Network Management & Monitoring

Observium: all in one network graphing and monitoring

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Observium

- Autodiscovering SNMP based network monitoring tool
- Written in PHP (web application)
- Includes support for a wide range of network hardware and operating systems including:
  - Cisco, Linux, FreeBSD, Juniper, Brocade, Foundry, HP and many more.
  - See http://www.observium.org/wiki/Supported_Devices

Available metrics

- CPU, Memory and Storage statistics.
- Interface traffic, packet and detailed error statistics.
- Temperature, Fan Speed, Voltage, Amperage, Power, Humidity and Frequency sensors.
- Users, Processes, Load Average and Uptime statistics.

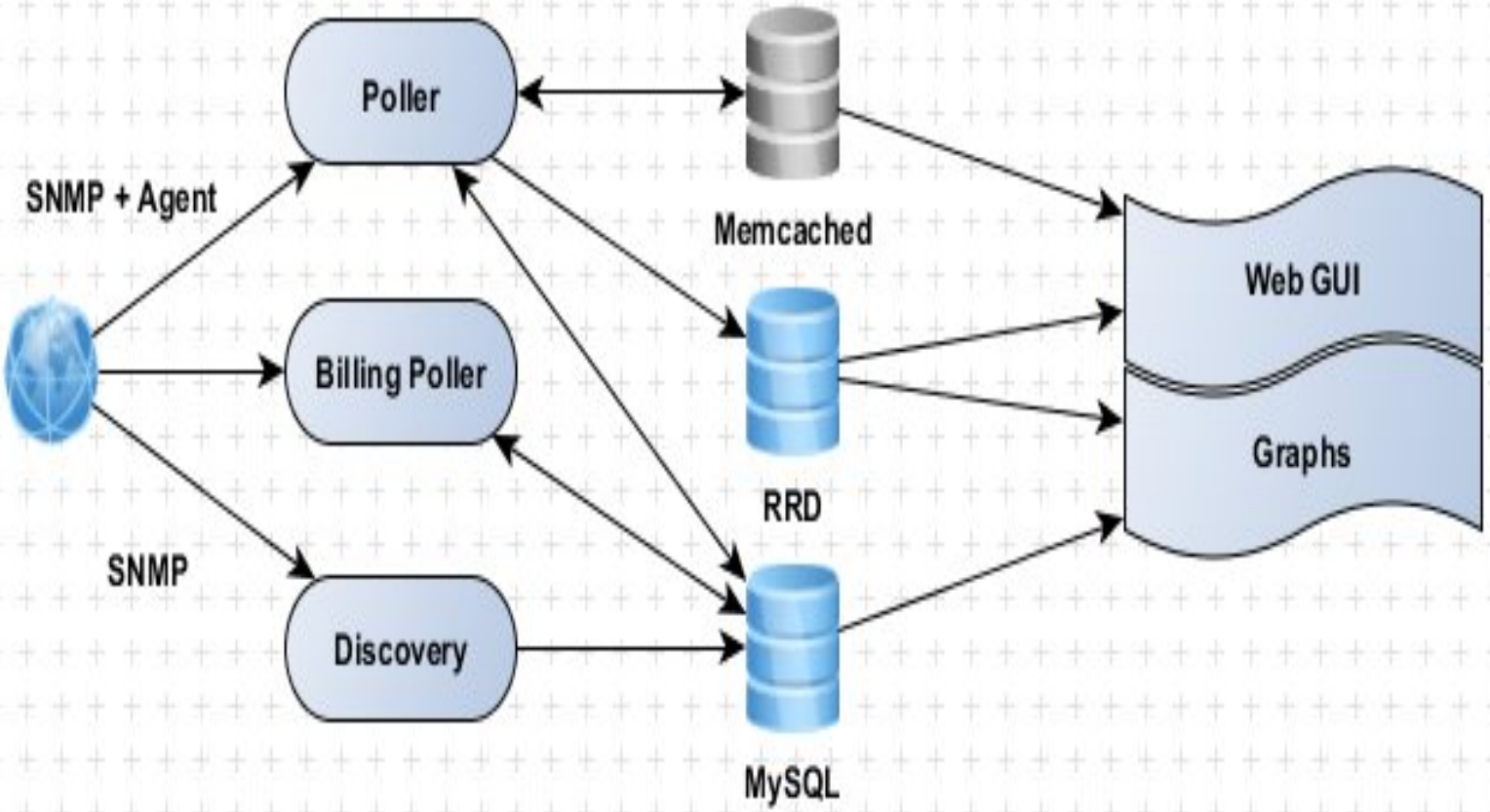
Available metrics

- Linux distribution detection.
