrics

## Product Generation Summary



- WCOSS less complex compared to IDP
- WCOSS processing does not compete with public access and demand



# Integrated Dissemination Program (IDP)

## Long-Term Sustainable Solution

(as of August 2018)

### Current Functionality at IDP College Park Future Functionality at IDP Boulder

- Weather.gov\*
- SPOT\*
- Aviationweather.gov
- Tsunami.gov

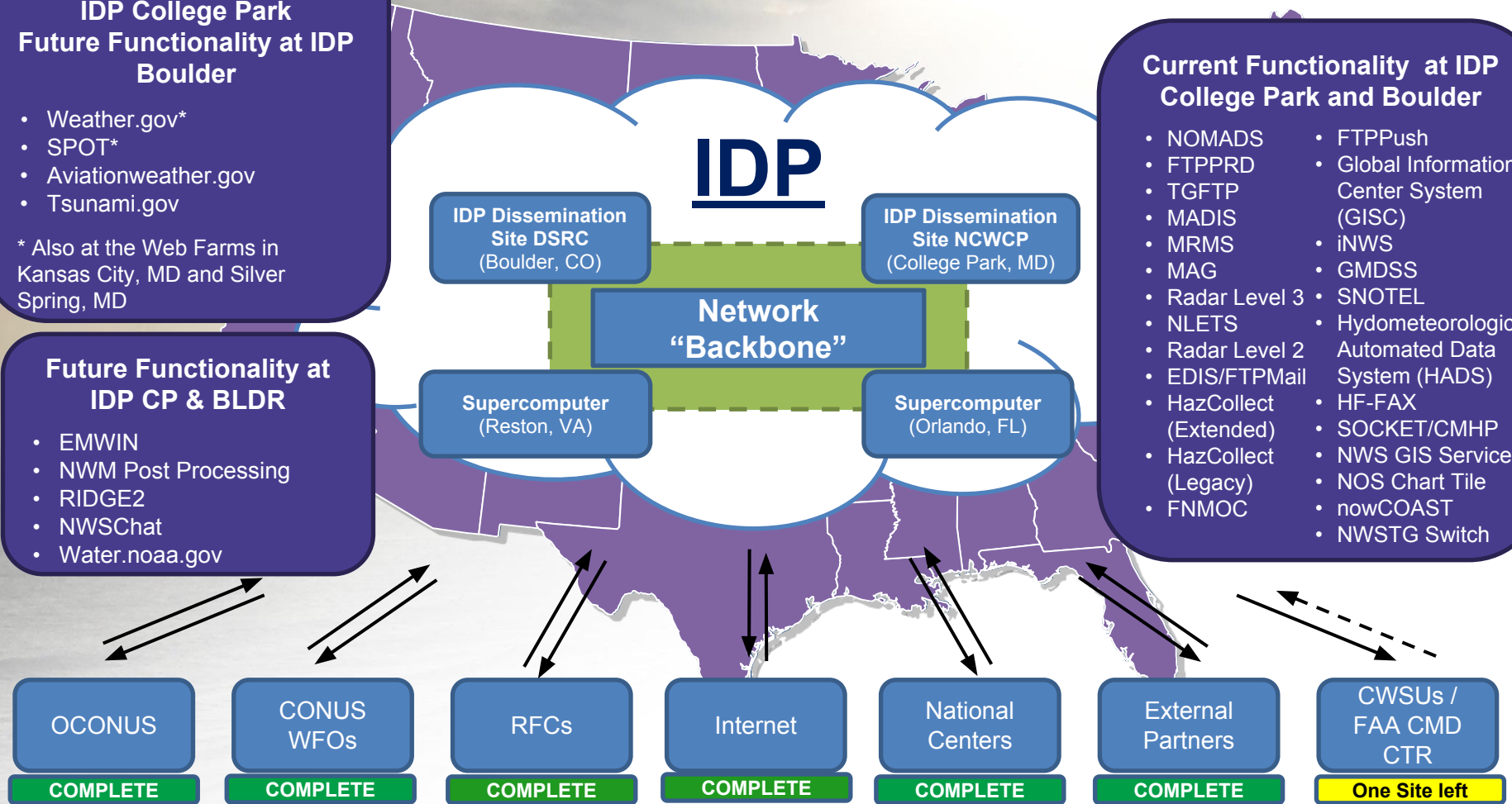
\* Also at the Web Farms in Kansas City, MD and Silver Spring, MD

