

# The New Face of IT Service Management:

## Aligning Business, Development and Operations Teams for Strategic Advantage

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**Macehiter Ward-Dutton** is a specialist IT advisory firm which focuses exclusively on issues concerning **IT-business alignment**. We use our significant industry experience, acknowledged expertise, and a flexible approach to advise businesses on IT architecture, integration, management, organisation and culture.

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## Executive summary

### **We need a new approach to make long-term improvements in the business value of enterprise IT**

Our research shows that a lack of trust in IT's ability to deliver business value is one of the biggest hurdles that enterprises face in bringing IT and business closer together. In today's business and technology environments – where expectations of IT are higher, but where change, risk, and complexity are increasing and the legacies of past investments are having an ever greater impact – it's imperative that IT organisations find ways to demonstrate their ability to add value.

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### **SOA is only part of the answer**

We're often told that Service Oriented Architecture (SOA) will sort things out by making systems more flexible and agile. However although SOA is a key enabler for a more "business-tuned" IT organisation, it has two limitations. Firstly, SOA is a software design approach and as such can only provide you the promise of flexibility: without the right business context for SOA work, that flexibility is likely to lead you down unproductive paths. Secondly, SOA is about the development and integration of systems, and as such focuses primarily on the "projects" side of IT work. But there's more to IT work than "doing projects" – we need an answer that can provide a foundation for more effective working across the board.

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### **A holistic approach to IT service delivery and service management is what's needed**

The single key element that's missing from many IT organisations is an effective model for engaging consistently with business teams throughout the whole lifecycle of IT investments – from when they're first considered, to when systems are being managed, changed and upgraded in operation. Although SOA doesn't deliver the answers here, a broader "service based" approach to IT delivery does. A holistic view of IT service delivery and management, based around a business-meaningful IT service model where managed IT services are mapped to business activities and processes, provides a solid foundation for that consistent (and meaningful) engagement between business and IT teams. If this model is created in the right way it also provides business context for organising IT work throughout the lifecycles of IT investments – and across IT practice stovepipes.

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### **Maturity in service delivery and management depends on two key capabilities**

The journey towards an IT organisation which is able to deliver long-term business value from its investments comes from building two key capabilities. The first is effective operational integration of IT management processes, work flows and information across practice "silos" in development, administration and operations. The second is the evolution of individual work practices so that they're carried out in the context of a common high-level managed IT services/business activities model that is understandable by business teams and governed to drive shared ownership and responsibility for change management.

## **Does anyone know the value of enterprise IT?**

It appears that even if we do know the true value that IT delivers to businesses, most of us aren't doing a good job of explaining it to business people. Our ongoing research into the challenges faced by CIOs and other senior IT and business decision makers strongly suggests that lack of trust in IT's capabilities is one of the biggest hurdles faced in the transition of an IT organisation to a situation where IT and business are truly aligned. This lack of trust, more often than not, lies at least in part in the fact that business representatives rarely have access to information or tools that would help them understand the actual contribution that IT makes to their business activities.

The resulting communication gap is crucial, because IT-business alignment isn't only of academic interest. Business activity and IT are intimately intertwined, and as a result a high-quality IT capability can boost business effectiveness; while a poor-quality capability can severely restrict business' ability to move as the market demands and to anticipate change.

### **The future is open – but our past is weighing us down...**

It's often supposed by business people that the gradual "opening up" of IT – from an environment dominated by proprietary mainframe data-centres accessible from green screens towards one dominated by a globe-spanning network of interoperable information services which are accessible from the desktop and mobile devices – means that it now must be easier to establish clear relationships between IT investments, and the business tasks and processes that depend on them.

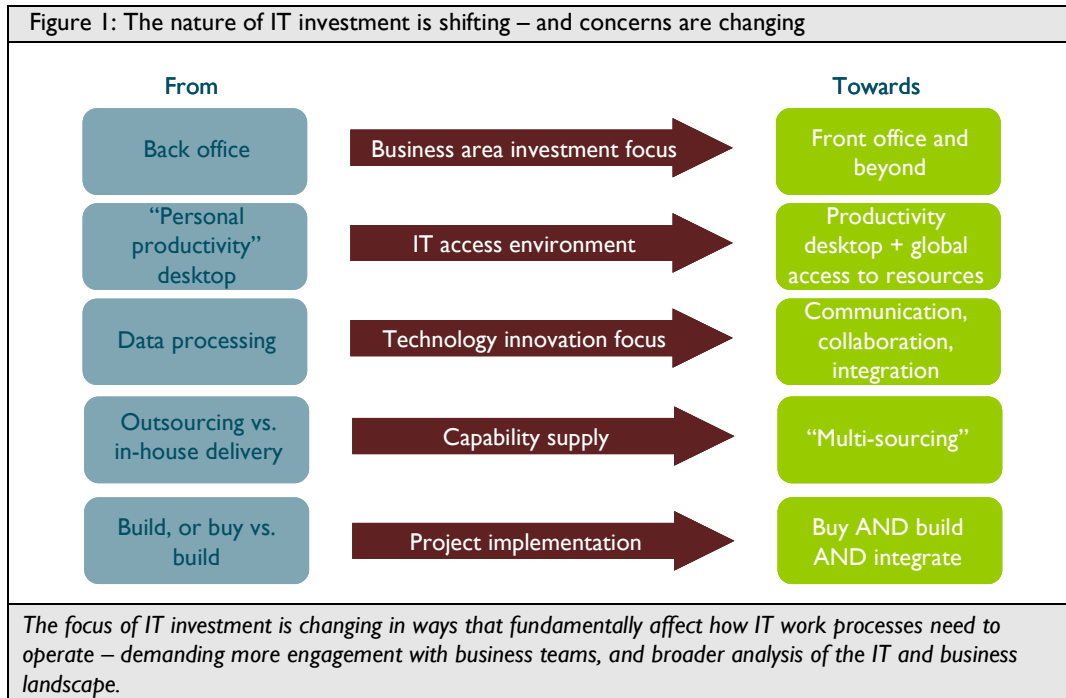
But the truth, of course, is that despite the best of intentions, old technologies in operation have not been displaced by new ones – newer technologies have just been added to the mix. Although future investments might make these relationships easier to determine and maintain, the legacy of past and current investments cannot be ignored.

