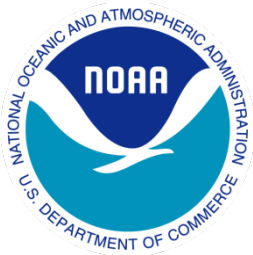


April 2014

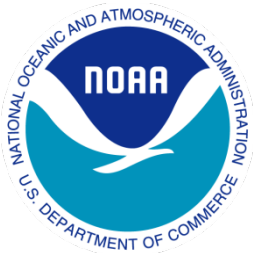
NOAA External Network Connectivity



NOAA External Networking



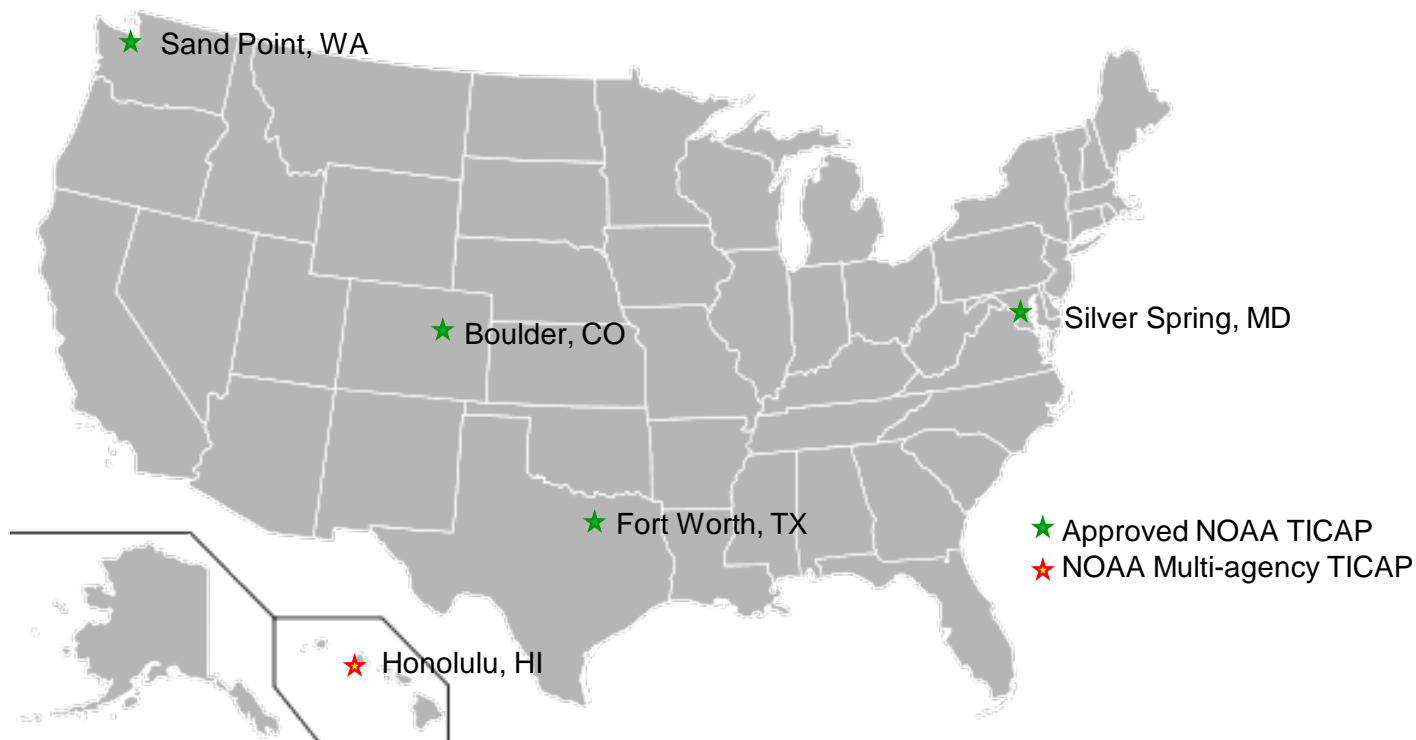
- Agency-wide, NOAA networking is going through a fundamental transition
- NOAA is pursuing the implementation of Trusted Internet Connection (TIC) to meet the OMB/DHS mandates
- All external connections to non-Federal or DoD networks **MUST** be routed through a TIC
- On track for compliance by end of 2014 – routing via TICAP

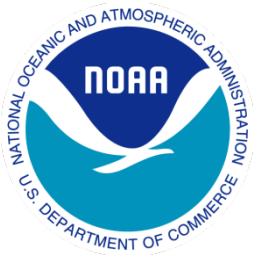


NOAA TIC Architecture



- Initial TICAPs established
- All external (e.g. non-Fed) traffic must route through one of these sites

