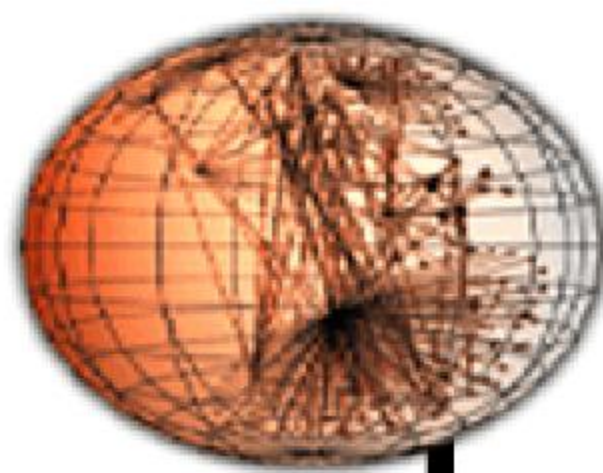




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measurement needs

nms breakout session
19 apr 02

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measurement needs

■ workload

- longer traces (requires more funding)
 - tcp/ip headers, w options, other headers if possible
 - at least 24 hours
 - concurrent at several places
 - several across time for trend analysis
- traffic matrices
 - same constraints as above
- locations
 - disa (requires sri intervention)
 - enterprise (billc will ask lucent)
 - university (k will ask ucsd, u.auckland)
 - backbone isp
 - peering point
 - cdn's (akamai)

■ wireless

- requires sri/DISA to provide it
- headers, location, signal strength
- needs further requirements analysis

measurement needs (2)

- active measurements

- correlated with passive (planned experiments)

- bandwidth estimation (not funded by NMS)

- single source vs two end point
- available bw vs capacity

- routing

- BGP updates (requires more funding for equipment/maintenance)
- IGP updates (requires contact/release from ISPs)
- parameters from ISPs, e.g. MRAI
- implementation details from vendors

causes of Internet perf. problems/outages

In roughly the order (courtesy sean donelan nanog post)

1. network engineers (what's this command do?)
2. power failures (what's this switch do?)
3. cable cuts (backhoes, enough said)
4. hardware failures (what's that smell?)
5. congestion (more bandwidth! Captain, I'm giving you all she's got!)
6. attacks (malicious, you know who you are)
7. software bugs (your call is very important to us....)

// "I prefer the wicked rather than the foolish.
// the wicked sometimes rest." – alexandre dumas

Problems that remain persistently insolvable
should always be suspected as
questions asked in the wrong way.

-- Alan Watts

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