

GroundWork Monitor: Enterprise-Ready Open Source

Highlights

Vendor name: GroundWork Open Source Solutions

Product name: GroundWork Monitor 4.0

Product function: Network/Systems/Application Monitoring

Vendor contact: Will Winkelstein, VP Marketing

Pricing information: \$16,000 yearly subscription, includes configuration assistance, support and upgrades.

Availability: Available now

Abstract

GroundWork Monitor 4.0 delivers on the promise of “open source plus.” Integrating and building off mature open source solutions, GroundWork goes beyond open source to provide commercial-level features and support. GroundWork Monitor can help you manage network, system, application, and database for a fraction of the total cost of a big suite or framework, while providing the support you associate with those solutions. GroundWork is an innovative solution for the company that wants a lean, non-intrusive monitoring solution that’s easy to use.

The Value of Open Source Network and Systems Management

As systems, networks, databases, and applications become increasingly interdependent, monitoring and management of them becomes increasingly difficult—and expensive. In every industry and every company size, IT managers are saying “Enough!” and looking for ways to cut these expenses. More and more, they are looking toward open source solutions to solve both their monitoring and cost problems.

Open source products for network and systems management, such as Nagios, RRDtool, MRTG, and others, have been maturing rapidly. The Nagios network monitoring solution, for example, has been in a constant testing, feedback, and update loop for almost three years and three full releases, with Nagios

2.0 due out in October 2005. The concept of a “community of testers” has come to fruition to deliver stable, useable products, installed in both large and small organizations in many industry sectors. Open source solutions also tend to avoid unnecessary bells and whistles that can make a solution complex and buggy. It is possible to argue that this mature open source code is actually better than that provided in some commercial products.

Obviously, open source provides an initial cost savings, but that is not the only benefit it brings to cash-strapped IT managers. On-going support costs for large frameworks and commercial network and systems monitoring and management suites are consuming a huge portion of IT’s total budget—and not always providing an equivalent benefit. An EMA study found that 60% of the IT managers surveyed used less than half of the functionality in their management suite. If the annual contract for a suite costs \$1 million dollars, that’s wasting \$500,000. Now, a dominant cost model says only pay for what you need now, then add in new products as your infrastructure, management needs, and expertise grows. The open, flexible model of open source solutions makes it simpler to grow and integrate the conglomeration of packaged software solutions, home-grown applications, Web services, and databases that represent most corporate infrastructures.

But open source solutions are not turn-key—many IT shops don’t have the expertise necessary to optimally configure or integrate the various products that may be necessary to create a complete monitoring solution, and they want more continuity of support than a one-off consulting engagement. They need something half-way in-between: something with the simplicity, flexibility, and low cost of an open source solution, but with the installation, configuration, updates, and support of a commercial vendor. Come to think of it, wouldn’t we all like that? Luckily, GroundWork Open Source Solutions has stepped up to that middle ground with a new hybrid approach to software commercialization.

GroundWork Provides “Open Source Plus”

Open source solutions are functional, but they typically lack many of the “nice to have” features that can save IT time and money. Products must be integrated to provide a complete solution, and a fair amount of programming goes into making

them display the exact information in the preferred format. GroundWork provides “enterprise-ready open source” products, meaning they have integrated and enhanced several open source products to create a complete, supported, user-friendly solution.

GroundWork started with Nagios, RRDtool, MRTG, JetSpeed, MySQL, and other open source products to build a Web-based IT monitoring system that spans servers, networks, applications, and databases. As a faithful member of the open source set, GroundWork has given three software solutions back to the community: GroundWork Monitor Architect, a configuration tool for Nagios, GroundWork Status Viewer, an improved user interface for Nagios and other monitoring tool data, and GroundWork Foundation, a development platform and toolkit for building integrated IT management solutions. GroundWork Monitor is the resulting commercial product—a composite application that integrates these products into a unified application. GroundWork Monitor is packaged with deployment assistance, updates, and support.

In addition to the product, GroundWork has a full complement of packaged services supplied by personnel certified in the best-practices framework of the IT Infrastructure Library (ITIL®). Since configuration is so essential to efficient and effective monitoring, GroundWork will work with you over the phone or via VPN access to help you configure and/or deploy agents. Packaged deployment services are also available to help you design, implement, integrate, configure and calibrate your monitoring system, as well as train your employees. Specialized monitoring services can also be purchased to bring home-grown applications under management. Many smaller or younger IT shops don’t have a high level of expertise in these areas, so the services and the leaner monitoring product are a big benefit.

