

Open Source Management Solutions



Greg King

Agenda

- **Profile: King Consulting**
- **What is “open source”?**
- **Why consider open source system monitoring?**
- **Benefits**



KING Consulting = low risk systems monitoring



King Consulting

Greg King, MBA, PMP – Principal

Greg King has over 25 years of experience in the management of operational IT systems from mainframes to PCs and UNIX. Formerly, he has held senior technical positions with oil and gas companies and an IT vendor.

Greg's current activities revolve around enterprise management systems such as HP OpenView and some of the leading open source solutions in this area. His in-depth knowledge of these systems enables him to position them for maximum customer benefit.

HP OpenView certified

Linux Certified



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What is “open source”?

- **Term coined in mid 90s to overcome some incorrect perceptions associated with “free software”**
- **Software distributed under GPL, OpenBSD or other license giving the right to source code and authority to modify for own use and obligations around subsequent distributions of the software.**
- **Always “free” (as in speech), usually no cost**
- **Supported by developer community or by commercial companies or consultants.**



Why consider open source systems monitoring?

- **Sobering facts about systems monitoring**
 - 50%+ of large scale systems monitoring endeavours fail
 - Expensive monitoring tools are frequently shelved when customer support staff change
 - Ongoing support of commercial systems monitoring tools themselves can eat up any perceived payback
 - Basic infrastructure monitoring tools are now a commodity