The important thing to realise is that the state we're in is more a result of poor business-IT communication than it is a result of poor technology usage (although the former does lead to the latter). Today IT might be closely interwoven with the cut-and-thrust of business activities and processes, but IT and business organisations are rarely well-aligned. Although newer technologies are more open and bring the potential to clarify technology-business relationships, in many organisations, the relationships between IT investments and business processes and practices are actually quite poorly understood within the business community.

Where there is little understanding of the value that IT provides to business, that means little trust in IT's capabilities from the business side. And that's a poor platform on which to build an IT capability which is truly aligned with business needs.

### **...and although the future is open, it's also complex**

Against this challenging background, it's also clear that in trying to build bridges between IT and business communities and so demonstrate better business value from IT investments, IT organisations are working in an IT investment landscape which has changed shape significantly from that of the 1980s and 1990s. As figure 1 shows, although technology today is more open and flexible, the overall landscape has become a good deal more complex.



As a result the scope of IT concerns has also broadened. To deliver real business value from IT, organisations aren't only concerned about whether Project X will be delivered on time; they're worried about on-time project delivery *as well as* the overall efficiency of the business organisation and the broad industry value chain in which it resides.

At the same time, trends in outsourcing and offshoring, as well as major transitions in how IT is architected and delivered, are increasing the distribution and complexity of software and human resources; and furthermore, they're also increasing the complexity, number and opacity of the interdependencies between installed systems and technologies.

Now many IT organisations are suffering major pain as they try to deal with the combination of a steady accretion of technology over the past 40 years, and the pressure to connect people, information and processes together in more flexible ways.

## Addressing the IT business value challenge in today’s environment

**“Insanity is doing the same thing over and over, and expecting different results.”**

- Benjamin Franklin

Clearly, the approaches which got organisations to this point will not help either business or IT teams move forward. IT organisations need to get a better handle on the relationship between IT investments, and the business activities they support – and use that knowledge to drive the delivery of IT capabilities which will make sense to business people in a business context.

In an environment where IT change has to be positively encouraged if business needs are going to be really served, such a reinvention has the potential to help IT organisations move from a reactive approach, where the best they can do is cope with change forced on them; to a proactive approach, where they can invite and instigate change to help business innovate.

### All the key stakeholders in IT’s performance are facing challenges

We talked above about the lack of an environment where business people can engage consistently with IT throughout the lifecycle of an IT investment – from “cradle to grave” if you like. To illustrate the need for this, let’s look at some of the challenges faced today by key stakeholders with a vested interest in the performance and relevance of the IT organisation. Figure 2 provides a summary.

Figure 2: A summary of stakeholder challenges

Stakeholders	Challenges
Operations managers	Capacity planning, costing and budgeting, and problem resolution.
Project managers	Cost, effort and risk estimation, and management of requirements.
Architects	Achieving financial or organisational buy-in to architectural work.
Business executives	Understanding how IT adds value and why the IT organisation has so much difficulty responding to business needs.
CIOs, IT Directors	Balancing IT priorities, budgets and approaches across complex portfolios of projects and initiatives.

*All IT stakeholder groups are faced with significant challenges, and there is a common denominator: lack of shared and consistent context for work that bridges IT practice teams, as well as bridging the gap between IT and business teams.*

### **Operations managers**

Operations teams have struggled for decades to deal with new applications and systems that are “thrown over the wall”. Project teams procure, enhance, integrate and test systems – and then hand them over to operational teams with little warning or context. What’s surprising and disappointing is how often this still happens. What’s even more disappointing is that as applications have become easier and quicker to build thanks to the power of application platforms based around technologies like JEE and .NET, deliveries come more frequently and project teams move from project to project more quickly – and operations teams get even less handover and contextual guidance than previously.

There are three chief challenges that operations managers face in this environment. Firstly, capacity planning can be difficult, and is only made more so when non-functional requirements are poorly specified or when the expectations of the business users of a system haven’t really been tested. What makes this worse is that as business becomes ever more saturated with IT and as integration points between systems multiply, delivery of a new system very often has unintended consequences on the functional stability, performance or availability of other parts of the IT real-estate. Secondly, costs associated with operating a new IT capability are rarely accounted for with the same rigour as the costs associated with initial development or procurement, customisation and integration work. The result is that operations managers very often struggle to manage budgets and deliver reliable capabilities. Thirdly, when something goes wrong in the operational environment, it’s often very challenging for operational managers to instigate activity to get the right team together to diagnose and fix the problem(s).

### **Project managers**

Project managers often act as “customer proxies” within the IT organisation, and are leaned on heavily by business executives wanting results. Where operations managers often struggle due to a lack of visibility concerning new systems, project managers often struggle to get to grips with project requirements and to estimate project cost, effort and risk. When faced with balancing the constellations of proposed projects advocated by different business teams, the challenge becomes particularly tough.

And operations managers aren’t the only ones struggling to accommodate new requirements: it’s disappointing, too, to note how many project managers still report difficulties managing changing project scopes and requirements. The difficulty of getting business executives to sponsor projects and dedicate a proportion of their time and effort to helping those projects succeed through their lifecycle only compounds the situation.

### **Architects**

In this environment it’s easy to see how the efforts of IT architects, who often work from a central “centre of excellence” team rather than within project teams, can be judged as counter-productive by project managers and their project delivery teams. Faced with short deadlines, vacillation and prevarication from “customers” and trying to act as a slave to multiple business masters, project managers often see any attempt by architects to influence the direction of their work as interference. If taking on those influences adds any effort or financial cost to an individual project then they are at best taken on grudgingly. At worst they are actively ignored, and the architects and their work are sidelined.

And the outputs from architecture work typically do add incremental cost to projects, because the role of architects and architecture is to reduce the overall cost and risk of delivering a whole portfolio of IT capabilities over time, rather than minimising the cost of every individual project.

It’s no surprise, then, that architect teams, particularly enterprise architect teams, find it difficult to get buy-in for architecture programmes – either financially or organisationally.

### **Business executives**

In large part, business executives and their teams are the identifiers and catalysts of IT initiatives – the “idea-generating” counterpart to an IT organisation that is largely reactive, swinging into action to gather requirements and produce supplier RFPs or solution designs only once a business need has been identified. The challenge that business executives face is that a lot of the time their own work is very project-driven, and IT needs are thrown up within the context of particular time-sensitive business projects and initiatives (such as re-vamping the customer experience in a chain of retail stores; integrating a new set of suppliers or partners into the supply chain; or introducing a new product family to customers).

