Interactive notification and effective event resolution with HP OpenView and AlarmPoint Systems

Abstract .............................................................................................................................................. 2
Concept introduction ............................................................................................................................. 2
Study overview .................................................................................................................................... 2
Results of study .................................................................................................................................... 3
Current process satisfaction ................................................................................................................... 3
Is the current process adequate or inadequate? ................................................................................... 3
How is event resolution performed today? ........................................................................................... 3
Interpreting the results ....................................................................................................................... 4
Requirements for addressing today’s needs ......................................................................................... 5
Study Conclusions ................................................................................................................................. 6
How HP and AlarmPoint address today’s needs ..................................................................................... 6
The HP and AlarmPoint Systems integration .......................................................................................... 7
AlarmPoint Adapters ............................................................................................................................. 7
Key features ....................................................................................................................................... 7
HP OpenView Network Node Manager ................................................................................................. 7
Key features ....................................................................................................................................... 8
HP OpenView Operations for Windows and Operations for UNIX ..................................................... 8
Key features ....................................................................................................................................... 8
HP OpenView Service Desk .................................................................................................................. 8
Analyst support for automating IT and event processes ........................................................................ 9
Summary ............................................................................................................................................ 9
For more information ............................................................................................................................. 10
Abstract

This study explores the existing event resolution processes in over 100 companies with 1,000 or more employees. The findings suggest many IT organizations have a low level of satisfaction with their current event resolution processes and applications. These processes and applications are responsible for ensuring the company does not suffer severe IT service outages. 76% of the participants identified significant gaps in the existing processes including poor event assignment, misdirected events due to inaccurate data, reactivity, human error and denial of receipt.

The HP and AlarmPoint Systems joint solution fills many of the gaps in event resolution identified in the study. HP and AlarmPoint Systems have teamed to provide large enterprise customers assurance of service availability across the network and ultimately across the enterprise.

Concept introduction

HP management solutions help automate the dynamic link between business and IT to manage and control today’s demanding IT environments. HP’s portfolio of management solutions deliver everything from breakthroughs in efficient IT operations, monitoring business processes, increasing the performance of applications, control over the IT infrastructure to support of critical business decisions. Integrated management elevates the business value of IT delivering exceptional service levels to customers. These solutions reduce operational costs by increasing staff efficiency, application availability and service delivery.

This paper was written to provide business professionals with a brief introduction to the strategic benefits associated with an effective alignment between IT services and the business processes IT supports. In order to succeed in this complicated initiative, mobile IT personnel must be enabled to perform their duties from remote locations via multiple communication devices. While the ultimate goal of IT service alignment and business process alignment may be the same as it was ten years ago, the business climate, the complexity of IT operations and the mobility of today’s staff must be continuously examined in order to achieve business service alignment. IT operations must adapt faster with more strategic direction than any other business unit within an enterprise to remain effective.

This paper examines the necessary requirements for Event Notification and Resolution applications. While most IT organizations have monitoring and trouble ticketing applications in place, they are still missing a key component. Interactive notification applications bridge the gap between the IT applications and the personnel who can solve IT events, thereby ensuring IT services continue uninterrupted.

Study overview

AlarmPoint Systems performed a survey of over 100 IT professionals in companies with more than 1,000 employees. The sample was taken from a population of 6,000 companies which resulted in a 95% confidence level in the sample. The field included IT staff, IT management, network management, help desk management, and other IT professionals. Of the professionals in the study 80% were from the United States with an even distribution of the remaining respondents in Europe and Asia.

Key business concepts under study:

- Is the cost of an IT outage known?
- Is the process for solving critical outages or events aligned with the business needs?
- Where are the current gaps in the event resolution process?
- What are the most common issues with event dispatch, notification, user notification, help desk information and the event resolution process?
• What are the requirements of a technology or a process that would assist in mitigating the risks of
the current processes employed?