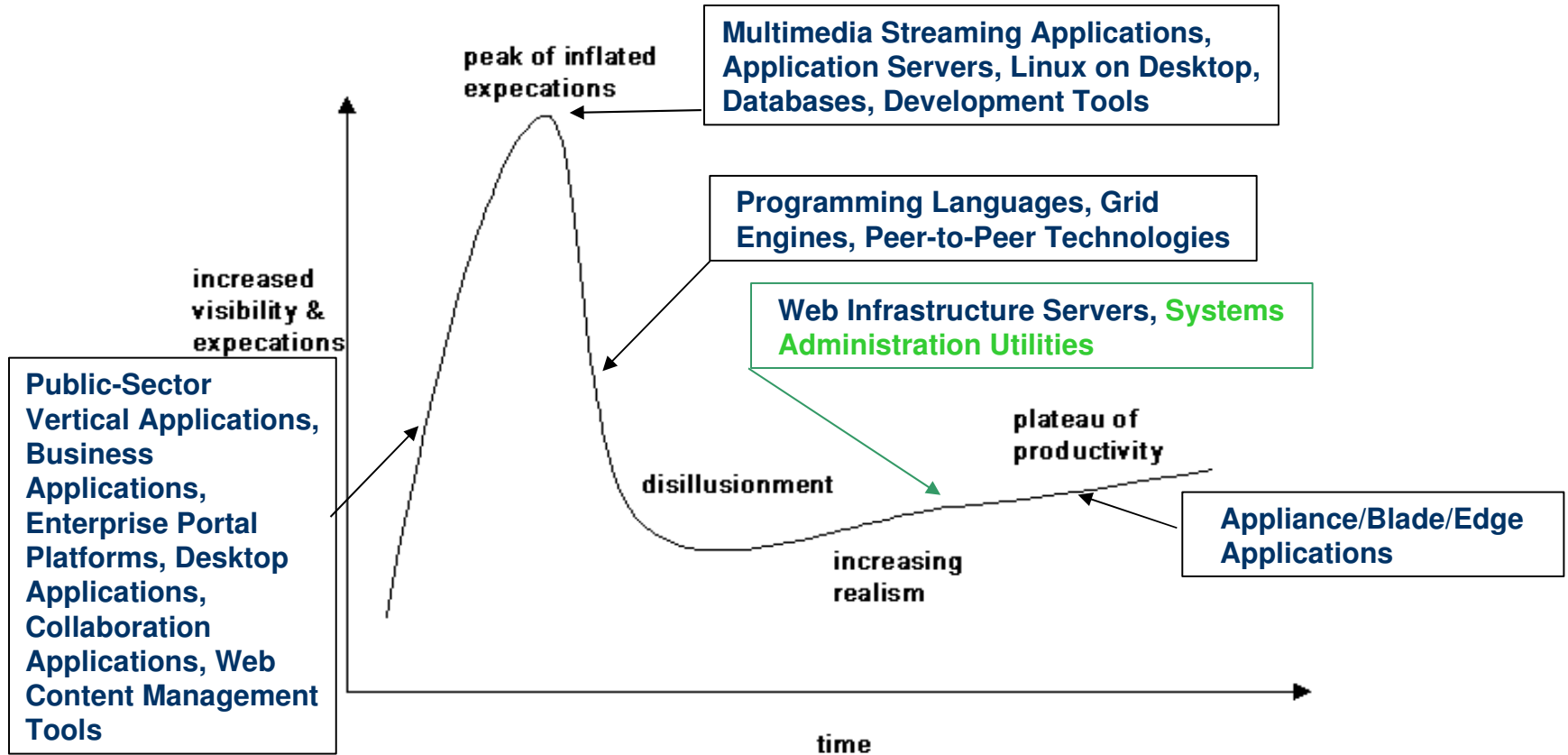


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Why consider open source systems monitoring? The time is right for open source

Hype Cycle of New Info Technologies



Source: The Gartner Group



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Why consider open source systems monitoring? The time is right for open source

Another indicator:

Harvard Professor Nicolas Carr's 2003 conference paper "IT Doesn't Matter".



Resonated with CxOs.

Premise: IT is a commodity which does not provide strategic advantage; IT is an essential service like electricity, phones, etc. and should be managed as such.

Recommendations: Focus on making IT as reliable as possible at the lowest cost.

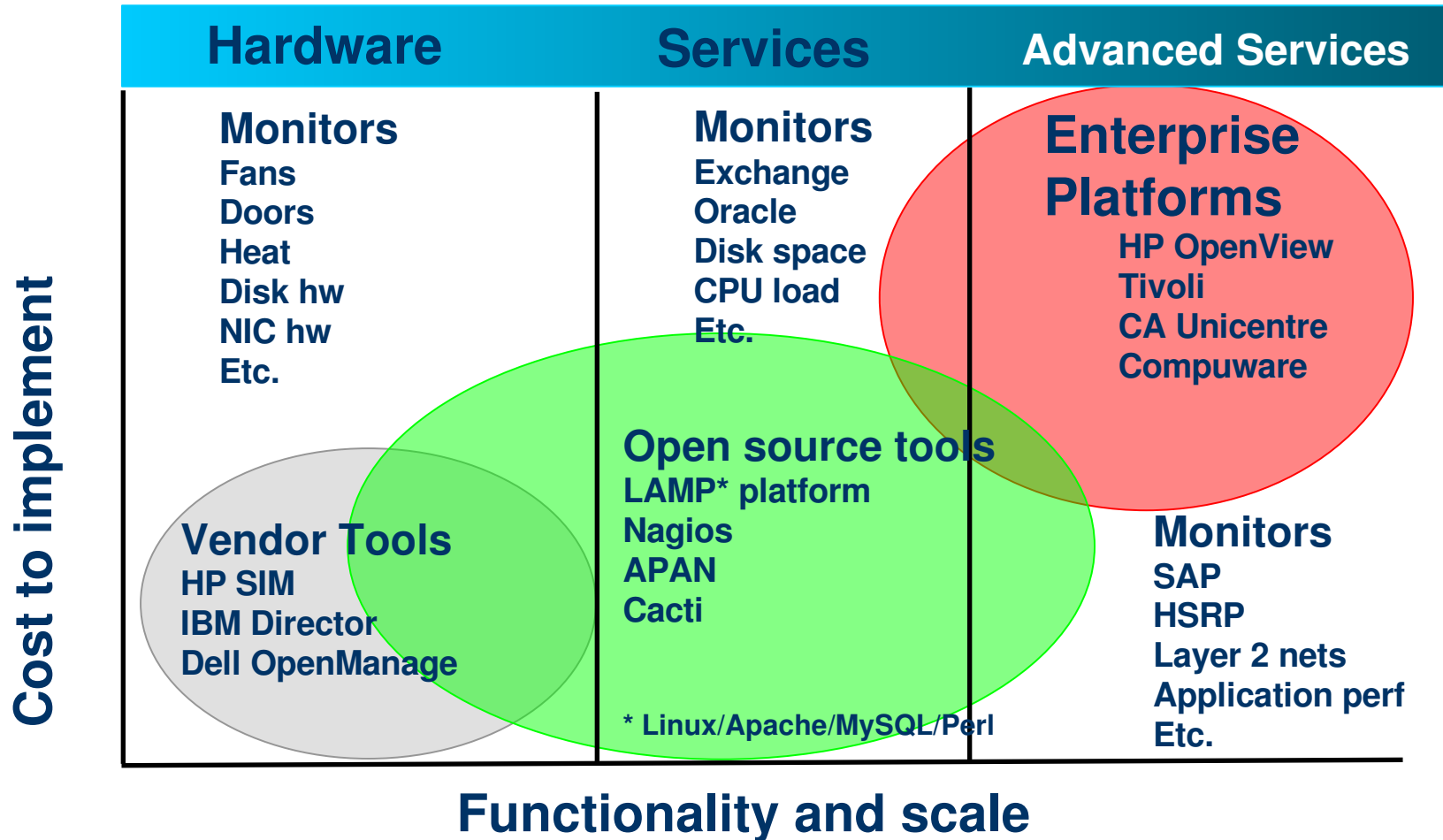
How? Proven open source monitoring tools can address both parts of recommendation.