In this environment business executives struggle to understand why their IT organisations have so much difficulty responding to their needs. This community is more and more familiar with the possibilities that technology brings. They all use the Google™ search engine, for example, and can see how it can find information from across the globe in a second or two. They can’t understand how, despite decades of investment, their own IT organisation – which may be in the same building – can’t respond in the same way.

This last point is well illustrated by a key finding from research recently carried out by our research partner Freeform Dynamics: in a 2006 survey of 100 financial services companies, 48% of business management wished that IT would “deliver more quickly, reliably and at a lower cost”; 45% said they wanted IT to “communicate and engage with the business more effectively”; and 42% wanted IT to “generate more value in line with business needs and priorities”.

### **CIOs and IT Directors**

Although project managers and operations managers are “at the front line” when it comes to dealing with day-to-day interactions with the changing business environment it is IT Directors and CIOs who are ultimately responsible for creating more business value from IT initiatives and capabilities. And as more business leadership teams begin to realise that managing business activities and business risks depends to a large extent on IT competencies, risk management, auditing and reporting are becoming increasingly key CIO responsibilities. Faced with conflicting demands from multiple business teams, the rising cost of operating an IT real estate due to auditing and compliance requirements, the increased complexity of the environment, and a lack of general understanding within the business community regarding the value and role of IT, the CIO and IT Director roles are often thankless.

As senior IT executives seek to drive more consistency and quality in the way their organisations operate in order to get better visibility and control of costs, the need for more and better business context for decision making very quickly comes to the fore.

## **Doesn’t SOA solve these problems?**

It’s all too easy to say “the answer is Service Oriented Architecture (SOA)”. Surely if you adopt a more granular and flexible way of designing, developing, integrating and deploying systems and business applications, IT will become more flexible, investments will become more transparent, and the challenge of marrying business needs to IT systems will disappear?

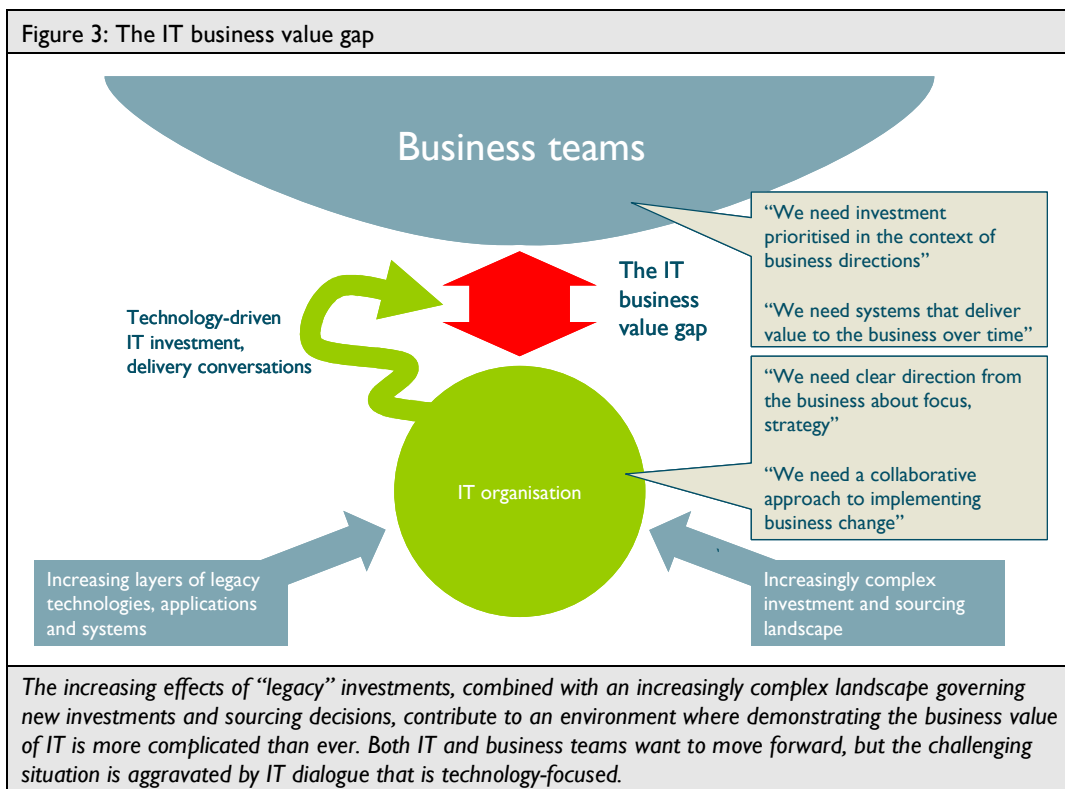
The unfortunate answer is “no”. There are two reasons why.

Firstly, simply applying a new technical design approach to new software projects only brings the *potential* for business flexibility. It doesn’t do any more than that. It doesn’t matter how flexible your systems are if there isn’t clear and consistent communication between IT and business organisations. Without clear two-way communication between IT and business, and the right processes in place, SOA initiatives are quite likely to stall or even move the IT-business relationship in entirely the wrong direction – by incurring costs to create flexibility where it’s not required, for example.

Secondly, SOA as most people think about it is fundamentally an approach to *software projects*; whereas the reality is that delivering business value from IT means there has to be consistent business context and continuity that frames all IT work, not just “projects”. To create real meaningful dialogue between IT and business and to create that sustainable foundation for closing the IT business value gap, there has to be a working environment where business people can engage consistently with IT. That engagement has to be consistent from when investments are first being discussed; through when investments are being prioritised and made; when IT capabilities are being built within development or integration projects; when capabilities are delivered through running systems and processes; and when capabilities need to be tuned or transformed perhaps months or even years later.

## We need to take a fresh look at the IT management model

As we outlined above, a combination of the strain of managing the complexities of legacy IT investments, and the challenge of working in an increasingly complex IT investment and sourcing environment, makes the business of delivering IT capabilities very demanding. IT teams and managers spend a disheartening and disproportionate amount of time and effort just trying to keep everything working, and there is still relatively little co-ordination within IT organisations across, architecture, project and operations management disciplines. Figure 3 illustrates the resulting situation.



The “IT business value gap” that we see so often in our work with enterprises is exacerbated because communication between IT and business teams revolves around technology. In an environment where business people are interested in improving the efficiency of cross-organisational activities and processes, improving regulatory compliance and corporate governance, and creating more flexible business models, trying to explain the value delivered by an IT organisation in technology terms is pointless. What’s interesting is that there is widespread awareness of this gap within businesses, and a strong desire to do something about it. The challenge is that it’s difficult to know where to start.