### Future Functionality at IDP CP & BLDR

- EMWIN
- NWM Post Processing
- RIDGE2
- NWSChat
- Water.noaa.gov

### Current Functionality at IDP College Park and Boulder

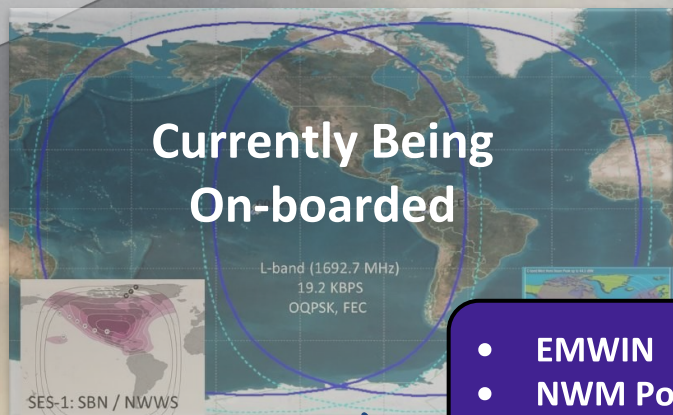
- NOMADS
- FTPPRD
- TGFTP
- MADIS
- MRMS
- MAG
- Radar Level 3
- NLETS
- Radar Level 2
- EDIS/FTP Mail
- HazCollect (Extended)
- HazCollect (Legacy)
- FNMOC
- FTTPush
- Global Information Center System (GISC)
- iNWS
- GMDSS
- SNOTEL
- Hydrometeorological Automated Data System (HADS)
- HF-FAX
- SOCKET/CMHP
- NWS GIS Services
- NOS Chart Tile
- nowCOAST
- NWSTG Switch



## “OneNWS” Network

The OneNWS Network consolidates all operational networks (OPSnet, Regional, etc.) as a single managed network under NCEP Central Operations (NCO).

