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# IT service management: is it now too important to leave to the IT department alone?

How and why the IT function needs to change its relationship with the business Contents

- *3* Focus on management
- 4 Pressure on services
- 5 Need to evolve
- 6 Break down barriers
- 7 Unclear responsibilities
- 8 Challenges of interdependence
- 9 Understand the architecture
- 10 New strategic approaches
- 11 Pricing IT services
- 12 Value of the infrastructure
- 13 On-the-ground excellence
- 14 Significant benefits to be unlocked
- 15 Time is right for the next phase

IT service management must become more focused on business needs if it is to facilitate the necessary combination of speed-tomarket, flexibility, control and improved efficiency required for enterprises to compete effectively in the marketplace. The rising importance of IT in virtually every aspect of business has engendered a matching rise in the cost and complexity of the IT infrastructure. This has both made IT an easy target for costcutting exercises and put pressure on times-to-market for new services delivered to the business.

The business function expects IT to tighten its belt and to streamline IT service provision, for improved responsiveness to changing business requirements. Simultaneously, the expectation is for higher resilience, control, availability and quality of service. The challenge for the IT organisation is to balance these potentially conflicting demands: high speed-to-market and flexibility versus auditable control and low costs.

As the business looks to build new composite services at high speed – in particular through the service-oriented architecture (SOA) model – the IT organisation must align itself more closely with business goals and change the way it manages IT service provision.

Now that IT plays such an important role in the overall success or failure of any organisation, the business rightly expects the IT department to broaden its focus and to take a more mature and holistic attitude to IT service provision. Fundamentally, the IT function needs to step out of the shadows and start taking responsibility for understanding and meeting the business requirements.

Growing pressure for higher quality IT services requires the IT organisation to radically change its outlook. The first phase of IT service management as a discipline was based on the core IT Infrastructure Library (ITIL) processes, and focused largely on tactical service support processes such as incident management and change management. ITIL Version 3 has introduced new processes and concepts to broaden the scope of IT service management, enabling it to cover business processes, organisation, governance, technology and data. In combination with the Val IT and COBIT best practices from the IT Governance Institute, ITIL Version 3 provides a powerful set of tools for extending the service management capabilities.

While these tools certainly provide a solid grounding for the next phase of IT service management, there is also a need for deeper strategic thinking about how the whole IT organisation should function and evolve. In particular, the IT function will need a far greater awareness of how IT service provision relates to the overall goals of the business.

Businesses of all kinds are under increasing pressure to build smarter, more reliable, more responsive infrastructures. Customer expectations for "always-on" service are growing, as is the complexity of the regulatory framework. Commoditisation and globalisation in the market are eroding margins, and innovation in products and services is key to maintaining competitive advantage. All of these factors drive the need for an IT organisation and infrastructure that can respond rapidly, flexibly and at low cost to new requirements from the business.

The challenge that faces the typical IT organisation is how to gain speedto-market across an infrastructure that is fragmented, opaque, inflexible and hard to manage. The infrastructure will most likely have grown in a relatively unplanned and unstructured manner, with numerous tactical implementations to meet pressing new business and regulatory requirements. Corporate acquisitions will contribute to the fragmentation of the infrastructure, imposing disorder on even the bestorganised IT departments. The resulting hotchpotch of systems will inevitably eat up most of the department's resources in fire-fighting and trouble-shooting – leaving little time or focus for strategic development.

IT organisations need to evolve their attitudes to IT service management.

Beneath the technological challenge is a more significant organisational one – most IT organisations are simply too disconnected from the business to even know precisely what it wants, let alone be able to deliver it as rapidly as required. Before the IT organisation can really address the issue of the disconnect with the business, it needs first to put its own house in order. In most cases, there is likely to be a significant internal division between the development and operational sides of the IT organisation. The first step is to bridge this division and build a coherent, integrated IT organisation that seeks to serve the business rather than focusing on internal silos of responsibility.

Part of the maturation process that characterises the second wave of IT service management is a willingness to take a step back and see how business processes map to the IT infrastructure and IT management processes. The IT organisation needs to emerge from its silo and understand the challenges the business faces, then adopt new tools and methodologies to benchmark its service against these challenges. Adopting these new, second-wave IT service management techniques will transform the IT organisation from a fragmented, reactive, tactical costcentre into a holistic, proactive, strategic centre of innovation.

The first phase in the adoption of IT service management as a discipline focused largely on service support processes, covering areas such as incident management, change management, first-generation configuration management and performance management. Based on ITIL best practices, these services covered day-to-day service support, with relatively little by way of strategic thinking about how the whole IT organisation should function and evolve. This approach to IT service management is outdated: there has been no clear framework governing the totality of service management, and in particular, too limited an awareness of how IT service provision relates to the overall goals of the business.

