Free Network Monitoring Software for Small Networks

> WHITEPAPER

Introduction

Networks are becoming critical components of business success - irrespective of whether you are small or BIG. When network fails, customers and employees cannot communicate, employees cannot access critical information or use basic print or email services, resulting in productivity loss and revenue loss. Network monitoring software tools reduce network outages and allow businesses to operate more fluently, cut costs, and prevent revenue loss. And for those who are small and are not allowed to think of a budget for network monitoring software, a better alternative is to start with open source and freeware network monitoring software that reduce the time and money spent on network administration and management. This paper talks about the top freeware and open source network monitoring software available today.

4 Critical Network Elements that Need Monitoring

Businesses depending on their size buy various networking infrastructure elements. Some of the basic network elements that need continuous monitoring are:

Email Servers:

Every organization will have an Email server which distributes emails to all LAN users. If the email server fails, users are disconnected from the external world and key functions such as customer support takes a hit. IT Managers need to monitor their email servers for availability, mails in queue, size of mails received etc.

WAN links:

Small Enterprises can save money by optimizing the WAN links. If oversubscribed, it costs heavily and if under subscribed it chokes the network. Hence IT administrators should carefully balance the throughput, committed information rate (CIR) and burst rate with congestion, response time, and discards to optimize the link utilization. IT Managers should also find out who's using the most bandwidth to make necessary arrangements. Apart from bandwidth monitoring (discussed above), routers need to be monitored for availability and performance periodically.

If a router fails it halts the entire LAN and hence IT Managers should set thresholds on various parameters on routers and attend problems immediately.

Business Applications:

Servers & Services: Servers run critical applications and hence should be monitored for CPU, memory, disc space, services running on them (FTP, DNS, ECHO, IMAP, LDAP, TELNET, HTTP, POP, etc.) and their response time. Moreover the traffic utilization trends of these servers should also be monitored.

Server logs: Small businesses running windows machines should also monitor the server logs for failed logon, account lockouts, bad passwords, failed attempts to secure files, security log tampering etc. Monitoring these logs gives clear picture of security loop holes existing inside the organization. Applications, Databases, & Websites: Small businesses run several mission critical applications, websites, and databases which need to be monitored periodically. Applications can be monitored for availability, response time etc. URLs should be monitored for availability.

LAN Infrastructure:

Your LAN infrastructure devices such as switches, printers & wireless devices.

Top 3 Network Management Requirements For Small Networks

Small businesses have different network management needs and expectation because technical expertise and staff are limited. They want tools that are low cost, easy to install and use, and feature rich.

Low Cost: The network monitoring software should be affordable. Easy to install and use: The network monitoring software should be intuitive enough to get started without reading that dry boring documentation. Feature rich: The network monitoring software should be able to monitor all your resources - both what you have today as well as what you might have tomorrow.

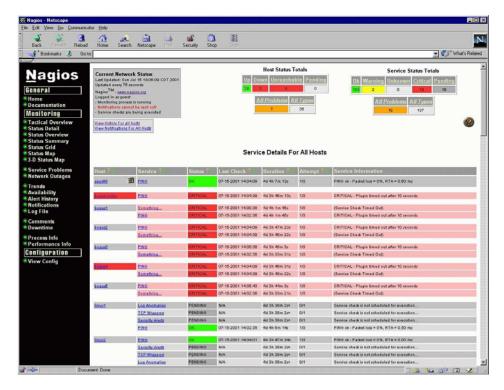
Open Source Network Monitoring Software for Small Networks

Open Source offers many tools for various IT needs including network monitoring, bandwidth monitoring, network discovery etc. Most popular open source tools for network management are:

Nagios: Network Monitoring Software MRTG: Traffic Monitoring Software Kismet: Wireless Monitoring Software

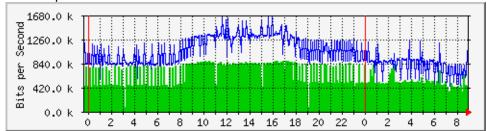
Nagios: The Open Source Network Monitoring Software

Nagios® is a host and service monitor designed to inform you of network problems before your clients, end-users or managers do. It has been designed to run under the Linux operating system, but works fine under most *NIX variants as well. The monitoring daemon runs intermittent checks on hosts and services you specify using external "plugins" which return status information to Nagios. When problems are encountered, the daemon can send notifications out to administrative contacts in a variety of different ways (email, instant message, SMS, etc.). Current status information, historical logs, and reports can all be accessed via a web browser.



