



eG Innovations – Streamlining Complex Management



Executive Summary

Technology managers are under intense pressure in today's economic climate. This pressure comes from the evolution of technology along with budgetary pressures that are limiting the amount of operational and capital expenditures allocated to IT investments. Infrastructure is complex and involves many different types of applications, system components, and network devices. Every effort is being made to streamline the management of these technologies while staffing has been reduced.

In parallel, there has been a growing trend to evolve the management of technology from a “silo-based” approach where each technology type is assessed separately, to a more holistic, service-based approach. This new service-based strategy seeks to align the supporting IT infrastructure more directly with business goals, and essentially to align it with revenue generation for the organization. Service-oriented IT management also inherently means that the focus is shifted far away from technical metrics toward customer expectations and needs.

One vendor, eG Innovations, has taken on the challenge of managing across networks, systems, and applications from a service point-of-view. It does so by building a layered model as well as a service-oriented model of the interrelationships across the IT infrastructure. The goal of the eG product suite is to provide a single console to monitor the performance of all infrastructure categories. Automation is an overarching theme, as is a patent-pending approach to root cause analysis and event correlation. eG Innovations has been sensitive to operational issues and has taken steps to improve efficiencies and achieve overall ease-of-use within its product, helping its customers to achieve a quicker return on investment.

Market Drivers

Many pressures exist today for IT professionals. While most are expected to deliver ever-increasing levels of service to their constituencies, both budgets and staffing levels have been cut, leaving IT in a position of having to do “more with less.” Technology advances have rapidly moved forward creating a situation where IT is constantly challenged to keep pace with the ever-changing landscape of IT infrastructure amidst the dynamics of a strained economy.

The management of network, systems, applications, and Web-based services is complex. Many of the existing toolsets on the market today have evolved from a time when each of these individual areas were managed as “silos”—independent of one another. Going back ten or more years in the history of management toolsets, this silo-based approach matched the way IT was staffed—there were network administrators to manage networks, application experts to tune and oversee application performance, and many other narrowly-focused specialists. Today, there is an ever-increasing need to look at technology management holistically.

There are many organizations trying to move out of the technology silo way of doing business, and competition and market dynamics have pushed a dominant number of organizations over that hurdle. These organizations have evolved to understand that the important aspects of managing technology involve the perceptions of services delivered to end-users or customers. This concept of IT services forces IT professionals to manage across technology layers and technology types. In order to understand how well an IT service is being delivered, information about that service must account for the performance of network, systems, applications, and Web-based services. The service paradigm is driven from business goals and objectives that are supported by technology infrastructure. As such, the management of these services should take a top-down view of the overall service performance with the ability to drill down into the supporting infrastructure. Critical to this approach to management is an understanding of how the relationships between technology types impact one another.

IT infrastructure management tools abound in today’s market. The number of vendors providing management for different aspects of technology is endless. Some are large, well-established, organizations that have offered management solutions for years. Most of the mature IT infrastructure management tools have added aspects of technology over time, providing integration between the modules to handle interrelationships between technologies. There are also new

entrants carving out a niche that serves IT needs. These entrants have a tendency to specialize by tackling a particular technology area focusing where a need exists in the market. Many times this is done to manage the “hot technology” of the day. A few vendors, like eG Innovations, have recognized the need to reduce costs by delivering a single product that can be used to monitor and manage across disparate technologies.

eG Innovations’ Product Suite

eG Innovations offers a single solution for monitoring IT infrastructure across network, systems, and applications. The company’s goal is to deliver a comprehensive monitoring solution that seamlessly addresses the complexity of technology interrelationships, as well as addressing issues surrounding the economic pressures facing IT organizations today. The overriding theme for eG Innovations is to deliver complex management through a simplistic, widely-distributed, Web-based interface to different audiences, and efficient problem resolution through its “single-click” root cause analysis technology. It offers packages with similar functionality targeted at the enterprise as well as the service provider environments.

The eG product suite provides fault management and event correlation through a Web-based user interface that can be widely dispersed throughout the organization. Its architecture is agent-based where the agents reside on servers in various locations throughout the infrastructure. Two different types of agents are used to collect monitoring information through the use of predetermined tests of infrastructure components. External agents have the ability to measure the performance from an external point. When the target servers/network devices support remote management interfaces based on protocols such as SNMP, HTTP, etc., external agents can also be used to measure the resource usage of these servers/devices. Internal agents are employed when the testing must be done directly on the system component for reasons of accuracy. Results of the tests performed by both internal and external agents are then passed to a Manager that maintains a data store used for reporting and other monitoring functions available through a Web-based interface.