Breaking down the barriers between IT and the business.

In the past, attempts to create a more holistic form of IT service management were frustrated by technical difficulties and by a lack of clear processes and methodologies. The need for cultural change – both inside the IT organisation and externally, in its relationship with the business – also proved a significant barrier.

As businesses look to respond and adapt faster to external market pressures, the unwieldy, fragmented, distributed IT architectures that underpin them are increasingly the main obstacle. Managing effective service provision across these complex environments is certainly technically difficult, but there is a growing awareness that redefining the IT service management processes is an equally important task.

Today, the technology, methodologies and – crucially – the willingness to change are all coming into effect. The second wave of IT service management mirrors the steady maturation of IT as a profession. More and more IT practitioners are likely to have business-focused qualifications and experience to supplement their technological skills. Professional qualifications in IT are also changing to focus more on how IT can serve the business and less on pure technical and architectural considerations. For example, ITIL Version 3 now provides a holistic service-lifecycle framework for service management that recognises the importance of an end-to-end view of service management across all processes, technology elements and organisational parts of the enterprise, including the business. ITIL Version 3 also includes more rigorous certification standards.

With a new breed of IT specialist who also understands the business, IT service management can now evolve to become much more in tune with the business requirements.

Unknown risks and unclear responsibilities in distributed infrastructures. The push for integration between the business and IT organisations in part reflects the emergence of IT as a profession, and is in part a response to external pressures. So there is both bottom-up pressure from business-savvy IT executives keen to break out of the "backroom", and top-down pressure from business executives who recognize that flexible and responsive IT service provision is the key to competitive advantage.

Formerly, the IT organisation has been, to a degree, autonomous: the business gave it systems to run, and the IT function executed to agreed service levels. In a legacy environment, each new business requirement is met by introducing a new service, often built from the ground up. As a result, most legacy environments include significant duplication of functionality – making them inefficient as well as complex and more costly to manage. Equally, it is difficult to ensure adequate controls, auditability and risk management in a fragmented and siloed legacy environment.

The advent of service-oriented architecture (SOA) is breaking down the barriers between the two sides, encouraging the business to take a greater interest in the potential benefits of new technology, and enhancing the value that the IT organisation can bring to strategic business discussions. This coincides with a new-found confidence in the IT department to articulate the value of technology to the business. SOA aims to componentise the functional architecture, so that business processes developed in one area can be re-used in another area, increasing flexibility, boosting speed-to-market for new services, and reducing cost by enabling the "recycling" of existing functionality. This means that a component of the IT architecture may support a number of different business processes.

Defining and managing interdependent services across a distributed IT infrastructure. In an SOA approach, the requirements of all the different business services are analysed and broken down into process components. These components are generalised and abstracted as far as possible to enable their re-use across a variety of services. Creating a new business service is then as easy as linking together the necessary components, enabling rapid time-to-market with a high degree of control and at low risk.

Of course, the reality of SOA is more complex than this brief summary suggests, but the key point is that the technology already exists to make it possible. In most cases, the obstacle to adoption is precisely the weak links between the IT and business organisations. The new wave of IT service management can strengthen these links, providing a better understanding of how IT services map to business processes.

In a typical distributed IT infrastructure, it can be difficult to precisely define and manage the interdependency of services. If a power supply for a group of servers is about to fail, is it possible to say precisely which business services will be affected? Is there a way to predict the overall impact on the business, and to take the appropriate actions to set up alternative services?

The tendency to split IT service management into separate elements has aggravated the physical complexity by promoting a fragmented view of the infrastructure. The siloed approach to IT service management has also encouraged a culture of taking responsibility only for the immediate, narrowly defined SLAs within each team's own area.

A holistic approach to IT service management is crucial for the successful adoption of SOA, which is all about building composite business services from disparate underlying systems. The underlying systems and sources of information might be running on the same server, or on different servers in the same data centre, or even in different data centres. Equally, they might be running on servers hosted and managed by a partner organisation. They might even be owned and managed by a different legal entity – for instance, a supply chain partner.

Understanding how the IT architecture fits together and how its processes map into the underlying IT systems. The fragmentation in the ownership of data and systems makes it crucial to understand the interdependencies that underpin IT service provision, and requires the IT organisation to forge much closer links with the people who understand the business services that are being supported. It is no longer enough to say, "we're keeping all of these servers running", since the business process itself may be dependent on a service managed by another company. The second wave of IT service management understands that it is no longer possible to manage IT service provision from a diagram of the network, and that it is much more important to define and promulgate an understanding of the dynamic processes, tools and responsibilities that govern the end-to-end availability of business services.

