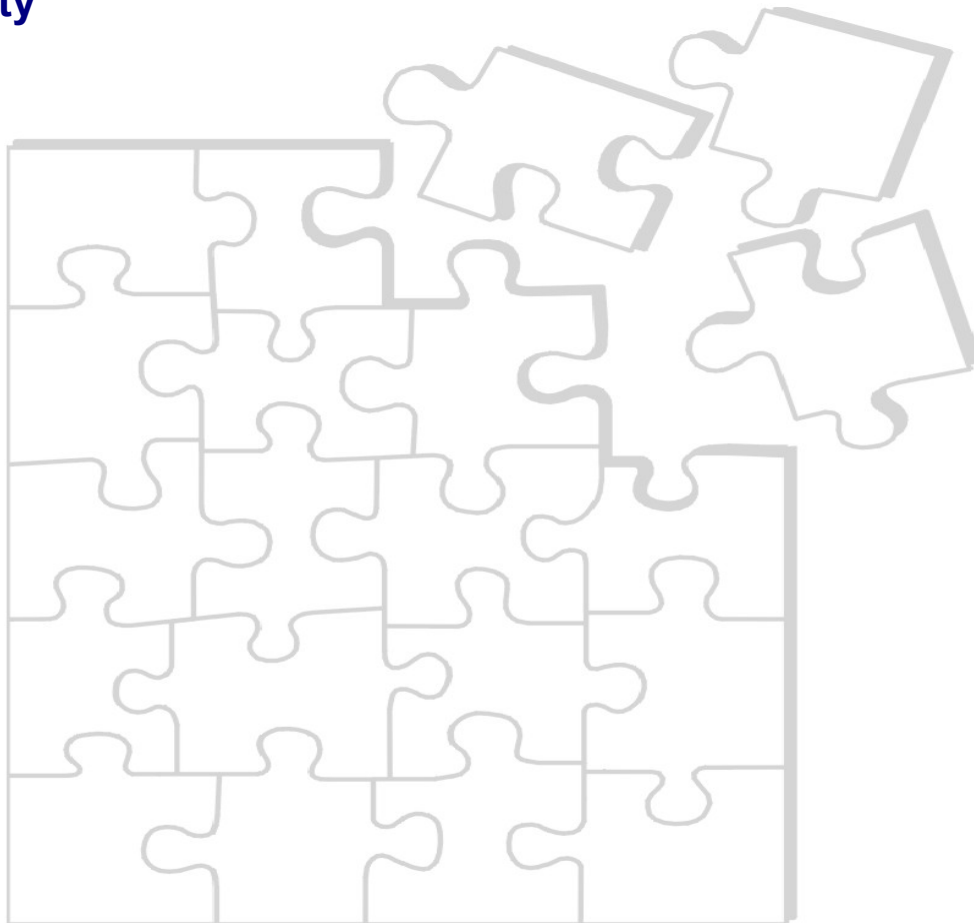




Heroix Longitude: IT management sophistication meets usability



Aligning IT management with a business service perspective is a challenge for all enterprises. Datacenter size is often not the sole indicator of the difficulty in achieving this goal. Rather technological complexity and siloed IT expertise is often the dominating factor. Thus, today's management solutions must have features sophisticated enough to span a wide range of technologies to deliver service-oriented monitoring, analysis and reporting. Yet the usability of the solution is also a key requirement for enterprises with smaller staff sizes or those concerned about staff productivity. This paper discusses how Heroix balances both sophistication and usability in their solution.

Mid-sized infrastructures with large-sized problems

Enterprises, regardless of their size, use technology to reach customers, deliver services, and connect with suppliers and distributors. Business success depends on high performance of end-to-end application services. Therefore companies, from mid-sized to the largest, have the same service-level management expectations. They all need management tools to monitor service performance and availability according to business-oriented service level agreements (SLAs), deliver early warnings about problems, link SLA performance to the infrastructure delivering the service, illuminate the business impact of infrastructure events, and perform root-cause analysis to shrink resolution times.