Results of study

Current process satisfaction

Of the 109 participants in the study the vast majority, 78%, have not quantified the business costs of
a severe outage. While this may seem surprising, most companies use figures supplied by third party
research firms such as IDC or Gartner to gauge the costs of an outage. Recent data from The Standish
Group noted one minute of system downtime costs the average enterprise $10,000. While 92% of
the participants believe that the assets and services being monitored are “mission critical” to their
company’s revenue stream, a surprisingly high 86% are currently dissatisfied with the current event
resolution process. The qualification questions for the study suggest that enterprises realize that the IT
components being monitored are important, even critical, yet the company does not understand the
“true” costs of an interruption of service. Furthermore, the vast majority of the IT professionals
surveyed do not believe their processes and systems are adequate in solving events in their current
environment.

Is the current process adequate or inadequate?

It is clear from the responses that while the process is considered important, and the assets and
revenues being involved are critical to the success of the business, the current processes and
technologies deployed are not adequate. Participants were surveyed for the most common issues
involved in the resolution process resulting in the following findings:

• 18% characterized the processes as inadequate because the organization was reactive not
proactive (i.e., most events were not detected, dispatched and fixed prior to users calling into a
Help Desk or Operations call center)
• 13% cited poor event assignment and dispatch often due to a break down in the process, poor
quality of dispatch data or a lack of detection by staff
• 13% felt events detected were often misdirected due to incorrect data in the help desk
• 13% cited human error as the largest factor in the dispatch and resolution process causing delays
and costly rework
• 11% felt the process depended on the user community calling into the help desk as the primary
method of event detection
• 9% noted that often the field staff responsible for fixing the event, when dispatched, denied
receiving the event

In summary, 76% of the respondents felt the process was inadequate because the organization is
reactive, uses inadequate data for dispatch, lacks a process which supports an audit trail and is
susceptible to human error.

How is event resolution performed today?

Given the responses and the gaps in the current processes the study then focused on gaining an
understanding of the event dispatch and resolution process as it currently exists. Interestingly, most of
the respondents report a passive/reactive process used to deal with IT events. The passive and
reactive nature of the responses further supports the conclusions reached above that the process is
neither proactive nor aligned with the business processes.

The population of study participants was polled for current dispatch and resolution processes with the
following results:
• 29% use one-way electronic mail to dispatch events
• 27% use manual callouts from the help desk to dispatch help crews
• 19% use a duty pager system which is handed off to whoever is on duty
• 16% use manual call out from the data center operations team
• 9% use a third party alerting tool

Of the participants, 29% use a “set and forget” mentality with automated email events, nearly 20% have a similar set and forget process with duty pagers and over 40% use manual call outs to dispatch IT personnel (either from the help desk or from data center operations).

Interpreting the results

IT staffing levels have been reduced to minimums because of the recent economic trends worldwide. In many cases, IT is a cost-center in the eyes of executive management yet that same management relies heavily on the systems and processes that IT provides. The combination of these environmental factors combined with poor process design is placing financial pressure on many corporate IT organizations.

These environmental challenges and the results of this study help us draw several important conclusions:
• Operations today are using set and forget dispatch methods that are passive and lack audit trails.
• Recipients of alerts can deny receipt because systems being used are one-way and passive.
• Help Desks and Operations have inaccurate data to dispatch personnel (contact information is not correct).
• Help Desks and Operations depend on customer complaints to dispatch personnel to events (reactive).
• Manual dispatch is still a common, pervasive dispatch method.
Automated dispatch is not currently working (i.e. the wrong pager buzzes or the wrong person has the wrong pager).

Requirements for addressing today’s needs

Based on these results, participants were asked to rank the factors they felt were requirements in a successful event resolution application. The participants were asked to rank features, functions and processes required to successfully address the inadequate processes used today. The results were as follows:

1. **The recipient of the alert must be able to take remote action.** This requirement allows the user to take an action, log information to another system (e.g., post the person’s name, time and date to a help ticket), attempt to cure at that moment in time (e.g., allocate more memory to a server having a utilization issue), etc.

