

The Network Adapter Box (NAB)

Supporting User Readiness for Future JPSS Ground System

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Seamless transition for near-real time S-NPP mission critical users

- Serves as an adapter between legacy and next generation JPSS ground system components
- Enables legacy and next generation components to operate in parallel
- Performs data integrity checks
- Converts source fixity to configurable target fixity
- Forwards data with less than 30 seconds impact to end-to-end latency

Goals:

- Maintain reliable S-NPP/GCOM feed to real time users
- Decouple next generation JPSS & Environmental Satellite Processing Center (ESPC) system deployment schedules
- Provide flexibility for transitioning ESPC users
- Low cost solution
- Minimal impact to end-to-end latency
- Lights-out operation

Solution:

- High Availability Cluster
- Automated software failover
- Flexible architecture
- Agile software development
- Commodity hardware & COTS/FOSS
- Following NASA program/project lifecycle system engineering process
- High bandwidth disk and network
- 100% Java with NIO.2 and multi-threading
- Network connection pooling
- Latency met with configurable, scalable, and efficient processing