Business executives tell us that they are fed up with dealing with an IT organisation that acts like a “Ministry of ‘No’” – that they want to have IT investment prioritised in line with business needs and directions; and that they want an IT organisation that delivers capabilities that “just work”. IT organisations tell us, on the other hand, that they are ready to step up to the plate. They want to be seen as able to deliver trusted capabilities and to become more business-focused. But to do that they need more clear direction from business people about where the business is going; and they want the opportunity to work hand-in-hand with the business to anticipate, implement and manage business change.

What’s been missing from most thinking and discussion around the notion of business value of IT until now, is the fact that we need a new model of engagement between IT and business teams that firstly creates consistent context for all IT work; and secondly makes it easier for business teams to engage with the IT organisation on their terms.

It’s not enough for an IT organisation to look “backwards” at the problems it has and to try to fix those: they’ve done that and it doesn’t work. If all you’re doing is looking backwards, the best you can do is to fix yesterday’s problems in a piecemeal fashion. You get locked into an endless cycle of firefighting and spending the majority of the IT budget trying to keep the train on the tracks.

Ultimately, IT organisations have to establish a solid reputation, based on performance, that provides the basis of trust. Trust is essentially the business expectation of future behaviour. With a solid reputation and trust an IT organisation can shift to forward-looking, sustainable delivery, rather than backward-looking, reactive firefighting.

## Creating sustainable business value from IT with service management and governance

### Focusing too much on projects causes problems

It probably sounds heretical, but one of the biggest factors that stands in the way of delivering sustainable business value from IT capabilities is an over-reliance on the idea of the “project” as the main organising principle for IT work. The reason is that thinking primarily in terms of projects tends to prevent us from thinking about the broader and longer-term implications of the work we’re doing. This is important because it’s a lack of common understanding of these implications which is so often at the root of a lack of good communication between IT and business teams.

There are two areas where too much emphasis on projects hampers peoples’ ability to build consistent and clear communication channels between IT and business organisations. The first is a problem of IT engagement; the second is a problem of business engagement.

### Problem symptom 1: the project focus of business analysts

Of course IT organisations have worked with business teams since the days when the “waterfall” software development methodology reigned supreme. Business-savvy (or at least, not too antisocial) IT people would be trained to do requirements analysis work, and at the start of every software development project these “business analysts” would set up meetings with groups of “users” and elicit requirements through a series of interview sessions. However, at the end of the business analysis phase of the project these people would disappear, the big heavy doors to the IT temple would shut and everything would go quiet. Then, after many months of silence the doors to the temple would swing grandly open, and the system would be wheeled out. “Hmm,” the users would say, “that wasn’t really what I was after...”

Waterfall-style software project methodologies may have fallen from favour, but even project delivery using agile methods doesn’t in practice provide a way for IT delivery people and business people to continue to communicate about expectations and experiences. In theory, because agile approaches assume that “no project is ever finished”, taking the agile path can provide a foundation for long-term communication of the kind we want; however in practice there is just too much IT demand for there to be any long-term continuity in the relationship – people keep moving around from one project to another.

### Problem symptom 2: the project focus of business sponsors

Some IT organisations manage to consistently engage project sponsors from the senior ranks of business departments to help them define and refine project scope, terms of reference and requirements. However to make things work in a sustainable way we need more than that. As is the case with the shortcomings of the business analyst role on the IT side, business ownership of and participation in major IT projects has to extend past the initial design and development of systems. Most major IT projects yield systems that last five years – or even decades.

It’s worth asking the question: why are business sponsors for IT projects so important? The answer is that shared IT and business responsibility helps to manage risk.

Given this, and the extended lifetimes of a great many systems and the persistence of business change, it’s folly to assume that the business and IT risks associated with systems disappear once those systems are deployed. This is a long way from the truth. The risks are different later in the lifecycle of an IT investment – they include risks associated with unmet construction requirements, mismanaged change, misunderstood change requirements, and the unintended effects of changes or introductions elsewhere – but they certainly are serious risks, and they need to be managed.

## **A service-based view: taking the customer's perspective**

What the above examples demonstrate is that IT organisations are making long-term commitments to provide IT-related facilities to business “users” in order to support business activities, whether they realise it or not. Project-centred thinking often blinds us to these commitments, and we need to find a way of bringing them into focus.

Although we've said that SOA alone is not the answer to closing the IT business value gap, a broader *service-based view of IT* can encompass and provide context for *all* IT practices and competencies (not just those related to project delivery). By shifting the principle way you think about IT from one focused on projects to one focused on services, you're better reflecting the nature of the commitments that the IT organisation is making.

## **The service-based IT organisation**

This “holistic” service-based IT view makes explicit what's currently implicit in so many IT organisations. It starts with the assertion that an IT organisation's basic purpose is to provide services that directly and indirectly support particular business activities. All IT activity (for example, development and integration projects, systems administration tasks, application change management work, and so on) is carried out in the context of these services, and the way that activities are performed is primarily guided by the contributions that these services make to business activity.

The service-based IT organisation defines a set of high-level services and maps its day-to-day activities onto these services. Services do not have completion dates, as projects do; they are ongoing commitments to provide facilities that contribute to business activity.

The lifecycle of these services are governed by business models and strategies, rather than technology refreshes. For example a high-level “manage customer information” service provided to business teams is not something that is likely to be shelved. Systems and technology elements which contribute facilities to this service may be created, upgraded and mothballed over time (and of course each of these IT activities will be carried out within distinct projects); but the high-level service itself remains. Even outsourcing management of customer information doesn't kill this service; it just transfers the responsibility of providing it from one party to another.

The service-based IT organisation identifies dedicated “service managers” to oversee individual services and bring together resources from across the different IT practice areas (for example, development, integration, operations) and facilitate communication across those practice areas as required.

## **The three external benefits of a holistic service-based view of IT**

We've already outlined the first main external benefit of a holistic service-based view of IT activity: the fact that because service definitions reflect long-term commitments to provide value rather than (relatively) short term commitments to provide a system or a solution, this view more accurately reflects what business teams actually need and want from IT teams.

The second main external benefit is related to the first, and it is that a service-based view which provides context for IT activity forces IT organisations to think about and explain IT activity in terms of *what* is provided, rather than *how* it is provided. In this way a service-based view is much more externally-focused (and so “customer” focused) than a project-oriented mode of working, which tends to focus people's minds on internal issues.

