



# Globus Network Manager and Use Cases

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# Globus Network Manager

- Network Manager enables GridFTP to provide information that can facilitate dynamic changes within a network.
  - Code added to GridFTP server by Globus team.
  - Information is passed at callback points during GridFTP server execution on local DTNs.
  - Lower latency to get the information locally. Data transfers may be blocked until network changes are complete.
  - Supplements the information that can be pulled from the Globus API about transfers from globus.org.

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# Globus Network Manager – Callbacks

- Six callback points during execution of GridFTP:
  - Pre-listen (Binding of Socket)
  - Post-listen
  - Pre-accept/Pre-connect (No Data yet)
  - Post-accept/Post-connect (Data in flight)
  - Pre-close
  - Post-close

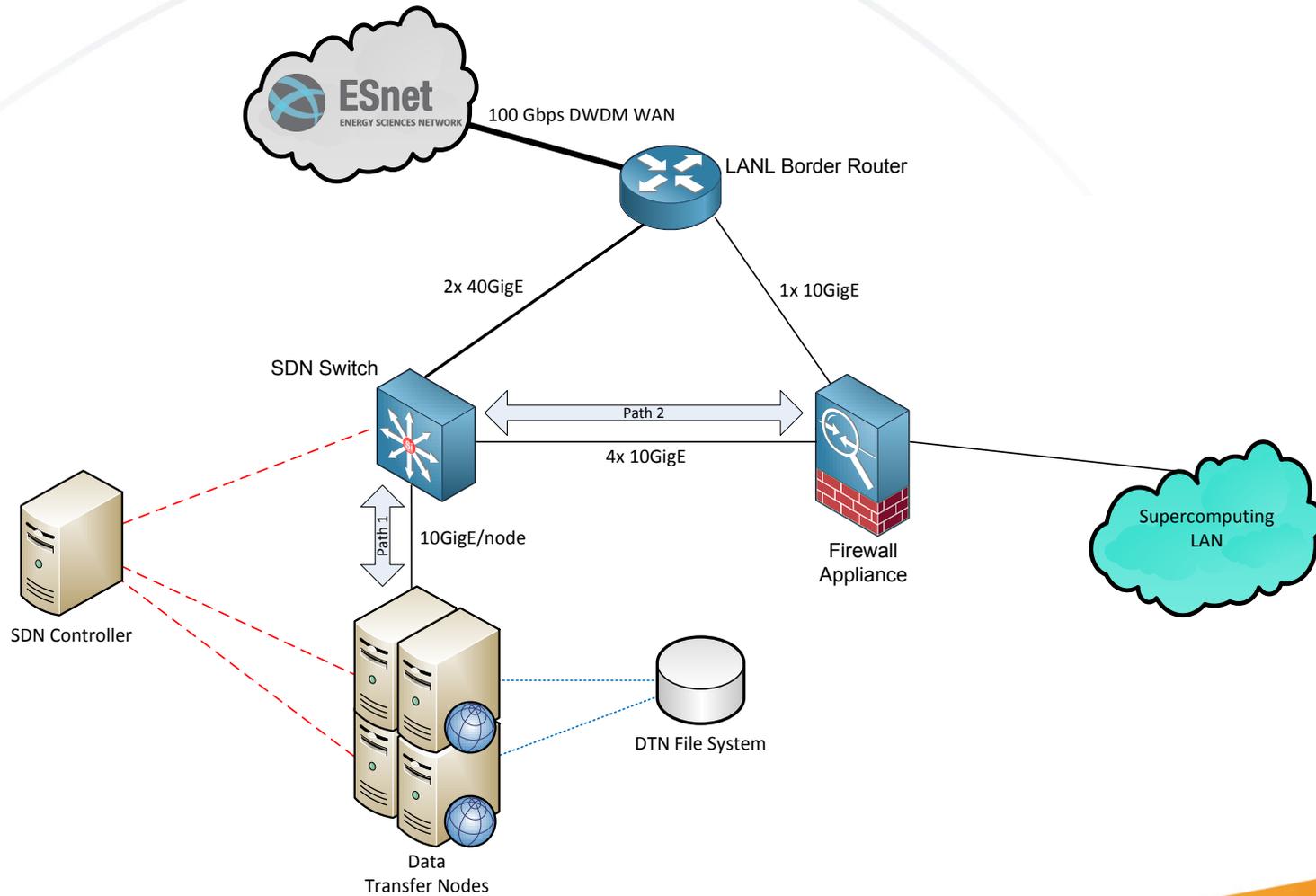
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# Use Cases

- Science DMZ Traffic Engineering
  - Dynamically route data path through highest speed path using SDN.
  - Bypass campus networking infrastructure for data transfer only.
  - Control path uses traditional route.
  - Maintain security posture
    - Low Latency / High Throughput Packet Inspection.

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# Use Cases



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# Use Cases

- Automated Bandwidth Reservations on WAN
  - ESN Net OSCARS & Internet2's equivalent capability on AL2S offering.
- Data Pre-stage/Post-Stage

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# Availability

- In Beta & Active Development with Globus Team
- Download Location:
  - <http://toolkit.globus.org/toolkit/downloads/6.0/>
  - Need to select the unstable repository
  - RPM: /etc/yum.repos.d/globus-toolkit-6-unstable\*.repo
  - Deb: /etc/apt/sources.list.d/globus-toolkit-6-unstable\*.list

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