

Introduction to Zenoss

for

BCS Open Source Specialist Group

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Agenda

- What is Zenoss?
- Zenoss installation
- Discovery techniques with Zenoss
- Availability polling
- Event management
- Performance data, graphs & reporting

Demos!
Questions?

Who has.....??

“Fee”



“Free”

Nagios[®]



Who has.....??

“Fee”



“Free”

Nagios®



Zenōss®

What is Zenoss?

- Network and systems management
- Web interface
- Open Source (GPL)
- Available for most Linux distros
- Combines many other open source management solutions into a single model
 - RRDtool
 - MySQL events database
 - Zope web application server

Zenoss Installation

- At least 1GB RAM; installed code ~ 220MB
- <http://community.zenoss.org/docs/DOC-3240>
 - Stack installers (all pre-reqs bundled) for most Linux distributions (~ 100MB)
 - Native RPM builds for Red Hat derivatives
 - Tarballs for Linux, Free BSD, Solaris 10
 - VMware appliance for Windows, Linux, MAC
- Simply run the stack-installer executable
 - Provide password for MySQL user

Zenoss Discovery

- Individual devices
- All devices in a network / subnetwork
- Ranges of devices
- No automatic discovery schedule but could be automated through Unix cron scheduler
- GUI and Command Line Interface for discovery
- Internal network topology built so that root-cause events can be generated when a network single-point-of-failure goes down

Classifying devices

- Configuration Management Database (CMDB) implemented in Zope Object Database (ZODB)
 - Device class hierarchy, eg.
 - /Server/Linux , /Network/Router/Cisco
 - SNMP, ssh, Windows parameters
 - Location, System(s), Group(s) allocation
- SNMP support greatly improves automatically-acquired device information
- zCollectorPlugin zProperty defines configuration checks to be run periodically (12 hours)
- ZDeviceTemplate zProperty defines performance data collection metrics

Availability polling

- Ping polling (every 1 minute)
- SNMP polling (every 5 minutes)
- TCP port sniffing (service monitoring) (1 min)
- Process monitoring (every 3 minutes)
- Windows service monitoring (every 1 minute)
- Higher-layer polling suspended if lower-layer is down
- One daemon for each type of polling each with its single, configurable polling interval

Zenoss Event Management

- MySQL events database
 - status table for active events
 - history table for cleared events
- Event Console GUI remodelled for V2.5
 - 6 severities, including Clear
 - Several different views with filtering by:
 - Device, Event Type
- Many built-in event classifications
- Powerful mechanism to extend event hierarchy
- Alerts (email / pager) configurable per user
- Automation scripts configurable for events

Performance data & graphs

- Several SNMP performance metrics gathered automatically and stored in RRD files:
 - Interface bytes / packets / errors
 - Server CPU / memory / IO / filesystem
- Performance graphs built automatically
- Zenoss templates mechanism to configure further performance data collection using:
 - SNMP, ssh, WMI,
- Templates can be applied to classes of devices or individual nodes

Zenoss reporting

- Many reports provided out-of-the-box
 - Aggregated device reports
 - Performance reports
 - Events reports
- Configuration mechanism to create new reports:
 - Based on existing graphs
 - Based on existing performance data
- Reports data can be exported to CSV file
- Reports can be printed

Extensibility

- Will run Nagios plugins
- Can integrate with trouble ticketing systems such as RT
- Can integrate with manager-of-managers such as IBM Tivoli Enterprise Console
- ZenPacks extension mechanism:
 - 20 core ZenPacks (http, Dell, LDAP, Apache..)
 - Over 100 community ZenPacks (Cisco, wireless, WMI, Vmware, puppet, IIS, Exchange...)
 - Write your own
- Zenoss Enterprise to provide support (fee)