The third main external benefit is that as well as providing an organising framework for IT activity that is much more naturally in tune with what business teams want and need, the idea of a “service” is also something that most business executives understand intuitively – even if it's implemented using IT. This is in contrast to many of the things that IT staff spend most of their time talking about to business people.

So a holistic service-based view of IT activity is something that makes sense to business executives; and it reflects the commitments that are actually being made when IT and business people work together. The result, when all these three benefits are taken into account, is a foundation for an IT organisation that works and thinks in a much more sustainable manner.

## A service-based view: bridging IT practice stovepipes

As well as delivering external benefits as outlined above, a holistic service-based view of IT activity also brings benefits that are *internal* to your IT organisation, if this view is used as the basis for an evolved approach to IT service management.

Even when IT organisations look beyond project work to “operational” IT activities (change and configuration management; upgrade management; availability management; etc) when considering how to improve the quality of IT deliverables, the temptation is to focus primarily on how individual activities can be made more efficient. To really improve the way that your IT organisation delivers business value, you have to not only work on the effectiveness of individual IT practices and competencies: you have to look for ways to knit those practices and competencies together. A holistic service-based view of IT can do this.

## Managing service-based IT activities: evolving IT service management

Successfully managing IT activities according a holistic service-based view of IT relies on pulling together areas of IT work which have typically been organised as distinct and discrete specialities: project work, operations work and change management work. In fact, of course, it's this “stovepiping” of IT practice which has contributed so much to the stakeholder challenges we outlined earlier in this paper. As well as doing this, such an evolved approach to IT service management provides shared context for all these areas of IT activity, which makes sense from the perspective of business teams.

What we're talking about is a type of “IT service management”, but it's very different from the type of IT service management that most people are used to thinking about. When the IT industry and operations managers in enterprises talk about IT service management today, they're typically talking about being able to gather and share operational metrics related to running systems. This is a key part of what's needed, but managing IT activity according to a holistic service-based view of IT differs in two respects:

- **A holistic view of IT service management is broader “horizontally” than the current mainstream industry perspective.** It uses the common context of contribution towards IT service delivery to link together and organise IT activity across the practices of requirements management, design, procurement, development/integration, deployment, operations and change management
- **A holistic view of IT service management is broader “vertically” than the current mainstream industry perspective.** By using high-level business meaningful concepts it creates a platform for conversation and collaboration between IT and the business, and creates a platform for the IT organisation to become a trusted partner for business people.

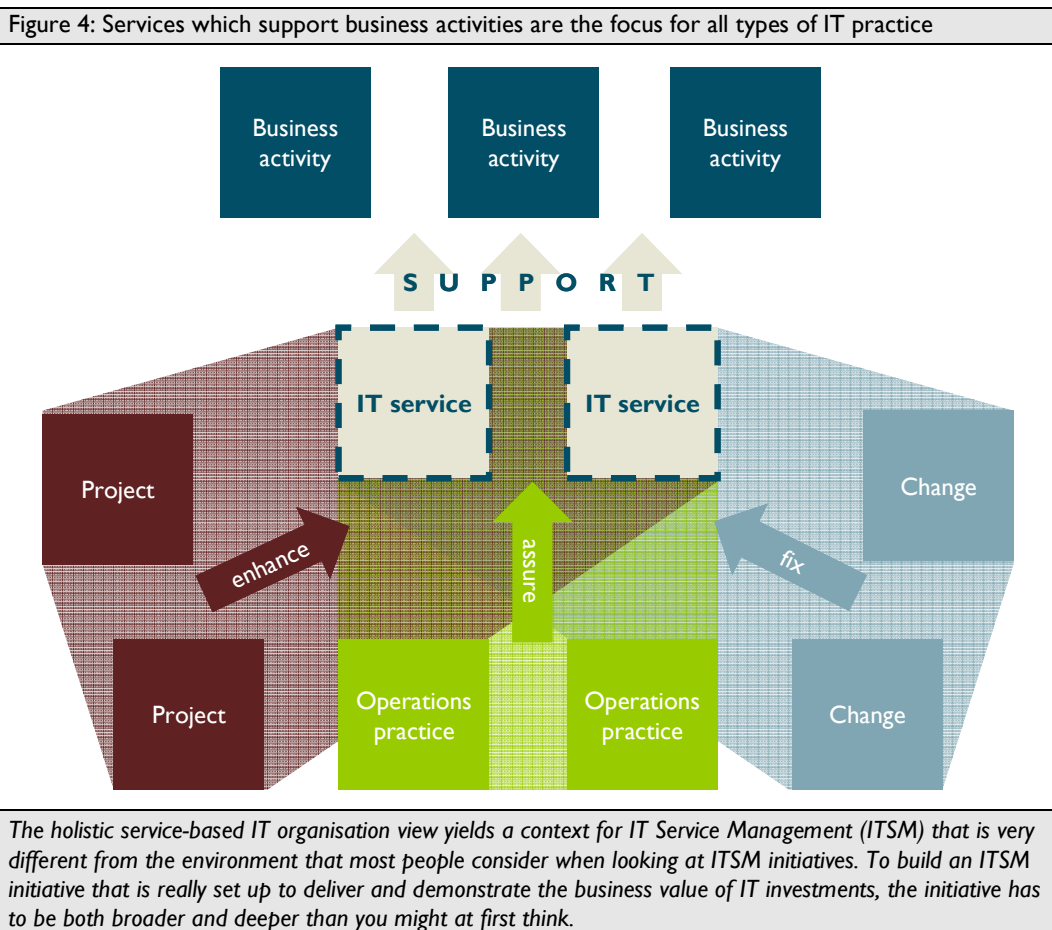
## Addressing stakeholders' challenges

As figure 4 shows, and as we mentioned earlier in this report, in this model of IT activity projects don't go away. They're still a vital mechanism for organising IT work, although they're no longer the primary way in which you think about IT work. In the context of a holistic service-based IT view, each project (it might be a development project, an integration project, a database upgrade project, or something else) enhances one or more IT services, which in turn support one or more business activities.

The important thing here is that an established framework of IT service definitions and business activities, managed by a team of dedicated “service manager” roles, provides an excellent way for project managers, CIOs and IT Directors to:

- Understand whether projects are correctly scoped
- Make sure the correct business stakeholders are involved (from every area of business activity affected)
- Learn about changing requirements, priorities and pressures in key business activity areas, and use that knowledge to better tune IT project portfolios and understand likely future project requirements.

