



INFORMATION

TECHNOLOGY

# Network Monitoring with Zenoss

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# Agenda

- Introduction to Network Monitoring
  - Why should we monitor the network?
  - Monitoring protocols
- Zenoss
  - Company
  - Architecture
- Working demonstration of Zenoss

# Network Monitoring Basics

## Why should we monitor the network?

- Proactive management – Stop problems before they start
- Faster issue resolution – Find problem causation faster
- Security – Find rogue devices and traffic
- Reporting – Justify the next upgrade with fancy charts and graphs

# Network Monitoring Basics

## How do we monitor the network?

- Ping
  - Simple up/down status of any device
- SNMP
  - Polling – The monitoring server queries the monitored device for specific variables (OID's – Object Identifier's).
  - Traps – The monitored device sends event messages to the monitoring server.
    - The monitoring server must have a copy of the monitored devices MIB (Management Information Browser) file to interpret the event.
  - Both Traps and Polling are “authenticated” with a community name, which is passed between the devices in plain text.
- WMI
  - Windows Management Instrumentation – Windows API that allows for authenticated, scripted, access to server variables and performance data.
  - Can get more data than SNMP in most cases, but this requires administrative access to the server.

# Zenoss

- Founded in 2005, based in Annapolis, MD
- Open source monitor with integrated availability, performance, configuration, & event monitoring
- Uses WMI and SNMP to monitor nearly any device or service
- Web based dashboard with real-time information
- All monitoring, reporting, management and configuration is done in the same web interface
- Open framework allows for easy customization
- Comes in two versions Core and Enterprise

# Zenoss

## Architecture

- Open source application installed on Linux operating system
- Open framework allows for easy customization of a single device, a group of devices, or the entire application
- Performance data is stored in reliable Round Robin Databases (RRDs) that are very space efficient while allowing for long term trending of performance data
- All other data collected is stored in MySQL databases
- Google maps integration shows status of sites as well as private WAN connections
- Flash based layer 2 & 3 map allows for visualization of networks and devices
- Zenpacks allow for users to create and share add-ons, extensions, & customizations to Zenoss

# Demonstration

- Dashboard
- Maps – Google & Flash
- Classes – Devices & Services
- Organizers - Locations, Systems, Groups
- Action Button
- Zenpacks - Adding
- Device View – Tabs, Templates, & zProperties
- Adding a Device
- Users & Alerts
- Reporting

# Q&A

# Questions???