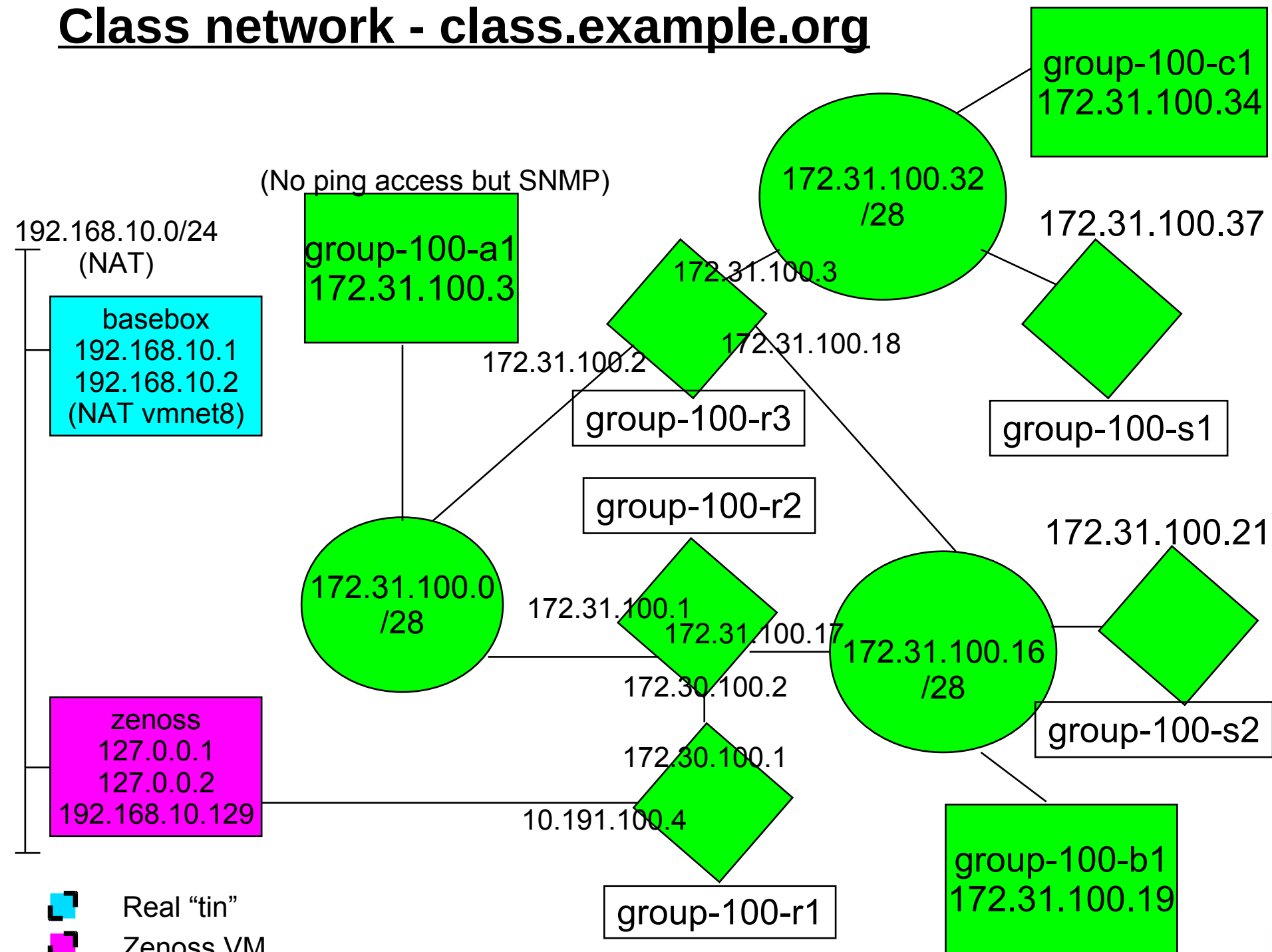
Next steps?




- Install it!
- Use it!
- 1-day Zenoss Introduction FastStart workshop
 - June 15th in Maidenhead
 - <http://www.skills-1st.co.uk/products/courses/zenoss-faststart.html>
- 3-day Zenoss Event Management workshop
 - <http://www.skills-1st.co.uk/products/courses/zenoss-events.html>
 - <http://community.zenoss.org/community/forums>
- Participate in the Zenoss Community fora:
 - <http://community.zenoss.org/community/forums>

Questions?



Class network - class.example.org



-  Real "tin"
-  Zenoss VM
-  Raddle emulated devices