While some may challenge the use of agent technology due to complications in agent maintenance and distribution, eG Innovations’ agents bring a number of strengths not available in other vendor solutions. These strengths include:

- A single agent for monitoring a wide range of applications and technology types.
- HTTP-based authenticated and encrypted communication to provide a more secure communication vehicle within

the management framework. This approach is ideal for remote monitoring and management because the agents can communicate through proxies and firewalls and they do not open or listen to any ports for communication. Large organizations with multiple locations can benefit from this architecture which enables remote monitoring from a central location.

- Decentralized intelligence where measurements are taken and evaluated locally to determine whether or not they are within normal operating range. The results of this evaluation are then forwarded to the Manager for display and permanent storage. Local processing minimizes the amount of processor burden for the Manager.

The following diagram illustrates the eG product suite architecture.

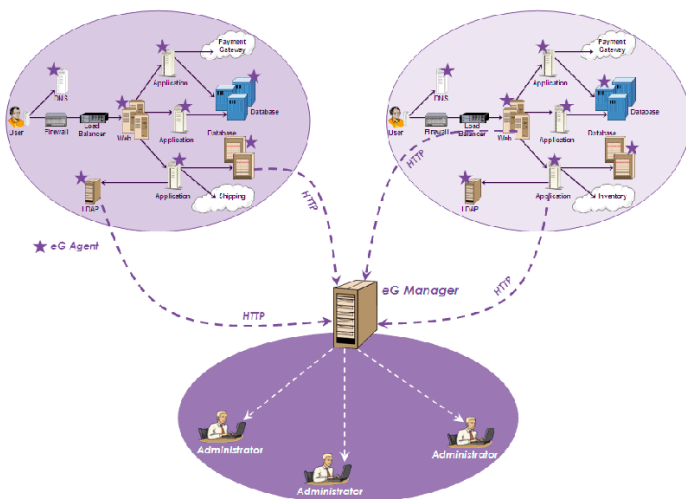


FIGURE 1: eG Innovations' Product Architecture

A broad set of monitoring capabilities is not the only objective for eG Innovations. It also seeks to provide a management solution that is easy to use, creates efficiencies for its customers, and is effective in the management of technology. These objectives directly address the economic pressures faced by companies today. Many factors go into the return on investment that can be realized on IT investments. Among those factors are the initial and ongoing investment required for the purchase and maintenance of the product, the training required for staff members, the time required to customize the product for individual environments, and ongoing efficiencies achieved once the product is operational. There are a number of specific product areas in the eG product suite that address the economics of the investment. These include the ability to easily integrate existing applications,

minimization of training costs due to a Web-based graphical user interface (GUI), and expeditious problem resolution through its single-click root cause technology when issues do arise. Likewise, the approach to measuring actual transactions and the bundling of the eG product suite are aimed at easing pressure on IT professionals and improving return on investment. The specifics of each area are discussed in the paragraphs that follow.

Root Cause Analysis and Event Correlation Capabilities

Root cause analysis is a way to move from a flood of errors from many different device types and technology layers to the identification of a single point of failure. This eliminates the guesswork in problem resolution and speeds the process of improving IT infrastructure performance. Event correlation is any means that reduces the volume of events and alarms either by elimination or consolidation. Root cause and event correlation are aimed at minimizing the involvement of technical staff in addressing performance issues in IT infrastructure. They have traditionally been aimed at network technologies, though now they are expanding to cover disparate technology types such as networks, systems, applications, and others. Successful delivery of both root cause analysis and event correlation has a direct impact on the bottom-line by reducing the cost of technical staff and improving customer satisfaction through better levels of service quality.

