ManageEngine
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# Zoho and Remke Markets

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# Agenda

- Introduction
- Infrastructure Monitoring
  - OpManager
- PCI Compliance
  - EventLog Analyzer, Security Manager Plus, Desktop Central
- More Detailed Monitoring
  - NetFlow Analyzer, Application Manager
- Why Zoho Products?
- Questions?

# Introduction

**Remke Markets**

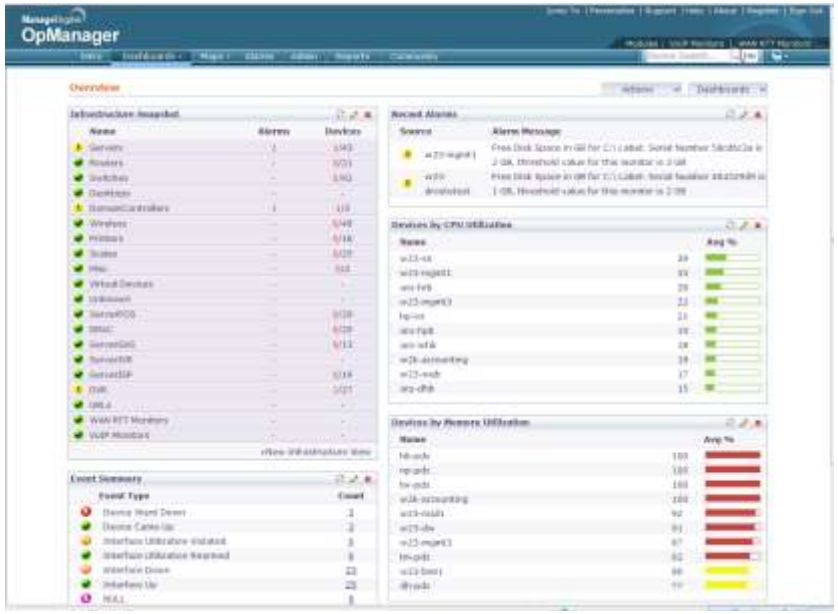
- Employee-owned, independent grocer in operation since 1897.
- 14 stores across the greater Cincinnati area.
- Doubled store count in 2010 with acquisition of a local competitor.

**Infrastructure**

- 16 locations with high-speed connectivity between all locations.
- Approximately 1,200 employees
- Primarily Microsoft environment with growing mix of Linux and MySQL.

# Infrastructure Monitoring

- Zoho (then AdventNet) first introduced at Remke many years ago for infrastructure monitoring.
- Primary tool for monitoring system available, utilization, SNMP trap management.
- Used to monitor everything – from Windows to Linux to IVRs to VMware to switches/routers/APs to desktops to ‘generic’ SNMP-capable devices.
- Alerts on specific Windows service outages and, if possible, restarts the service.



# Infrastructure Monitoring

**Proactive Monitoring**

- Send alerts when critical devices experience outages – in many instances, correcting issues before users notice the outage.
- Monitor for pending hardware failures

**Capacity Planning**

- Long-term monitoring of CPU, disk, and memory usage.
- Used to plan for upgrades and capacity expansion.

