egee

Diagnostic Tool Brainstorming

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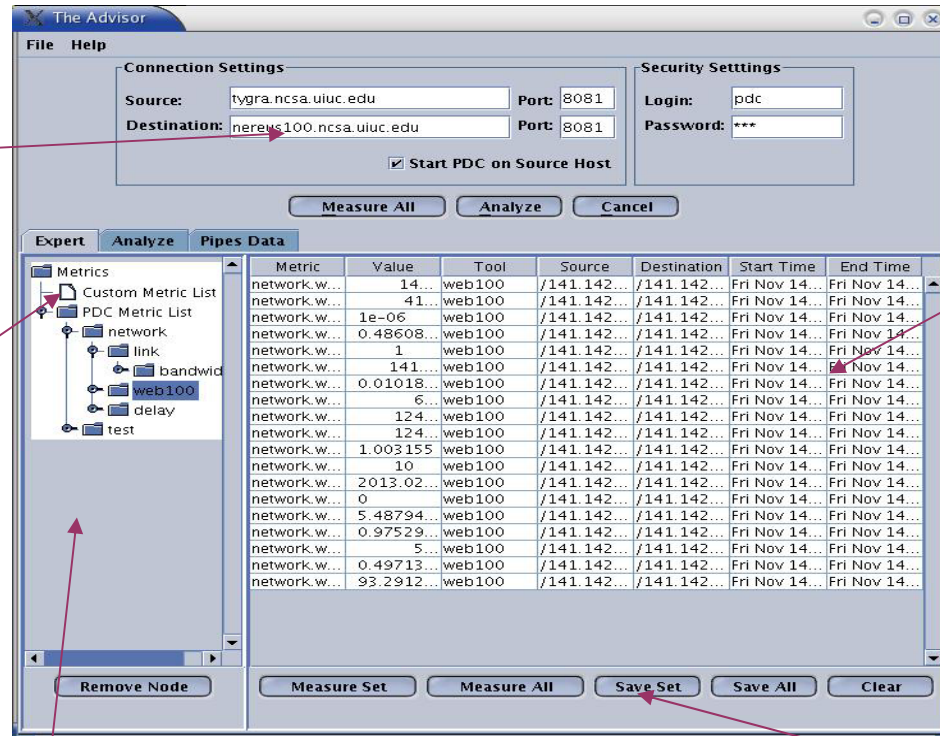*EGEE JRA4 F2F, DANTE, Cambridge*

9th May 2005

Enabling Grids for E-sciencE

- **Work out the functional interface to Diagnostic Tool (i.e. it's UI)**

- **Have to think in terms of how a user will interact with tool**

- **User's interactions with tool:**
  - request entry
  - request submission
  - result display
  - result analysis
  - save and load request/results/analysis
  - anything else?

- **We have to decide**
  - what each of these consist of
  - which of these we should implement
  - do these impose more requirements on NPM Mediator?

- **Examples of current tools**

- **Discuss users interactions**
  - request entry
  - request submission
  - result display
  - result analysis
  - save and load request/results/analysis
  - anything else?