At the heart of the eG product suite, is a patent-pending approach to root cause analysis and event correlation. Automation and seamless operation across technologies (networks, systems, and applications) are the overriding theme of its methodology. The eG product suite offers users a single-click operational capability for identifying the root cause of a problem. eG Innovations' uses the concept of layers of interrelationships to help determine the root cause of a problem situation. Any given application is made up of many hierarchical layers, with the layer above depending on the layer below. These layers are defined in accordance with the application's particular architecture and functions. The layered approach, applied in conjunction with a codification of typical actions used by an administrator, are used to identify the actual cause of a problem. Together, these create a "template" approach to correlation where the model used for problem identification does not have to be recreated in every instance. The layers or templates for many common applications are pre-built and supplied with the product. Others can be built as needed.

In addition, service topologies are used to trace the flow of information across applications and network devices. This

approach directly aligns with the industry trend to manage IT from a service point-of-view. Services are more closely tied to customer expectations and business objectives. The implementation of a service topology in this product is a way to visualize and understand the components that contribute to successful service delivery. Router-based topologies are used in conjunction with this service representation to handle the network dependencies. The culmination of this approach to root cause is the ability of a technology manager to identify and resolve problems with a single-click from a service viewpoint.

Integration Console

Despite all of the evolution of technology that has occurred over the past 20 to 30 years, there remains a significant volume of legacy and custom-developed applications. These applications are most often centered on particular vertical markets and the needs of particular companies. EMA believes that applications such as these will not ever go away. There will always be special needs that have to be addressed through unique applications.

Similarly, most organizations except for the smallest enterprises have made significant investments in management toolsets. Many of these toolsets serve a necessary function in the management of the overall infrastructure. The eG product suite is designed to accommodate these needs in order to preserve investments and expand the coverage of its monitoring capabilities. Integration with many popular management toolsets are included with the product.

Applications are not generally instrumented in the same way as network and system devices. As a result many mechanisms must exist to capture application performance measurements. Flexibility in capturing these measurements is critical. The eG Innovations' product suite uses a variety of mechanisms over and above SNMP, including log file analysis, user emulation, collecting metrics from back-end databases, and application-specific programming interfaces. Common applications are generally supported out-of-the-box with a growing list of supported protocols and applications.

For those management toolsets and applications not supported, the ability to extend the eG Innovations' product suite can be handled through the Integration Console. The eG Innovations Integration Console offers a non-programming interface for integrating applications as well as a programming interface where more complicated application testing is required. In most situations, the eG Innovations professional

services team works directly with the customer to assist in the integration of proprietary applications. Once the toolset has been learned, however, customers can handle this integration independently. The interface is largely parameter-driven with an easy-to-use, graphical interface. Once the tests have been defined, the new monitoring capabilities are then distributed out to the agents that will be doing the actual application monitoring. Figure 2 shows the mechanics of the eG Innovations' Integration Console.

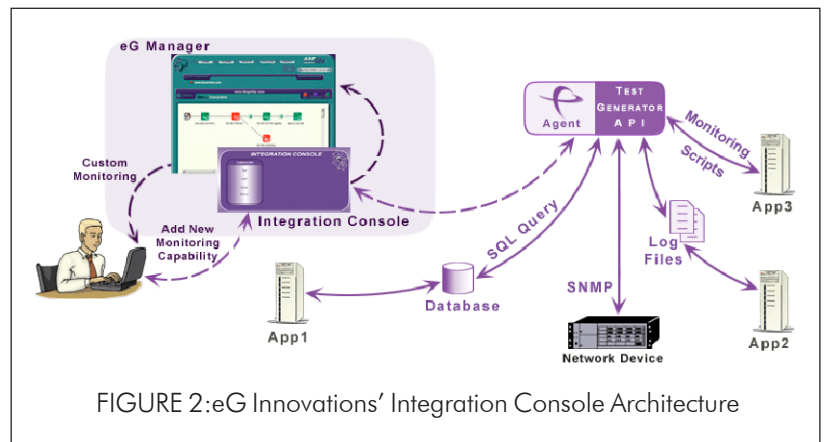


FIGURE 2: eG Innovations' Integration Console Architecture

An important feature of eG Innovations' Integration Console is its ability to take advantage of the technology-transparent root cause and event correlation capabilities. Once the custom application has been integrated, it is viewed by the correlation engine as an integrated layer of technology with all associated relationships identified.

