Efficient Comprehensive Network Management in the Enterprise

Abstract:

Network management in a small to midsize enterprise is a complex task. Network administrators are frequently faced with the need to monitor a number of networks that may be distributed across multiple sites. Too often, administrators have to rely on a disparate set of management tools – each with its own unique dataset and interface – to monitor individual subnetworks, making it difficult to see the network as a whole. In addition, network administrators receive a flood of information from tools, and have no easy way of filtering out the critical events from everyday occurrences. And, once a problem is detected, resolving the issue often requires manual intervention because the organization's existing tools lack the ability to react automatically even in well-understood situations. For IT professionals, any solution that addresses these challenges must also comply with the organization's constant need to keep costs down and implement solutions that truly reduce complexity – not compound it. Ipswitch's WhatsUp Gold combined with Singlestep Unity™ provides enterprises with a cost-effective, integrated and comprehensive network management solution that addresses the difficulties inherent in enterprise network management. Easy to install and easy to use, this solution enables IT professionals to monitor the entire network efficiently from a single console.

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Problems in Enterprise Network Management

Effective network management is predicated on the ability to detect, diagnose, and resolve problems quickly. Organizations of all sizes recognize this intuitively, but the difficulty in achieving effective network management increases sharply with the size of the enterprise. In smaller organizations, IT professionals can rely on a proven network monitoring solution, such as Ipswitch WhatsUp Gold, to provide them with network availability and performance data – both historical and real-time – to get to the root cause of problems quickly. With the ability to map and monitor networks, produce reports, and receive alerts, network administrators get vital information fast, enabling them to better manage network resources and respond to problems as they arise.

For network administrators in larger midsize enterprises, however, the situation is usually much more complex. These organizations need to be able to monitor several different sites and networks. In addition, some businesses may require a deeper, more detailed view of a particular network device and often employ supplementary monitoring tools alongside WhatsUp Gold. The result is a complex mix of tools that make it difficult to monitor the entire network efficiently. Data from multiple sources, presented in different formats and consoles, comprise a fractured view of the complete network availability picture – a picture that is often clouded by a glut of information.

With a significant amount of time and resources already invested, enterprises find it hard to justify replacing existing tools with one all-encompassing solution that may not even fully meet the particular needs of their environment. Past experience with high-end network management solutions, their continuing service costs and overhead, the inability of these solutions to address the problems of excess data, and the frustration of trying to make sense of it all have led many organizations to look for another way.

In essence, an effective network management solution must resolve three key challenges against a background of budget constraints and limited IT resources that place cost-effectiveness and ease-of-use high on the list of priorities for any new IT solution.
These challenges are:

- Disparate tools with different interfaces and data formats provide a patchy view of the complete network status
- Too much information, with no ability to sort or prioritize, makes it difficult to separate important events from benign ones
- Manual processes required to take correct action delay problem resolution and strain an IT staff which is typically already overburdened

Eliminating "Swivel-chair Management"

Many enterprise IT departments rely on a diverse set of tools to monitor all of the company's network resources. For example, an organization may have one or more instances of WhatsUp Gold monitoring subnetworks in different buildings, along with other monitoring products such as Cisco's Ciscoworks 2000 that perform specific management tasks within the organization. While each providing unique and valuable data, each tool has a separate console, a separate data source and data format, and sometimes even a different administrator. In cases where one

individual is responsible for multiple tools, that person must practice "swivel-chair management" – checking multiple interfaces and reports to gather information and dispersed data. The result is an inefficient use of time and resources. To quickly understand what is really happening with the enterprise network, the IT staff needs a single, coherent and organized source of information that consolidates data from a variety of specialized monitoring products.

Prioritizing Data

Even in small to midsize enterprises, there is a surprisingly vast amount of data available on network status. Some of this data is merely informational, while some is vitally important. Often IT teams have the tools to collect all the data they need, but cannot prioritize it or organize it in a meaningful way. This makes it difficult to filter out the crucial events and information from the "noise" of normal network activity. To get the right information in real-time, the IT staff must have a way to prioritize incoming data and filter out spurious, informational, and redundant data arriving from multiple sources. Having this capability enables the staff to react quickly to significant network events, without having to wade through mountains of irrelevant data to detect and pinpoint the problem. Often, the majority of the time required to resolve a problem resolution is spent locating the source of the problem.

