

NLR Draft Measurement Infrastructure

Jon-Paul Herron

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JointTechs

Madison, WI

History

- First discussed by PacketNet Engineering sub-committee
- NLR Measurement sub-committee was formed
 - Possibly more than just measurement of PacketNet
 - Might include FrameNet or possibly WaveNet
 - Not just measurement, but really network researcher support

Current Status

- Measurement infrastructure is intended to be pre-GENI infrastructure
- Draft facilities document has been approved by the sub-committee, waiting on final comments from the overall NLR Engineering Committee and NNRC
- NLR administration has preliminary budget
- Once final input is received, \$ and deployment planning
- All information in this is subject to change!

Facilities

- In 3 general areas:
 - support for co-located network researcher devices
 - “time slice” virtualized services for network researcher applications
 - NLR-collected data for researchers - NetFlow, statistics, etc.
- Also includes support for operational tools - Performance testing points, multicast beacon

support for co-located equipment

- racks, power, and connectivity will be made ready to go in at sites where there is a need
- generally, PacketNet sites are expected to be of interest
- design includes:
 - full rack
 - remote power management of devices
 - 10/100/1000 RackLAN for management capability, using FrameNet or PacketNet to get access.
 - 1G to FrameNet and 10G to PacketNet connectivity can be made available

Shared Research Platform

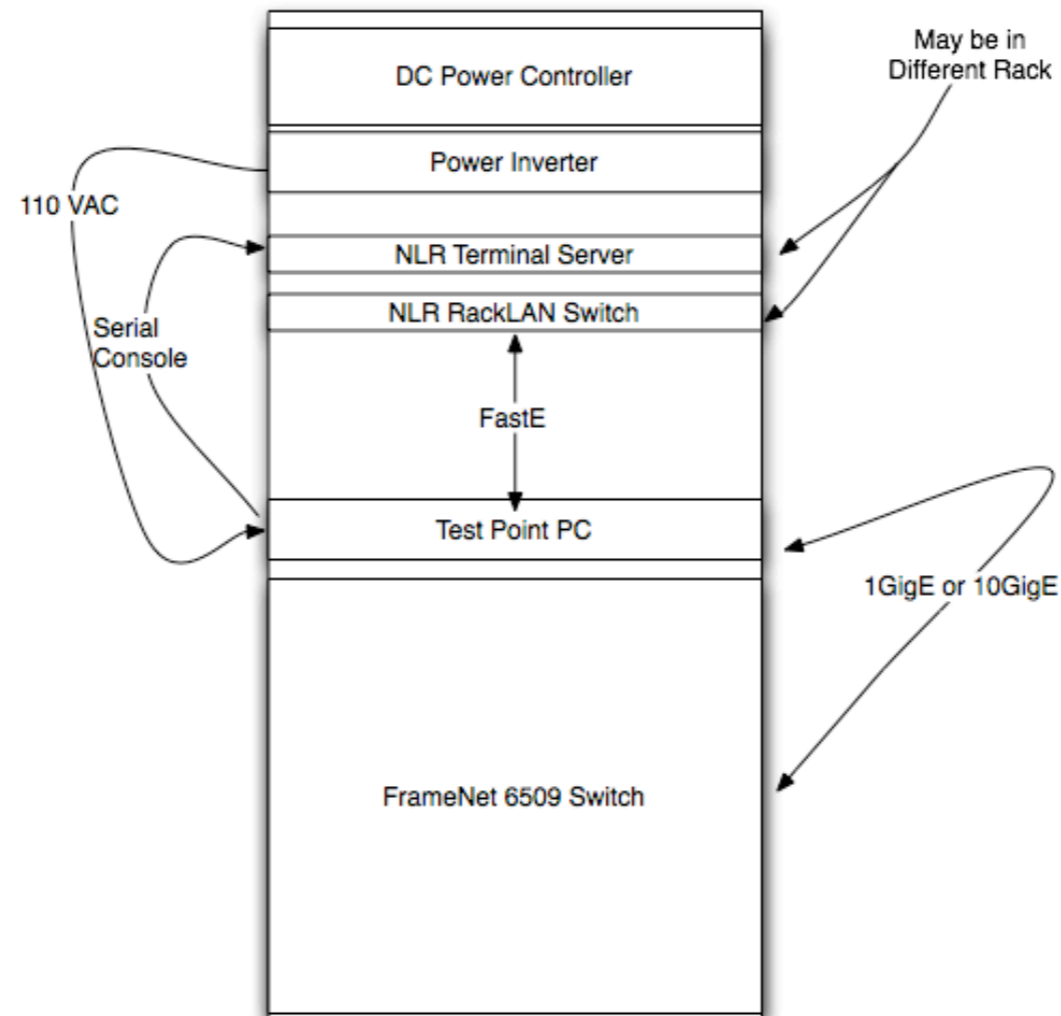
- Run on 2 Linux PCs at each PacketNet site
- Virtualized servers or NLR-run, depending on needs of individual researcher needs

NLR Data collection & NLR test points

- Data Collection done with 1 PC at each PacketNet site
- NLR test points
 - iPerf/BWCTL
 - OWAMP
 - Multicast Beacon

Summary: FrameNet Sites

- 1 PC:
 - 1 1G test point



Summary: PacketNet Sites

- 4 PCs:
 - 1 10G test point
 - 2 1G SRPs
 - 1 1G Data Collection