Web-based User Interface, Actual Transaction Monitoring, and Friendly Packaging

eG Innovations' user interface is 100% Web-based. The intent with this interface is to dramatically reduce costs associated with training and education. It also lends itself to easy distribution throughout the organization. Some of the unique features of the eG Innovations' interface are the ability to take different business views into account. This ability is helpful in light of a recent trend towards more role-based management. While it is not unique in the market, the flexibility of views afforded with the Integration Console does help its capabilities to stand out. In addition to the views, the eG Innovations' console clearly diagrams the relationships of both technology layers and services. This can help the user understand the underlying technology of the product, and gain confidence in its automation capabilities.

Transactions are monitored directly rather than through simulated environments. For some customers, this is important, as it is critical to understand the "actual" performance as

opposed to “expected” performance. Many vendors use a combination of simulated and actual measurement of transactions. However, eG Innovations is able to focus exclusively on actual measurement in part due to its lightweight agents. Many customer environments will find this more appropriate.

Last, but not least, eG Innovations has bundled its packaging and kept its pricing as simple as possible. Many vendors today have very complicated pricing structures that seem to hit IT budgets unexpectedly just when IT managers felt in control of their environments. eG’s approach is to provide agent pricing that is independent of operating system, number of applications monitored, or hardware capabilities. There are additional charges for the Manager as well as the Integration Console.

Customer Feedback Summary

EMA spoke with two customers currently using the eG Innovations product suite and the feedback was quite positive. One customer was Alphanet Solutions, Inc., a provider of IT professional services and the other was Ciber, Inc., an application service provider (ASP). The overriding response from both customers was that the price-to-value ratio was very good and was a key driver in choosing eG Innovations’ product. Both were extremely pleased with the ease-of-implementation and the ease-of-use once the product was installed, further contributing to the efficiencies gained.

The emphasis for both customers was on application management. However, it was also important to understand the performance and relationship of other technological components. A variety of platforms were used in both environments, as well as many different applications and system components.

Particular highlights mentioned by these customers were the ease-of-use, strong correlation capabilities, the small footprint of the agent, and the ability to baseline “normal” behaviors such that automated thresholds could be set when performance as not within expected limits.

On the downside, eG Innovations was recognized to be a young and growing company. While this brings certain advantages, both customers thought that the user interface had some evolution to go through. One customer also felt that it would be an advantage for eG Innovations to develop a “high-availability” option in the future.

Product Summary

Product name: eG Innovations Product Suite

Product function: Integrated fault and performance management

Buying plans of the interview subjects:
Current users

Operating system under which it runs:
Multi-platform including UNIX, Linux, Solaris, AIX, HPUX, Windows NT, and Windows 2000

Vendor name: eG Innovations

URL for production information:
<http://www.eginnovations.com>

Vendor contact: sales@eginnovations.com

Availability: Currently available

EMA’s Perspective

The management market is flooded today with toolsets addressing all types of technology management needs. While there are many vendors that have begun with network management and added systems and applications or vice versa, few vendors have taken an integrated approach in the initial design of their product. eG Innovations’ has built a product from the ground up to accommodate the evolving technology landscape. And, has done so with other factors in mind that directly address IT’s need to reduce operating costs.

Still, eG’s value proposition is not entirely unique. There are management tools in the market that are working to also provide integrated management and eG Innovation will need to continuously make improvements in its product set to address those competitive pressures. Its Web-based interface will address the needs of many different audiences. Yet, at the same time, eG must ensure the appropriateness of each view for its intended audience. eG should be applauded for its foresight in architecture and will surely address any usability issues that may arise in its user interface.

eG Innovations’ approach is solid and clearly meets the needs of trends within the industry for service management, automation, and coverage of many technology areas. Particular strengths include its comprehensive and automated approach to root cause analysis, openness and ease of integrating a wide range of applications, and its understanding of why simplified packaging and pricing can be important purchasing drivers for many buyers. All of these considerations, combined with its emphasis on ease-of-use and ease-of-integration, enable users of eG’s product suite to realize a much quicker return on investment.

About eG Innovations

eG Innovations is a leading provider of enterprise-class monitoring and management solutions for IT infrastructure. The company's 100% web-based monitoring solutions are especially suited for mission-critical infrastructures, where proactive monitoring, rapid diagnosis, and instant recovery are critical. Customers worldwide use the eG solutions to improve the quality of their services thereby enhancing their competitive positioning, lower their operational costs, and optimize the usage of their infrastructures. eG Innovations is headquartered in Singapore with offices in USA and India.

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