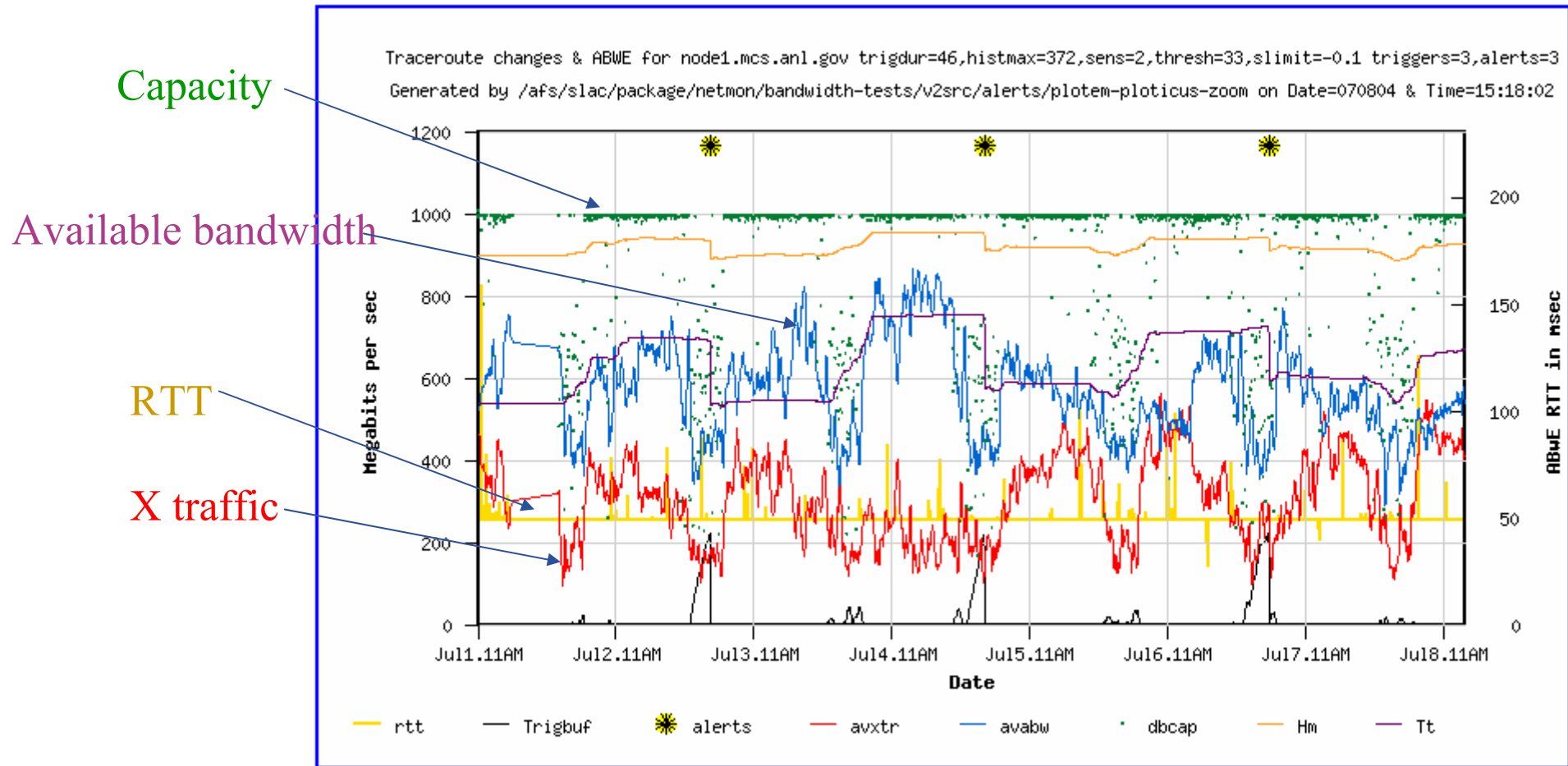- **Decide on interaction format and scope for MJRA4.6**

Connection and security settings

Custom metric list to watch specific metrics or constrain the list

Tree display of all metrics

Table showing metrics selected in the tree display

Buttons to measure the current metric set in the table, all metrics, save the current set, save all metrics, and clear the table.