2. **The solution must allow for any device to be used.** This requirement moves away from a fixed device or duty pager which is highly inflexible. The goal is to remove some of the manual dispatch (i.e., a human can dial a phone and dispatch someone). Devices cited as important included Paging, Text Phones, Voice to Phone, Cell Phones, Home Phones, Instant Messaging, Electronic Mail, Public Address and GSM/SMS devices (including RIM).

3. **The solution must be easy to implement and integrate.** Enterprises continue to deal with complex cross-stack integration issues. Additionally, in order to deploy and start measuring a return on investment, building out sophisticated integrations is key to the success or failure of the initiative.

4. **Web-based self-service.** The application must support current technologies and provide for user self-service. The best chance at accurate data is to enable those closest to the data to keep it current. This also removes the administrative burden of maintaining schedules for hundreds of personnel.

5. **Alert subscription/business rule support.** In most IT organizations the assignment of an event or a range of potential events takes place within the monitoring system or within the help desk. In other words if “event 123” takes place on “server ABC” then alert “employee X”. Those rules are maintained by only a few administrators making difficult to maintain and ensure the data and rules are complete and updated. Alert subscription in an event resolution system takes the opposite approach. In this process the recipient group of personnel “subscribe” themselves to the events and thresholds they believe to be of interest in the event resolution process. Then as events take place, they are automatically sent into an application from a monitoring system or from a help desk. The event resolution application matches business rules or subscribed events based on criteria and alerts the appropriate personnel. Once the event is “accepted” it is then posted back to the host who has responsibility and the estimated time to fix. This allows for higher accuracy of event to personnel dispatch, reduces system administration on the monitoring applications and pushes responsibility out to the lowest levels.

6. **Auditing and reporting.** In order to ensure compliance with the process, full auditing and security features must be included in a solution.

7. **Escalation support.** Escalation facilities are required to ensure someone takes responsibility and solves the issue. And, if time has elapsed and the issue remains open, then sophisticated rules should be supported to facilitate the escalation process.

8. **Ability to customize the user interface.** Many participants cited the requirement to be able to customize the user interface based on the role, responsibility or department of the user.

9. **Self-service for non-IT “FYI” users.** The ability to allow “customers” of IT services or tangential departments to receive proactive information for interruption to business services or restoration of service. While this is a current initiative in many IT organizations it is often cost-prohibitive due to the manual processes used for dispatch and the poor data in the applications today. An effective, well-architected notification system should be able to cost effectively address this requirement.

10. **Voice capability for outbound notifications and inbound calls.** Even with the proliferation of text-based devices, confirmation and real-time interactions are still requirements that keep the telephone a powerful tool in the event resolution process.
Study Conclusions

Much of today’s event resolution process is reactive, manual or a “set and forget” process. This has resulted in a process that does not ensure the problems are detected, routed and solved.

While the alignment of IT processes with business functions is critical to a company’s IT strategy, many companies still have gaps in their existing resolution process and systems in dealing with service failure or interruption events. Event resolution systems which meet the requirements listed by the study’s participants have a straightforward, immediate payback to an organization, often within 30-60 days of deployment.

How HP and AlarmPoint address today’s needs

Infrastructure Optimization solutions from HP OpenView enable IT to proactively and efficiently manage all of the network, hardware, OS and application elements needed to ensure reliable delivery of IT based services. As pressure mounts to deliver a growing amount of services against a static or declining cost envelope, IT needs to be able to consolidate and integrate across IT element silos. Business priorities require that IT provide a growing list of reliable services with the same or less resources.

HP OpenView Consolidated Event and Performance Management is an integrated enterprise management solution that helps IT operations to efficiently deliver and manage cross-domain IT services and better serve the business teams that rely on them.