- Real-time interface traffic graphing.
- Device inventory collection (very useful!)
- Detailed IPv4, IPv6, TCP and UDP stack statistics.
- BGP and OSPF statistics.
- MAC / IP

Features

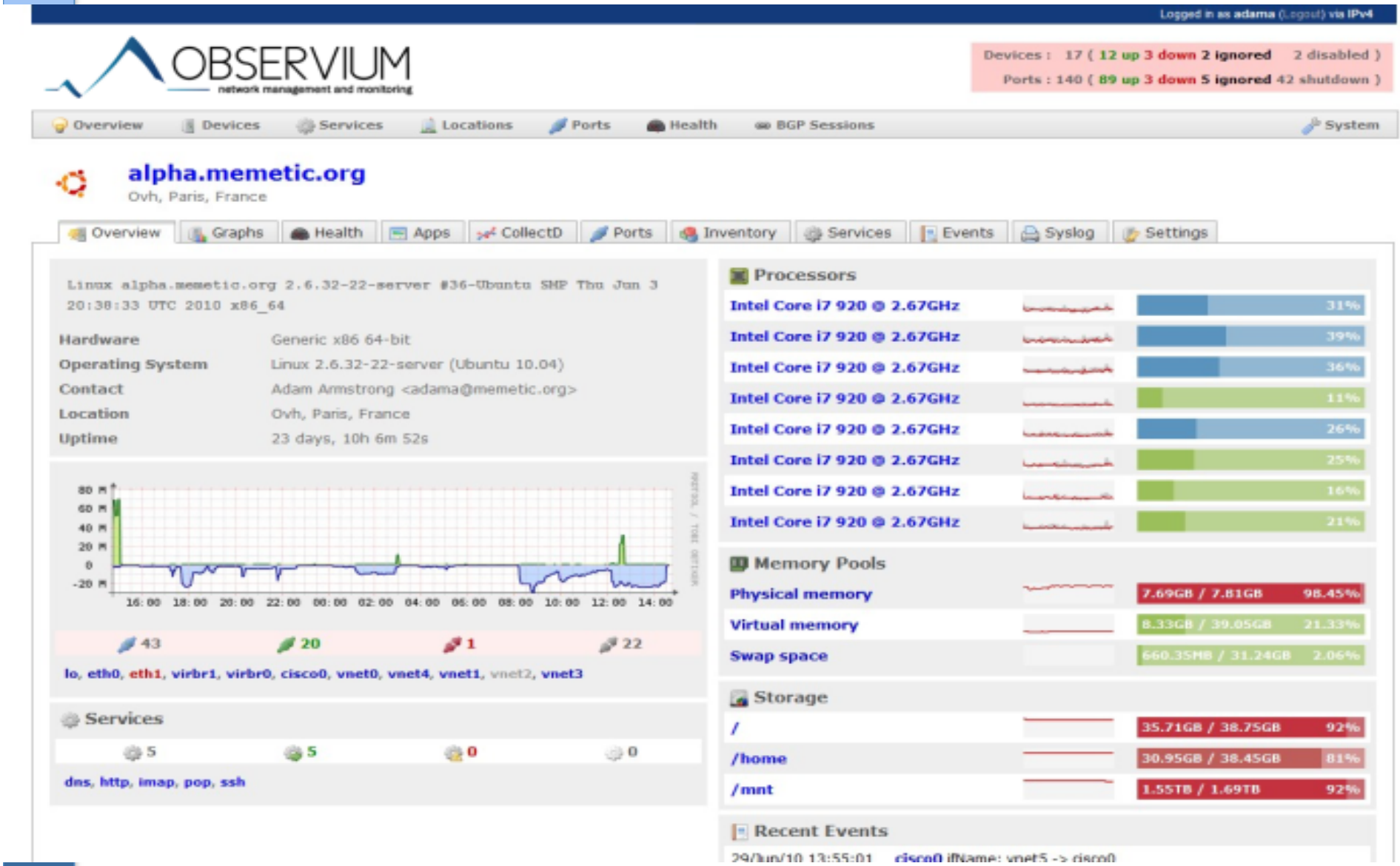
- Concept of enabled vs ignored
- Many already supported devices
- Host monitoring well supported using check_mk and support scripts
- Application monitoring, using SNMP
- Billing module
- Integration with other tools:
- Smokeping integration, collectd as well
- Syslog integration (receive logs from devices)

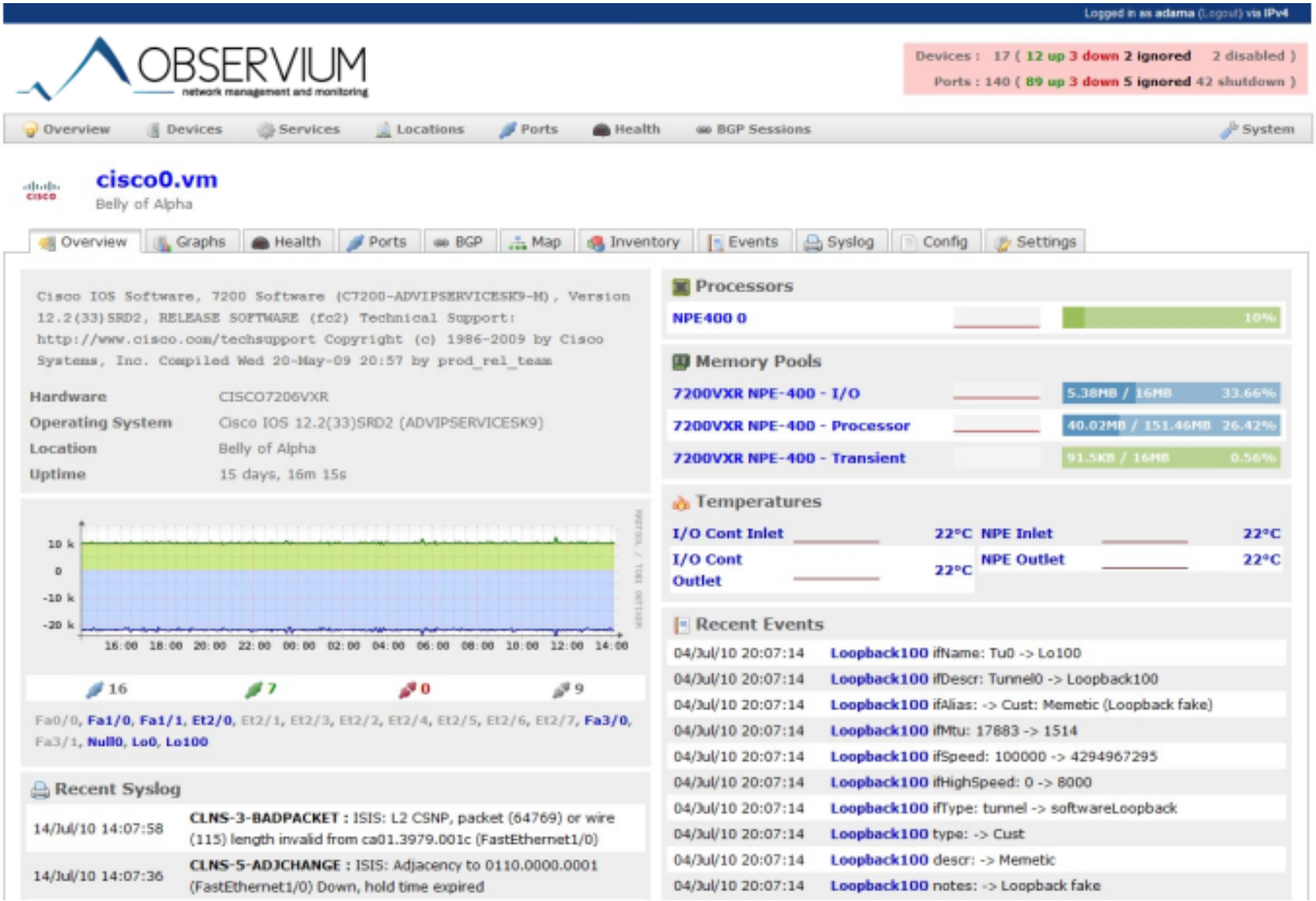
Architecture



Availability

- Open source
- http://www.observium.org/wiki/Main_Page


Logged in as adama (Logout) via IPv4
OBSERVIUM
network management and monitoring
Devices : 17 (12 up 3 down 2 ignored 2 disabled)
Ports : 140 (89 up 3 down 5 ignored 42 shutdown)
Overview
Devices
Services
Locations
Ports
Health
BGP Sessions
System
alpha.memetic.org
Ovh, Paris, France
Overview
Graphs
Health
Apps
CollectD
Ports
