



# 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

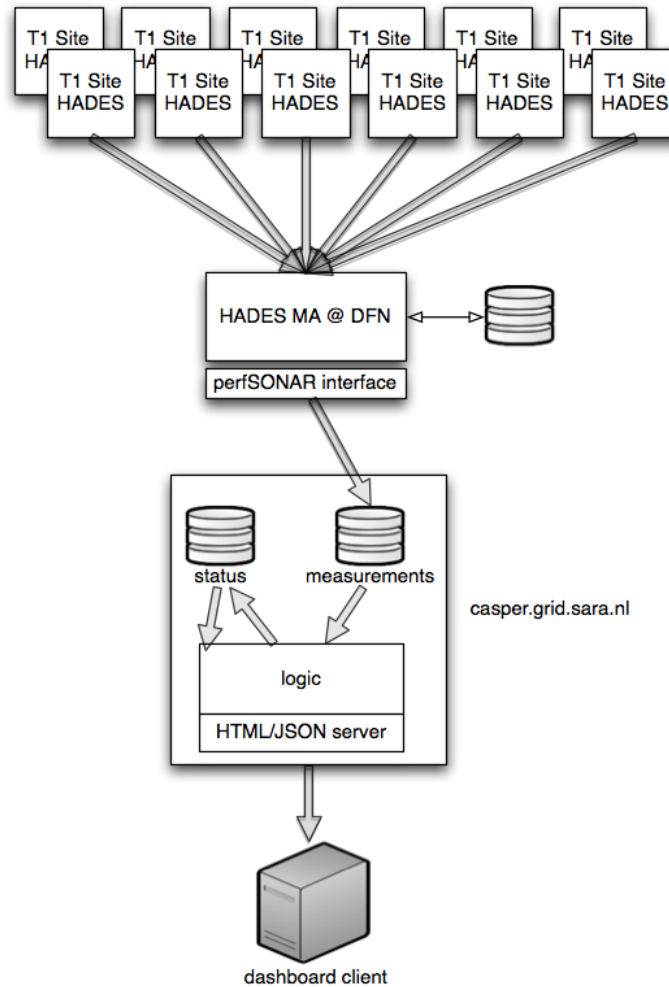
Statistics calculated by HADES on 9 OWD's are summary stats:

- 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

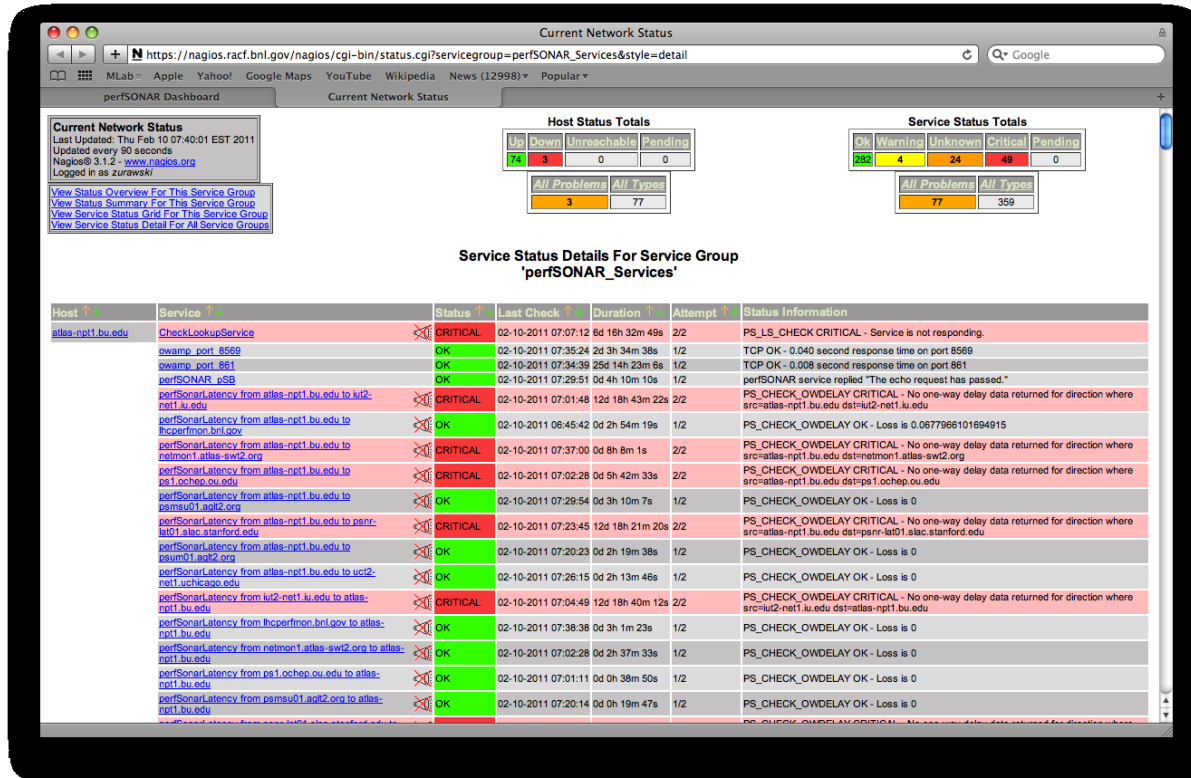


# What other parameters?

- 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



The screenshot shows a web browser displaying the Nagios interface for 'perfSONAR\_Services'. The page includes a 'Current Network Status' box, 'Host Status Totals' and 'Service Status Totals' summary tables, and a detailed 'Service Status Details For Service Group' table.

**Host Status Totals**

Up	Down	Unreachable	Pending
74	3	0	0

**Service Status Totals**

Ok	Warning	Unknown	Critical	Pending
262	4	24	49	0

**Service Status Details For Service Group 'perfSONAR\_Services'**

Host	Service	Status	Last Check	Duration	Attempt	Status Information
atlasc-npt1.bu.edu	CheckLookupService	CRITICAL	02-10-2011 07:07:12	6d 18h 32m 49s	2/2	PS_LS_CHECK CRITICAL - Service is not responding.
	owamp_port_8569	OK	02-10-2011 07:35:24	2d 3h 34m 38s	1/2	TCP OK - 0.040 second response time on port 8569
	owamp_port_861	OK	02-10-2011 07:34:38	25d 14h 23m 6s	1/2	TCP OK - 0.008 second response time on port 861
	perfSONAR_pSB	OK	02-10-2011 07:29:51	0d 4h 10m 10s	1/2	perfSONAR service replied "The echo request has passed."
	perfSONAR_Latency from atlasc-npt1.bu.edu to iu2-net1.iu.edu	CRITICAL	02-10-2011 07:01:48	12d 18h 43m 22s	2/2	PS_CHECK_OWDELAY CRITICAL - No one-way delay data returned for direction where src=atlasc-npt1.bu.edu dst=iu2-net1.iu.edu
	perfSONAR_Latency from atlasc-npt1.bu.edu to hpcperfmn.bnl.gov	OK	02-10-2011 08:45:42	0d 2h 54m 19s	1/2	PS_CHECK_OWDELAY OK - Loss is 0.0677866101894915
	perfSONAR_Latency from atlasc-npt1.bu.edu to netmon1.atlas-swi2.org	CRITICAL	02-10-2011 07:37:00	0d 8h 8m 1s	2/2	PS_CHECK_OWDELAY CRITICAL - No one-way delay data returned for direction where src=atlasc-npt1.bu.edu dst=netmon1.atlas-swi2.org