Managing operations from a services perspective, rather than individual components allows IT to:

- See the impact of IT service health and performance for the various IT infrastructure components
- Support faster root-cause identification of faults or performance degradations impacting IT infrastructure
- Provide prioritized guidance for IT operations staff based on importance to the business

HP OpenView Network Services Management solutions provide the continuous monitoring, reporting, troubleshooting, and automated response capabilities that are necessary to manage today’s complex, heterogeneous, dynamic IP network infrastructure and network services such as MPLS and IP Telephony.

AlarmPoint’s people-focused notification finds appropriate personnel and enables event resolution. The AlarmPoint platform centralizes all system events through easily scalable, repeatable processes and is built to automate event resolution by managing the needs of today’s mobile workforce. Together, AlarmPoint and HP OpenView solutions deliver the value of automated event resolution. Customers can expect important improvement in IT services:

- Tangible reduction in dispatch costs
- Increased accuracy of personnel dispatch
- Decreased average time-to-fix service outages
- Administration for matching events to personnel reduced
- Potential revenue loss avoided
- Proactive notification and resolution before faults and service degradation occur
- Significantly increased service levels
The HP and AlarmPoint Systems integration

AlarmPoint Adapters

AlarmPoint Adapters enable enterprises to intelligently capture events, route them to the right person on any device and allow that person to interact with the host application. AlarmPoint Adapters allow customers to take critical business information and contact the right people via voice phone, SMS, two-way pagers, email or any other communication channel. AlarmPoint’s web-based interface allows users to access and manage their own device and groups, ensuring accurate timely information with limited system administration.

Key features

- Relational database foundation—provides data load API, reporting and logging, fail over, and database replication and other features
- Sophisticated, customizable web-based user interface—includes permission based access levels, alert subscription and assignment panels (alert me “if something happens”), customizable messaging panels, etc.
- No limits—unlimited users, groups, rotations, voice recordings, scripts, etc.
- Two-way interactivity with HP OpenView products
- Sophisticated find-me, follow-me technology—supports over 700 worldwide touch points including paging, RIM, SMS, voice, and fax
- State of the art voice features—inbound call-in, branching, on the fly voice recording, voice studio, text to speech, automated speech recognition, multiple language support, etc.

AlarmPoint Adapters are fully integrated with HP OpenView Network Node Manager, HP OpenView Operations for Windows® and Operations for UNIX, and HP OpenView Service Desk.

HP OpenView Network Node Manager

Managing complex networks requires more than getting the status of a device. What is the impact of a failure on business services? How can the discovery time required to find real problems be shortened before they impact users? How can the IT team spend more time on adding value to the
business and less on tactical activities? HP OpenView Network Node Manager Advanced Edition provides powerful out-of-the-box capabilities to enable network teams to efficiently manage any size network and extend current capabilities to include new network services and technologies through NNM’s smart plug-ins.

Key features
- Automatic discovery and inventory of physical network, virtual network services, and the complex relationships between them
- Quick identification and assessment of problems and their impact
- Built-in intelligence, targeted polling, and automated actions
- Support of new services and technology through NNM Advanced Edition Smart Plug-ins

HP OpenView Operations for Windows and Operations for UNIX

Stable. Efficient. Agile. Adaptive. Businesses today have high expectations for their IT services and those who provide them. HP OpenView Operations for Windows helps business get to where it wants to be. It provides award-winning and comprehensive Windows-based event management, proactive performance monitoring, and automated alerting, reporting and graphing for Windows, Linux and UNIX systems, middleware and applications. And it does all of this from a unique Service Driven Operations perspective. Control infrastructure. Make IT services more efficient and reliable. Synchronize business with IT operations.

Key features
- Service Driven Operations management: a unique software-based IT service delivery approach to enable synchronizing business and IT
- Centralized point of control for the network, servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service
- Extensive out-of-the-box policy-based management intelligence for enhanced time-to-value
- Automated service discovery, policy deployment and actions to enable busy IT personnel to focus on more strategic initiatives
- Enterprise management scalability (for environments from 10 to 1000+ nodes), high availability (e.g. cluster support), and flexibility (e.g. a sophisticated manager of manager concept)
- Microsoft Windows look-and-feel

HP OpenView Service Desk

A service desk that acts proactively is critical to any business with e-services because every disruption to e-commerce is immediately visible to the customer. These disruptions can result in a tremendous loss of revenue and customers to competitors.

