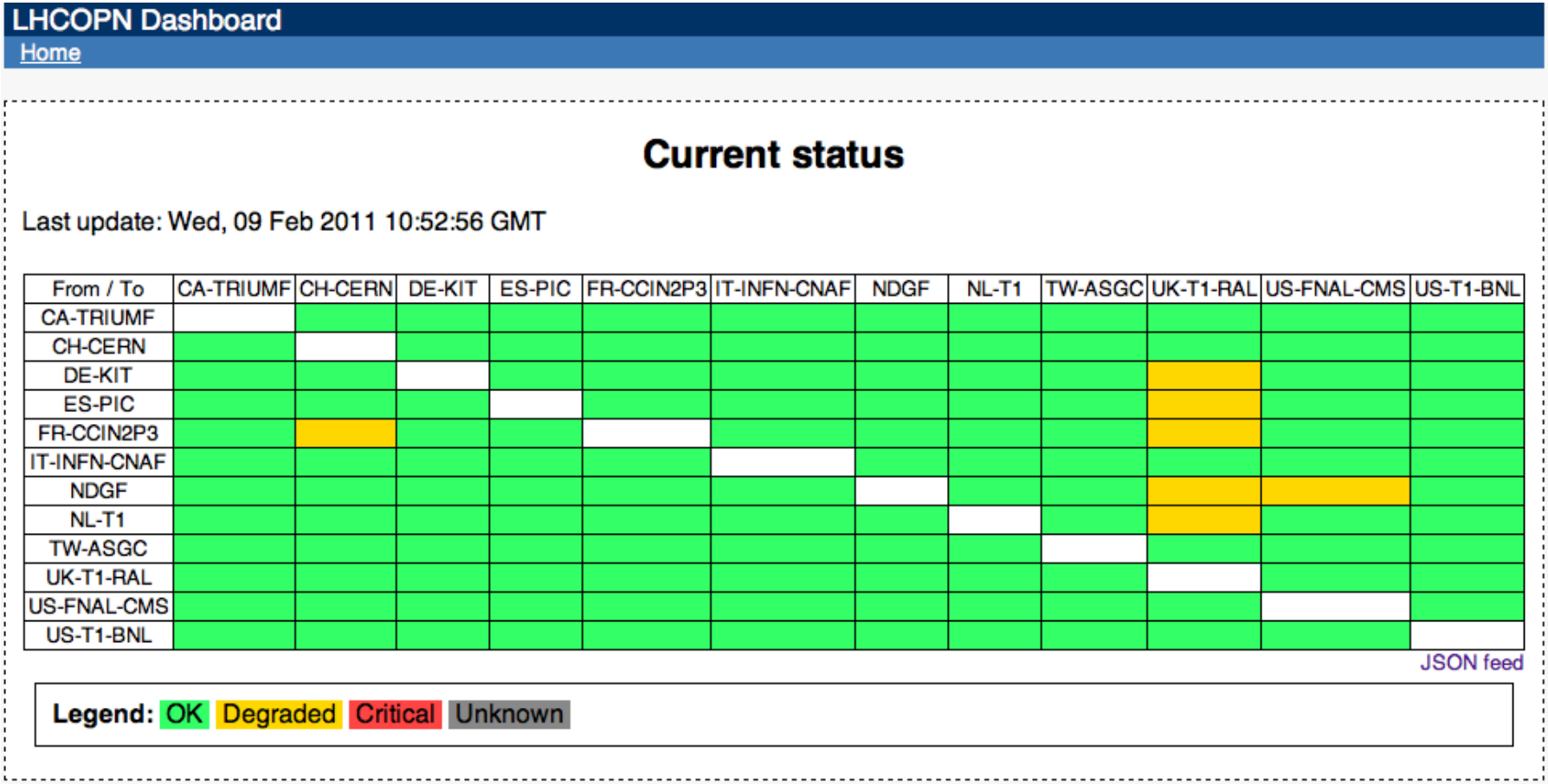
LHCOPN Dashboard

http://casper.grid.sara.nl



LHCOPN Dashboard

Home

Current status

Last update: Wed, 09 Feb 2011 10:52:56 GMT

From / To	CA-TRIUMF	CH-CERN	DE-KIT	ES-PIC	FR-CCIN2P3	IT-INFN-CNAF	NDGF	NL-T1	TW-ASGC	UK-T1-RAL	US-FNAL-CMS	US-T1-BNL
CA-TRIUMF												
CH-CERN												
DE-KIT												
ES-PIC												
FR-CCIN2P3												
IT-INFN-CNAF												
NDGF												
NL-T1												
TW-ASGC												
UK-T1-RAL												
US-FNAL-CMS												
US-T1-BNL												