Many major organisations are moving to strengthen and bring to maturity several IT service management processes that have received less attention in the past: configuration management, release management, strategy and architecture management, and financial management. The need to improve configuration management is driven largely by the increasingly complex and demanding legislative frameworks in which organisations must operate. In the past, IT could be thought of as a black box – which suited the IT organisation rather well, and perpetuated both the disconnect from the business and the disjointed standards for IT service provision.

Now, every organisation needs to understand all the components of its business process architecture, which includes all the elements of the infrastructure and all aspects of IT service provision. The IT department needs to be able to show, in an auditable fashion, all the complex interdependencies of the architecture, to understand where risks may be present, and to assess what impact those risks might have. For its part, the business needs to understand how the IT architecture fits together, and how its processes map into the underlying IT systems, so that it can clearly understand the inherent risks. To enable this, the IT function needs to work more closely with the business, helping it to untangle the technical complexity and reveal the interdependencies. In IT service management terms, a more holistic approach is required - one which recognizes the need for configuration management and risk mitigation throughout the full IT service provision lifecycle.

Applying new strategic approaches to release management and architecture management.

The need to improve release management is also driven to a certain extent by the desire to mitigate risk, and it aims to balance speed-tomarket with adequate IT controls. The second wave of IT service management recognises that every organisation needs to define and enforce standards across every part of the infrastructure. When properly defined and executed, release management will ensure that new applications are delivered on time, within budget, without disruption or risk, and to the agreed business specification.

In the brave new world of the second wave of IT service management, this presupposes a far greater understanding of the business requirements within the IT organisation, and much closer teamwork. Well-handled release management also requires the healing of the rift between development and operations teams within the IT organisation itself.

The need to improve strategy and architecture management stems largely from the desire for greater flexibility and responsiveness. In the early days of IT service management, there was no consistent high-level view of the architecture; rather, everything in the realm of service provision was seen in terms of managing a particular service or application. Duplication and redundancy were either unnoticed or explicitly tolerated, leading to ballooning IT costs and the proliferation of silos, as the same functionality was built up in different systems in different ways.

Effective strategy and architecture management calls for the componentisation and commoditisation of the architecture – and these are also the first steps towards SOA. By looking at the architecture not in technical terms but in terms of the business processes it must support, an enlightened IT organisation can build a more flexible, simple and efficient architecture based on common standards. In this idealised architecture, components can be re-used to increase flexibility and speed to market while reducing costs.

Putting a price on IT services, and highlighting their value to the business. Financial management is an extremely mature discipline in most businesses, but is likely to be a relatively new concept in the context of how the IT organisation interacts with the business. Server consolidation as part of the first phase of IT service management may have delivered cost savings, but the more critical element of cost control is on the operational side.

In an IT organisation that is driven by the requirements of the business – and that is even evolving to anticipate those requirements and deliver innovation for competitive advantage – there needs to be a better link between the provision of services and the cost to the business of those services.

In ITIL terms, much of this comes down to how the IT function charges the business – are there charge-back schemes, and is it possible to create on-demand, utility-model pricing? A more proactive IT service management approach will look to create new ways to measure and increase the value of IT services to the business.

Implementing a structured approach to financial management will increase the perceived value of the work done by the IT organisation, as well as enabling the business to understand the real cost of IT. Chargeback mechanisms will help to make the IT organisation more accountable, transparent and professional, and will act to reduce the cultural divide between IT and the business.

What is the real cost – and value – of the IT infrastructure?

Without a clear understanding of the financial aspects of IT service provision, the IT budget will remain an easy target for cost-cutting initiatives. The more accurately the IT organisation can measure the value of IT service provision, the more the business will see that IT is a valuable contributor rather than just another overhead. If the business understands the cost of IT services and chooses to buy them, this has an important positive effect on the perception of the IT organisation within the business as a whole.

On the operational side, if there is no mechanism to assign value to IT work, and no overall view of work in progress, it is easy for businesscritical development or support work to be queued behind less important work.

By implementing financial and service dashboards for IT service level agreements, charge-back arrangements and other aspects, and by providing different views according to job function, an organisation can more easily quantify the financial impact of an IT outage. This information can then be fed back into the setting of priorities for IT service management. This is a key aspect of the second wave of IT service management: it is all about feedback and evolution, and is no longer a static world of applied ITIL processes.

Improved financial management can also help the IT organisation to focus on the end-to-end availability of business processes, rather than on the availability of each individual component of the architecture. If the business is paying for specific services from the IT organisation, feedback will be faster and clearer when things go wrong, and IT staff will quickly gain a deeper understanding of how the quality of IT service provision translates into effective support for business processes.