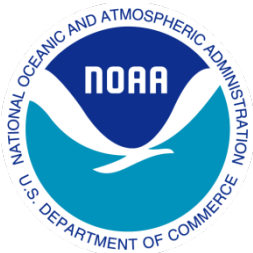




NOAA TIC Architecture (2)



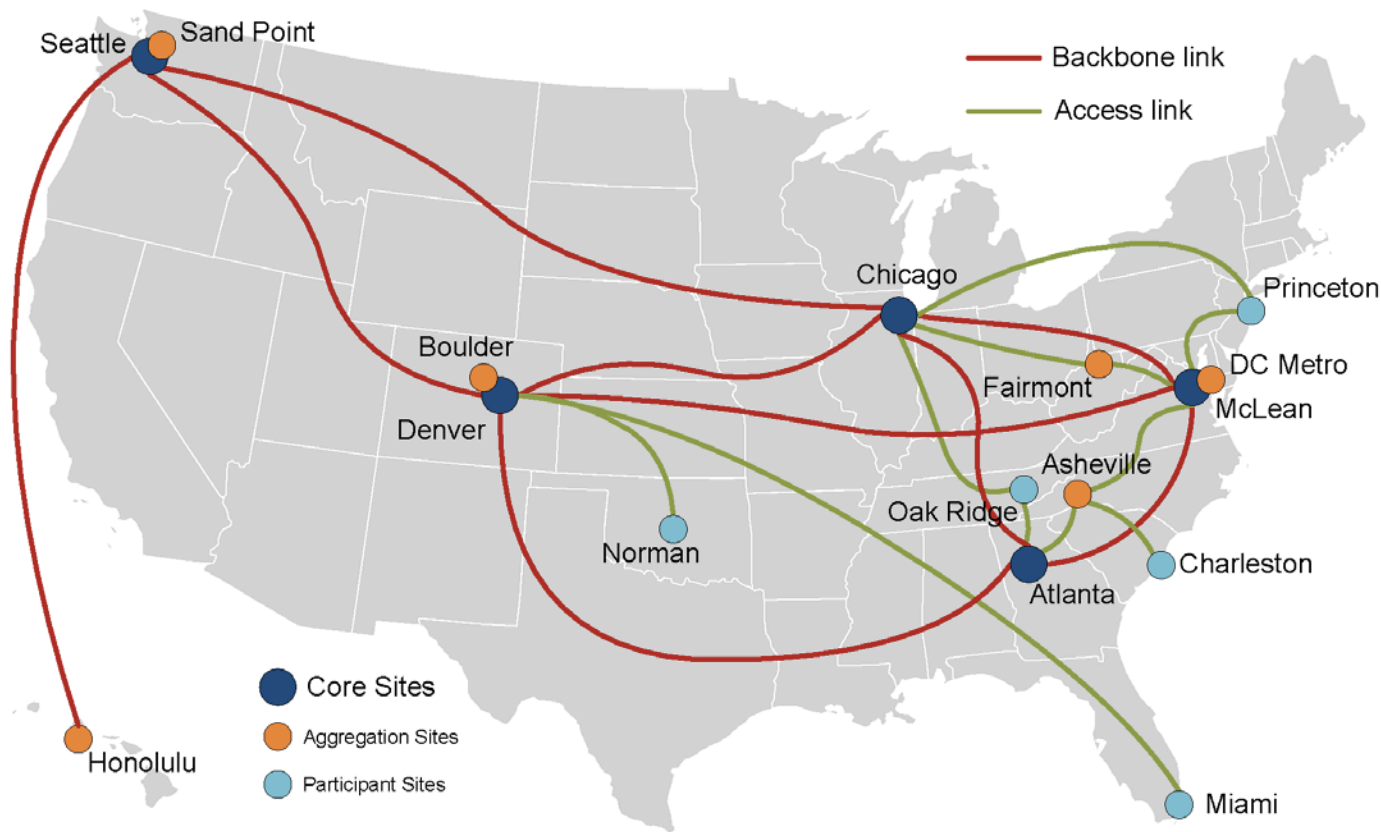
- NOAA's current networks (N-Wave, OPSnet, etc.) will continue to provide internal enterprise connectivity to NOAA sites
- NOAA will continue to leverage commercial and R&E partners for continued access via TIC sites
- NOAA will use N-Wave where applicable to support TICAP transport
- NOAA is pursuing a new, external peering network: X-Wave