GroundWork also provides a flexible subscription pricing model that gives IT better control over costs. For only \$16,000 per year, GroundWork provides the software, implementation services, upgrades, and phone support for the whole year. As an open source contributor, GroundWork immediately incorporates relevant GroundWork Monitor updates to the underlying open source products.

GroundWork Monitor 4.0 Product Description

GroundWork Monitor is built from an integration of best-of-breed open source products, GroundWork’s own developed and now open source products, and best practices in IT monitoring and management. It can cover systems, networks,

applications, and databases from one interface. It uses active and passive agents, agent-less mechanisms, and SNMP and log file monitoring techniques. This is a heavy-weight monitoring solution with light-weight overhead and a low price.

GroundWork Monitor defines its product capabilities in three layers: the data collection layer, with adapters to open source or third-party tools, the middleware service tier (GroundWork Foundation), working in conjunction with MySQL (and, in the future, additional databases), and a Web portal user interface that displays status views, consoles, dashboards and reports (see Figure 1).

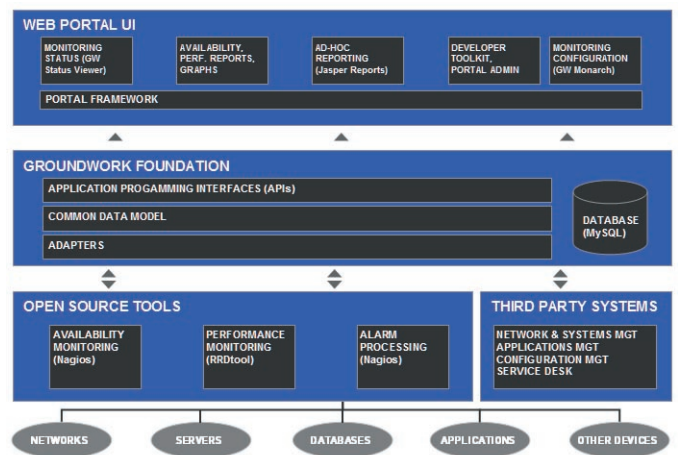


Figure 1: GroundWork Monitor Architecture Diagram

The middleware layer of the stack, GroundWork Foundation, is an innovative open source product developed by GroundWork. It provides the abstraction layer that creates a non-intrusive, scalable, and highly flexible answer to constantly-expanding infrastructure needs. GroundWork Monitor can monitor and report on individual devices, logically-defined groups of devices, or services made up of devices and applications. Both physical and logical information are stored in the database for reporting and trending.

GroundWork Monitor enhances the usability of open source tools such as Nagios, improving viewing of the information that these tools collect. GroundWork Status Viewer, also a new open source product, creates several predefined views to highlight status information from the forest of event data. NetView shows the status of the overall IT infrastructure and a time-ordered listing of the most recent critical events. TroubleView shows all critical events, and EventView shows all the events that have come into the system. FilterView allows the user to view infrastructure status by severity, location, device type,

group, or other characteristic, and enables managers to segregate responsibility for certain systems to designated operators. GroundWork addresses Nagios' viewing scalability issues by employing a fast, PHP-based user interface with user-selectable refresh rates. All monitoring views have a "snap to" feature, allowing the viewer to jump back to a previously-viewed line upon display refresh. Color coding helps determine the health of any host, host group, or service, and a drill-down mapping of services and components helps operators quickly drive into the cause of any set of alarms or near-breach situations.

GroundWork Monitor can generate alerts based on user-defined trends or events, and has workflow capabilities to acknowledge and escalate incidents and alerts. Comments can be associated with incidents to aid in resolution and to track progress. Filters and rules can be configured to consolidate alarms using dependency rules so IT can efficiently manage the hundreds of alarms that can be triggered by a single failure. Commands can be launched from drop-down lists in the same display. These include dozens of pre-defined tests, start and stop, and scheduling, as well as user-defined script commands that can be included during configuration. GroundWork Monitor allows a customer to manage their environment the way they want to, making it easy to incorporate favorite tests, scripts, and workflow.

Configuration is the most challenging aspect of systems and network monitoring, and takes a high level of skill to set correctly. Both GroundWork's product and professional services can help IT staff hit the ground running. A set of device and service profiles are predefined, covering SNMP and WMI, Oracle and DB2, Exchange and Domino, SSH, load balancing, firewalls, applications, and many other services. This allows experienced IT groups or GroundWork staff to get a fast start to ROI from GroundWork Monitor.