Automating Workflow

If network management efficiency is measured in terms of the time it takes for a problem to be resolved, then there are two clear opportunities for improving efficiency. The first is detecting and diagnosing the problem quickly, which can be accomplished by monitoring real-time, prioritized information in a single console. The second line of attach for improving efficiency is to take steps to immediately and automatically resolve the problem. Organizations that depend on administrators to manually resolve all issues not only place an extra burden on their administrative staff, they also pay a penalty in network downtime while waiting for the staff to complete the manual steps. Often there are very routine tasks -- such as rebooting a device, restarting a service, or even contacting a more appropriate administrator – that can be performed automatically to save time. With policy-based management, IT teams can streamline their workflow and automate these common tasks to reduce strain on overworked administrators and shorten the time between network problem and resolution.

WhatsUp Gold with Single Step Unity -- A Complete Solution

As a combined solution, WhatsUp Gold with Singlestep Unity offers a comprehensive and effective network management system for the enterprise. WhatsUp Gold collects real-time network data and event information – including device and service status, events from Windows events logs, and SNMP data such as resource utilization. WhatsUp Gold actively tracks network performance and availability, providing critical information in a practical manner that is understandable and valuable at multiple levels of the organization. Because WhatsUp Gold requires little effort to setup and maintain, it is readily adopted by IT departments looking to relieve overburdened administrators. As a complement to WhatsUp Gold, Unity consolidates real-time network data from multiple instances of WhatsUp Gold, and combines it with data from other network management utilities that the organization may be using. (See Figure 1)

All of the same valuable network data is available locally via WhatsUp Gold and other tools, but with Unity the data is aggregated into a common XML format and a single data source. Unity receives the data from each tool, consolidates it into the Unity XML, and stores it in the Unity SQL database. Local administrators can still view the data from their own subnetworks using WhatsUp Gold or another network management tool, but the data is also made available in a comprehensive view that spans the entire enterprise and eliminates "swivel-chair management". Unity Dashboards provide administrators with an easy and intuitive way to customize Unity for their own environment. Dashboards are unique to each Unity Client local environment, enabling different users to create their own views based on basic dashboard types such as executive or operational.

Unity also filters data to remove redundant and unusable data, and prioritizes this information to help network administrators identify and diagnose real problems faster and with less guesswork. Once the data from these disparate systems is normalized, filtered, and inserted into the Unity SQL database, the Unity reporting capabilities allow for the generation of many kinds of operational and business reports. Unity provides a Web-based, dynamic reporting tool for accessing data across disparate systems. This reporting tool provides standard as well as customizable reporting capabilities which enable the IT staff to build queries such as mean time to recover (MTTR), internal and external SLA metrics, among many others. Both business and technical teams can view the same integrated Unity data in a manner most useful to them. . As an example, the CIO may want to see the business impact of an outage while the NOC manager might want to see the speed at which the problem was resolved.