	perfSONAR_Latency from atlasc-npt1.bu.edu to ps1.ocephp.ou.edu	CRITICAL	02-10-2011 07:02:28	0d 5h 42m 33s	2/2	PS_CHECK_OWDELAY CRITICAL - No one-way delay data returned for direction where src=atlasc-npt1.bu.edu dst=ps1.ocephp.ou.edu
	perfSONAR_Latency from atlasc-npt1.bu.edu to pamsu01.aol2.org	OK	02-10-2011 07:29:54	0d 3h 10m 7s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from atlasc-npt1.bu.edu to peer-lu01.slac.stanford.edu	CRITICAL	02-10-2011 07:23:45	12d 18h 21m 20s	2/2	PS_CHECK_OWDELAY CRITICAL - No one-way delay data returned for direction where src=atlasc-npt1.bu.edu dst=peer-lu01.slac.stanford.edu
	perfSONAR_Latency from atlasc-npt1.bu.edu to eum01.aol2.org	OK	02-10-2011 07:20:23	0d 2h 19m 38s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from atlasc-npt1.bu.edu to uci2-net1.uchicago.edu	OK	02-10-2011 07:26:15	0d 2h 13m 46s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from iu2-net1.iu.edu to atlasc-npt1.bu.edu	CRITICAL	02-10-2011 07:04:49	12d 18h 40m 12s	2/2	PS_CHECK_OWDELAY CRITICAL - No one-way delay data returned for direction where src=iu2-net1.iu.edu dst=atlasc-npt1.bu.edu
	perfSONAR_Latency from hpcperfmn.bnl.gov to atlasc-npt1.bu.edu	OK	02-10-2011 07:38:38	0d 3h 1m 23s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from netmon1.atlas-swi2.org to atlasc-npt1.bu.edu	OK	02-10-2011 07:02:28	0d 2h 37m 33s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from ps1.ocephp.ou.edu to atlasc-npt1.bu.edu	OK	02-10-2011 07:01:11	0d 0h 38m 50s	1/2	PS_CHECK_OWDELAY OK - Loss is 0
	perfSONAR_Latency from pamsu01.aol2.org to atlasc-npt1.bu.edu	OK	02-10-2011 07:20:14	0d 0h 19m 47s	1/2	PS_CHECK_OWDELAY OK - Loss is 0