GroundWork promotes a "less is more" monitoring and management approach: rather than being flooded with every test and notification, spare systems let operators focus on what is critical. The resulting system is more stable, with less overhead and fewer false alarms. So, in addition to a robust set of predefined open source tests, GroundWork has defined a "best practices" set of commands and tests for any given device or service. This set has been improved and perfected to represent the best of the group of similar tests. If a user needs to create a new, specialized command, one of these best practices will serve as an ideal starting point.

GroundWork Monitor has a Web-based portal interface, which allows for single sign-on and role-based views for greater security and control. Typical roles include administration, user, operator, and developer. These can be used to configure, view system status, acknowledge notifications and take action, as well as access other applications from within one interface. More roles can be created to suit the user's needs. Because GroundWork is based on open source, it is extremely accommodating of data and APIs, allowing it to become the central integration point for other monitoring and management tools. Several predefined reports are included, or an open source reporting solution included with the product can be used to develop specialized reports. Pre-defined alert, notification and outage reports are available with check-box templates for choosing metrics, time intervals, services, groupings, and summary data. Reporting is one of the time-consuming and "unloved" jobs in IT, yet it helps convey IT's value to the business. Creating transparency for users and business managers, but still reducing the amount of time IT spends in this overhead, adds to the value of GroundWork Monitor.

GroundWork Monitor includes a complete on-line bookshelf that includes detailed GroundWork Monitor documentation as well as documentation of the product's integrated open source tools. GroundWork Monitor's bookshelf also educates users in monitoring design and configuration best practices. The developer toolkit included in GroundWork Monitor and

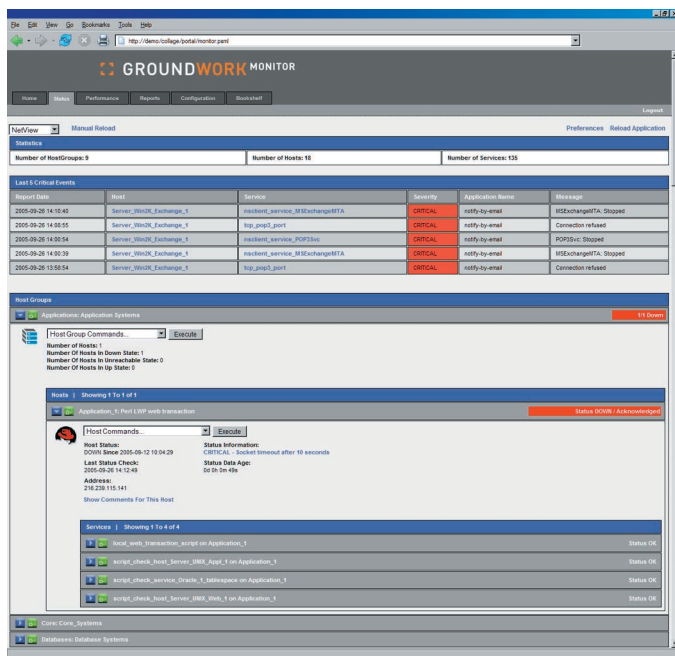


Figure 2: GroundWork Monitor Screenshot

GroundWork Foundation provides new functionality to both commercial users and to the open source community, allowing users to more easily integrate data, create customized views, or write scripts and APIs.

GroundWork has staked out the middle ground—building a robust-yet-spare monitoring solution that gains from the inherent value of open source programming, while providing added value through integration, viewing, and support. GroundWork Monitor can help IT save time and money through both its solution and through the higher availability IT can achieve with good infrastructure monitoring and management.

EMA's Perspective

Open source solutions can no longer be dismissed as “freeware” without stability or support. What began as a revolution has moved close to the mainstream, and many organizations are joining the growing number of satisfied users. Open source solutions provide most of the capabilities that organizations need for systems, network, and application monitoring—although not always prettily packaged or easily configured. That’s why GroundWork’s model is so compelling—adding value to the existing open source products with integration, best practices, and support. The result is a high value, low price solution that meets nearly any company’s monitoring needs.

GroundWork will be most appealing to organizations that don’t fit a mega-IT model, either because they have smaller infrastructures, smaller budgets, or less experience. A perfect match would be a small to mid-sized business (SMB) already using Nagios or one without a robust monitoring solution. That said, GroundWork will also be wooing customers away from larger suites and frameworks, or at least causing those vendors to rethink their pricing. Downsized budgets and careful spending are here to stay, and GroundWork’s “open source plus” model is a very viable solution.

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