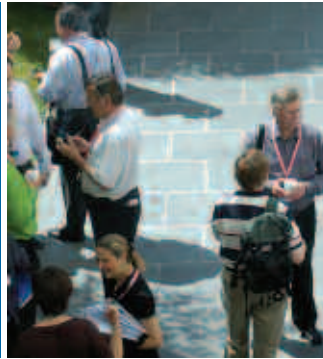


# Community Summary Report

## Infrastructure & Operations

Gartner Symposium/ITxpo, Cannes, France 5-9 November 2006



This Summary Report provides Symposium/ITxpo attendees who signed up for the Infrastructure and Operations Community with the key takeaways of the conference, as well as highlights from the major sessions that focused on IT infrastructure and operations (I&O). The report also includes questions that conference attendees asked and forecasts some emerging issues to prepare for. Finally, it summarizes the main points made in the Mastermind Keynote sessions.

### 1. Key Takeaways for I&O Leaders

A recurring theme across many sessions was the need to run and manage I&O “more like a business.” At the top level, this means:

- Aligning I&O activities, policies and metrics with the business’ goals
- Clearly identifying and communicating the value that I&O provides to customers

The presenters noted that successfully achieving these objectives will become increasingly challenging, due to business’ changing expectations of what the I&O group should do. For example, I&O leaders must juggle traditional responsibilities (such as reducing costs and ensuring quality service delivery) with mandates including improving enterprise agility, ensuring compliance, and controlling and optimizing a complex technology and service landscape.

To adapt to these mounting challenges, I&O leaders must structure their planning activities around three key opportunities:

- Virtualization
- Process automation
- Policy-based management (PBM)

### 2. Conference Highlights

These Symposium sessions were particularly valuable for I&O leaders:

#### 2.1 "IT Operations and Infrastructure Management Scenario: Raising the Bar"

IT operations management technologies will progress more between 2006 and 2010 than they did between 1995 and 2006. But the first step toward achieving I&O excellence — becoming a strategic partner with the business — is engaging in dialogue with customers, said Vice President Milind Govekar. It’s also important to establish and share metrics that demonstrate the value of the services provided. Approaches will vary, depending on how far the I&O group has progressed toward I&O management excellence. For example:

- I&O groups that are early in the journey should narrow their scope by laser-focusing on a specific customer pain point to build credibility and momentum.
- More advanced groups should focus on business service and process standardization and continuous optimization.

Models and frameworks, such as Gartner’s IT Management Process Maturity Model and IT Infrastructure Library (ITIL), can help identify where to make the necessary sequential improvements.

#### 2.2 "IT Operations' Three Tenors: Change, Configuration and Release Management"

Most enterprises are still struggling to get change management right. At the same time, they are automating their configuration management while looking at yet another process: release management. These processes should not be viewed in isolation, said Vice President Kris Brittain.

IT operations managers should understand that four main factors are driving interest in change, configuration and release management and leverage the funding opportunities that this interest brings. The drivers are:

- Compliance with regulations like Sarbanes-Oxley and Basel II
- Users' expectation of 24/7 availability
- Increasing volumes of change requests, coupled with staffing constraints
- Greater adoption of process methodologies

Tools to manage these processes are still fragmented and do not allow collaboration between areas. So managers should develop and document coordinated policies first. To do this, they should create new process lead managers to coordinate activities, educate users and arbitrate disputes.

Managers should develop policies in the three areas at the same rate, or the strongest ones will take over the less-developed ones. They should also remember that automating change, configuration and release without the appropriate people, processes and policies will not be successful.

### 2.3 "Infrastructure Governance: Effectively Managing Integration, SOA and Web Services"

Vice President Paolo Malinverno told attendees that integration work is similar to work on service-oriented architecture (SOA). But SOA needs a more formal governance policy. Organizations should create an integration competency center (ICC) to design, deploy and maintain the "enterprise nervous system," including its middleware technology, SOA and other integration elements. About 40% of all midsize and large enterprises have an ICC, and the number is growing.

Implementing an SOA is easier with an ICC in place, because an ICC already contains most of the competencies needed. ICC managers should use a framework to determine who fulfills the following roles in building an SOA:

- **Responsible:** Typically SOA project leaders, such as CIOs or enterprise architects.
- **Accountable:** The person with the ultimate decision-making authority. Typically an enterprise architect, or a committee that the enterprise architect chairs.
- **Consulted:** A variety of possible roles are consulted, depending on the nature of the service.
- **Informed:** Typically, board-level SOA sponsors are involved in this way.

IT leaders should cast governance processes into enforceable policies. They should make the most of existing services, processes, translation maps and policies. They should communicate the importance of mitigating SOA projects' risks to ensure they have executive-level buy-in. But above all, they should use governance to solve business problems, not IT problems.

