

perfSONAR at CC-IN2P3 and monitoring of network link between CC-IN2P3 and KEK

- About perfSONAR :
  - network measurement toolkit
  - to monitor and troubleshoot multi-domain network paths
  - scheduling of measurements
  - storage of data
  - retrieve data and generate visualizations
  - development and support is led by an international collaboration : Internet2, ESnet, Indiana University, and the EU funded GN2 JRA1 project
  - tests: ping, traceroute, tracepath, iperf, nuttcp, and owamp

- 2 hosts at CC-IN2P3 :
  - ccperfonar1.in2p3.fr : bandwidth and traceroute tests  
Dell R610, 16 GB RAM, Intel X520 10 Gb/s NIC
  - ccperfonar2.in2p3.fr : latency tests  
Dell R420, 16 GB RAM

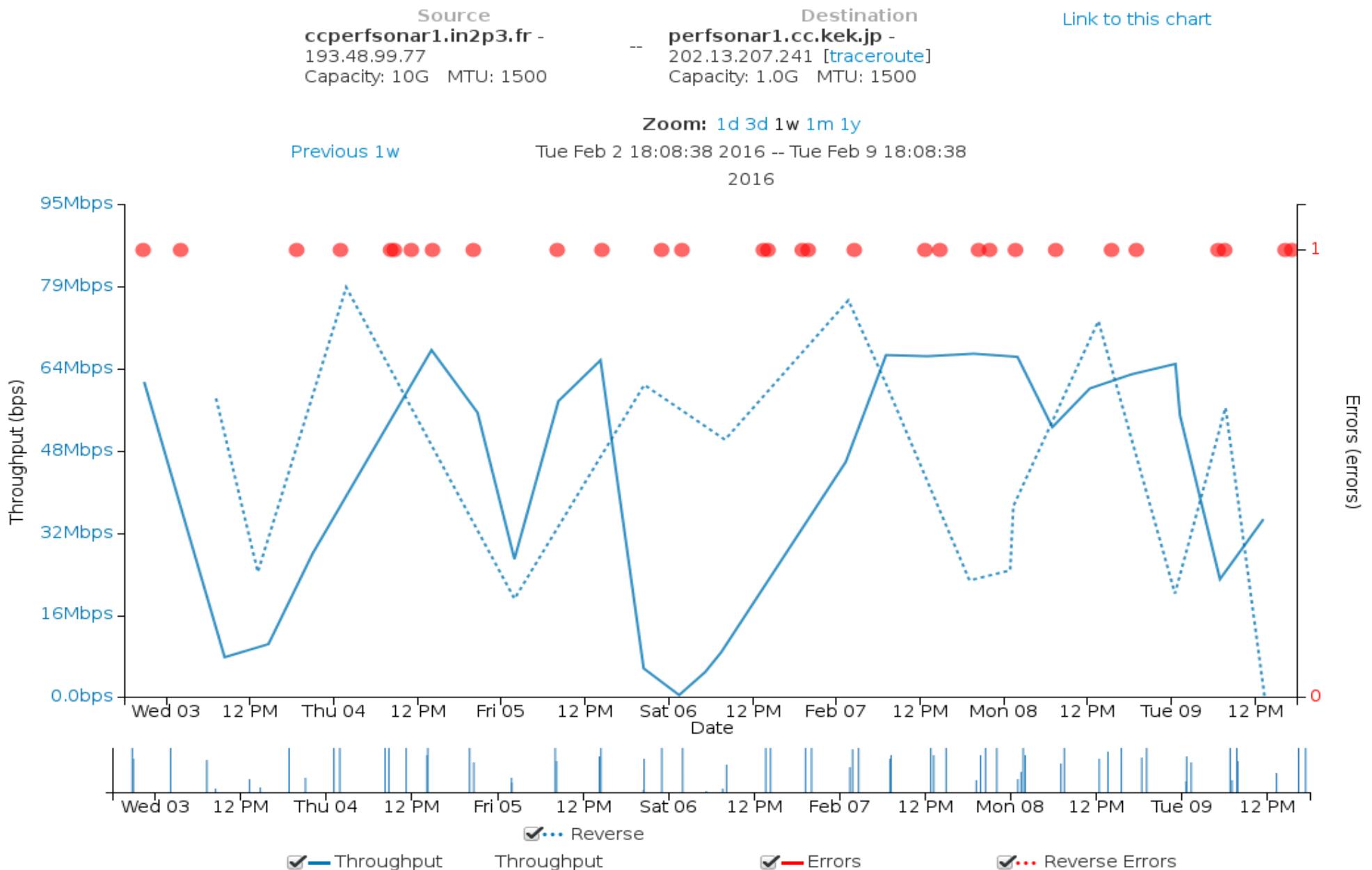
- Mesh configuration :
  - Bandwidth : 25 second tests every 6 hours
    - WLCG
    - LHCONE
    - LHC OPN
    - IPv6 HEPIX dual-stack
  - Latency : 10 packets/second, 20 byte packet size
    - WLCG
    - LHCONE
    - LHC OPN
  - Traceroute : every 20 minutes
    - WLCG
    - LHCONE
    - IPv6 HEPIX dual-stack

