Internet2 Update
Performance WG

October 4th 2011 – Fall Member Meeting
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perfSONAR-PS Status

• perfSONAR-PS 3.2.1-rc3 is available for testing
  – Expectation is that this version will become
    production release

• Imminent ‘compatible service’ offering for
  Internet2 backbone, ESnet, and Geant “DICE
  Diagnostic Service”
  – Owamp, bwctl
Internet2 PerfSonar Self Evaluation

- created a robust infrastructure to make diagnosing cross-domain issues possible
- fostered a community to support and enhance that infrastructure
- analysis is still inherently one-dimensional
  - All analysis focused on single dataset
  - not focused on ‘paths’ or networks
  - Need global and user-centric views
- tools still require experts, even to determine if there is a problem
  - Unrealized goal was to create something simple that would help users determine if they should complain or not (NDT is step in right direction, but is not there yet.)

- Strategy was reasonable, but full promise not realized (see next slide)
  - Time to adjust focus
We focused on the middle...
Supposition: Need to create the top tier in a way that provides value to R&E networks

- Internet2 is exploring the concept of a Performance Service

  – We would like your feedback
Raison d'être (use cases) or “Why did we start down this path again?”

1. End user to evaluate if a specific tool they want to use is likely to work or not.
2. End user to look at a network weather map to determine if there are currently ‘storms’ in the area.
3. CIO/CEO to see global view and performance comparisons with other networks.
4. Network engineer to diagnose local or inter-domain performance.

What is missing? What does our community really need in this space?
• What are your ideas?
Ideas I’ve stolen...

• Performance portal
  – Centered: Engaging weathermap view showing utilization and some measure of ‘likely performance problems’ for specific paths
  – Side bar with customizable widgets for specific analysis for users. (Perhaps a particular region or type of data/analysis)
    • Integrated (and stand-alone) speed-test tool 1 (and provide data for 2,3,4)
    • ‘recent’ trouble/maint reports for a given region
    • Scheduled vid-conf on a path
    • Scheduled circuits – looking for open windows to request...
    • ...
Ideas I’ve stolen...

• User support – Help desk
  – Interdomain issues
  – Training classes (net engineer and net user focused)

  – Discussed many times, but no sustainable interest due to economics. Perhaps a franchise model?
Dependencies (For previously stolen ideas.)

• Deployed ‘appliances’ on the network
  – Test points for speed-test tool
  – SLA verification between networks
  – Data aggregation and analysis

  – Global view will have holes for areas not covered by an appliance – can franchise out integration/deployment of appliances?

• Central aggregator and cache for global-portal views