Inventory
Services
Events
Syslog
Settings
Linux alpha.memetic.org 2.6.32-22-server #36-Ubuntu SMP Thu Jun 3 20:38:33 UTC 2010 x86_64
Hardware
Generic x86 64-bit
Operating System
Linux 2.6.32-22-server (Ubuntu 10.04)
Contact
Adam Armstrong <adama@memetic.org>
Location
Ovh, Paris, France
Uptime
23 days, 10h 6m 52s
80 M
60 M
40 M
20 M
0
-20 M
16:00
18:00
20:00
22:00
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
43
20
1
22
lo, eth0, eth1, virbr1, virbr0, cisco0, vnet0, vnet4, vnet1, vnet2, vnet3
Services
5
5
0
0
dns, http, imap, pop, ssh
Processors
Intel Core i7 920 @ 2.67GHz 31%
Intel Core i7 920 @ 2.67GHz 39%
Intel Core i7 920 @ 2.67GHz 36%
Intel Core i7 920 @ 2.67GHz 11%
Intel Core i7 920 @ 2.67GHz 26%
Intel Core i7 920 @ 2.67GHz 25%
Intel Core i7 920 @ 2.67GHz 16%
Intel Core i7 920 @ 2.67GHz 21%
Memory Pools
Physical memory 7.69GB / 7.81GB 98.45%
Virtual memory 8.33GB / 39.05GB 21.33%
Swap space 660.35MB / 31.24GB 2.06%
Storage
/ 35.71GB / 38.75GB 92%
/home 30.95GB / 38.45GB 81%
