

# Network Monitoring, Management and Automation

## Measuring Delay with



**npNOG 5**

Dec 8 - 12, 2019



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# Introduction

- SmokePing keeps track of your network latency:
- Best of breed latency visualization.
- Interactive graph explorer.
- Wide range of latency measurement plugins.
- Master/Slave System for distributed measurement.
- Highly configurable alerting system.
- Live Latency Charts with the most 'interesting' graphs.
- Free and OpenSource Software written in Perl written by Tobi Oetiker, the creator of MRTG and RRDtool

# Technical Introduction

- Based on RRDTool (the same author)
- Measures ICMP delay & status of services like:
- HTTP, DNS, SMTP, SSH, LDAP, and more
- Define ranges on statistics and generate alarms
- Written in Perl for portability
- Easy to install - harder to configure

# The Smoke and The Pings

SmokePing  
Targets:

Filter:

- Charts  
- Local  
- Tower  
- Valley  
- Internet  
- 8.8.8.8  
[store.apple.com](#)

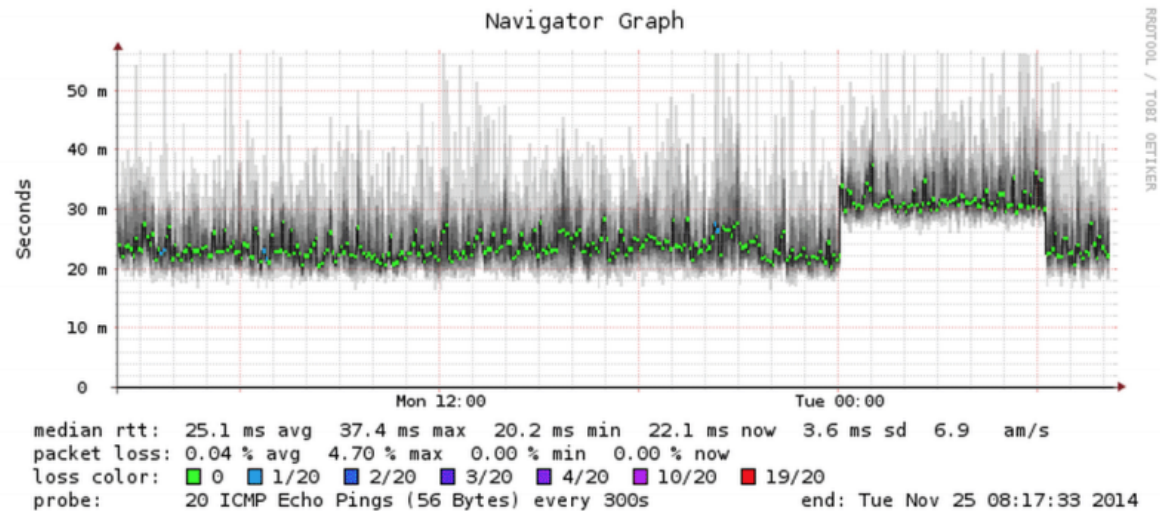
Maintained by  
Peter Random

Running on  
SmokePing-2.6.8 by  
Tobi Oetiker and  
Niko Tyni

smoke  