JSON feed

Legend: OK Degraded Critical Unknown

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Based on perfSONAR Hades

- NTP synchronized server at each T1 site
- 9 UDP packets to each other site measuring one-way delay

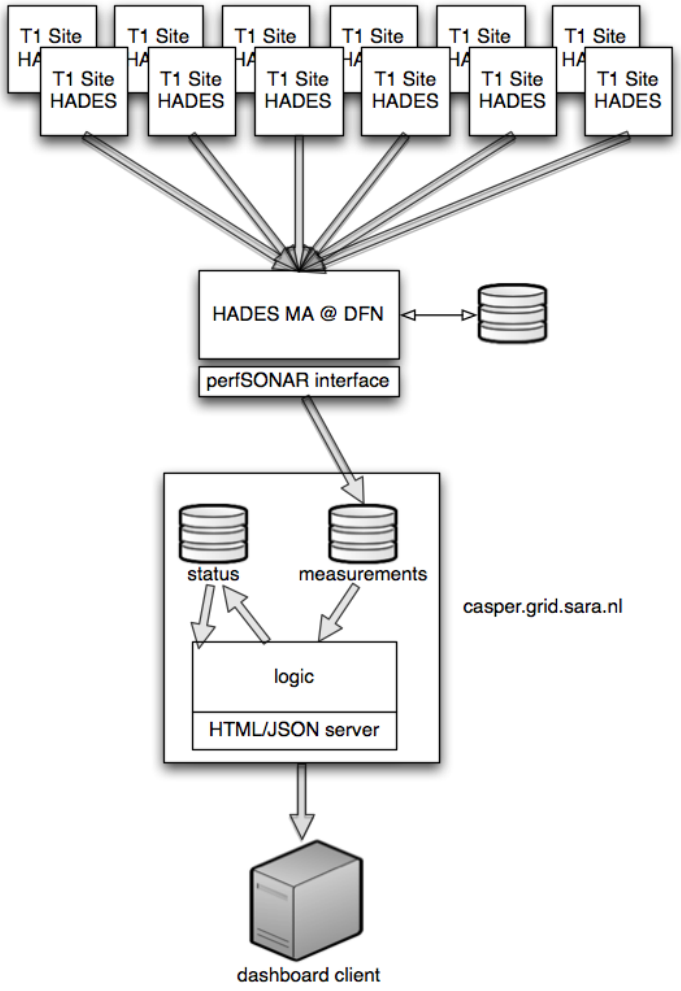
Statistics calculated by HADES on 9 OWD's are summary stats:

- Minimum delay
- **Median delay (if > 15% status becomes "degraded")**
- Maximum delay
- Min ipdv (Instantaneous Packet Delay Variation (jitter))
- Med ipdv
- Max ipdv
- Duplicates (# packets duplicated, never seen non zero)
- **Loss (#packets lost 0-8) (if > 2% status becomes critical)**
- Sync (yes or no)

Dashboard prototype

- Create a dashboard based on one-way delay measurements
- 15% deviation from baseline is degraded
- Packetloss is critical
- Aggregate this data and also show historical data