/mnt 1.55TB / 1.69TB 92%
Recent Events
29/Jun/10 13:55:01 cisco0 ifName: vnet5 -> cisco0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cisco0.vm
Belly of Alpha
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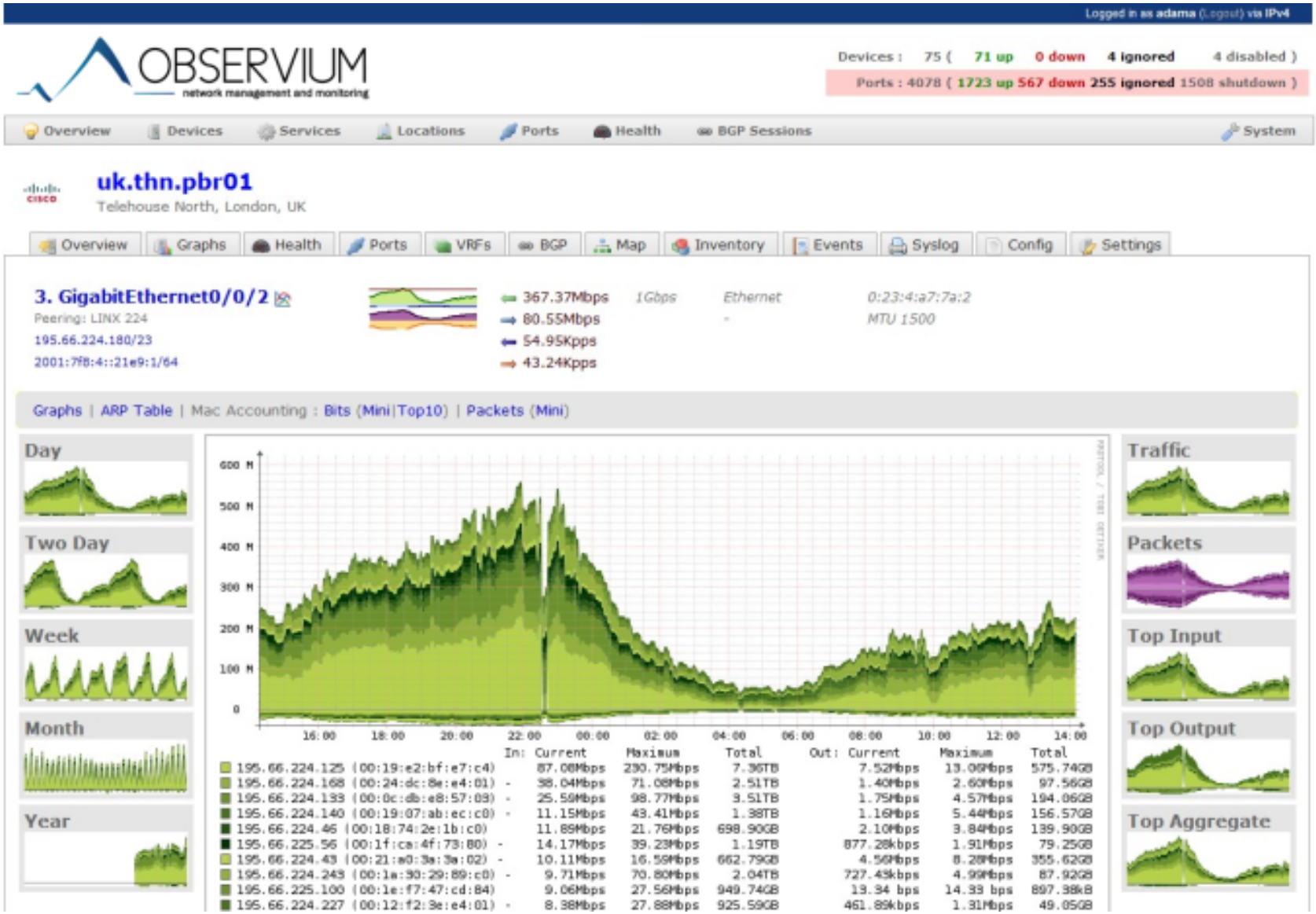
Syslog
Config
Settings
Cisco IOS Software, 7200 Software (C7200-ADVIPSERVICESK9-M), Version 12.2(33)SRD2, RELEASE SOFTWARE (fc2) Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2009 by Cisco Systems, Inc. Compiled Wed 20-May-09 20:57 by prod_rel_team
Hardware CISCO7206VXR
Operating System Cisco IOS 12.2(33)SRD2 (ADVIPSERVICESK9)
Location Belly of Alpha
Uptime 15 days, 16m 15s
10 k
0
-10 k
-20 k
16:00 18:00 20:00 22:00 00:00 02:00 04:00 06:00 08:00 10:00 12:00 14:00
16
7
0
9
Fa0/0, Fa1/0, Fa1/1, Et2/0, Et2/1, Et2/3, Et2/2, Et2/4, Et2/5, Et2/6, Et2/7, Fa3/0, Fa3/1, Null0, Lo0, Lo100
Recent Syslog
14/Jul/10 14:07:58 CLNS-3-BADPACKET : ISIS: L2 CSNP, packet (64769) or wire (115) length invalid from ca01.3979.001c (FastEthernet1/0)