# What others do (2)

## at Atlas T2's in the US

perfSONAR Dashboard

https://nagios.racf.bnl.gov/nagios/cgi-bin/prod/perfSonar.php?page=115&

MLab= Apple Yahoo! Google Maps YouTube Wikipedia News (12998) Popular

**RACF**  
Grid Group

**The BNL perfSONAR Dashboard**

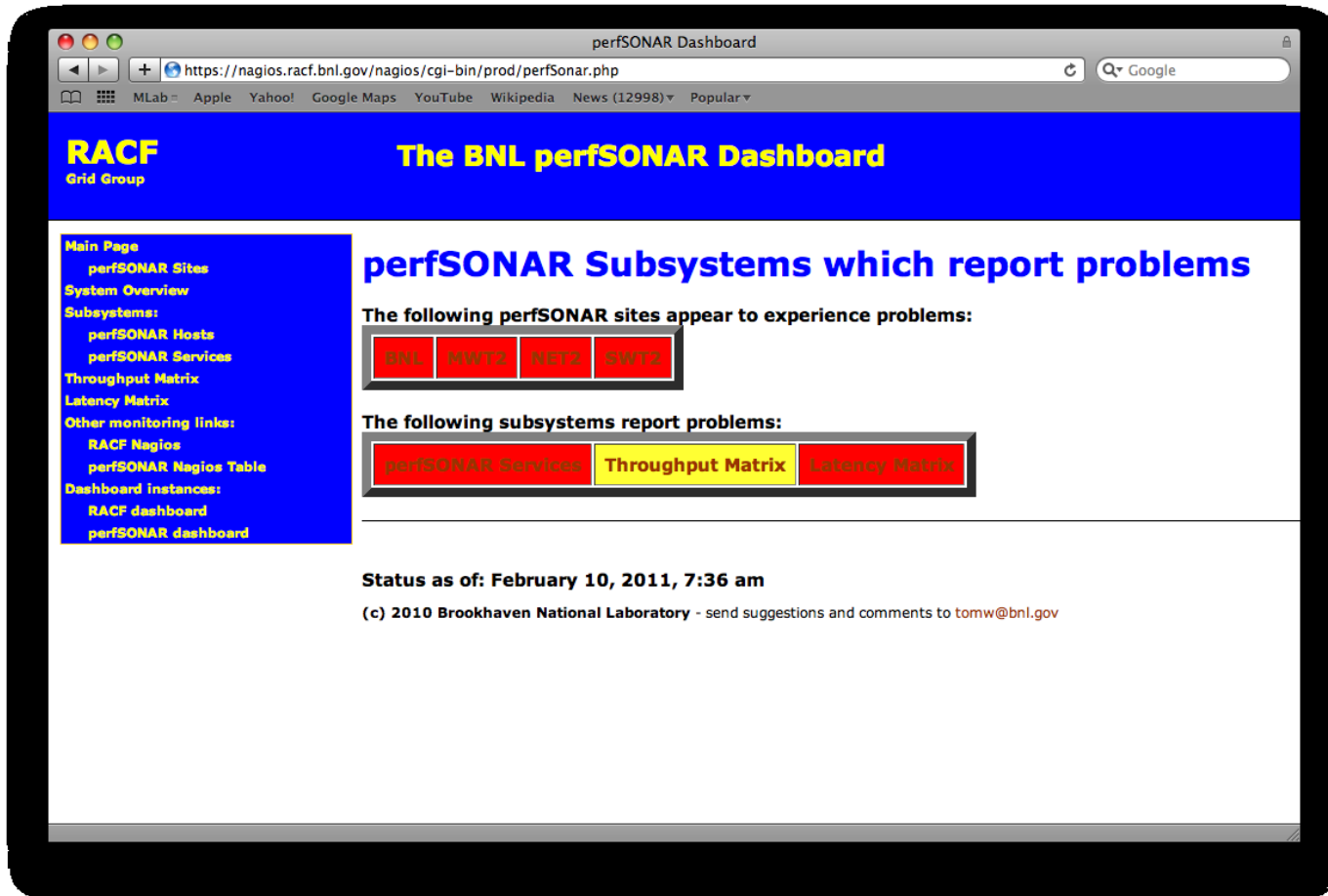
Main Page  
perfSONAR Sites  
System Overview  
Subsystems:  
perfSONAR Hosts  
perfSONAR Services  
Throughput Matrix  
Latency Matrix  
Other monitoring links:  
RACF Nagios  
perfSONAR Nagios Table  
Dashboard instances:  
RACF dashboard  
perfSONAR dashboard

**Status of perfSONAR Throughput Matrix**

-	0	1	2	3	4	5	6
0:atlas-npt2.bu.edu	-	OK	OK	OK	OK	OK	UN
1:lhcmon.bnl.gov	OK	-	OK	OK	OK	OK	OK
2:ps2.oceph.ou.edu	OK	OK	-	OK	OK	WARNING	OK
3:psmsu02.aglt2.org	OK	OK	OK	-	OK	OK	UN
4:netmon2.atlas-swt2.org	OK	OK	OK	OK	-	WARNING	OK
5:iut2-net2.iu.edu	OK	OK	OK	OK	OK	-	OK
6:psnr-bw01.slac.stanford.edu	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	-
7:uct2-	OK	OK	OK	OK	OK	OK	OK



# What others do (3)



The screenshot shows a web browser window titled "perfSONAR Dashboard" with the URL <https://nagios.racf.bnl.gov/nagios/cgi-bin/prod/perfSonar.php>. The page header includes the RACF Grid Group logo and the title "The BNL perfSONAR Dashboard".

The main content area is titled "perfSONAR Subsystems which report problems". It lists the following subsystems that appear to experience problems:

- BNL
- MWT2
- NET2
- SWT2

Below this, it lists the following subsystems that report problems:

- perfSONAR Services
- Throughput Matrix
- Latency Matrix

The status is reported as of February 10, 2011, 7:36 am. A copyright notice for 2010 Brookhaven National Laboratory is also present, along with contact information for tomw@bnl.gov.



# What other parameters?

