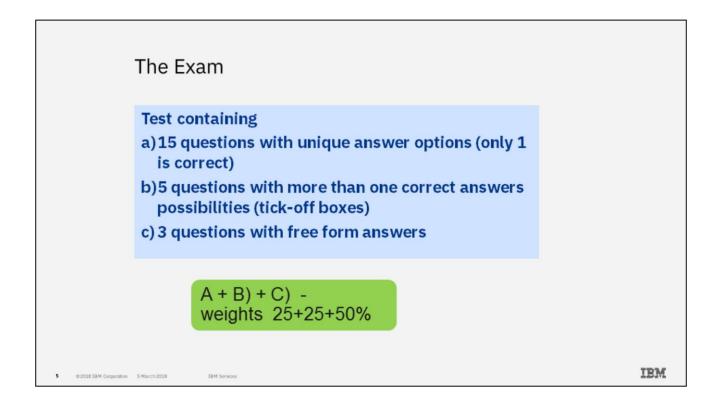
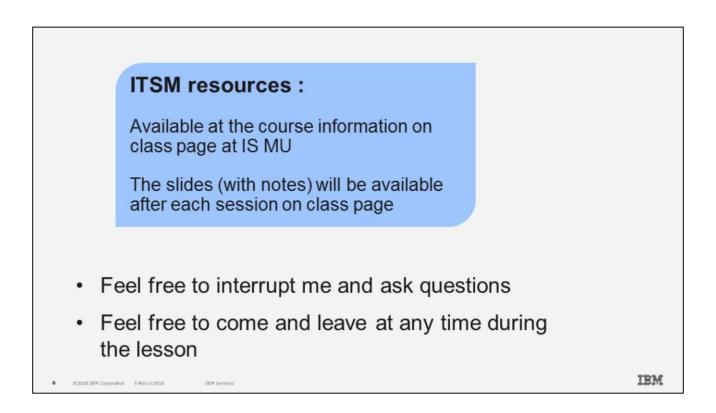


Logistics - s	start at 18:	00, (optional)	15' break at 1	18:45, end	
	Mar	Apr	Мау		
	6 ^a	3 rd CIC visit	1.8		
	13 th	10 th	15%		
	20 th	17th CIC visit	22 nd Open session		
	27 th	24 th			
4pm2 dayEnrol	andatory at Technick s each with l yourself o	a 21, building 2 groups of n n class pages	ed (80 particip F/G nax. 20 people at IS MU (exc I with your na	e :el file)	IR





Let's move to the subject of this course -IT Service Management



© 2017 IBM Corporation 5 March 2018

7

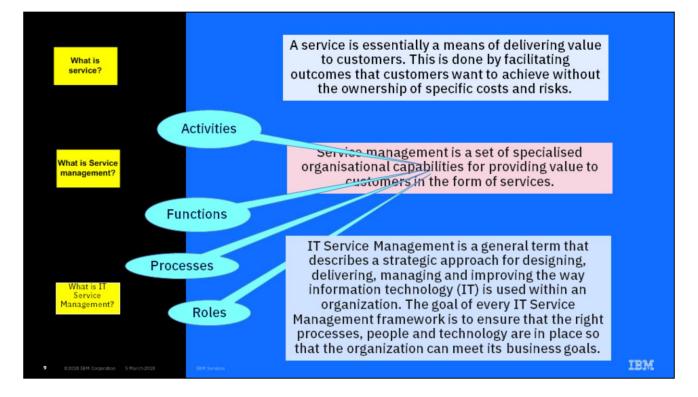
What is it - ITSM? IT Service Management

Serious topic – no jokes on Google, no funny short movies on YouTube, no Dilbert's strips.
"IT Service Mana... hmm – that handsome guy who fixed the computer and printer in my office last Wednesday?"
"Tech-support call center somewhere in India."
New series of The IT Crowd?
....
ITSM is the strategic approach to managing information technology within the organization and delivering services to customers. You might be completely unaware of the term, yet if you have IT systems in your organizations, then you are nevertheless performing ITSM.
Examples of ITSM: resolving incidents or disruptions to get your business back to fully functional, budgeting and carrying through organizational change, monitoring software compliance, or any other technical necessity your business needs. But also hiring professionals, education of staff, security measures deployment, auditing of the standards, ... and much more

✓ Sound familiar? We all do ITSM...even some of us not in IT.