Architecture

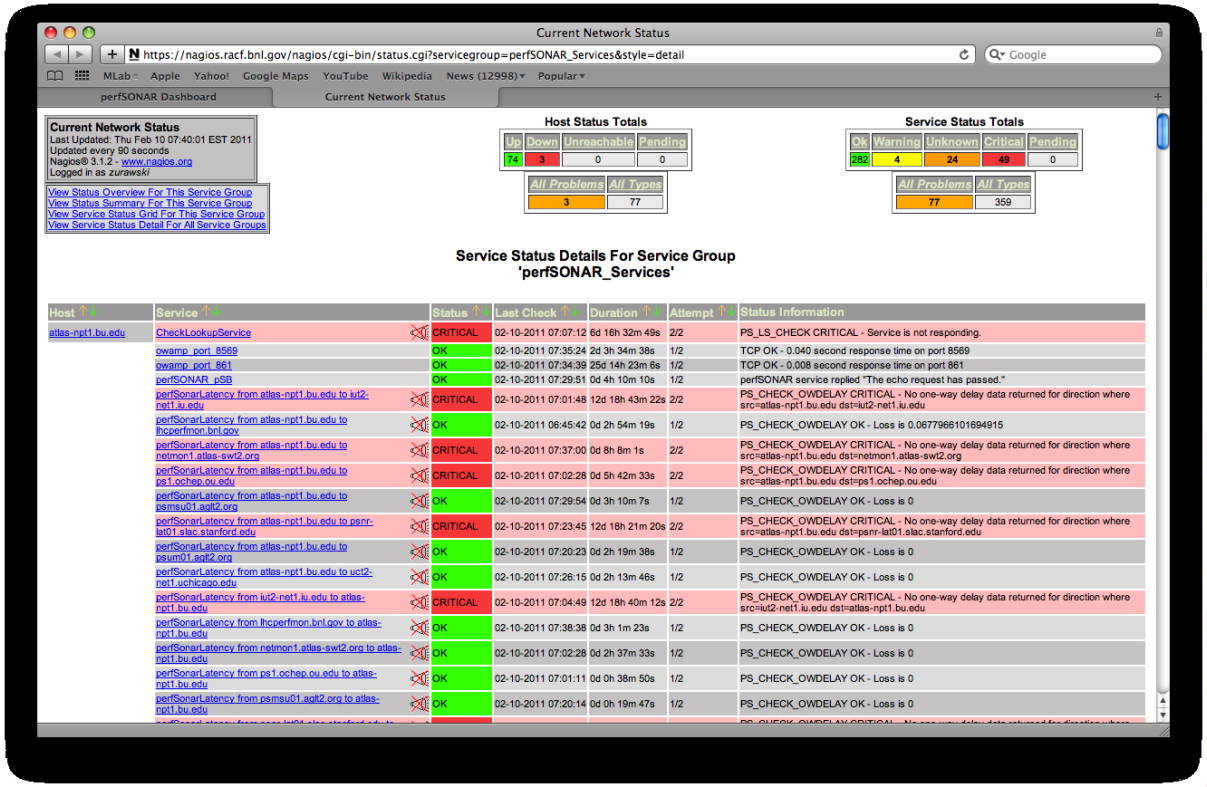


What other parameters?

- Take NTP status of HADES into account (FNAL and BNL have no GPS)
- Per site thresholds for degraded status
- Compare traceroute, hopcount
- More than one screen? Less intelligence, more data
- BGP status?
- GGUS connection?
- Bandwidth monitoring?
- Jitter?