- Manual configuration :
  - Bandwidth : 30 second tests every 6 hours
    - KEK : perfsonar1.cc.kek.jp
    - LSST / NCSA : ps-bw.ncsa.lhn.lsst.org
  - Latency : 10 packets/second, 20 byte packet size
    - KEK : perfsonar2.cc.kek.jp
    - LSST / NCSA : ps-lt.ncsa.lhn.lsst.org
  - Traceroute : every 30 minutes
    - KEK : perfsonar1.cc.kek.jp
    - LSST / NCSA : ps-bw.ncsa.lhn.lsst.org

- Dashboards :
  - WLCG / LHCONE / LHC OPN :
    - <http://psmad.grid.iu.edu/maddash-webui/> (not working?)
    - <http://perfsonar-itb.grid.iu.edu/maddash-webui/> (not working?)
    - <https://maddash.aglt2.org/maddash-webui/>
  - IPv6 HEPIX dual-stack
    - <https://maddash.aglt2.org/maddash-webui/index.cgi?dashboard=Dual-Stack%20Mesh%20Config>
  - ESnet :
    - <http://ps-dashboard.es.net/>

- Links to results for CC-IN2P3 - KEK tests:
  - Bandwidth : [https://ccperfsonar1.in2p3.fr/...](https://ccperfsonar1.in2p3.fr/)
  - Traceroute : [https://ccperfsonar1.in2p3.fr/...](https://ccperfsonar1.in2p3.fr/)
  - Latency : [https://ccperfsonar2.in2p3.fr/...](https://ccperfsonar2.in2p3.fr/)

CC-IN2P3 – KEK – bandwidth tests



## psTracerouteViewer v2

Measurement Archive: <http://localhost/esmond/perfsonar/archive/>

Start Time: yesterday

End Time: now

Timezone: Europe/Paris (UTC +1)



Maintained by [Dale W. Carder](#)  
Get the [source!](#)

Select endpoints available on <http://localhost/esmond/perfsonar/archive/>

perfsonar1.cc.kek.jp (202.13.207.241) ----> ccperfsonar1.in2p3.fr (193.48.99.77)