Project and service portfolio management tools can help project managers get a handle on the costs and risks of complex portfolios of projects and the services they enhance, but these tools can only deliver value if they’re complemented with regular face-to-face meetings between business executives, service managers and project managers which aim to discuss strategy, set and manage priorities, and so on.



As figure 4 also shows, operations practices (for example database administration, desktop support) also work within the context of this defined framework of IT services and the business activities they support. This is of course nothing new to any organisation that’s embarked on the road to IT Service Management (ITSM) through application of an approach such as that advocated by the IT Infrastructure Library (ITIL) guidelines, or any organisation that’s working with ITSM or Business Service Management (BSM) software tools.

However even if you are pursuing an ITSM initiative, you will have to change operational management conversations so they fit in with a truly holistic service-based world-view. It's not enough to abstract operational technology insights (such as server uptime, transaction response times, and so on) to a higher level – for example reporting these metrics at the aggregated level of end-to-end transactions. Such metrics might give the impression that you're delivering insight at the "business level", but the truth is that they're still technology metrics. They say more about what the IT cares about internally, than what external "customers" of IT care about.

The secret is to deliver technology insights in the context of business metrics. The idea of an "IT service" shouldn't just be a high level anchor point at which you aggregate metrics about technology health and performance. Service definitions are commitments to deliver IT capabilities in the context of business activity. They provide a pathway to link technology metrics to business impacts.

Of course to really provide business-meaningful operational metrics for high-level services, it's not enough to use tools associated with ITSM initiatives, such as configuration management database (CMDBs), service level management (SLM) tools and service management dashboards. These will help provide high-level technology metrics – but to complement the internal IT-facing view you get from technology metrics with an externally-meaningful view, operations managers and their staff have to work face-to-face with business teams to determine "customer satisfaction".

With service manager roles in place, where those roles have a responsibility to account for the cost of delivery of services as well as measuring the benefits obtained by "customers", this arrangement naturally brings the end-to-end lifecycle costs of delivering a service much more sharply into focus. This improved focus makes it much easier for operations managers to budget their expenditure.

The last perspective covered in figure 4 is that of change management. As with projects and operations, a holistic service-based view of IT activity also provides a great framework for understanding and prioritising technology change, because it provides a clear pathway to link potential technology changes to business activity areas. With service manager roles in place, it is also easier for operations managers to pull together the resources required to uncover and fix problems.

## Discovering, managing and governing IT service portfolios

Now we've outlined the benefits of a service-based view of IT activity – in a number of ways, it creates an environment in which it is much easier to map IT activities onto what business teams care about and understand, and it also helps to pull together diverse parts of an IT organisation around a common model of IT delivery. But how do you actually go about identifying, defining and then managing a set of services that make sense? And how do you ensure that the result is governed in a way that means value can be delivered over the long term, even as the shape of the business changes?

### Identifying high-level IT services

One of the key challenges faced by IT stakeholders that we identified earlier in this paper is the lack of trust in architects and architecture. Importantly, taking a holistic service-based view of IT activity throws the value of architecture into sharp relief. When it comes to identifying the high-level IT services that support business activities, and defining the service portfolio that provides the umbrella for project work, operations and change management, enterprise architects in particular are the ideal candidates to take things forward.

The key is for the architecture team to work collaboratively with other stakeholders – particularly business executives, project and operations managers – through an incremental process which uncovers and refines a common understanding of the key commitments that the IT organisation needs to make in support of business activity areas. Critical to the service identification process are business executives' answers to two questions: first, how does this service support business activities? And second, how can we measure IT's effectiveness in doing that?

Outside consultants can often guide the process of producing the maps that lay out the business activities and capabilities of the enterprise and relate those to key IT services, but it should be the architecture team which has ultimate responsibility for them.

## Managing IT services

With a defined set of “umbrella” high level service commitments to work against, the next challenge is to make organisational and work changes to start to bring individual IT practice areas together under that umbrella. A lot of this is about team working, with service manager roles as the catalysts, but there are three key areas where your efforts to manage IT services holistically will need to be supported by technology tools:

- **End-to-end IT management process automation.** IT organisations are good at using workflow and process automation tools to help automate business processes, but most IT work is carried out without automated assistance. Where process automation is in place (for example in the processing of helpdesk trouble-tickets) it tends to be locked up in proprietary application silos. In a world where IT practices throughout the lifecycles of services and systems need to be “joined up”, it becomes very important to make sure that key work items, checks and documentation are properly handed from practice to practice.
- **End-to-end IT management information integration.** Process automation which acts across IT practice stovepipes is fine, but if there is no consistent approach to the storage and definition of service management information, then benefits will be hard to derive. Management information relating to services, commitments, service level agreements, projects, resources, costs, risks, changes, problems, fixes, and more all need to be defined in one place and shared consistently across IT practice stovepipes.
- **Reporting and information sharing.** On a solid foundation of consistent process and consistent management information, you will also need to deliver reports and management information that make sense to business and senior IT stakeholders. Simply reverting to default behaviour here – reporting on technical metrics – will not work: reports and management information have to deliver findings regarding the business impact of IT work. That means integrating operational information about running systems and operational information about running projects with contextual information about the services and business activities that are affected (and how they are affected).

## Governing the service portfolio

As we’ve already explained, a holistic service-based view of IT has both an internal aspect and an external aspect. The internal aspect is about the ability of a set of high-level service definitions, managed by service managers, to act as a common reference point for many types of IT activity. The external aspect is about the ability of high-level service definitions to make it easier to explain the value of IT activity in a business context and build more communication and trust between IT and business teams.

In other words, a service-based view of IT activity acts as a bridge between IT supply management (making sure that IT capabilities are being optimally supplied to meet high-level IT service commitments) and IT demand management (making sure that a given set of IT service commitments and capabilities are doing the best possible job of meeting business demands). There is a subtle but important difference here: supply management is what IT organisations are used to dealing with, and it is all about answering the question: “are we doing things right?” Demand management on the other hand is all about answering the question: “are we doing the right things?” When it comes to industry best practice and experience, there is more maturity in the former area, and less in the latter.

The majority of the IT-related methodologies and approaches pursued within IT organisations are focused on managing the risks associated with IT operations and with operational expenditure. Software project management approaches like DSDM (Dynamic Systems Development Method) and PRINCE (Projects In Controlled Environments) help to manage the operational expenditure of running projects (IT and business staff costs) and associated business risks (the risk of lost revenue due to delay in introduction of a new product, for example). The IT Infrastructure Library (ITIL) guidelines, on the other hand, help to manage risks associated with unavailable or poorly performing operational systems and IT services.