Capacity
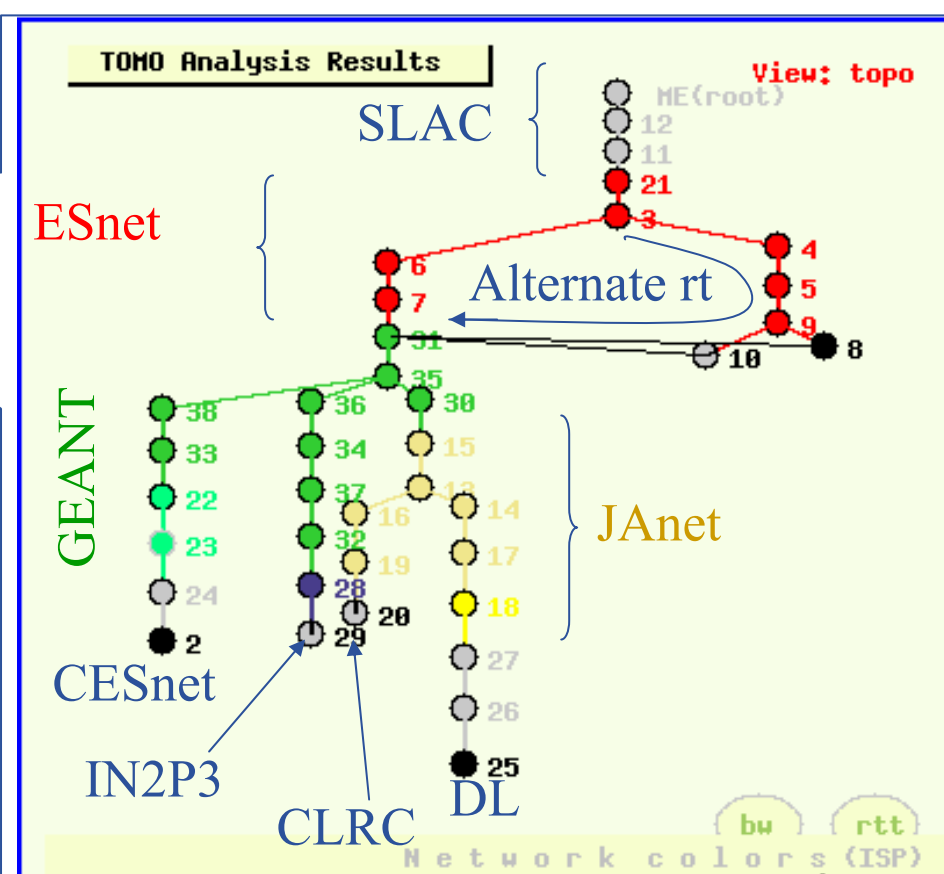
Available bandwidth

RTT

X traffic

Traceroute changes & ABWE for node1.mcs.anl.gov trigdur=46,histmax=372,sens=2,thresh=33,slimit=-0.1 triggers=3,alerts=3

Generated by /afs/slac/package/netmon/bandwidth-tests/v2src/alerts/plotem-ploticus-zoom on Date=070804 & Time=15:18:02

| — rtt | — Trigbuf | ✸ alerts | — avxtr | — avabw | · dbcap | — Hm | — Tt |

- **Choose times and hosts and submit request**

Hour of day

Alternate route

Nodes colored by ISP
Mouseover shows node names
Click on node to see subroutes
Click on end node to see its path back
Also can get raw traceroutes with AS'

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- **What is this?**
  - the components of a request
  - how the components are entered by a user

- **Components**
  - source/destination
  - characteristic & parameters
  - statistic
  - timeframe
  - number of results required
  - anything else?

- **What is the form of these?**
    - IPv4, IPv6
    - host name
    - router name
    - compute element name
    - storage element name
    - measurement point name
    - above + port
    - other choice?
    - all of the above?
- **How does the user enter source/destination?**
    - type it in
    - predefined list
    - graphical topology map
    - other choice?
    - all of the above?

- **Characteristics and parameters**
  - should user only be given to option of characteristics/parameters available depending on source/destination?
  - should users be able to enter all parameters specified in NM-WG v1?

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- **Which to support?**
  - raw
  - min
  - mean
  - median
  - max
  - standard deviation
  - percentile
  - confidence

- **How to specify timeframe?**
  - target time, -ve tolerance, +ve tolerance (NM-WG)
    - will this make sense to user?
  - start date, end date
  - give user some predefined timeframes?

- **Number of results**
  - allow user to limit number of results? (NM-WG max results)
  - if limiting number of results should results:
    - group around target time
    - be spread out uniformly over time period

- **Simple?**
  - "Execute" button!
  - should the user be allowed to submit more than one request at a time?

- **Performance?**
  - how long will a user be willing to wait?

- **How should results be displayed to users?**
    - text
        - tabular
    - graphically
        - line graph
        - bar graph
        - other?
    - switch between text and graphical
    - show multiple results
        - graphically one or more on a single graph?

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- **Do we need any client side analysis?**

- **If so, what?**

- **What is this?**
  - allow user to save a query they do often, so they can reload and edit each time they use it
  - allow a user to save results for later analysis, or to allow them to input into another tool
  - allow a user to export analysis to use in a report
- **Why do this?**
  - ease of use for user
- **Why not to do this?**
  - it's not *must have* functionality

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- **Is there anything missing?**

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- **Summary of what's been decided...**