“From a user standpoint, users have their own trial and error way of locating the fastest service. It seems when the network is slow, we simply let the download continue and mind other things.”
NCAR, UCAR, FRGP, BiSON, WRN, NWAVE, I2, Esnet – Climate/weather
Scientific Hierarchy & Partnership
- https://ncar.ucar.edu/
- https://www2.ucar.edu/
- http://www.frgp.net/
- http://www.frgp.net/internal/bison/
- http://nets.ucar.edu/nets/ongoingactivities/wrn/wrnroot/
- https://noc.nwave.noaa.gov/
- https://www.internet2.edu/
- https://www.es.net/

Future:
- Faster, bigger computers
- BIG data
- Cloud computing and storage
- Data analytics and informatics
- Machine learning
- Server-side analysis
- Interdisciplinary collaboration
- Increasingly higher resolution, complex weather and climate models
- Multi-model datasets
- Climate and weather services

Challenge and Approach:
- End-to-end performance: PerfSonar meshes; proactive information/detection (Netsage)
- Strategies for storing and serving big data (NCAR/UCAR/NOAA): CMIP analysis platform; caching; distributed storage; data mining;
- Data Analytics: how to cull knowledge from large, complex data

Scientific Impact: Climate and Weather
- To understand the behavior of the atmosphere and related Earth and geospace systems; to support, enhance, and extend the capabilities of the university community and the broader scientific community, nationally and internationally; to foster the transfer of knowledge and technology for the betterment of life on Earth

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