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Where does open source fit ?



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Why consider open source systems monitoring?

- **Typical monitoring requirements**
 - Ping a network device and alert if no response
 - Check server CPU, memory and disk utilization, alert if threshold exceeded
 - Check for an active service or process, alert if stopped or down
 - Store monitored metrics for historical trending

The screenshot displays the Nagios web interface in a browser window. The interface includes a navigation menu on the left with sections like 'General', 'Monitoring', 'Service Problems', and 'Reporting'. The main content area shows 'Current Network Status' with a last update time of Tue Apr 20 19:08:09 MST 2004. Below this are 'Host Status Totals' and 'Service Status Totals' summary tables. The 'Service Status Details For All Hosts' table lists various services for hosts like 'Bent-chub', 'Den-router', 'enjac', 'mark-iv', 'univac1', and 'z3', showing their status (OK), last check time, duration, and attempts.

Host	Service	Status	Last Check	Duration	Attempt	Status Information
Bent-chub	PING	OK	2004-04-20 19:05:58	19d 2h 12m 51s	1/4	PING OK - Packet loss = 0%, RTA = 0.08 ms
Den-router	PING	OK	2004-04-20 18:10:08	19d 2h 5m 39s	1/4	PING OK - Packet loss = 0%, RTA = 0.09 ms
enjac	Network Traffic	OK	2004-04-20 19:05:09	0d 2h 42m 41s	1/3	SNMP OK: in:453054, out:150059,
	ping	OK	2004-04-20 19:07:11	0d 2h 44m 31s	1/3	PING OK - Packet loss = 0%, RTA = 3.67 ms
mark-iv	Disk usage	OK	2004-04-20 19:05:45	0d 3h 57m 21s	1/3	Disk utilization : 22824 98Mb (67%) used, 11162.08Mb free,
	Network Traffic	OK	2004-04-20 19:05:09	7d 8h 53m 38s	1/3	SNMP OK: in:7923210, out:3148001,
	System load	OK	2004-04-20 19:05:08	0d 3h 57m 51s	1/3	CPULOAD: 6%, MEMUSE: 23%,
	ping	OK	2004-04-20 19:07:10	0d 3h 56m 31s	1/3	PING OK - Packet loss = 0%, RTA = 0.35 ms
univac1	ping	OK	2004-04-20 19:07:11	0d 2h 43m 1s	1/3	PING OK - Packet loss = 0%, RTA = 0.91 ms
z3	Current Load	OK	2004-04-20 19:05:08	0d 3h 57m 51s	1/4	OK - load average: 0.03, 0.14, 0.15
	Current Users	OK	2004-04-20 19:05:08	18d 19h 30m 57s	1/4	USERS OK - 1 users currently logged in