HP OpenView Service Desk 5.0 is a comprehensive, scalable IT service desk solution based on a unified configuration management foundation. Using the HP OpenView Service Desk solution, IT organizations can easily streamline IT service processes as well as manage the IT service life cycle through comprehensive service level management capabilities. Built on ITIL principles and leveraging industry best practices, Service Desk enables IT to manage services and provide effective controls for critical service support and service delivery processes.

The solution has standards-based open interfaces and adapters IT can use to integrate to other solutions. With its powerful functionality, an intuitive user interface and drag-and-drop customization, HP OpenView Service Desk has established itself as the premier solution for service providers and enterprise customers.

- Integrated IT Service Desk solution built on an unified and open Configuration Management Database (CMDB)
• Based on the ITIL and HP ITSM best practices
• CMDB graphical viewer, offering an amazing flexibility in browsing and searching the CMDB
• Complete Help Desk Management solution handles end user calls as well as automated alerts and events from infrastructure management solutions
• Comprehensive Change Management solution to control IT infrastructure change and improve service availability
• Management of the whole life cycle of SLAs and OLAs, enabling enterprises and service providers to successfully manage service levels from a customer experience perspective and run IT like a business
• Help Desk, Change and Service Level smart reports
• New Java GUI, with Webstart-enabled easy deployment

**Analyst support for automating IT and event processes**

In recent years IT analysts have become more aware of the needs and requirements of IT professionals in the areas of proactive event resolution. Consider the following excerpts from published findings:

“Real-time alerts, notifications and reminders are the basis for dynamic, adaptable business operations.”—Burton Group

Gartner specifically identified two key issues within Enterprise Systems Management as follows:

• How will IT organizations meet the challenge of managing the evolving, distributed enterprise?
• How will IT organizations use network and systems management to achieve enterprise-wide service level objectives?

Debra Curtis of Gartner Group identified a bottom-line need for event notification and resolution by stating, “Improvement of event management processes should not only address how notification bridges the gap between business-critical IT services and assigned staff, but the need for increasing productivity and efficiency by avoiding event overload, and expanding notifications to a new audience of business process partners and customers with event subscriptions.”

Furthermore, in an October, 2005 report on infrastructure management, Jean-Pierre Garbani of Forrester Research notes that in IT “automation is the answer”. He urges organizations to enforce operational discipline through automating processes to avoid inconsistencies and human errors. Garbani provides the example of a major Internet application service provider experiencing a lack of integration and cooperation between systems management products, recounting: ‘I have 10 excellent products that are reporting events and performances on separate consoles. The end result is that I cannot correlate their information and they are almost useless in resolving issues.’

**Summary**

In today’s high pressure IT environment, undetected and unresolved events in a complex IT infrastructure are costly to the enterprise. Most enterprises attempt to deal with issues in a reactive method using inadequate event systems, manual processes and inaccurate data. The combination of these factors will result in severe consequences for hundreds of firms this year, many of whom participated in this study. Current, web-based, interactive notification solutions, like the one provided by HP and AlarmPoint Systems, are a key component of an effective event resolution strategy. The payback on these systems is intuitive, tangible and expedient.
For more information

HP OpenView Management Solutions

HP OpenView Integrated Solution Catalog
http://managementsoftware.hp.com/partner/isv/index.jsp

AlarmPoint Systems Integrated Solution Catalog listing
http://managementsoftware.hp.com/partner/isv/Invoq.jsp

Alarm Point Adapters Integrated Solution Catalog listing
http://managementsoftware.hp.com/partner/isv/Invoq_prod1.jsp

AlarmPoint Systems
http://www.alarmpoint.com/