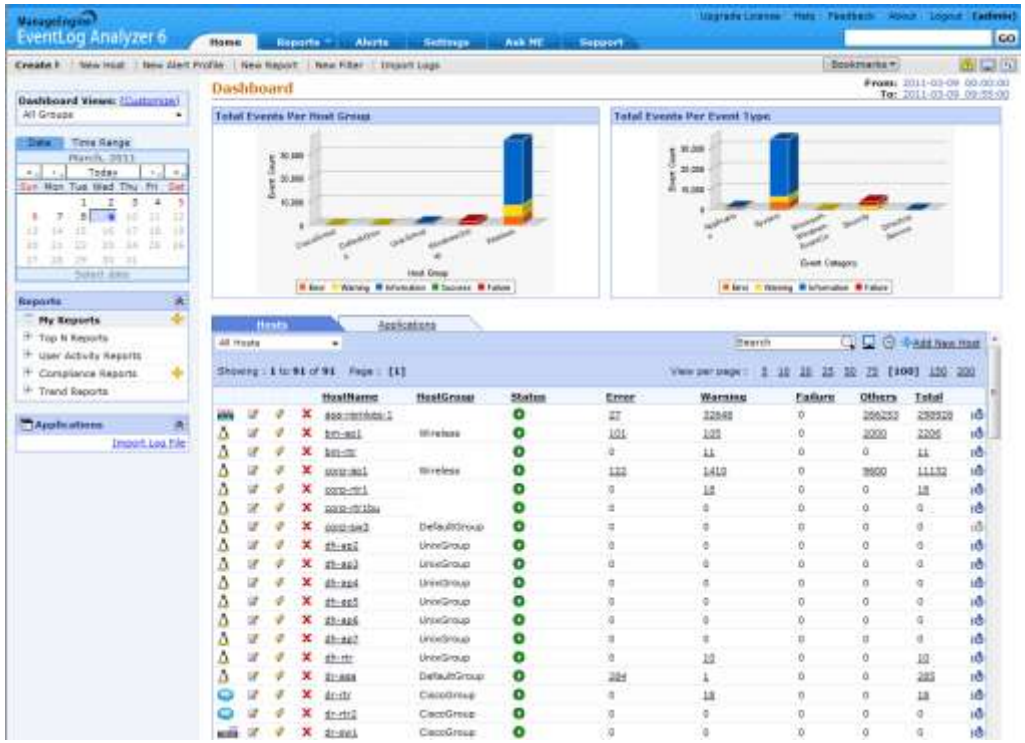
# PCI Compliance

Zoho provided some of the key components to help achieve PCI compliance.

- EventLog Analyzer
- Desktop Central
- Security Manager Plus

# PCI Compliance

## EventLog Analyzer




- Capturing Windows Eventlog and Linux/Cisco/misc syslog messages from all devices
- Key portion of PCI DSS requirement #10

# PCI Compliance

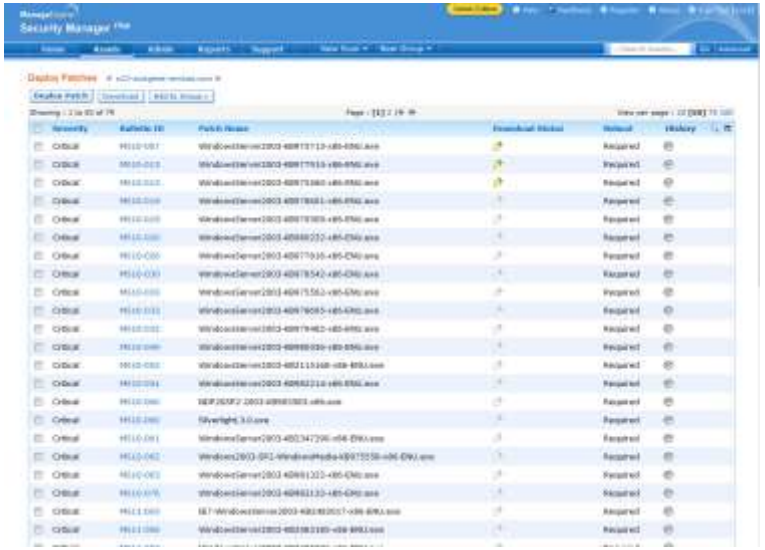
## Desktop Central


- Originally used for automated desktop patch management in compliance with PCI DSS requirement 5.
- Since expanded for other purposes:
  - General desktop updates (i.e., new software deployment, configuration changes, local admin password)
  - Hardware inventory – upgrade planning
  - Software inventory
  - License management and compliance

# PCI Compliance

## Security Manager Plus

- Server patch management and weekly vulnerability scanning
- Covering both Windows and Linux servers
- Part of PCI DSS requirement 11



# Further Monitoring

**NetFlow Analyzer**

- To monitor usage of Internet bandwidth.
- Helped pinpoint some users that were “taking advantage” of the bandwidth.