# August 2018 Status of IDP Applications



- EMWIN
- NWM Post Processing
- RIDGE-2

## Future Functionality at IDP CP & BLDR

- Water.noaa.gov
- NWSChat

## Future

## Current Functionality at IDP College Park Future Functionality at IDP Boulder

- Weather.gov\*
- SPOT\*
- Aviationweather.gov
- Tsunami.gov

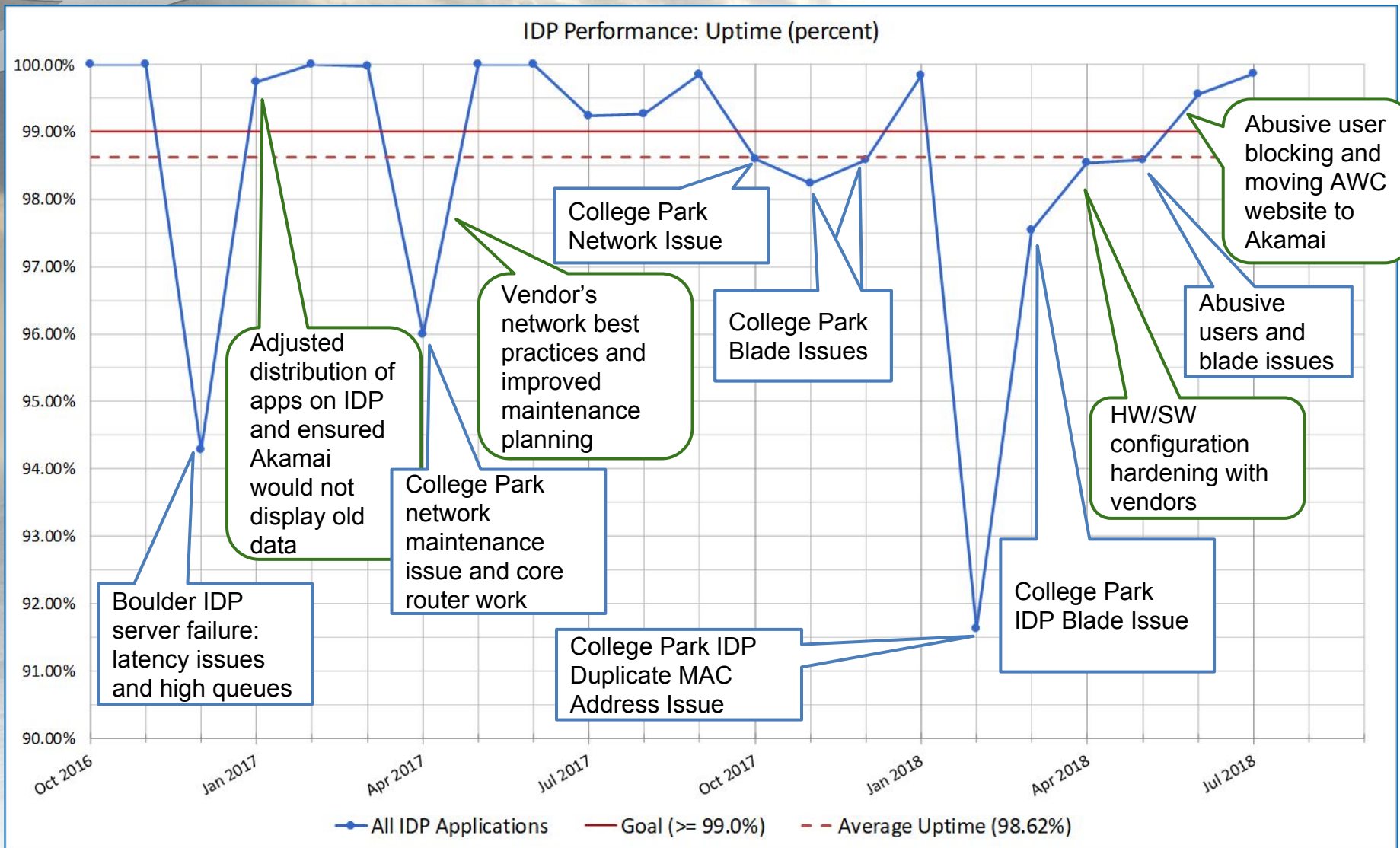
\* Also at the Web Farms in Kansas City, MD and Silver Spring, MD

## Successfully Onboarded

### Current Functionality at IDP College Park and Boulder

- |                         |  |
|-------------------------|--|
| • NOMADS                | • FTTPush  |
| • FTPPRD                | • Global Information Center System (GISC)          |
| • TGFTP                 | • iNWS   |
| • MADIS                 | • GMDSS  |
| • MRMS                  | • SNOTEL   |
| • MAG                   | • Hydrometeorological Automated Data System (HADS) |
| • Radar Level 3         | • HF-FAX   |
| • NLETS                 | • SOCKET/CMHP                                      |
| • Radar Level 2         | • NWS GIS Services                                 |
| • EDIS/FTP Mail         | • NOS Chart Tile                                   |
| • HazCollect (Extended) | • nowCOAST   |
| • HazCollect (Legacy)   | • NWSTG Switch                                     |
| • FNMOC                 |  |

# IDP Monitoring & Data Availability



**Reporting:** 301-713-0902 - [TOC.nwstg@noaa.gov](mailto:TOC.nwstg@noaa.gov) or 301-683-1500 - [SDM@noaa.gov](mailto:SDM@noaa.gov)  
**Escalation:** Ben Kyger, NCO Director - [Ben.Kyger@noaa.gov](mailto:Ben.Kyger@noaa.gov)