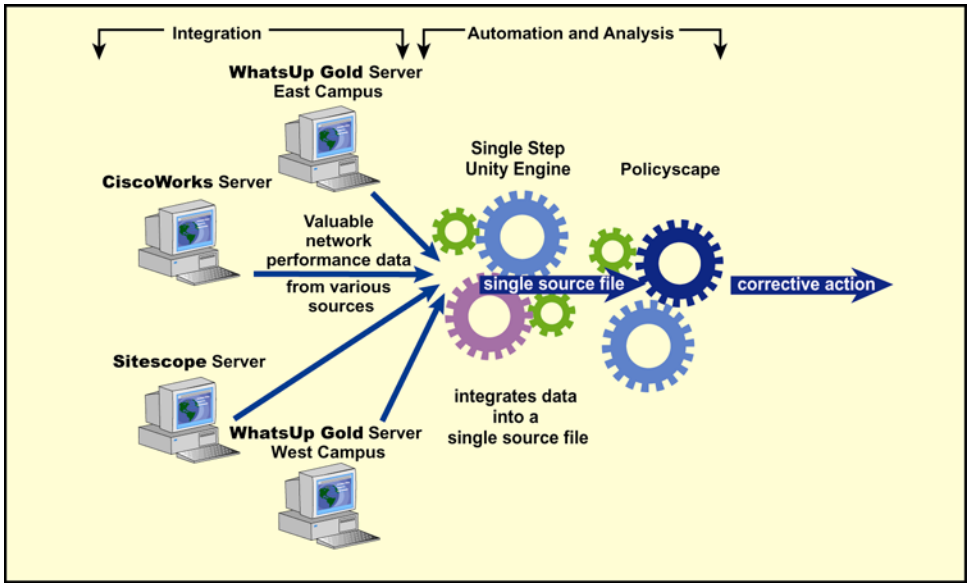

Figure 1: Singlestep Unity integrates network data from WhatsUp Gold and various network management systems into one unified source. Once consolidated, the Unity Policyscape can help efficiently automate problem resolution.

Singlestep Unity also supports automated workflow enabling organizations to automatically take corrective actions based on events – or complex sets of events –reported by one or more WhatsUp

Gold consoles. The Unity Policyscape ™ framework allows network administrators to quickly construct automation policies using a drag and drop interface. Many network problems are recurring; while they may arise unpredictably the organization is typically well aware of the tell-tale signs of the problems and the steps needed to correct them. Such issues are ideal candidates for automated workflow. With Policyscape, the problem can be identified and fixed quickly, in a fraction of the time required for manual detection and resolution. Additionally, this capability frees IT staff to remain focused on unique or unusual network outages that require more dedicated attention.

Business Benefits

In addition to the numerous advantages that WhatsUp Gold and Unity provide to network administrators, this combined solution also offers benefits to the enterprise as a whole. The primary benefit, of course, is a smoother running network, with less outages and downtime. This helps the entire organization stay productive and keeping customer facing applications up and running reliably. Through smarter, simplified network management and automation, WhatsUp Gold and Unity enable organizations to get to the root cause of a problem and fix it much faster than would be possible with a hodge-podge of disparate, non-integrated management tools.

In addition, the WhatsUp Gold and Unity solution is cost-effective on multiple levels. First, each product is relatively inexpensive when compared to alternative network management solutions. This solution also allows organizations to leverage the strengths of various tools in which they have already invested time and money. And, because both tools feature easy-to-use, intuitive interfaces there is no costly training required and no long learning curve. Because no specialized expertise is required, IT staffing is greatly simplified.

Together, WhatsUp Gold and Unity provide an efficient, complete network management solution for the enterprise. Featuring centralized, prioritized information and automated policies, it is an effective solution that is simple to setup, simple to use and far more cost-effective than alternative, high-end solutions.

For more information on WhatsUp Gold visit the Ipswitch Web site:
http://www.ipswitch.com

For more information on Singlestep Unity:
visit.ipswitch.com/singlestep

About Ipswitch

Founded in 1991, Ipswitch, Inc. develops easy-to-use, affordable, software products that extend mission-critical IT resources for businesses and improve efficiency for consumers.

Its product family includes WS_FTP Pro, the world's most popular FTP client; WS_FTP Server with 128-bit SSL encryption, the first industrial-strength, full-featured FTP server for Windows NT/2000/XP; WhatsUp Gold, a leading network mapping, monitoring, notification and reporting tool; IMail Server, a leading Internet messaging server with 53 million users; IMail Anti-Virus, an

add-on product powered by Symantec's CarrierScan™ and fully integrated with IMail Server; and Ipswitch Instant Messaging, a secure Instant Messaging solution specifically designed for businesses.

About Singlestep

Headquartered in Seattle, Washington, Singlestep Technologies Corporation develops integration applications and solutions based on its patented software platform, VNOS (Visual Network Operating System). Large enterprise customers such as Alaska Airlines, Speakeasy, and Fujitsu are embracing Singlestep Unity and the underlying power of VNOS to break down the silos of information within their organizations and to help them generate a better return from their technology and networking investments. For more information about Singlestep, Singlestep Unity, VNOS or any of Singlestep's partner programs, please visit www.singlestep.com or send email to info@singlestep.com