MRTG: The Open Source Traffic Monitoring Software

The Multi Router Traffic Grapher (MRTG) is a tool to monitor the traffic load on network links. MRTG generates HTML pages containing PNG images which provide a LIVE visual representation of this traffic like this:



Kismet: The Open Source Wireless Discovery / Intrusion Prevention Software

Kismet is an 802.11 layer2 wireless network detector, sniffer, and intrusion detection system. Kismet will work with any wireless card which supports raw monitoring (rfmon) mode, and can sniff 802.11b, 802.11a, and 802.11g traffic.

Kismet identifies networks by passively collecting packets and detecting standard named networks, detecting (and given time, de-cloaking) hidden networks, and inferring the presence of non-beaconing networks via data traffic.

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Popular Open Source Tools Related To Network Monitoring:							
Network Management	Others						
Nagios - Network monitoring OpenNMS - Network management JFFNMS - Network management BigBrother - Systems management BigSister - Systems management Genesys - Network and systems management NetDisco - Network management REMSTATS - Network monitoring software Sysmon - Network monitoring software Cricket – Router monitoring	MRTG - Traffic monitoring Ntop - Traffic monitoring Nessus – Remote security scanning PIKT – Systems monitoring and configuring RRDTool – Analytical graphing Webmin – Unix system admin Cacti – Network and systems performance graphing Cfengine – Network configuration Kismet -Wireless scanning NeDi - Network discovery Nmap - Network discovery Syslog NG – Log file analysis, consolidation, and filtering						

Commercial Freeware Network Monitoring Software For Small Networks

Another alternative for SME's is to use freeware versions of popular commercial software like ManageEngine. The main advantages of this approach are obvious - SMEs get the same high quality software that is used by their larger counter-parts. These commercial software are also easy to install and use. There is also an active user community to turn to when they need help. The only disadvantage is that, there are some restrictions on the number of devices you can manage. However, the good news is, you can start with the freeware versions and later when your network grows you can

conveniently upgrade to the affordably priced paid versions. ManageEngine offers free versions of the following tools :

- * ManageEngine OpManager : Network Monitoring Software
- * ManageEngine ServiceDesk Plus: IT Help Desk Software
- * ManageEngine Applications Manager: Applications/ Database Monitoring Software
- * ManageEngine WiFi Manager: WiFi Security and Management Software
- * ManageEngine Event Log Analyzer: Event log & Syslog Analysis Software

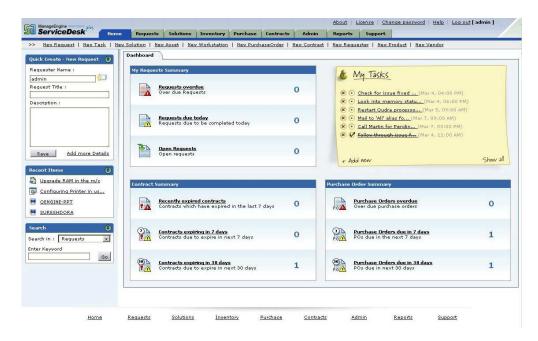
ManageEngine OpManager

OpManager is a popular network monitoring software used by thousands of IT administrators worldwide. Using the Free version of OpManager, you can monitor 10 of your most critical devices like Routers, Servers, switches, Mail-servers, firewalls, printers etc. OpManager actively monitors these critical devices for availability and health and immediately alerts you by email or SMS, when it detects a problem. OpManager also generates useful charts and reports to analyze performance of your devices over a period of time.