However when it comes to managing the risks associated with the initiation of IT initiatives – principally risks tied up with IT procurement and capital expenditure (supplier selection and the subsequent purchasing of software licenses/upgrades, hardware, and so on), there is much less support from formalised industry best practice. Getting a handle on project initiation-related risks (which is all about “are we doing the right things?”) means working to not only define and manage a set of high-level IT services which provide context for IT activity – but also working to create governance structures to ensure that the working model stays current, relevant and valuable.

Effective governance of the IT service portfolio should provide an overall decision-making framework that can help:

- drive triage in problem-solving, based on real business priorities
- understand the IT and business risks associated with problems
- understand the true costs, risks and benefits of changes
- tune the management of new deployments to fit with organisational requirements.

There are two key aspects to governing the IT service portfolio. One is about process and organisation, and the other is about technology.

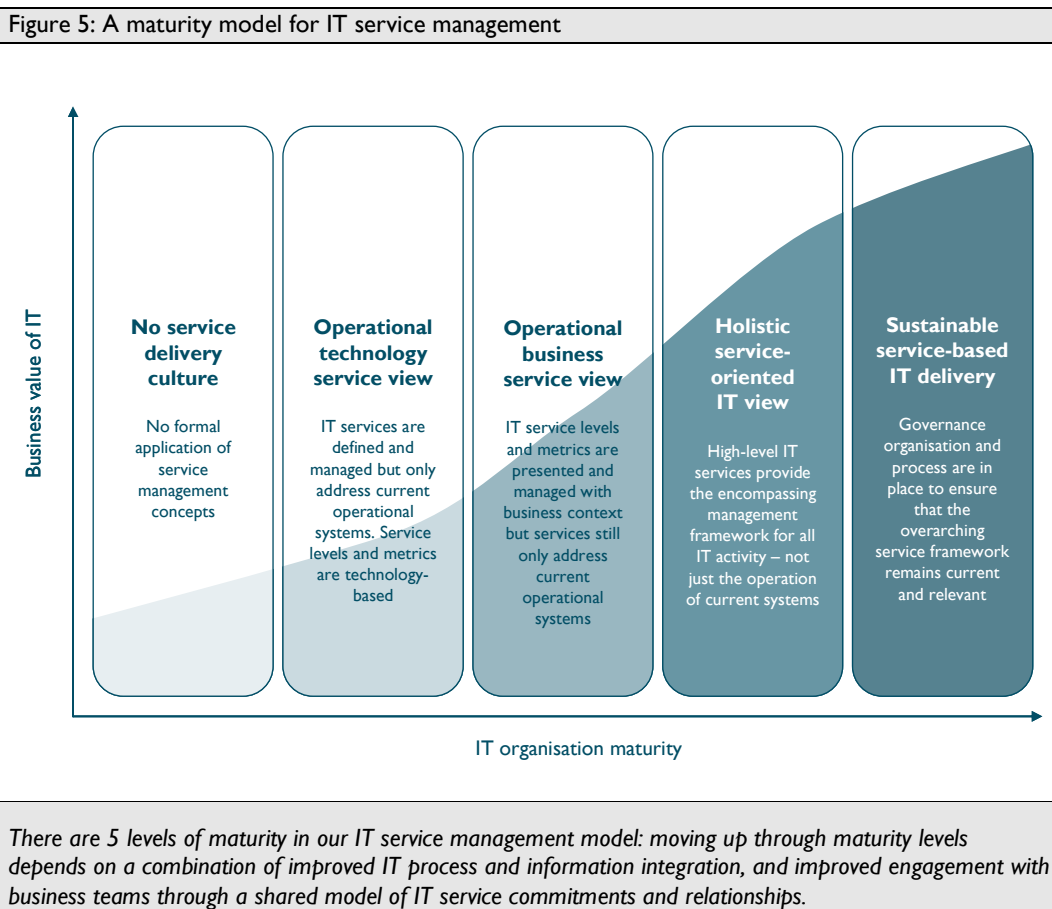
The organisational/process aspect of IT service portfolio governance revolves around the creation of a well-defined, well-sponsored and well-regarded “IT Governance Board” comprising key senior IT and business executives. It is the board’s responsibility to act as the guardian for the maps which highlight business activities and their relationships to high-level IT services; and also to act as a forum where business goals and strategies are shared and potential impacts examined.

The technology aspect of IT service portfolio governance revolves around the effective use of decision support and analysis tools to help the IT Governance Board make the right decisions about how the IT service portfolio might need to change or be enhanced over time. Project managers, operations managers and CIOs/IT Directors have to be able to use such tools, working from a common and shared management information base, to illustrate current service performance, highlight risks and business outcomes associated with potential and current investments, and illustrate what-if scenarios. Project and service portfolio management tools both fit under this general heading.

## Making the journey

It should be clear by now that you can't implement a holistic service-based approach to IT delivery by buying a software product. You will need to employ a combination of practices and supporting tools which have to be embedded in your organisation's culture if you are to succeed. It takes significant effort to build a set of holistic IT service management and governance practices which really help build trust in IT from business teams. Doing so will involve iterative development in collaboration with business stakeholders.

First of all you have to understand where your organisation is positioned in terms of the journey to implementing this holistic service-based IT capability. Only then can you steadily refine and improve your implementation. Figure 5 provides an overview of a five-level maturity model that you can use to assess your current capabilities and plan future moves.



### Level 1: no service delivery culture

At this first level of maturity there may be talk of providing a service-based perspective on what the IT organisation does, but it doesn't go any further than that.

Development and integration projects are managed in a separate organisational silo from administration and operations, and moreover administration and operations practices are themselves likely to be "stovepiped" according to technology specialisms (so, for example, there will likely be a network operations team, which is completely divorced from the database administration team, Windows™ administration team, mainframe operations team, and so on).

In this situation, resources in the IT organisation are tough to co-ordinate and the organisation and its work are almost completely opaque to the outside world – to its “customers”, business teams. Everything is organised according to conventions which make sense internally within the IT organisation, and communication with the business is likely to be frustrating and fraught with misunderstanding.