ping

RRDtool  
logging & graphing

store.apple.com

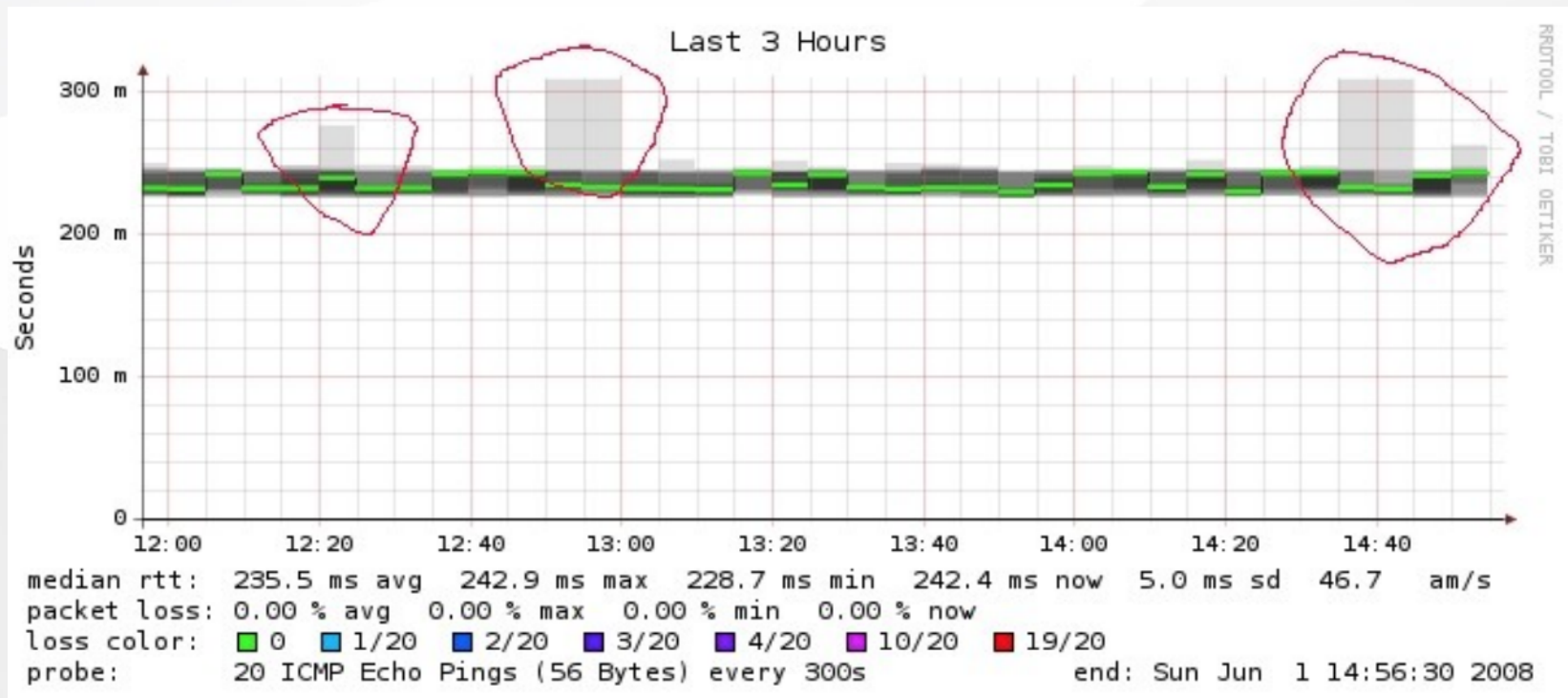


Time range: 2014-11-24 02:17 to now Generate!

# How To Read Smokeping Graphs

- Smokeping sends multiples tests (pings), makes note of RTT, orders these and selects the median.
- The different values of RTT are shown graphically as lighter and darker shades of grey (the "smoke"). This conveys the idea of variable round trip times or *jitter*.
- The number of lost packets (if any) changes the color of the horizontal line across the graph.

# Example: Smokeping Graph



# What Makes It Tick

- rrdtool <https://oss.oetiker.ch/rrdtool/>
- fping <https://www.fping.org>
- echoping <https://bortzmeyer.github.io/echoping/>
- speedyCGI  
<http://www.daemoninc.com/SpeedyCGI/>
- Apache <https://httpd.apache.org/>
- Perl <https://www.perl.org/>

# To Learn More About Syslog

- Smokeping Website  
<https://oss.oetiker.ch/smokeping/>
- Smokeping Demo  
<https://oss.oetiker.ch/smokeping-demo/?target=Customers.OP>
- Good Examples  
[https://oss.oetiker.ch/smokeping/doc/smokeping\\_examples.en.html](https://oss.oetiker.ch/smokeping/doc/smokeping_examples.en.html)