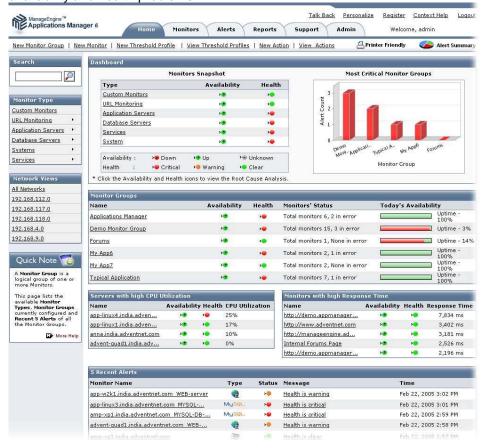
ManageEngine ServiceDesk Plus

ServiceDesk Plus is an integrated IT helpdesk and Asset Management tool. Using the free version of SDP, you can run an efficient helpdesk to provide IT support to your endusers and also keep track of accurate hardware and software details of up to 25 workstations. A simple email from your end-users requesting help can automatically be converted into a ticket in SDP.



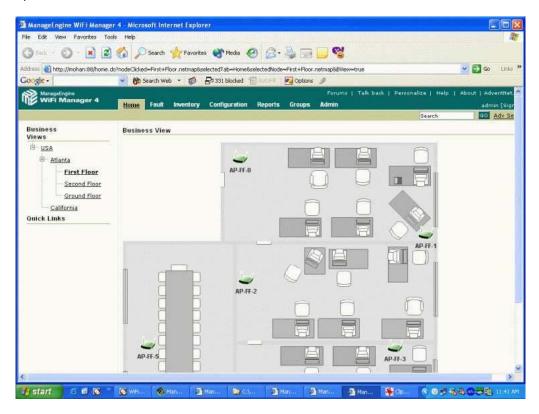
ManageEngine Applications Manager

Applications Manager allows you to gain in-depth visibility into how your applications are performing. Using Applications Manager you can monitor Application Servers, Database Servers, web-sites and Systems and alerts you instantaneously when it detects availability and health problems.



ManageEngine WiFi Manager

ManageEngine WiFi Manager is enterprise-class software for centralized management and security of Wireless LANs. It enhances the availability and security of your WLANs by continuously monitoring the network as well as the airspace. WiFi Manager can detect almost all major wireless threats including rogue attacks, intrusions, sniffers, DoS attacks, and vulnerabilities. It can also save your time by enabling you configure hundreds of access points at one click. With WiFi Manager you'll have complete control over your wireless devices as well as your airspace, and more time to focus on core IT operations.



ManageEngine Event Log Analyzer

ManageEngine Event log Analyzer, a web-based event management solution that collects, analyzes, and reports on event logs from enterprise-wide Windows and UNIX systems. Event Log Analyzer improves security and reduces downtime of critical servers on your enterprise network. And generates graphs and reports that help in analyzing and troubleshooting system problems with least impact on network performance.



Next Generation Integrated Yet Affordable IT Management Solutions From ManageEngine

ManageEngine offers a broad range of network monitoring software, wireless network monitoring software, bandwidth monitoring software, application monitoring software, event log monitoring software, firewall monitoring software, and helpdesk software at affordable price points. Their free tools cater to small networks. Those who start with free tools from ManageEngine can later migrate seamlessly to the commercial versions.

With its simple and powerful architecture of collaborating point products, ManageEngine offers SMEs the option to build an integrated Network Monitoring software (or solution) at highly affordable prices.

ManageEngine Software	Price starting from			
OpManager	\$445			
ServiceDesk Plus	\$495			
Applications Manager	\$595			
WiFi Manager	\$495			
NetFlow Analyzer	\$595			
EventLog Analyzer	\$595			
Firewall Analyzer	\$495			

For more details on ManageEngine network monitoring software, please contact <u>sales</u> <u>@manageengine.com</u>. For comments on this article contact <u>opmanagermarketing@manageengine.com</u>



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