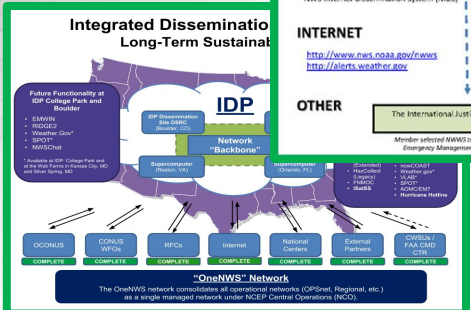
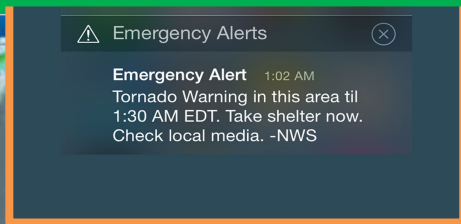
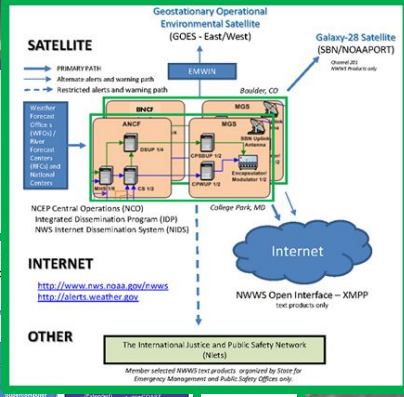
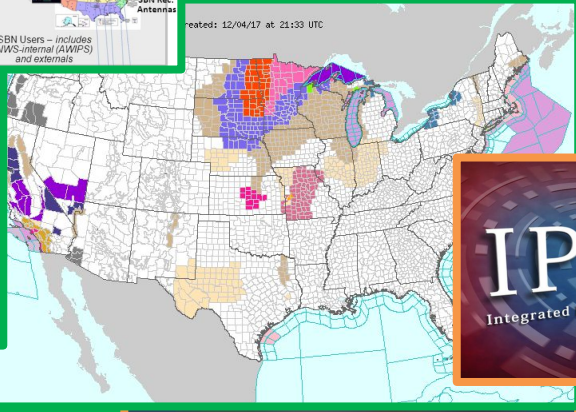
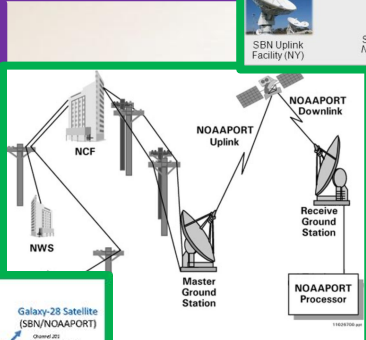
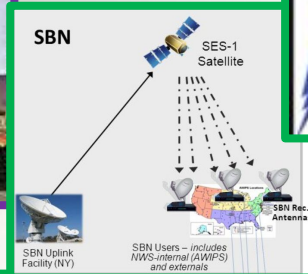
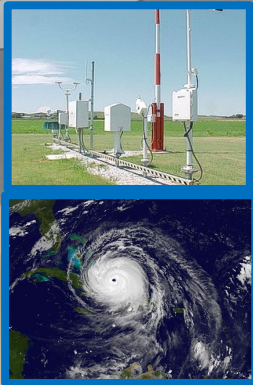
# NWS Response:

## Managing issues across multiple dimensions

<b>Technical</b>	Engaging with vendors to harden configurations	<ul style="list-style-type: none"><li>• April 2017 - Cisco recommended core router configuration</li><li>• April 2018 - Implemented Cisco (network), Dell (hardware), VMWare (middleware), RedHat (OS) recommendations</li></ul>
	Load Balancing	<ul style="list-style-type: none"><li>• Jan 2017 - Adjusted distribution of apps</li><li>• May 2018 - Blocked abusive user</li><li>• June 2018 - Moved Tsunami.gov and Aviationweather.gov to Akamai</li></ul>
<b>Process</b>	Slowed on-boarding	<ul style="list-style-type: none"><li>• Jan 2017 - Reduced number of concurrent applications being on-boarded</li></ul>
	Lessons learned	<ul style="list-style-type: none"><li>• Conduct internal reviews after every major outage</li><li>• Update procedures as needed</li></ul>
	Monitoring improvements	<ul style="list-style-type: none"><li>• Address monitoring gaps when discovered</li></ul>
	Daily reporting	<ul style="list-style-type: none"><li>• NWS Status meeting with NWS Leadership</li><li>• Review Senior Duty Meteorologist (SDM) 24-hour logs</li></ul>
	Issue tracking	<ul style="list-style-type: none"><li>• Track “Open Items” in SDM log until addressed</li><li>• Configuration Management tracking changes</li></ul>
<b>Resources</b>	Realign resources for O&M	<ul style="list-style-type: none"><li>• Track and prioritize System Administration resources</li></ul>



