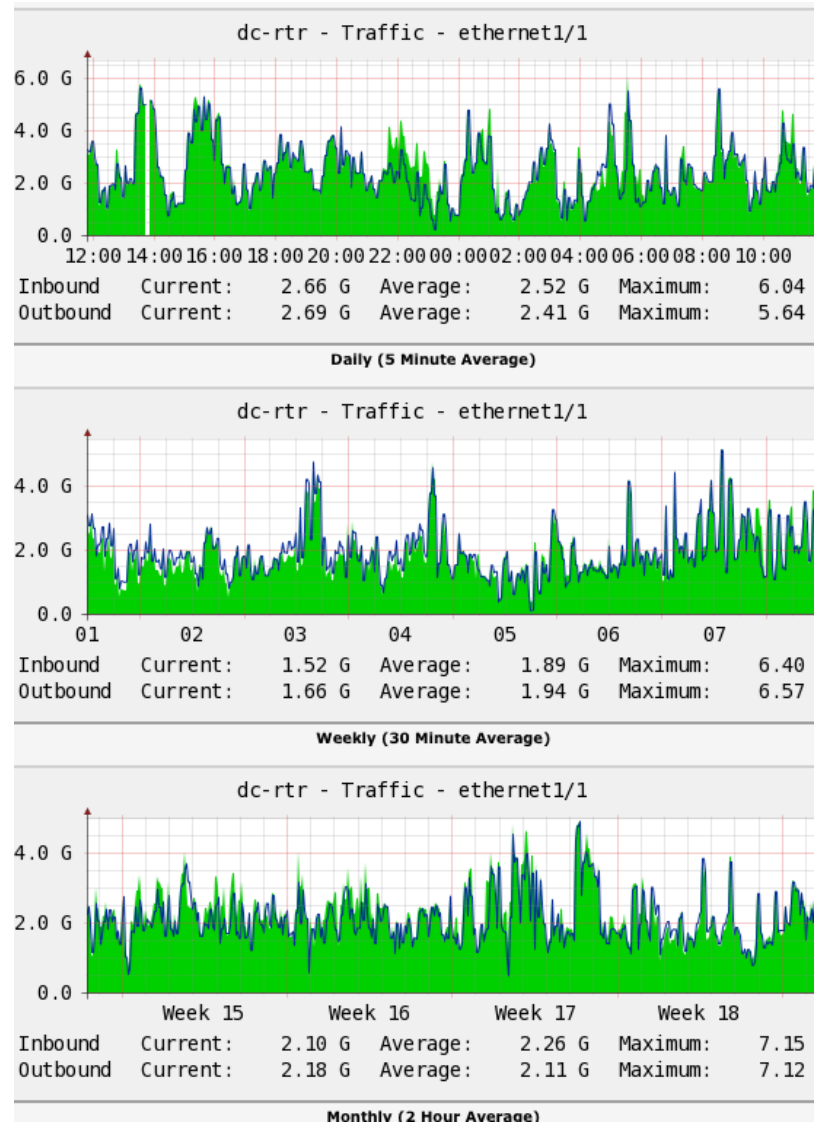# Jlab Network Monitoring
May 9, 2012

Bryan Hess, Network Manager
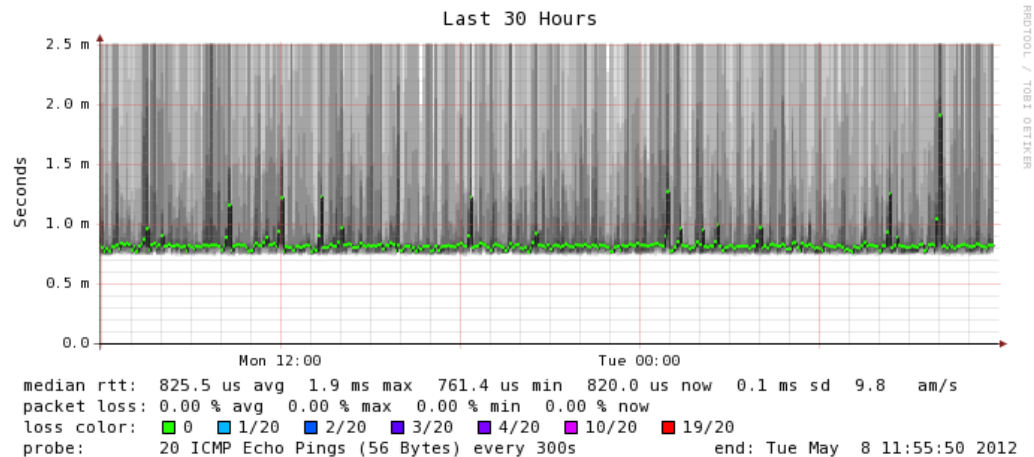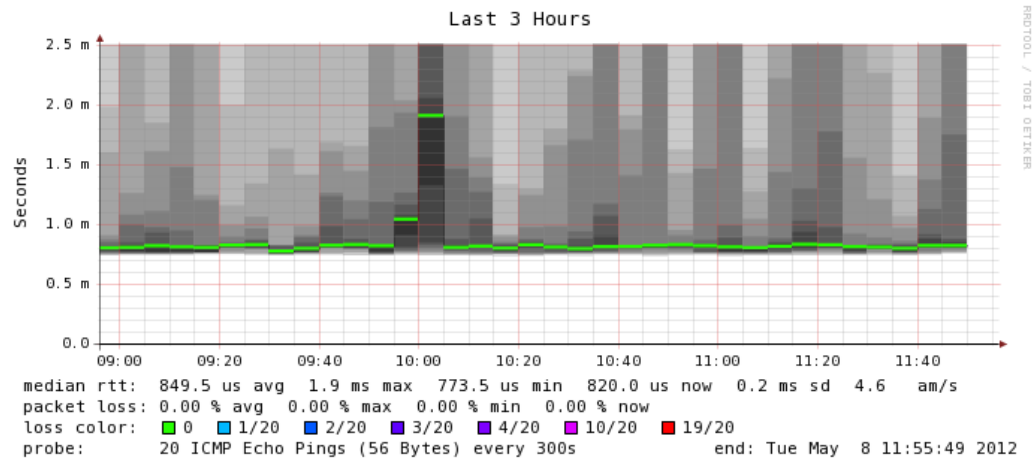
bhess@jlab.org