14/Jul/10 14:07:36 CLNS-5-ADJCHANGE : ISIS: Adjacency to 0110.0000.0001 (FastEthernet1/0) Down, hold time expired
Processors
NPE400 0 10%
Memory Pools
7200VXR NPE-400 - I/O 5.38MB / 16MB 33.66%
7200VXR NPE-400 - Processor 40.02MB / 151.46MB 26.42%
7200VXR NPE-400 - Transient 91.5KB / 16MB 0.56%
Temperatures
I/O Cont Inlet 22°C
NPE Inlet 22°C
I/O Cont Outlet 22°C
NPE Outlet 22°C
Recent Events
04/Jul/10 20:07:14 Loopback100 ifName: Tu0 -> Lo100
04/Jul/10 20:07:14 Loopback100 ifDescr: Tunnel0 -> Loopback100
04/Jul/10 20:07:14 Loopback100 ifAlias: -> Cust: Memetic (Loopback fake)
04/Jul/10 20:07:14 Loopback100 ifMtu: 17883 -> 1514
04/Jul/10 20:07:14 Loopback100 ifSpeed: 100000 -> 4294967295
04/Jul/10 20:07:14 Loopback100 ifHighSpeed: 0 -> 8000
04/Jul/10 20:07:14 Loopback100 ifType: tunnel -> softwareLoopback
04/Jul/10 20:07:14 Loopback100 type: -> Cust
04/Jul/10 20:07:14 Loopback100 descr: -> Memetic
04/Jul/10 20:07:14 Loopback100 notes: -> Loopback fake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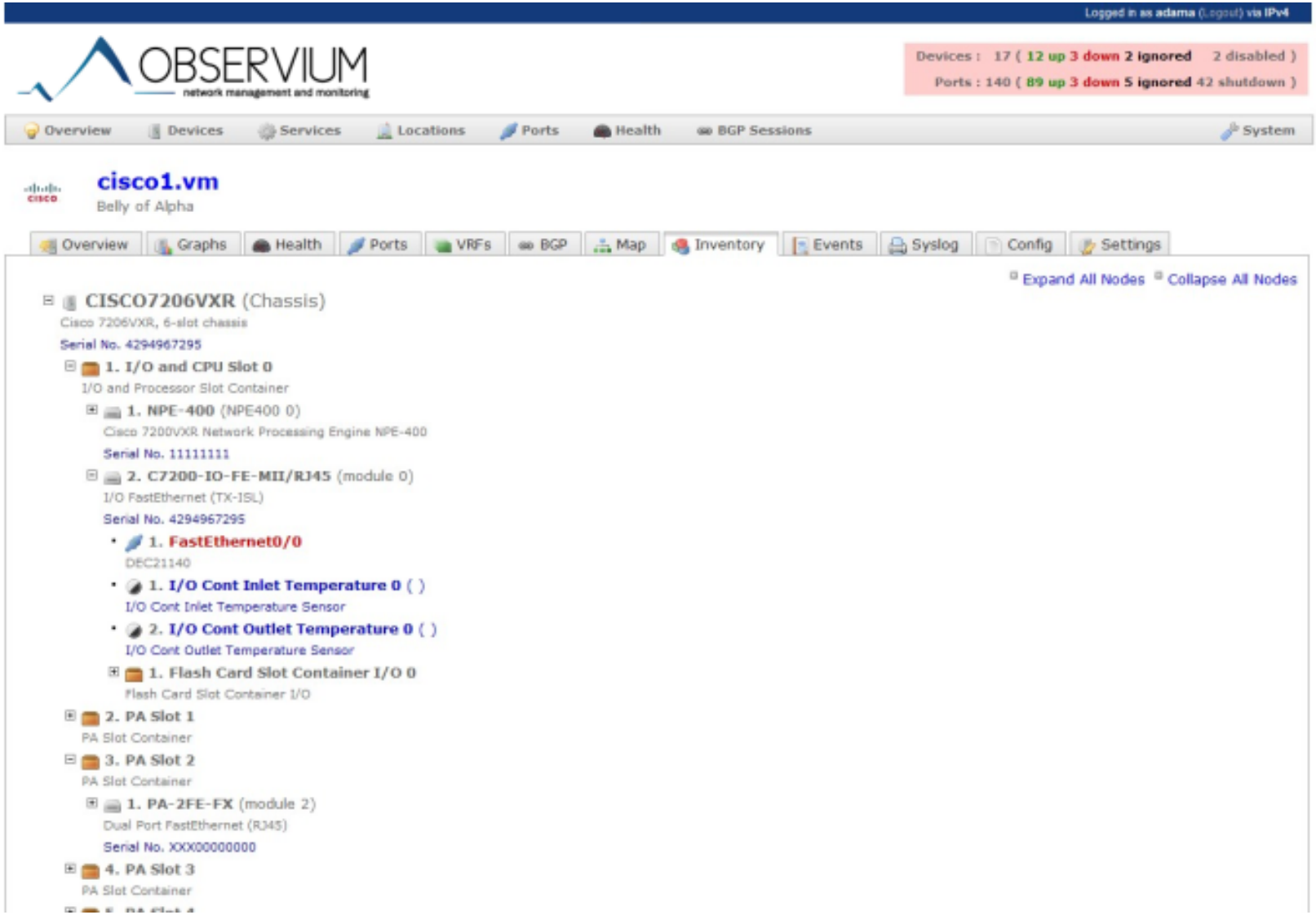