Thought leadership and on-theground excellence from IBM. IBM is uniquely positioned to lead in IT service management, with 25 years of continuous experience in managing global, heterogeneous, multivendor environments for organisations of all sizes. With more than 5,000 professionals, including operational managers, system architects, consultants and software engineers, IBM combines the best in people, assets, technology and methodology to help organisations move up to the next level of IT service management. IBM is a single-source supplier offering services across all phases: consultancy, design, development, testing, training, delivery, management, maintenance and enhancement.

IBM has very strong consulting credentials, and unmatched breadth and depth of industry experience. As expectations for 24x7 availability of services fan out from banking into areas such as retail, the experience gained by IBM in helping the early-adopter sectors is now feeding into best practices that can be applied across other sectors. IBM also has a vast reservoir of intellectual capital behind its on-the-ground experience, with skills and tools covering the full spectrum of the IT infrastructure and IT service management processes. The thought leadership of IBM filters down into best-practice tooling and capabilities. On the technology side, IBM has the tools to enable a composite view of IT services, with real-time graphical representations of the flow of transactions. This enables businesses to model expected changes in load, and drive automatic provisioning of new computing resources to take up the strain – delivering "infrastructure on demand". IBM technologies also enable the introduction of charge-back schemes for usage-based services.

The automation of monitoring and provisioning enables pre-set, policy-driven responses, using easily customisable tools that offer known outcomes. Market-leading software assets, including IBM Tivoli, Rational and WebSphere solutions, and advanced virtualization technologies eliminate the current reliance on in-house tooling that may be undocumented and difficult to maintain. By providing an easy-tosupport, low-risk, low-cost solution that works out-of-the-box, IBM technologies share the philosophy that drives SOA: componentise the tools, standardise the solutions and processes.

IBM also offers tools that can capture development requirements and provide a full audit trail linking through to the completed application. If there are issues with the code, the IT function can then rapidly highlight the potential impact on the delivery of the original business requirements.

Significant benefits to be unlocked in four key areas. There are significant benefits to be unlocked in each of the four key areas examined in this Point of View. By adopting best-practice IT service management approaches in each area, organisations can speed time-to-market, reduce costs, improve the quality of service and increase the responsiveness of the IT architecture to changing business requirements.

#### **Configuration management**

- Understand and mitigate the risks of the IT infrastructure
- Develop new solutions faster through a better understanding of the current architecture and of the business requirements
- Document and streamline IT management processes; build comprehensive knowledge management resources
- Reduce business risk across operations and development.

#### **Release management**

- Balance speed-to-market with adequate IT controls
- Formalise, document and enforce standards from development through to production and beyond
- Reduce both the risk and the potential impact of failure
- Match release cycles to the business requirements.

#### Strategy and Architecture management

- Govern approaches and define standards, for reduced risk
- Reduce complexity and costs by componentising the architecture
- Achieve faster time-to-market through a better understanding of business requirements
- Automate operations and shift focus to long-term strategy.

#### **Financial management**

- Match quality of service to perceived business value
- Provide pricing models that fit with overall business goals
- Prioritise work according to value, to make the best use of limited IT resources
- Enable the business to understand the cost of IT and appreciate its value.

The time is right for the next phase of IT service management.

As more business sectors move into the "always-on" age, the reliability of IT service provision will become ever more critical. Moreover, as IT becomes the primary source of competitive differentiation, IT service management will move from a role of reactive house-keeping into one of dynamic, proactive business development. If the IT organisation cannot adapt to this new role, then IT service management will indeed be too important to leave to the IT organisation alone.

The IT organisation must prepare to take a more proactive and prominent role in the delivery of business services. The challenges it faces are significant; not the least of them is the need for major organisational and cultural change. The IT organisation needs to build closer links with the business, and adopt new methodologies to benchmark its performance against real commercial objectives rather than against arbitrary and fragmented technical parameters.

The business function's growing interest in SOA requires a greater degree of openness and cooperation from the IT organisation, with the ability to explain technology in terms of its business value. Since SOA will bring a greater interdependency in the infrastructure, and a greater likelihood that some elements of each composite business service will be sourced from external partners, the IT organisation must embrace a more holistic approach to IT service management.

Any enterprise that cannot resolve the disconnect between the IT and business organisations is likely to lose significant ground to the more focused, adaptable and fast-moving competitors that have got it right. By taking on the tools and methodologies of the second phase of IT service management, the IT organisation can emerge from its silo and act as a true partner, providing dynamic support to the business.

#### More information

For more information on infrastructure solutions from IBM Global Technology Services, please visit: **ibm.com**/uk/services

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