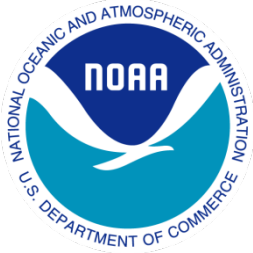
NOAA TIC Architecture (2)



NOAA will use N-Wave where applicable to support TICAP transport



N-Wave National Network 2014



NOAA Current TIC Architecture

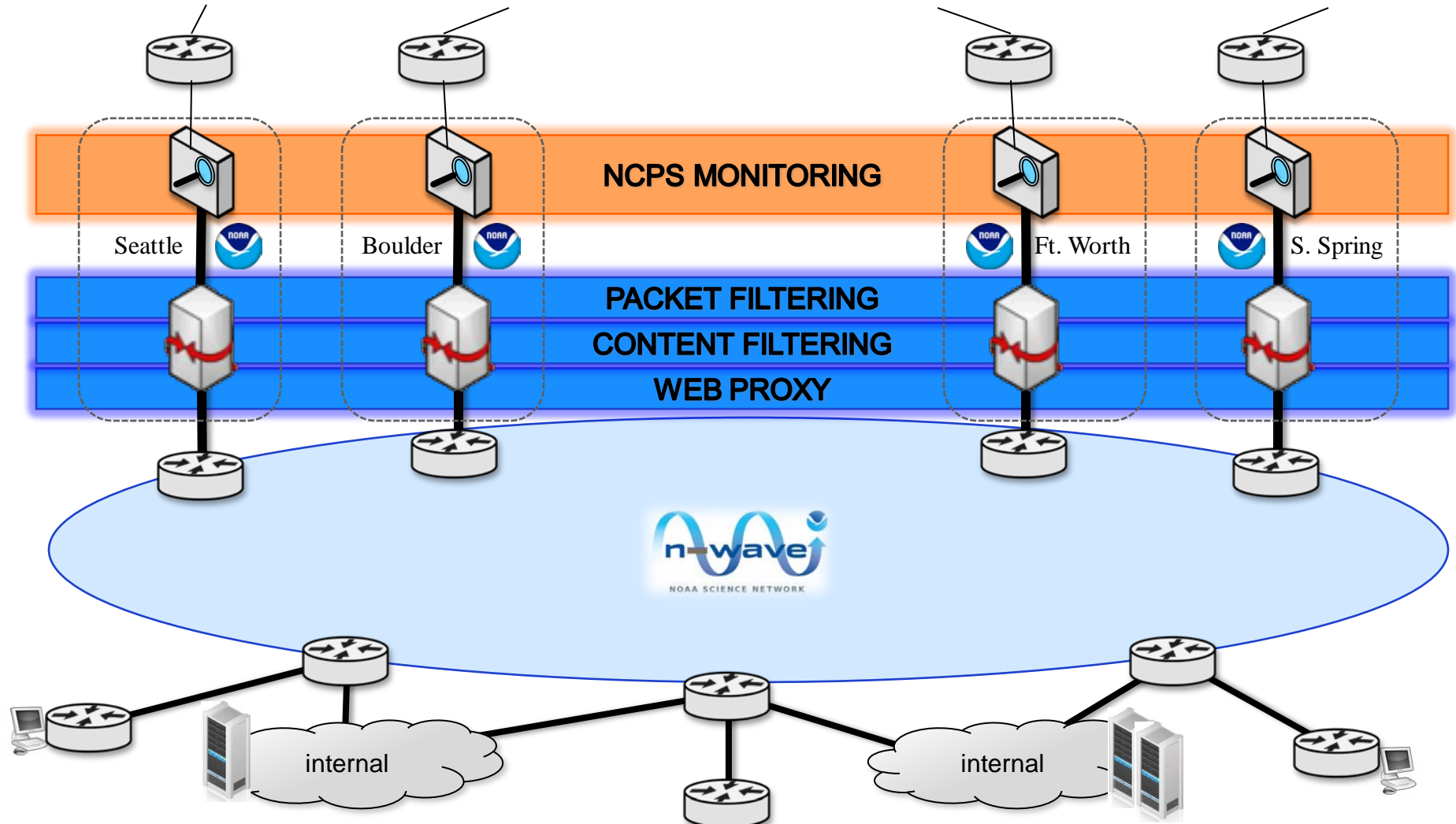


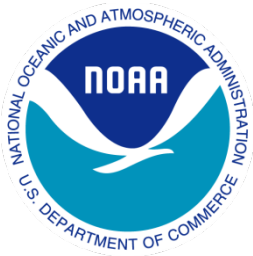
ISPs, PNWG

ISPs, FRGP

ISPs, LEARN

ISPs, MAX

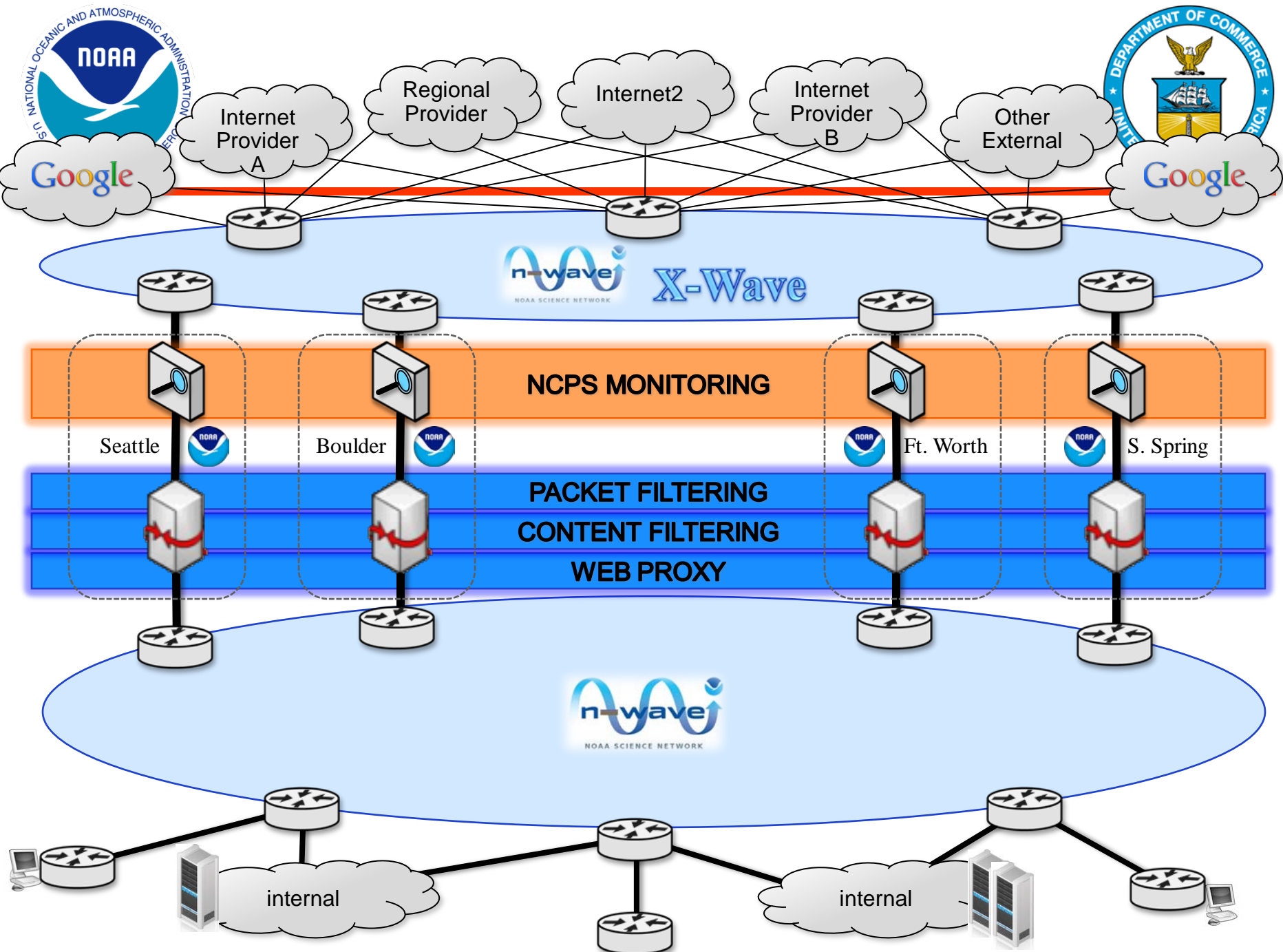


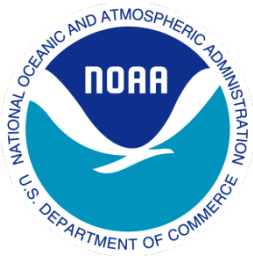


X-Wave



- Provide a peering infrastructure for network redundancy and failover between TICAP sites
- Enforce symmetrical IP traffic routing through the TIC
- Consolidate and share ISP connections and R&E network connectivity
- External networks can land in X-Wave, for routing to NOAA via TIC
- X-Wave may provide locations for Science DMZs and low-risk public data delivery (TBD)





Thank You

Questions?

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