8 0 2018 IBM Corporation 5 March 2018 IBM Services

IBM



The outcomes that customers want to achieve are the reason why they purchase or use a service. Typically this will be expressed as a specific business objective (e.g. to enable customers of a bank to perform all transactions and account management activities online or to deliver state services to citizens in a cost-effective manner). The value of the service to the customer is directly dependent on how well a service facilitates these outcomes. Although the enterprise retains responsibility for managing the overall costs of the business, they often wish to devolve responsibility for owning and managing defined aspects to an internal or external entity that has acknowledged expertise in the area. This is a generic concept that applies to the purchase of any service. Consider financial planning. As a customer, we recognize that we don't have the expertise, or the time, or the inclination to handle all the day-to-day decisionmaking and management of individual investments that are required. Therefore, we engage the services of a professional manager to provide us a service. As long as their performance delivers a value (increasing wealth) at a price that we believe is reasonable, we are happy to let them invest in all the necessary systems and processes that are needed for the wealth creation activities. In the past, service providers often focused on the technical (supply side) view of what constituted a service, rather than on the consumption side. Hence it was not unusual for the service provider and the consumer to have different definitions and perceptions of what services were provided, or for the provider to know all about the cost of individual components, but not the total cost of a

service that the consumer understood.

Service management is what enables a service provider to:

- understand the services that they are providing from both a consumer and provider perspective;
- ensure that the services really do facilitate the outcomes that their customers want to achieve;
- understand the value of those services to their customers and hence their relative importance;
- understand and manage all of the costs and risks associated with providing those services.

10 0.2018 IBM Corporation 5 March 2018 IBM Service



Gartner's I&O Maturity Model

Level 0 – SURVIVAL – little to no focus on IT infrastructure and operations.

Level 1 – AWARENESS - realization that I&O are critical to the business, beginning to take actions to gain operational control and visibility.

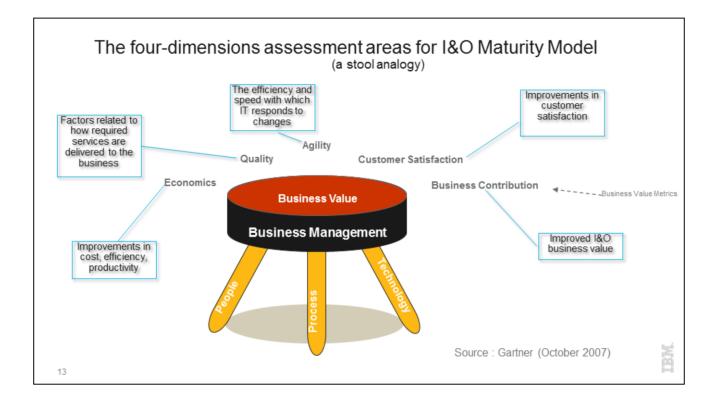
Level 2 - COMMITED – Moving to a managed environment, e.g. For day-to-day IT support processes and improved success in project management to become more customer-centric and increase customer satisfaction. **Level 3** – **PROACTIVE** – gaining efficiencies and service quality through standardization, policy development, governance structures and implementation of proactive, cross-dpt processes.

Level 4 – SERVICE - ALIGNED – managing IT like a business; customer focused; proven, competitive and trusted IT service provider.

Level 5 – BUSINESS PARTNERSHIP – trusted partner to the business for increasing the value and competitiveness of business processes as well as the business as a whole.

I&O = Infrastructure and Operations

12 0 2018 IBM Corporation 5 March 2018 IB



Gartner IT Infrastructure and Operations Maturity Model

	Survival	Awareness	Committed	Proactive	Service-Aligned	Business Partnership
People	No organizational focus on IT I&O	Defined, technology- centric organization for IT I&O	Technology-centric organization, investment in IT service desk and staff	Process-centric organization, defined governance structure	Customer- and business-focused, IT service and delivery centric organization, formal governance	Business optimization and entrepreneurial focused culture
Process	No formal IP processes for IT I&O	Ad hoc but aware that processes are necessary	Defined processes for IT service support and project management	Repeatable and individually automated, focus on IT service delivery – related IT processes	Integrated automated and extended beyond I&O, focus on all service and business mngmt processes	Dynamic optimization of IT services, implement processes fostering business innovation
Technology	No formsal strategy or execution on technology investments	Basic management tools, no formal infra HW of SW standards	IT support and project related mngmt tools, desktop/HW/SW standards defined, begin infrastructure standardization/rationali zation	Formal infrastructure standards and policies, domain-centric mngmt tools, virtualization foundation in place	Formal IT management process/tools architecture, shared services, aggregated capacity mngmt	Proactively promoting new technologies and impact to business, real-time infrastructure
Business management	No formal IT business management f- ctions	Very little outside of budgeting	Project management office	Financial management, formal key performance indicators (KPI)	IT service cost metrics, competitiveness	Business contribution metrics
Level	0	1	2	3	4	5
14 0 2018 IBM Corporation	02018 IBM Corporation 6 March 2018 IBM Services					

defined six overall levels of I&O maturity, with the following objectives for each level:

Level 0, Survival — Little to no focus on IT infrastructure and operations.

Level 1, Awareness — Realization that infrastructure and operations are critical to the business; beginning to take actions (in people/organization, process and technologies) to gain operational control and visibility.

Level 2, Committed — Moving to a managed environment, for example, for day-to-day IT support processes and improved success in project management to become more customer-centric and increase customer satisfaction.