What we Monitor

- Reachability
- Per-interface bandwidth
- CPU utilization
- Configuration Changes
- SNMP environmental traps
- Power events
- Latency and Loss
- Security blocks
- Routing changes
- ➔ Network Infrastructure, not edge devices

Latency and Loss monitoring

arc-6-sw

JNet management console

cc-fwing2-sw

IP:	129.57.45.3
Model:	Cisco 4500
Software Version:	15.0(2)SG1
Tags:	cisco | autovlan | hostblock
Location:	12 - CEBAF Center - room F203

Port	Jack	Room	VLAN	MAC	Hostname	IP	Registered User
🔴 Fa1							
🟢 Gi1/1					TRUNK site-rtr.jlab.org		
🟢 Gi1/2					TRUNK cc-alt-sw.jlab.org		
🟢 Gi2/1	DIRECT	F203	514	58:8d:09:97:10:87	cc-f203-ap.jlab.org	129.57.14.39	bmorris
🟢 Gi2/2	276	F239	514	58:8d:09:95:4f:4a	cc-f239-ap.jlab.org	129.57.14.40	bmorris
🟢 Gi2/3	280	F201A	724	00:26:cb:bf:4b:42	voice-cc-172-18-195-235.jlab.org	172.18.195.235	
🟢 Gi2/4	281	F201A	724	00:26:cb:be:cf:10	voice-cc-172-18-192-222.jlab.org	172.18.192.222	
🟢 Gi2/5	80	F227	548	18:03:73:c2:4f:1e	confccf227.jlab.org	129.57.50.30	jperry
🔴 Gi2/6	208	F216	*548*	*18:03:73:be:c8:d1*	*claw.jlab.org*	*129.57.49.97*	*larrieu*
🟢 Gi2/7	115	F258	724	18:ef:63:9e:16:c7	voice-cc-172-18-192-120.jlab.org	172.18.192.120	
🟢 Gi2/8	126	F253	724	18:ef:63:9e:25:da	voice-cc-172-18-194-31.jlab.org	172.18.194.31	
🟢 Gi2/9	128	F254	724 555	a4:0c:c3:95:d6:76 c4:2c:03:1d:45:14	voice-cc-172-18-192-28.jlab.org newton.jlab.org	172.18.192.28 129.57.55.120	swingle
🟢 Gi2/10	234	F207	724 576	d0:c2:82:d1:7a:6e 00:1b:63:a7:1f:1d	voice-cc-172-18-192-57.jlab.org hpcdev08.jlab.org	172.18.192.57 129.57.76.177	larrieu
🔴 Gi2/11	263	F263	*724*	*00:26:cb:bf:4b:8f*	*voice-cc-172-18-193-133.jlab.org*	*172.18.193.133*	
🟢 Gi2/12	232	F208A	724 612	58:bc:27:75:f9:08 00:16:32:96:01:fd	voice-cc-172-18-195-120.jlab.org guestsvcs-641.jlab.org	172.18.195.120 129.57.115.144	
🟢 Gi2/13	279	F222	514	00:22:bd:1a:27:e8	cc-f222-ap.jlab.org	129.57.14.77	sstevens
🔴 Gi2/14	240	F206					
🟢 Gi2/15	98	F233	724	18:ef:63:9e:14:4d	voice-cc-172-18-192-52.jlab.org	172.18.192.52	
🟢 Gi2/16	1	F282	724 548	18:ef:63:9e:47:53 00:13:72:2e:40:63	voice-cc-172-18-192-139.jlab.org strosahll1.jlab.org	172.18.192.139 129.57.48.56	strosahl
🟢 Gi2/17	282	HALL	514	00:22:bd:1a:61:8a	cc-f262-ap.jlab.org	129.57.14.11	bmorris
🔴 Gi2/18	3	F281	*576*	*d4:9a:20:ee:bd:7c*	*mb-imac.jlab.org*	*129.57.76.158*	*barnes*
🟢 Gi2/19	4	F281	724	a8:b1:d4:fa:aa:f4	voice-cc-172-18-195-217.jlab.org	172.18.195.217	

Support for Networking

- After-hours on-call support available anytime by calling the guards

- Monitoring at every level is critical to catch complex failures (network, system, application, etc.)

- Halls/experiments monitor their systems in the best possible way for that system/end device. Networking on-call support will troubleshoot suspected network problems and provide support once notified.

- Switch downs as a result of power events or reconfigurations are common