### 2.4 "IT Operations Management Software Landscape: Who's Who and Where Are They Going?"

Management software is undergoing a fundamental shift, said Vice President Will Cappelli. It is moving into a central role as applications fragment and the need to manage the end-user experience intensifies. Existing vendors in related areas will move into this market and new ones will emerge, many of them funded by venture capital.

Much of the innovation will come from smaller players, which will then be acquired by the "big four" — BMC Software, CA, HP and IBM. A particular area of growth will be software to monitor and manage, in real time, the power that applications consume and the heat that they generate. Open-source software for IT operations management will grow, but will not become a significant force through 2012.

Before selecting a vendor, IT operations managers should build their process framework. They should establish their own framework, because vendors' architectures will change as they make acquisitions and develop their products. The changing landscape also means that much investment should be treated as expendable. A robust process framework will help managers to weather such changes.

Buyers of IT operations management software face huge risks, as there are no established standards and few of the emerging vendors will enjoy lasting success. Many of the small players are driving toward being acquired, rather than toward an initial public offering. When selecting a vendor, buyers should look at how acquisition would change the relationship.

### 2.5 "The Journey Toward I&O Excellence"

Vice President and Gartner Fellow Tom Bittman and Vice President Kris Brittain described how the IT Infrastructure and IT Management Process Maturity models may be used in parallel for a "multiplier effect." Both models are designed to improve IT service quality, reduce costs and increase business value and agility, said Mr. Bittman and Ms. Brittain, by helping organizations improve maturity in these key areas. Doing this involves:

- Understanding the IT organization's position.
- Building a vision for infrastructure and management process, defining common goals, end-user expectations, and service-level performance metrics between business, infrastructure and operations.
- Evaluating infrastructure and management processes against that vision.
- Building a strategic plan, using the maturity models as guidelines.
- Determining short-term goals and executing them.

- Measuring return on investment in terms of cost reduction, IT service quality improvements and agility improvements, in metrics that make sense to the business
- Periodically re-evaluating and adjusting the plan.

## 2.7 "The Future of Infrastructure and Operations"

Businesses will increasingly expect their IT infrastructures to move toward a real-time enterprise model, said Mr. Bittman. This means being:

- Flexible
- Able to grow and contract incrementally
- Responsive to rapidly changing requirements
- Capable of delivering to business-oriented service levels

One key trend that I&O leaders must prepare for and adapt to: the days of the monolithic, general-purpose operating system will soon be over. New technologies, new modes of computing, and infrastructure virtualization and automation are changing the role of the operating system.

Other recommendations that Mr. Bittman offered for some trends that will influence the future of I&O included:

- To adapt to the accelerating pace of the consumerization of IT, focus on managing only what must be controlled.
- As new technologies and business models change end-user applications, explore software streaming and software as a service.
- With new forms of “disasters” continuing to evolve, plan and perform regular scenario planning.

## 3. What I&O Leaders Asked About

### 3.1 Should I use technology from the same vendor to automate change, configuration and release?

No one vendor can do this at present, so you will be forced to use multiple vendors. Although many vendors have road maps showing how they will expand their solutions, we do not expect offerings to be comprehensive by 2010. Large organizations will use an average of six vendors; smaller ones, an average of three.

### 3.2 How concise must the multiyear plan be?

The multiyear plan can be a half-dozen pieces of paper or a PowerPoint presentation. It doesn't have to be too thick, but it does take time and it does have to be well thought out. The key attribute of this plan should be that it's about building consensus between different constituencies and different stakeholders, within and external to your IT organization. Also, remember that a vendor's strategy is not your strategy for developing and architecting the multiyear plan.

### 3.3 How can I ensure that outsourcing is on board with my journey to I&O excellence, that they're aligned with my objectives?

Outsourcers are feeling pressured by something other than just economics as their sales points. Increasingly more providers are adding agility statements to their marketing messages, and hopefully, to their service-level agreements. Any arrangement with an outsourcer should include expectations and written metrics for improvement over time — in economics, in quality of service, and in agility, based on the common language being built between business and IT. Go to your outsourcer and say, "Here are our metrics — can you meet these things?" Often they will say no, but it's a good way for you to make your sourcing decisions.

### 3.4 What is new in IT operations management tools — what should I look out for?

It's encouraging to see some of the new architectures coming from vendors. They are opening up operations to go from event-level integration — which has been typical — to an entire level of data and pricing, and getting intelligence from the configuration management database. Right now we're seeing a lot of chaos in the details of who owns the configuration indicators, how do we reconcile and so forth. But there is light at the end of the tunnel, where you'll be able to call it business intelligence.

### 3.5 With all this talk about reuse and repeatability, how do you avoid having staff succumb to the “zombie factor,” or getting bored with repetition?