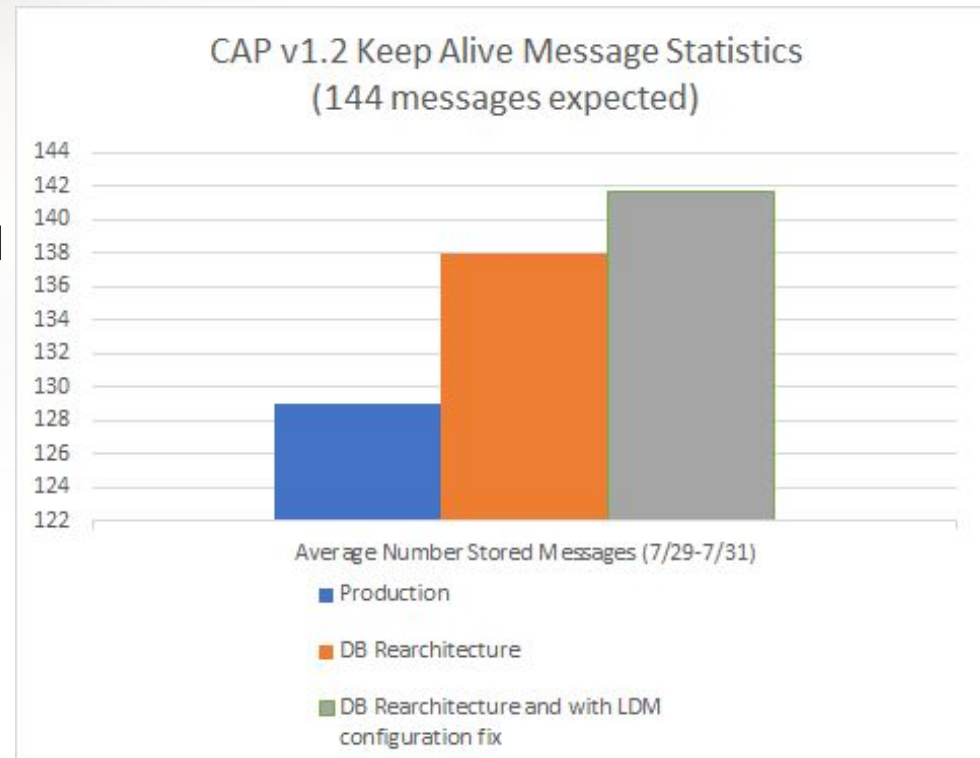
# Weather Dissemination Chain





# Partnering to Achieve the Full Weather Dissemination Chain

- **Collaboration with Weather Enterprise to address Common Alerting Protocol v1.2 issues**
  - **Goal: Achieve full operational implementation of CAP v1.2**
  - **Status:**
    - Currently working with vendors to address dropped CAP v1.2 formatted warnings. Updated database; investigating a solution to an LDM / queueing service issue



# Partnering to Achieve the Full Weather Dissemination Chain

- **Collaborating with FEMA to improve the delivery of Emergency Weather Messages and Non-Weather Emergency Messages via FEMA IPAWS and EAS**
- **Advancing NOAA Weather Radio**
  - Short-Term Goals:
    - Deploy 30 IP-based circuits to replace obsolete and discontinued analog circuits
    - Enable broadcast “null” message notifying customers when connectivity to transmitter is lost
  - Long-Term Goal:
    - Transition to IP-based technology, where possible, to enable backup NWS offices to continue to issue warnings and products over NWR transmitters when the primary office is unable to perform forecast and warning operations.

# Partnering to Achieve the Full Weather Dissemination Chain

- **Full Weather Dissemination Chain Testing**
  - **Goal:** Regular, well-advertised, no-harm testing
    - NWS would like to coordinate with the entire dissemination chain to conduct a full end-to-end test of our warning through all delivery channels.
  - **Goal:** Mitigate message truncation issues
    - Begin change process to move VTEC code to earlier in message with a request for public comments





**THANK YOU!**

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**Ben.Kyger@noaa.gov**

**Kevin. Cooley@noaa.gov**