

# Converting to an Open Source Enterprise Monitoring System

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# Themes

- Enterprise System Monitoring
- Open Source

# History

- Using IBM Tivoli Monitoring for Unix systems
- Tivoli monitors plus some custom monitoring that interfaced to Tivoli
- Using Argent to monitor Windows
- Monitoring run by different group than the one that administers systems - approx. 1 and a half FTE's

# Rationale

- IBM Announced version 6 of Tivoli Monitoring (ITM 6)
- ITM 6 uses technology purchased by IBM
- Moving to ITM 6 would require fork-lift software upgrade
- ITM 6 would also require addition hardware purchase

# Decision

- Since we would have to perform a fork-lift upgrade anyway, we decided to look at the market

# Picking a New Vendor

- Looked at everything we were monitoring with Tivoli and Argent
- Condensed monitoring requirements into an RFP
- RFP was reviewed by sysadmin groups

# Requirements

- Perhaps a little unusual – networking support at OIT is the responsibility of a separate group so no network monitoring required
- Requirements were for host and application monitoring
- Consolidate Unix and Windows
- Trending data not a requirement, at least initially

# Out to Bid

- We invited bids from the major commercial players – IBM, HP, BMC, CA
- Some “minor players” also asked if they could bid and we sent them the RFP
- We also looked at several Open Source monitoring systems

# Observations on the “Big Four”

- All are very large, complex applications
- Some appeared to require large amounts of TLC to keep them running
- Some vendors appeared to believe that their chances of success were proportional to the number of people they brought to meetings

# Observations on “Minor Players”

- Seemed to grow out niche product
- All appeared to be strong in one area (e.g. Windows)
- Treated other environments as an afterthought
- Support for other environments may be provided by a third party

# Open Source Products

- We looked at Nagios, Zenoss and Zabbix
- Open source products much simpler than their commercial counterparts (perhaps indicating a lack of maturity – not necessarily a bad thing)
- Simplicity made testing and evaluation of these products possible and relatively easy

# Evaluation

- We adopted several methods to evaluate the various offerings
- Demo of software over Internet
- Visited vendor's site and worked in their test lab
- Installed evaluation version of software on our systems (beware resource commitment for this option)

# References

- Some supplied by vendors, some we knew ourselves
- No big surprises about the questions we asked
- “How much time do you spend just keeping the system running?”
- The obligatory Gartner conference call

# The Envelope, Please...

- We selected Groundwork Open Source as the successful bidder
- Their product is based on Nagios, augmented by their web-based configuration tool and several other web-based add-ons
- Commercial product used for application monitoring
- Unanimous choice amongst the selection committee

# What we Liked

- The price
- Operational users liked the interface – it gave them a concise view of what's happening
- Small footprint agent

# Making it Happen

- We engaged vendor consulting for a pilot implementation
- They showed us how to set everything up and make it work
- We then took everything apart and made it work for our environment
- We found this easy to do with the software

# Making it Happen

- Maintenance on the Windows monitoring (Argent) expired about 5 months after we started work on the new system
- We moved Windows monitoring before tacking other systems
- We had one false start with Windows monitoring but were able to overcome that relatively easily
- Moved on to Unix next

# Current Status

- We've been working on it for about 15 months
- About 95% of monitoring now moved
- We needed to deal with new monitoring requests as we moved to the new system
- As far as possible, we satisfied new monitoring requests using the new system

# Good Things

- Our monitoring system is running up-to-date software
- Unix and Windows under the same monitoring platform
- New system is easily understood
- Easy to integrate new monitors

# Not so Good Things

- Some customization required (don't expect everything to work out of the box – this is probably true for all monitoring packages)
- We could have planned the installation better – but until we saw the pilot implementation we didn't know what questions to ask
- Need to come to terms with Nagios' way of doing things
- Application monitoring had some problems – relatively easy to fix

# Benefits

- Lower cost (also, no per-client license costs)
- Flexibility
- Understandability
- Vendor independence (relatively)
- Immune from mergers and acquisitions (relatively)

# Caveats

- Open source monitoring software tends to take a “toolkit” approach
- But this is also true, to some extent, with the commercial products

# Advice

- Download the program and kick the tires – after all, it's free!
- Assess your comfort level with the product.
- A company supporting an open source product is a great asset. They can also assist with evaluation.