Many of the trends that we've been discussing as part of the migration toward I&O excellence are actually designed to free up staff to do more work that's innovative. For example, when you automate repeatable processes, your staff can focus on handling the complicated processes that only come up infrequently, and to get closer to the business' needs. We hope that by taking some of the repetitive tasks, documenting them and making them repeatable, we will actually foster innovation.

### 3.6 How do I keep track of what's in my SOA?

The services are tracked by a repository or registry, and this is a bare minimum. Other elements, such as policies and transformation rules, are more difficult to track. Enrich the services in the registry with supporting information, and use a solid enterprise service bus.

## 4. Results from Interactive Voting

About a fifth of polled delegates had a governance policy for their SOA. Almost a quarter had an SOA center of excellence. Only 16% enforced SOA governance policies through a service registry or repository.

## 5. Things to Watch For

- With businesses demanding increased IT agility, economic accountability and service excellence, more I&O leaders will begin developing portfolios of standardized IT services, with repeatable process methodologies for service delivery and support. The ultimate goal is automating as many processes as possible.
- Virtualization is the most "impactive" thing changing I&O. The leading edge of this change is server virtualization. Mature server virtualization can provide benefits ranging from reduced costs to faster deployments, improved disaster recovery, and variable use accounting. As virtualization matures, the "next big thing" will be automating the composition and management of virtualized resources, said Mr. Bittman. "Plan, implement and change now," he advised.
- The I&O vendor landscape is undergoing transformation, via mergers and acquisitions. When tracking deals in the I&O vendor space between 1 March through 25 July 2006, Mr. Pultz found that 38 I&O deals were made, roughly representing 75% of the number of deals completed in all of IT during that time frame. The three "hottest" areas were IT operations, security and telecom, said Mr. Pultz, and "within IT operations, the hot areas were data management and systems/storage management." Referring to deals like HP's bid to acquire Mercury Interactive, he said, "It's likely that some current product suites will change as a result of many of these acquisitions. More than ever, buyers need strong contracts."
- PBM will resurge, particularly in networking management. PBM didn't initially catch on in networking because of inexpensive bandwidth, said Mr. Pultz. But now, the focus is on newer application models and delivery mechanisms. "Policy-driven infrastructure is fundamental to the real-time enterprise, so its time is now," he said.

## 6. Highlights from Mastermind Keynotes

### 6.1 Opening Mastermind Keynote

In his opening address, Gartner CEO Gene Hall warned attendees that CEOs are now focused on growth and are expecting CIOs to contribute to their growth strategies.

Mr. Hall was followed by Senior Vice President Peter Sondergaard, Head of Gartner Research, who told delegates that consumer use of IT will be the dominant force during the next 10 years, and that businesses must change in response. Banks, for example, are now at the trigger point, as many customers rely on Internet banking services. "Digital natives" — today's teenagers — will thrive in this new environment, while "digital immigrants" — including today's CIOs — will struggle.

Vice President and Distinguished Analyst Steve Prentice revealed that Gartner research shows that only 20% of the average IT budget contributes to business growth. He said that IT leaders must *think differently*, *act differently* and *be different* if they are to make the right investment decisions.

Vice President Nigel Rayner outlined three approaches to *thinking differently*:

- Reinvest intelligently: CIOs should earmark savings made in one area for use in another.
- Lead from the front: CIOs should not be weighed down by collective "group think."
- Make the connection: CIOs should relate IT capabilities to business value.

To *act differently*, said Vice President and Gartner Fellow Mark Raskino, IT leaders should consider the evolution of IT in terms of management eras, not technology eras. To succeed in IT management, CIOs must move forward to "strategic business disciplines," focusing on areas such as business process management, "services science" (understanding the principles of service management), and harnessing the collective intelligence of the enterprise. He told attendees to make room for these new disciplines, to nurture the few people who have the right competencies in these areas, and to own the changes that will flow from strategic business disciplines.

Vice President and Distinguished Analyst Diane Morello said that to *be different*, CIOs must break free from 20th-century "silo management" thinking, which leads to bad decisions. Strategic business decisions and IT decisions are inseparable, she said. CIOs need fresh talent to help break down the old rules and shouldn't just employ clones of themselves. In the future, they will need "versatilists," rather than IT specialists. But they must also change the culture of their organizations, as simply adding versatilists to a "monoculture" won't work.

## 6.2 Mastermind Keynote With Mark Hurd, CEO, Hewlett-Packard

Responding to questions posed by Vice President Ray Paquet and Vice President and Distinguished Analyst Andy Butler, Mr. Hurd outlined HP's intentions once it closes the acquisition of Mercury Interactive, a provider of software to optimize business technology. HP expects to integrate Mercury technology to complement its own OpenView offering and help the company to become a leader in the new category of IT management software. He also indicated that HP may move into the security management space, possibly through further acquisitions.