Ptak, Noel & Associates (PNA) believes service availability and performance problems are not necessarily easier to solve when the infrastructure is physically smaller than datacenters used by the largest of the global enterprises. Rather the difficulty in solving problems is driven by technological complexity. A quick survey of business applications in enterprises and mid-sized firms reveals the same tiered application architectures for E-commerce, similar projects to integrate supply and distribution changes, and, in some cases, leading-edge communications technology, such as VoIP or SMS solutions. These complex technologies require sophisticated management capabilities to consistently deliver the high availability and performance necessary for business success.

This complexity and the siloed expertise of IT staff mean even enterprises with somewhat smaller infrastructure footprints struggle with the same IT-business alignment issues as their larger counterparts. Service level problems can result in the same reactive finger-pointing because every expert becomes involved. Ad-hoc configuration changes can negatively affect service performance because infrastructure relationships are not explicitly identified. Infrastructure alerting thresholds can be out of synch with actual business requirements.

Mid-sized enterprises are further constrained by their small IT staffs. There is hardly any time to attend multi-day training classes to gain proficiency in using complex management tools or develop complex IT processes.

Large enterprises may have the luxury of affording training, but for these firms, staff productivity is the issue. Administrators may still have difficulty integrating all of the solution features into their daily operations shortly after training, thus staff does not see the immediate increase in productivity.

These situations make usability of management solutions a critical factor. The solution interfaces must be intuitive and easy to learn by on-the-job trial-and-error. The interfaces should be designed to anticipate the next step required by the administrator when completing tasks. For example, if the first step after receipt of an alert about a device is to determine the business impact of the device, then the solution should have the business impact information included in the alert or provide a link to access that information quickly. When these workflows are designed into solutions, administrators are following IT best practices and processes simply by using solutions in a natural way.

Management solutions must deliver sophisticated features suitable for complex environments managed by multiple IT experts and business managers. Additionally IT staff must be able to learn how to use these sophisticated features at a rapid pace without the absolute requirement for formal training programs.

Heroix steps up

Heroix' goal is to deliver an IT management solution that has the robustness and features of enterprise-class suites, yet maintains the ease-of-use and price point of small business tools. Heroix Longitude monitors and alerts on availability and performance issues. It assists in root-cause determination. Longitude also reports on utilization trends, outage statistics, and Service Level Agreement (SLA) compliance breaches. These reports are useful for working with business managers to improve services.

Longitude neatly handles the technological complexity found in both mid-sized enterprises and large departments of global enterprises. It covers multiple enterprise platforms, including Windows, Linux and Unix, and SNMP devices. It monitors complex application tiers, including web servers, application servers and database servers. It also provides role-based alerting and reporting – administrators can be delegated specific systems (such as a particular database or application server), network segments or specific business services. For customers with one or two unique monitoring requests, Heroix staff typically creates the extension for the customer.

Yet Longitude is also very quick to implement because of its agent-less data collection architecture and its integration of monitoring, alerting, SLA, reporting, and graphing into a single package. Customers have reported initial installation times of under fifteen minutes. Heroix does provide preset monitoring thresholds based on their experience with the behavior of standard implementations of a technology. This allows customers to get value quickly without extensive configuration of the product.

As important as fast deployment and rapid time to value are, PNA believes that the true mark of a mid-sized enterprise solution is its ability to extend its management capabilities without disrupting its core value. As mid-sized enterprises continue to develop their IT-business alignment and business service management needs, their management solutions must grow to meet these new needs. Heroix addresses this issue via Longitude's agent-less architecture and automated updates, which simplify the deployment of software patches and new management features. Heroix offers regular upgrades to its management products to expand its utility in managing complex, business-oriented IT environments. Customers have reported seeing requests for new features and capabilities being integrated into the product within twelve months. Customers can simply choose if or when to install a specific release, and the most recent release is always inclusive of everything from prior releases. Let us examine some examples of how Heroix has added more management sophistication to address customer issues without creating usage difficulties.