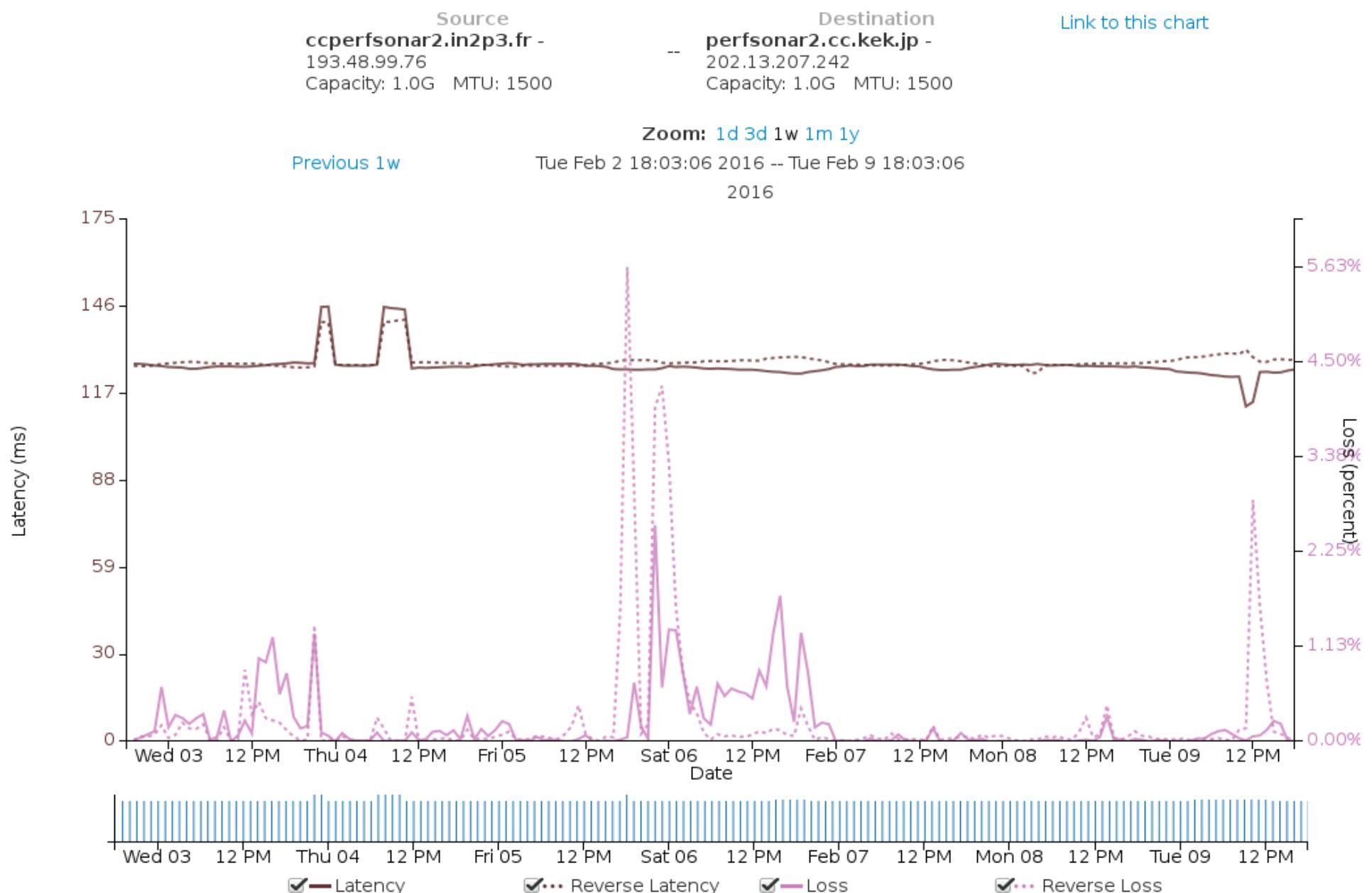
Do not de-duplicate results

### Topology beginning at Mon Feb 8 00:13:51 2016 (UTC +1)

Hop	Router	IP	Delay	MTU
1	202.13.206.1	202.13.206.1	86.835ms	
2	10.33.235.2	10.33.235.2	24.158ms	
3	202.13.223.129	202.13.223.129	0.982ms	
4	tokyo-dc-RM-AE5-101.s4.sinet.ad.jp	150.99.190.181	30.71ms	
5	tokyo-dc-GM1-AE0-10.s4.sinet.ad.jp	150.99.2.50	30.751ms	
6	nyc-dc-GM1-XE-1-0-0-10.s4.sinet.ad.jp	150.99.2.74	215.283ms	
7	dante.gw.sinet.ad.jp	150.99.188.202	287.844ms	
8	renater-lb1-gw.mx1.par.fr.geant.net	62.40.124.70	289.849ms	
9	requestTimedOut	requestTimedOut		
10	in2p3-lyon-vl3114-paris1-rtr-021.noc.renater.fr	193.51.186.177	252.729ms	
11	Lyon-OPN.in2p3.fr	192.70.69.130	252.686ms	
12	ccperfsonar1.in2p3.fr	193.48.99.77	252.663ms	

### Topology beginning at Tue Feb 9 13:03:20 2016 (UTC +1)

# CC-IN2P3 – KEK – latency tests



- Can not (easily) schedule tests between the same hosts but with different parameters (TCP or UDP, duration, TCP window size, parallel threads...)
- Running « interactive » tests with the CLI can be frustrating : have to wait for available slots in scheduling
- Using iperf without perfSONAR is possible with ccxfert01.in2p3.fr (already used by Soh Suzuki from KEK)