Delegates wanted to know about HP's plans for virtualization. Mr. Hurd responded that virtualization is playing a significant role in HP's three-year project to consolidate its own disparate IT systems. For this project, HP's CIO has the three objectives familiar to any CIO: reduce costs, provide better information and reduce business risk. He has a fourth, unique one: do it all using only HP technology. This means that HP has to acquire or build technology to fill in any gaps. He said that lessons from this project will find their way into HP's products and services.

In response to a statement that Gartner's research shows that, when it comes to real-time infrastructure, customers are less confident of HP's strategy than they used to be, Mr. Hurd admitted that the company needs to improve the way it presents and sells its offerings. Having great technology and support wasn't enough, he said. HP has expanded its sales force and refocused its efforts to address this issue. He said that this expansion would not be at the expense of its channel partners.

Mr. Hurd answered delegates' questions about HP's service offerings by stressing the company's commitment to this area. But he added that HP does not intend to compete with its customers' IT organizations.

## 6.3 Mastermind Keynote With Ken Harvey, Global CIO, HSBC

Ken Harvey, Global CIO of HSBC, answered questions from Peter Sondergaard and Managing Vice President Susan Landry. He said he has two key challenges: to run an efficient IT operation that supports the business and to deliver innovative solutions that differentiate the HSBC brand. He now splits his time equally between these two. In supporting the brand, IT will be a significant touchpoint with customers. Poor technology will devalue the brand.

Asked how HSBC measures the impact of IT, he said his organization "sells" transactions to the business. Services are measured not in technology terms, but in ways the business understands. For example, automated teller machine (ATM) transactions have a price to the business, and the effectiveness of a new Web site would be measured by how often people log on, how long they stay online and so on. HSBC benchmarks every IT service both internally (comparing different IT groups worldwide), and externally every three years.

HSBC has found that Web access has increased the frequency with which customers access their accounts. Transactions per customer are growing annually at double-digit rates, much faster than the underlying business. Although volumes are rising, the IT organization will contain costs by cutting the price per transaction by 10% a year. To handle the transaction load, HSBC's architecture is focused on a common messaging layer, rather than a service-oriented architecture.

When asked why HSBC doesn't outsource more, Mr. Harvey said that IT is one of the bank's core competencies, so it must be kept in-house. But half of HSBC's developers are offshore, with 1,200 in China, 4,000 in India and a growing number in Brazil.

Many delegates wanted to know how HSBC is responding to the different ways in which consumers use IT. Mr. Harvey said customers should be able to choose how they communicate with the bank (real-time chat, telephone, Web self-service and so on). All content should be available on all channels with similar levels of service. Mr. Harvey advised delegates who wanted to do this to merge previously separate development teams into a single customer-interface team.

## 6.4 Closing Mastermind Keynote

Steve Prentice's final message to Symposium was "Shift Happens." IT leaders must respond to the changes by thinking differently, acting differently and being different. He said that Symposium sessions have provided attendees with material for action plans, and identified three themes: the growing influence on IT of "Generation Y" (today's 14-to-26 year olds); the proliferation of network-connected devices; and splitting the IT organizations of large enterprises into two — one responsible for "keeping the lights on," the other for transforming the business.

Thomas Bittman, Vice President and Gartner Fellow identified the following takeaways for infrastructure and operations (I&O) leaders:

- Embrace virtualization, but be aware of the need for management and automation.
- Create I&O agility metrics driven by business agility metrics.
- Learn how the consumerization of IT will change what you do by looking at how Generation Y uses technology.
- Plan how you will include consumer IT in your infrastructure.
- Focus on data center power and cooling requirements.

The takeaways for communications leaders provided by Vice President David Willis were:

- Migrate to a "network of networks" to support the huge number of connected devices.
- Build security and application awareness into the network.
- Provide users with the mobility and convergence they expect.
- Simplify your network by deploying appliances such as branch office boxes.

Vice President and Distinguished Analyst John Mahoney's takeaways applied to the management of IT:

- Realize business value by fusing business processes, information and relationships with business technology.
- Expect the IT organization in large enterprises to divide in two — one delivering infrastructure and operations, and the other focused on architecture and innovation. The latter will likely not have "IT" in its title.
- Recruit more versatilists — many more strategic decisions will be made by people with a mix of business and IT skills.

Mark Raskino, Vice President and Gartner Fellow provided CIOs with these takeaways:

- Brand matters: Mr. Harvey emphasized this in his keynote.
- Name matters: You need to develop your own personal brand.
- Climate change matters: Take the lead on "green" IT.
- Innovation matters: Make innovation a priority.