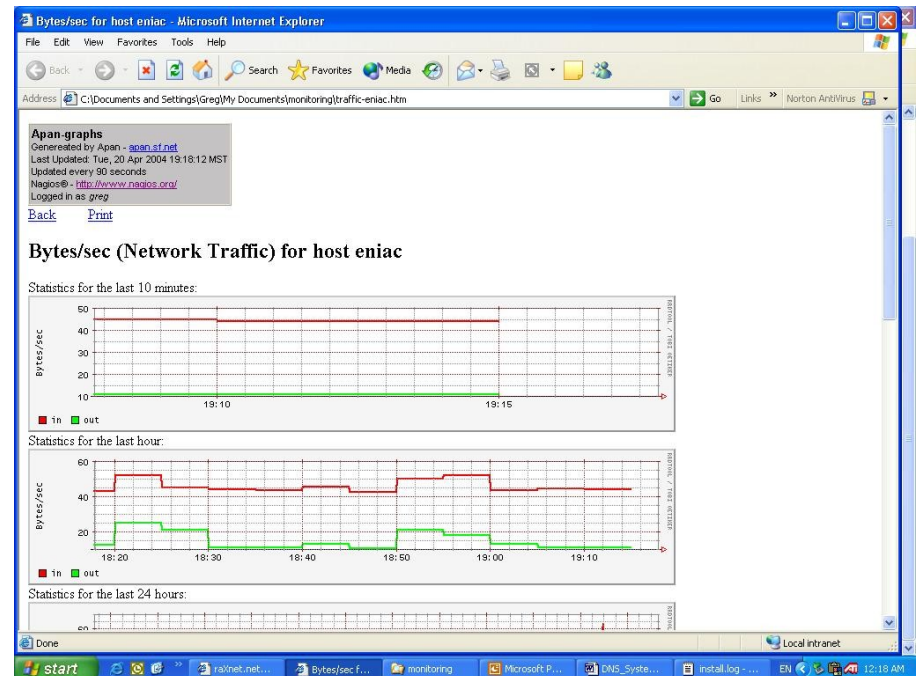


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Why consider open source systems monitoring?

- **Don't pay for commodity solutions**
 - Terrific base monitoring solution, or augment existing commercial monitoring tools
 - Web based administrator console with secure access
 - Extensible toolset
 - 100s of users in every industry
 - Active support community



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Benefits

- 2. Up/down monitoring of network devices and alerting when down. Knowing which infrastructure components are failing is the first step to restoring your IT services quickly and maintaining a reliable IT infrastructure.**
- 3. Monitoring key server global metrics of CPU/memory/load and disk free space, and alerting when thresholds are exceeded. Knowing when devices are operating beyond critical thresholds enables you to take preventative actions before services are disrupted.**
- 4. Archiving of historical metrics for on-demand reporting. Knowing your historical usage patterns enables you to plan infrastructure capacity increases in an orderly manner, and to be able to distinguish between a capacity blip and a long term trend.**
- 5. On-demand reporting of availability, events, and notifications. As the adage says “if you can’t measure it, you can’t improve it”, so knowing how well your IT infrastructure is operating is the first step in improving it.**
- 6. Web browser access to the monitoring solution. This provides flexible access to the monitoring tools from any network connected device.**
- 7. Low cost, fast implementation = low risk.**



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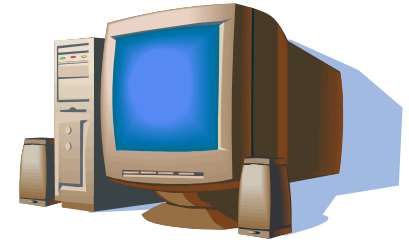
King Consulting can help

King Consulting has assembled an integrated package of the best open source system management tools available

King Consulting can implement quickly and provide ongoing support

King Consulting has partnerships to offer monitoring as a service with help desk or other infrastructure services.

APAN

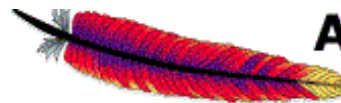


Nagios[®]



cacti

Perl



Apache

Built on Tobi Oetiker's
RRD TOOL



SOURCEFORGE
net



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low risk systems monitoring

Example service checks:

- `check_breeze` `check_ifoperstatus` `check_nntp` `check_real` `check_users`
- `check_by_ssh` `check_ifstatus` `check_nt` `check_rpc` `check_vsz`
- `check_dig` `check_imap` `check_sensors` `check_wave`
- `check_disk` `check_ircd` `check_ntp` `check_smtp`
- `check_disk_smb` `check_load` `check_nwstat` `check_ssh`
- `check_dns` `check_log` `check_oracle` `check_swap`
- `check_dummy` `check_mailq` `check_overcr` `check_tcp`
- `check_flexlm` `check_mrtg` `check_ping` `check_time`
- `check_ftp` `check_mrtgtraf` `check_pop` `check_udp`
- `check_http` `check_nagios` `check_procs` `check_ups`

- More checks being developed on an ongoing basis ...