OBSERVIUM
network management and monitoring
Devices : 75 (71 up 0 down 4 ignored 4 disabled)
Ports : 4078 (1723 up 567 down 255 ignored 1508 shutdown)
Overview Devices Services Locations Ports Health BGP Sessions System
uk.thn.pbr01
Telehouse North, London, UK
Overview Graphs Health Ports VRFs BGP Map Inventory Events Syslog Config Settings
3. GigabitEthernet0/0/2
Peering: LINX 224
195.66.224.180/23
2001:7f8:4::21e9:1/64
367.37Mbps
80.55Mbps
54.95Kpps
43.24Kpps
1Gbps
Ethernet
0:23:4:a7:7a:2
MTU 1500
Graphs | ARP Table | Mac Accounting : Bits (Mini|Top10) | Packets (Mini)
Day
Two Day
Week
Month
Year
600 M
500 M
400 M
300 M
200 M
100 M
0
16:00 18:00 20:00 22:00 00:00 02:00 04:00 06:00 08:00 10:00 12:00 14:00
In: Current Maximum Total Out: Current Maximum Total
195.66.224.125 (00:19:e2:bf:e7:c4) 87.08Mbps 230.75Mbps 7.36TB 7.52Mbps 13.06Mbps 575.74GB
195.66.224.168 (00:24:dc:8e:e4:01) - 58.04Mbps 71.08Mbps 2.51TB 1.40Mbps 2.60Mbps 97.56GB