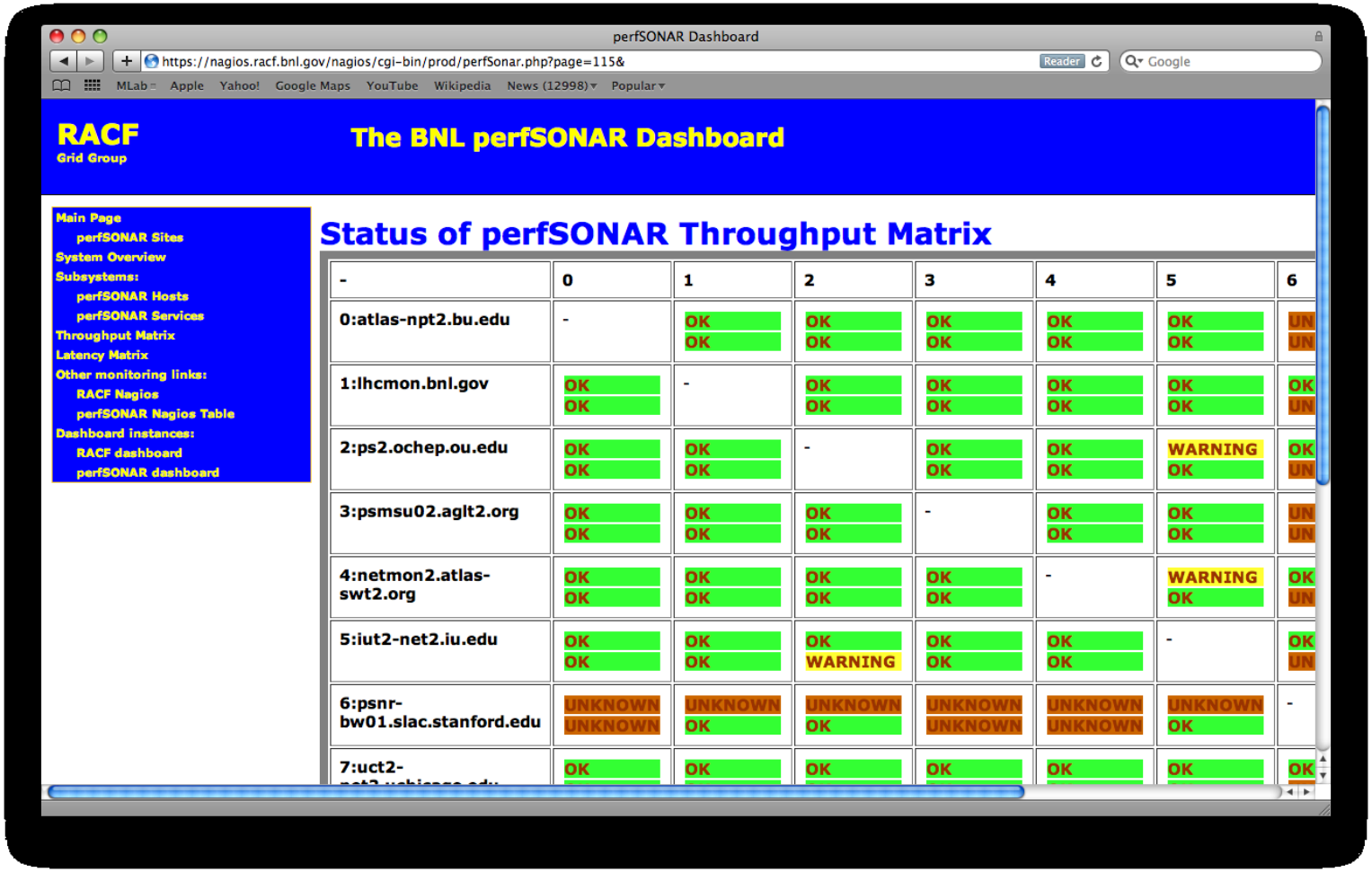
What others do

Take a Nagios plugin that reads perfSONAR measurement data and applies logic

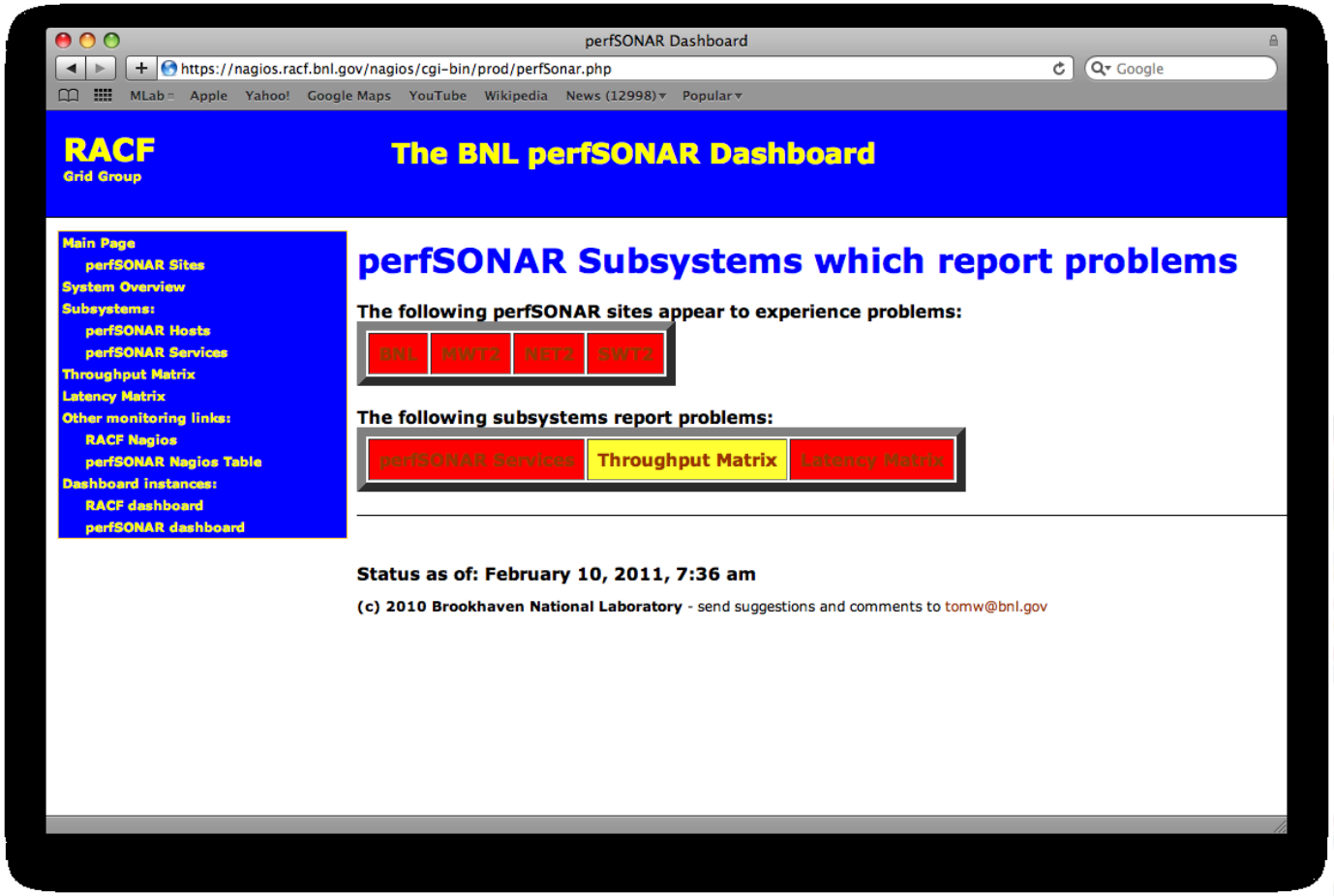