**Top Source**

| Source | Traffic | Traffic Percentage |
|---|---|---|
| 192.168.4.16 | 9.21 GB | 34% |
| 192.168.4.30 | 1.45 GB | 5% |
| 10.224.29.29 | 989.09 MB | 4% |
| 192.168.4.127 | 708.6 MB | 3% |
| 192.168.4.143 | 551.91 MB | 2% |
| 192.168.103.218 | 388.23 MB | 1% |
| 192.168.109.122 | 378.77 MB | 1% |
| 192.168.4.196 | 343.41 MB | 1% |
| 192.168.4.179 | 314.03 MB | 1% |
| 192.168.4.125 | 299.35 MB | 1% |
| Others | 12.66 GB | 46% |

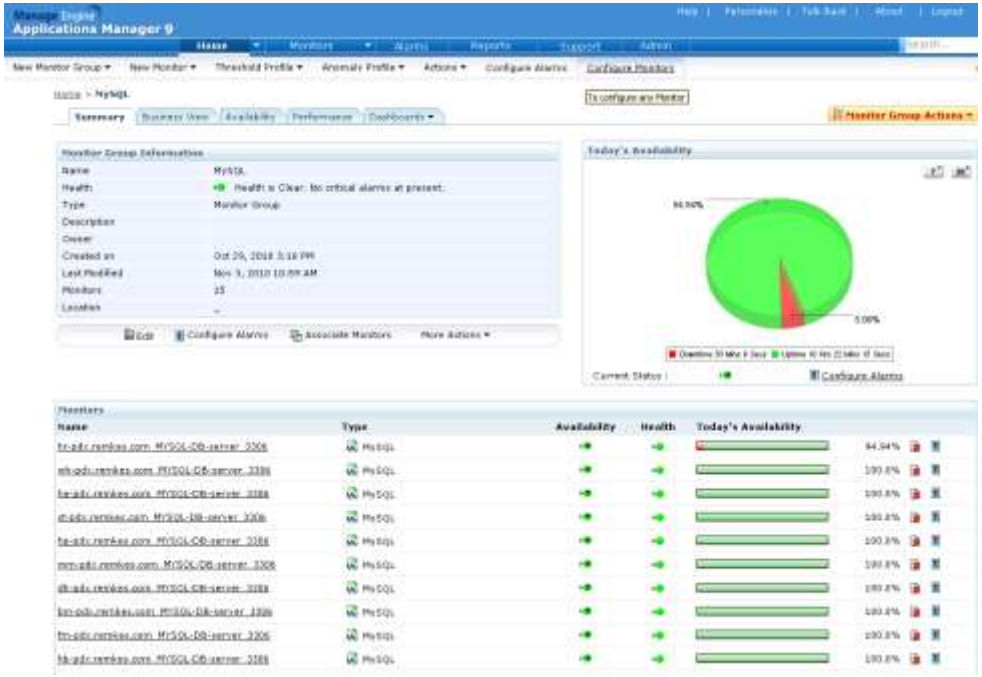
**Top Destination**

| Destination | Traffic | Traffic Percentage |
|---|---|---|
| 192.168.20.231 | 7.33 GB | 27% |
| 192.168.20.20 | 1.78 GB | 7% |
| 69.16.175.42 | 642.07 MB | 2% |
| 38.116.147.117 | 531.94 MB | 2% |
| 216.68.10.169 | 525.97 MB | 2% |
| 184.85.41.188 | 514.84 MB | 2% |
| 216.68.10.147 | 432.31 MB | 2% |
| 216.68.10.155 | 416.54 MB | 2% |
| 216.68.10.146 | 357.27 MB | 1% |
| 216.68.10.178 | 314.07 MB | 1% |
| Others | 14.44 GB | 53% |

# Further Monitoring

## Application Manager

- Brought in to monitor MySQL environment – specifically replication and query performance.
- Sends out alerts when replication 'breaks' with any of the slave servers.




**Replication Details**

| Attribute | Value | Threshold | Attribute | Value | Threshold |
|---|---|---|---|---|---|
| Replication Status | Up | | Master Host | lba.remkes.com | - |
| Slave IO Running | Yes | - | Master User | hh_replication | - |
| Slave SQL Running | Yes | - | Master Port | 3306 | - |
| Last Error | No Errors | - | Time Behind Master | 0 | |
| | Configure Alarms | | | Configure Alarms | |

# Why Zoho Products?

- Free trials
  - Allowed us to confirm the product would do what we needed it to do.
  - Able to explore the overall functionality of the product.
- Comprehensive suite of products
  - Single vendor to deal with
- Aggressive pricing

# Questions