195.66.224.133 (00:0c:db:e8:57:09) - 25.58Mbps 98.77Mbps 3.51TB 1.75Mbps 4.57Mbps 194.06GB
195.66.224.140 (00:19:07:ab:ec:c0) - 11.15Mbps 43.41Mbps 1.38TB 1.16Mbps 5.44Mbps 156.57GB
195.66.224.46 (00:18:74:2e:1b:c0) 11.88Mbps 21.76Mbps 698.90GB 2.10Mbps 3.84Mbps 139.90GB
195.66.225.56 (00:1f:ca:4f:73:80) - 14.17Mbps 39.23Mbps 1.19TB 877.28kbps 1.91Mbps 79.25GB
195.66.224.43 (00:21:a0:3a:3a:02) - 10.11Mbps 16.59Mbps 662.79GB 4.56Mbps 8.28Mbps 355.62GB
195.66.224.243 (00:1a:30:29:89:c0) - 9.71Mbps 70.80Mbps 2.04TB 727.45kbps 4.99Mbps 87.92GB
195.66.225.100 (00:1e:f7:47:cd:84) 9.06Mbps 27.56Mbps 949.74GB 13.34 bps 14.33 bps 897.38kB
195.66.224.227 (00:12:f2:3e:e4:01) - 8.38Mbps 27.88Mbps 925.59GB 461.89kbps 1.31Mbps 49.05GB
Traffic
Packets
Top Input
Top Output
Top Aggregate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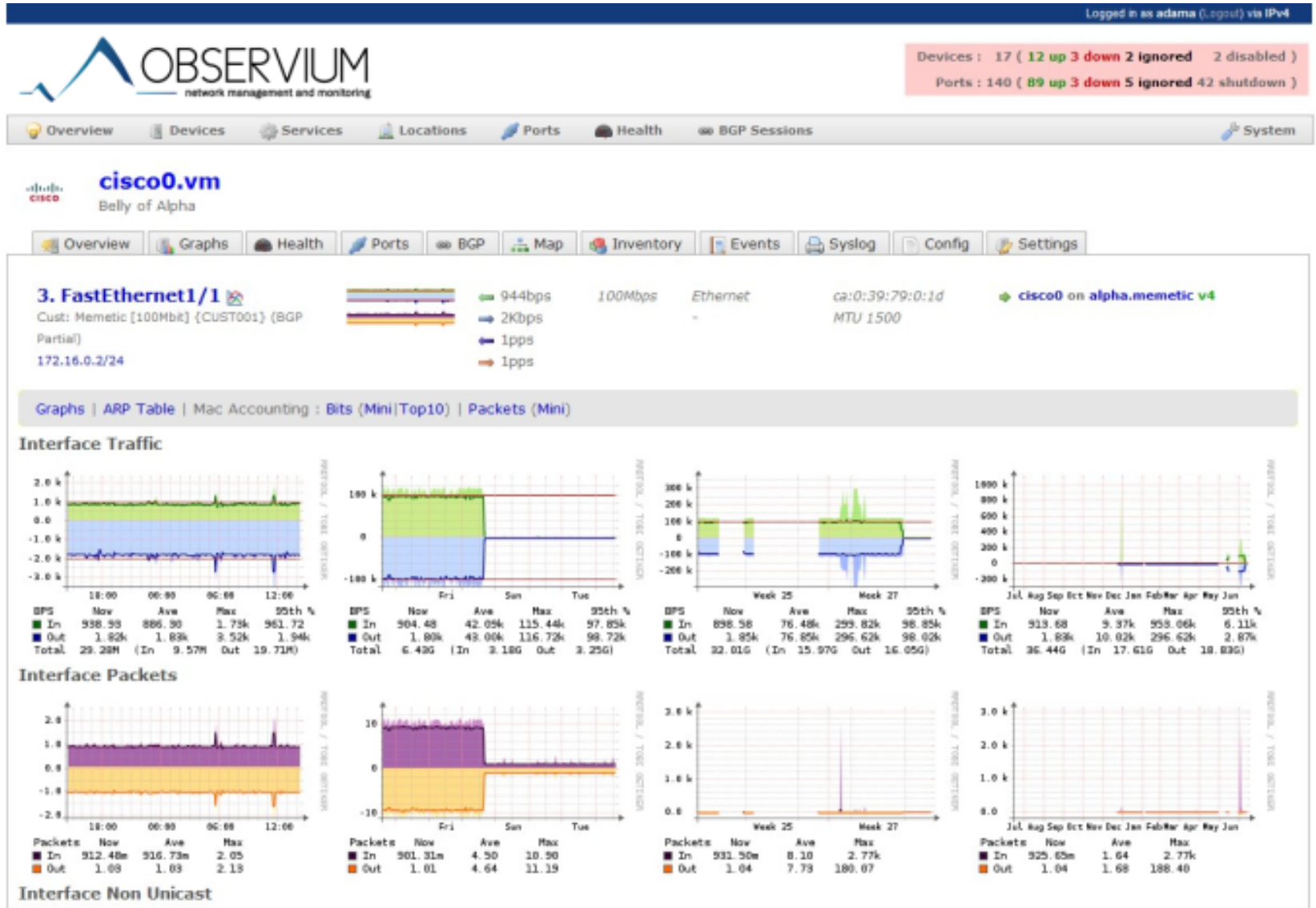
Settings
Expand All Nodes
Collapse All Nodes
CISCO7206VXR (Chassis)
Cisco 7206VXR, 6-slot chassis
Serial No. 4294967295