Addressing customer issues

Problem: Ensuring infrastructure and SLA alerts are meaningful and remain so as usage patterns change. If management systems deliver too many alerts that upon further analysis turn out to be false positives, it does not take long for administrators to begin ignoring the alerting system. This essentially kills the utility of the management system because alerts of real problems would be ignored. The keys to solving this problem are ensuring that metric thresholds more accurately reflect problem conditions and simplifying the means to update the thresholds as the resource performance profile changes.

Heroix Solution: Take the guesswork out of picking the right thresholds. For those situations where the thresholds should be different because the technology has a different performance profile, making the preset thresholds inappropriate, Heroix added analysis that administrators can use to determine the correct thresholds for their particular situations – for example, looking at metric averages over particular peak times. This improved threshold setting minimizes the number of spurious events and maintains the utility of the solution.

Usability insurance: The threshold analysis can be done at any time. Typically administrators reexamine their thresholds only when service usage patterns change and shift peak utilization times. In addition, new thresholds can be easily set for single systems, specific groups of systems, or all systems.

Problem: Need to understand performance from a business perspective. Usually business perspective of performance is captured in either formal or informal SLAs. Managing the performance of these SLAs is tricky because of the complex architectures of today's business services. Isolated views of individual technology metrics cannot give a good indication of whether the service as a whole is being affected.

Heroix Solution: SLA monitoring by grouping key technology indicators together. Longitude's analysis engine allows administrators to group key technology indicators together and specify how those indicators impact service delivery as a whole. The analysis aggregates these metrics to determine the end-to-end behavior and allows administrators to specify thresholds that indicate good, acceptable and unacceptable behaviors.

Usability insurance: Heroix' interface makes it easy to start with simple SLAs, such as a few metrics from individual web, application and database servers. These can be built up over time into complex analyses, such as treating multiple systems as a cluster, introducing time-of-day specifics, etc.

Problem: Infrastructure events alone do not convey the business impact. As business service architectures become more complex, the impact of a particular technology resource event on the services that it supports becomes more obscure. Often the core intellectual property and differentiating value of an enterprise is embedded in the business logic of their technologies. Therefore, without additional information about the relationships between a technology and business services, it is difficult for IT to prioritize its resolution activities according to business needs. Without this prioritization, true alignment between IT and business is impossible.

Heroix Solution: Longitude has an event correlation engine and many prepackaged rules available to simplify the analysis and alerting of infrastructure problems. In the latest release, Heroix has simplified adding business-specific impact data to the event stream. For example, infrastructure events can be categorized into SLA groups and event text customized to include more business focused information so that troubleshooting administrators can immediately understand which services are affected by the specific technology.

Usability insurance: Impact information can be added at any time through Heroix' user interface. As business managers and IT administrators work together to refine service priorities, the business impact information can be changed to reflect the new understanding.

Problem: Resolving frequently occurring problems. Manual correction of frequently occurring problems is more prone to human error as attention to details wanes over time. Automating these repetitive corrective actions can shorten resolutions times and ensure consistency.

Heroix Solution: Longitude now includes the ability to specify automated corrective actions. Administrators indicate the triggering events and any additional analysis that must occur before the action is initiated.

Usability: Adding corrective actions capabilities did not significantly change the actual user interface, therefore users of earlier versions of Longitude could easily incorporate use of corrective actions into their existing work habits. The product does not use a specific scripting language to create corrective actions. Instead the user interface allows administrators to specify the triggering conditions and the specific actions to be executed. Another important usability point is scalability of the corrective actions interface. A single screen lets administrators define a notification or action for a single event or for dozens, even hundreds, of events all at once. For example, send email for all critical Oracle events or restart a specific service on all Windows servers in a particular cluster.

Conclusion

Heroix has taken on the challenge of solving complex infrastructure management problems by adding sophisticated features without making the solution more difficult to use. PNA believes that Heroix's focus on both sophistication and usability provides customers with a real advantage. It accounts for the challenges that smaller enterprises face in delivering service level management and IT-business alignment with a small, time-constrained staff. As Heroix both expands management capabilities and embeds more IT best practices and process into how the user interface is designed, customers can improve their problem resolution times, IT-business relationships, and ultimately the success of their business services.



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