**At this level of maturity, there is likely to be a very low level of trust in and understanding of the IT organisation from within business teams or executive management.**

In order to move to the next level of maturity, your IT organisation has to start investing in IT management processes, practices and technologies which can help you make and consistently meet operational service guarantees about the systems you have “in service”. These processes, practices and technologies must focus on bringing together administration and operations practice stovepipes to present a technology-neutral face on operational delivery of IT systems.

## **Level 2: operational technology view of services**

At this second level of maturity an IT organisation has already implemented some aspects of “traditional” IT Service Management (ITSM) practices and has started to pull operational technology practice stovepipes together. There is an emerging consistent way of representing the operational commitments that the IT organisation makes to its business customers, and a consistent way for those customers to understand and help define service levels.

At the heart of the environment is likely to be a pair of technology and process initiatives: firstly, a unified IT service help desk with an associated initiative to automate the management of problem resolution; and secondly, a configuration management database (CMDB) with an associated initiative to automate aspects of infrastructure and application change/configuration management.

However at this level of maturity IT services and metrics are defined purely in technology terms – so even when they aggregate low-level technology metrics (such as server availability) to a higher level, discussions are still about availability of a set of technology capabilities and lack business context.

**At this level of maturity, there is likely to be growing trust in the IT organisation’s ability to “keep the lights on”, but a continued perception from business teams and executive management that the IT organisation is merely an infrastructure provider that does little to differentiate the business or understand what the business is actually trying to do.**

In order to move to the next level of maturity, your IT organisation has to take its technology-focused operational service view and add business context to service level agreements and metrics, making it easier for business teams and executive management to understand the relevance of IT performance, availability and so on. The foundation of this shift is the use of Business Process Management (BPM) and Business Activity Monitoring (BAM) technologies and practices to enable the performance and quality of running business process instances to be monitored, and then to be associated with the health and performance of the supporting technology services.

With a combination of technology-oriented technology metrics from ITSM initiatives and an understanding of business process performance and quality from BPM and BAM initiatives, it’s straightforward to show business teams and executive management how IT operational quality affects the ability of business teams to work effectively. This outcome is critical to building long-term trust in the IT organisation. In addition the process of working through BPM and BAM initiatives and linking them with ITSM initiatives, which needs to be led by cross-departmental teams with the assistance of architects, has the excellent benefit of creating conversations and shared understanding between IT and business teams.

### Level 3: operational business view of services

At this third level of maturity an IT organisation has moved beyond a technology-focused representation of operational IT services, and now provides business context for service level agreements and metrics that help to make explicit links between operational IT quality and the effectiveness of operational business processes. At the heart of this capability is likely to be a combination of ITSM, BPM and BAM initiatives.

However at this level of maturity although IT services are more business-meaningful, they are still just representations of operational commitments regarding current running systems. New development and integration projects are defined and managed completely outside the service definition and management environment and organisation and there is still a cultural “wall” in the IT organisation between project work and operational work.

**At this level of maturity, there is likely to be strong degree of trust in the IT organisation’s ability to support existing business activities, but a lack of understanding about the cost of delivering IT capabilities or the challenges regarding building a balanced IT portfolio that meets business needs across the board. There is likely to be frustration from business teams regarding the responsiveness of the IT organisation and the amount of time and money available to do new things.**

In order to move to the next level of maturity, your IT organisation has to change its organisational perspective and culture to make a holistic service-based IT view the dominant way of thinking about and organising IT activity. Investment planning, IT procurement, development and integration project definition and execution, operations and change management all have to be considered in the context of a high-level set of clearly-defined IT services that support clearly-defined business activities.

### Level 4: holistic service-based IT view

At this fourth level of maturity an IT organisation has started to change the way that it is structured, to define its mission and key work activities in the context of delivery of a high-level set of IT services.

Typically an enterprise architecture (EA) function, working with business and IT team leaders and possibly external consultants, will work to identify the set of high-level IT services and map these to business activity areas in the enterprise. They will structure IT delivery commitments in the context of this map, according to the priorities and requirements of different business activity areas, and use this to shape service level agreements and identify key performance indicators (KPIs) for these high level services that make sense in the context of business activity areas.

These services will then provide the context for investment considerations (which services does this investment affect, and how does that fit with the business strategy and priorities?), development and integration project initiation and management considerations (which services does this project enhance, and how is it likely to affect other systems and services? Which operational teams need to know about this project now, so we can make sure service delivery continues to be optimised as this project’s deliverables come on-line?) and change and configuration management considerations (which services are affected by this change or problem, and who do I need to pull together to ensure service delivery is minimally impacted?). Staff with service management responsibility will use their authority to pull resources together and ensure that overall service delivery quality is maintained.

To help ensure that IT practice stovepipes are truly integrated, the organisation is likely to use BPM and workflow technologies to automate key IT management processes and information flows. The organisation will be working to implement automated process flows that guarantee high-quality handover between projects and operations teams, and high-quality operational feedback loops between running systems, problem diagnosis specialists, change and configuration management processes, and project teams. It’s also likely to be working to implement one “single point of truth” regarding service commitments, investment and project portfolio statuses, operational systems footprints and interdependencies, software, hardware and licence assets, problems, solutions, and operational service levels.

**At this level of maturity, there is likely to be a much higher level of understanding of the value that the IT organisation adds to business activity, and there will also be increasingly good understanding amongst business teams and executive management of the business cost and risk implications of instigating certain projects.**

However even if your IT organisation is at this level of maturity, you're not at the end of your journey. In order to move to the next level of maturity, your IT organisation has to put organisational structures and processes in place to make sure that the holistic service-based view of IT activity that you put in place remains relevant and valuable over time. If you don't do this, there's a high risk that business change, IT change and personnel change will render your efforts so far useless before too long.

### **Level 5: sustainable service-based IT delivery**

At this fifth level of maturity, an IT organisation has transitioned itself to put a holistic service-based IT view at the heart of its mission and day-to-day activity. All key IT activities are carried out with the interlocking lifecycles of projects, systems and the resulting services in mind, supported by end-to-end IT management process automation and management information integration technologies, processes and practices.

The IT organisation is moving beyond this organisation and process transformation initiative to implement systems to regularly review and evolve the new approach so that it continues to fit with business strategy. It is likely to be working to implement something like the "IT Governance Board" that we described earlier in this paper as the vehicle to do this.

It's crucial that you realise, if you reach this level of maturity, that entropy is unstoppable and that change will continue to buffet both your enterprise's business environment and your IT environment. You must put procedures, practices and organisational structures in place that keep everything fresh and continue to test the quality of the work you're doing.