1. I/O and CPU Slot 0
I/O and Processor Slot Container
1. NPE-400 (NPE400 0)
Cisco 7200VXR Network Processing Engine NPE-400
Serial No. 11111111
2. C7200-IO-FE-MII/RJ45 (module 0)
I/O FastEthernet (TX-ISL)
Serial No. 4294967295
1. FastEthernet0/0
DEC21140
1. I/O Cont Inlet Temperature 0 ( )
I/O Cont Inlet Temperature Sensor
2. I/O Cont Outlet Temperature 0 ( )
I/O Cont Outlet Temperature Sensor
1. Flash Card Slot Container I/O 0
Flash Card Slot Container I/O
2. PA Slot 1
PA Slot Container
3. PA Slot 2
PA Slot Container
1. PA-2FE-FX (module 2)
Dual Port FastEthernet (RJ45)
Serial No. XXX00000000
4. PA Slot 3
PA Slot Container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3. FastEthernet1/1
Cust: Memetic [100Mbit] {CUST001} (BGP Partial)
172.16.0.2/24
944bps
2Kbps
1pps
1pps
100Mbps
Ethernet
ca:0:39:79:0:1d
MTU 1500
cisco0 on alpha.memetic v4
Graphs | ARP Table | Mac Accounting : Bits (Mini|Top10) | Packets (Mini)
Interface Traffic
Interface Packets
Interface Non Unicast

Questions?