Visualisation tools

WACREN Network Monitoring and Measurement Workshop

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Visualisation tools

- perfSONAR toolkit gui
- psUI
- MaDDash
- Service Directory
perfSONAR toolkit gui

- On your local desktop: 3 VM
  - 192.168.56.3: Debian + perfsonar-testpoint
  - 192.168.56.4: CentOS + perfSONAR-TestPoint
  - 192.168.56.5: perfSONAR toolkit full install
- 2 perfSONAR web GUI
  - http://192.168.56.4
  - http://192.168.56.5
- Login: pst/abuja
toolkit Homepage

• Public dashboard
• Registration status
• Services status
• Tests results
• Private dashboard
• More information about host
Configuration

• Administrative information: registration to the Lookup Service (global directory of perfSONAR nodes)
• Host configuration:
  • auto updates and ntp
• Running services
  • bwctl, owamp
• Tests/measurements configuration
  • add your own!
Visualisation tools

- perfSONAR toolkit gui
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- MaDDash
- Service Directory
psUI: perfSONAR web UI

• Java application running in tomcat
  • Java 7 and Tomcat 7
• To be deployed on separate host
• List of MP and MA
  • Global Lookup Service (~ 9,000 services)
• Locally maintained list
• Calls bwctl through OPPD
psUI overview

VM pertX  10.0.0.x  10.0.0.y  VM pertX

VM psUI

NAT

Internet

web-browser @Laptop

control connection measurement data
psUI usage

• On Demand Measurement
  • Bandwidth measurements
    • Beware of naming!
    • Source = bwctl sender (-s) = iperf client (-c)
    • Destination = bwctl receiver/catcher (-c) = iperf server (-s)
  • One Way Delay measurements
• Access Measurement Archives
Doing a measurement
Visualising results
Try it for yourself

• Demo at http://psui-perttraining.switch.ch

• Install your own psUI for your NOC
  • Installation instructions: http://docs.perfsonar.net/install_psui

• Usage instructions: http://docs.perfsonar.net/using_psui
MaDDash

- Mesh of measurements
  - centrally configured
  - distributed measurements
  - available only to participants or you make it public
- Symmetric or Asymmetric
- Both for losses and throughput
- Easy to visualise problems
  - green: ok!
  - yellow: degraded performance
  - red: bad performance
  - orange: no data
- you set the thresholds
- You can link multiple dashboards
- Nice example: http://ps-dashboard.es.net/
LookupService and ServiceDirectory

- perfSONAR nodes are most useful when registering to the LookupService
  - cloud of distributed LookupService servers and caches maintained by the perfSONAR community
- Populated by the admin infos you provide on your node and some data about your host
- Records expire if the node is not online (TTL)
- Service Directory provides a looking glass to the LookupService data
  - [http://stats.es.net/ServicesDirectory/](http://stats.es.net/ServicesDirectory/)
  - Takes a bit of time to load, be patient, nice maps, lots of dots
  - Use the communities to find your hosts
  - Look at nodes characteristics
  - See command line examples
Other tools

- alerting with Nagios
- esmond: local measurement archive (MA)
- mesh config agent
- centralised measurement archive