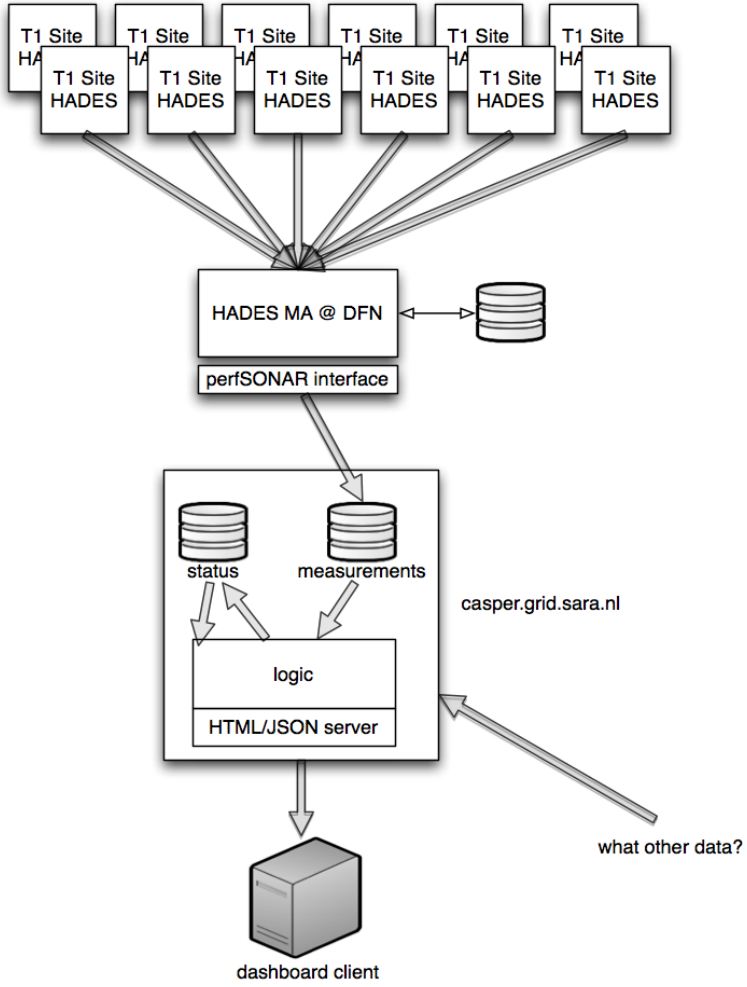


What others do (2)

at Atlas T2's in the US



What others do (3)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