Level 3, Proactive — Gaining efficiencies and service quality through standardization, policy development, governance structures and implementation of proactive, cross-departmental processes, such as change and release management.

Level 4, Service-Aligned — Managing IT like a business; customer-focused; proven, competitive and trusted IT service provider.

Level 5, Business Partnership — Trusted partner to the business for increasing the value and competitiveness of business processes, as well as the business as a whole.

Another important aspect of an IT maturity model is the need for a rapid ROI. Because of the rate of technology change, the change in business requirements and operational processes, and the need for new skills and collaboration methods, IT projects that require many years of implementation and expect a long-term ROI inevitably fail, as tools change or goals shift. An IT maturity model must provide for smaller steps, implementable in no more than two or three years, that generate measurable, rapid ROI.

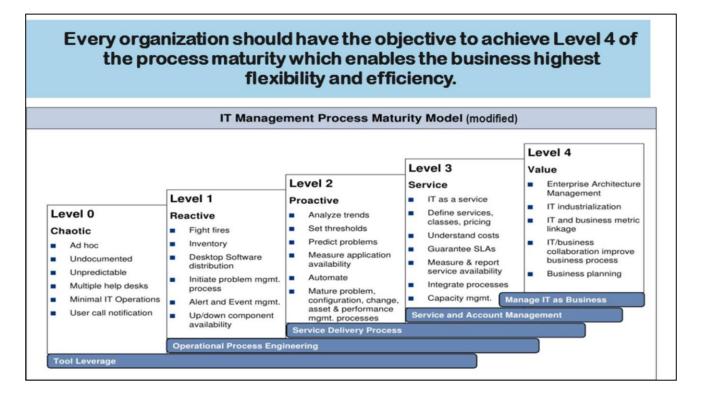
IT Operations Management Success Requires a Level of IT Maturity



Only 10% of companies surveyed have scored 3.0 or greater. The average score is 2.31 out of 5.



15 @ 2018 IBM Corporation 6 March 2018 IBM Set



As a strategic facet of the business, IT must be flexible and agile o support the rapid change and growths in business models. The challenge is to increase agility and responsiveness to business requirements while reducing costs and improving efficiency – essentially to "do more with less".

The right approach to service management can help organizations achieve customer orientation and innovation while driving greater efficiency.

Service model

A service model describes how a service provider creates value for a given portfolio of customer contracts by connecting the demand for service from the assets of its customers with the service provider's service assets. It describes both **the structure** and **the dynamics** of the service.

- Structure: The particular service assets needed to deliver the service and the patterns in which they are configured.
- Dynamics: The activities, flow of resources, coordination and interactions between customer and service provider assets (e.g. interaction between service users and service agents). Service dynamics include patterns of business activity (PBAs), demand patterns, exceptions and variations.

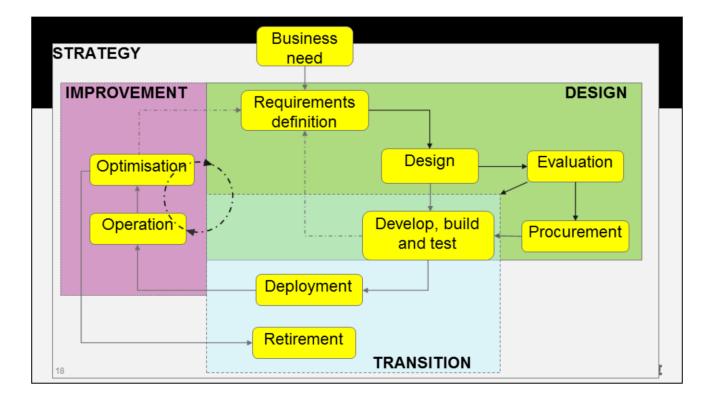
IBM

A service model may include:

process maps;

@ 2018 IBM Corporation 6 March 2018

- workflow diagrams;
- queuing models;
- · activity patterns.



Whether services are being provided by an internal unit of the organisation or contracted to an external agency, all services should be driven solely by business needs and judged by the value that they provide to the organisation. Decision-making therefore rests with the business. Within this context, services must also reflect the defined strategies and policies of the service provider organisation, which is particularly significant for external providers.

This Figure illustrates how the service lifecycle is initiated from a change in requirements at the business level. These new or changed requirements are identified and agreed at the service strategy stage and documented. Each of these 'packages' will have an associated defined set of business outcomes.

The package is passed to the service design stage where a service solution is produced, defining everything necessary to take this service through the remaining stages of the lifecycle. Solutions may be developed internally or consist of bought-in components that are integrated internally.

The design definition is passed to the service transition stage, where the service is built, evaluated, tested, validated and transitioned into the live environment, where it enters the live service operation stage. The transition phase is also responsible for supporting the service in its early life and the phasing out of any services that are no longer required.S

ervice operation focuses on providing effective and efficient operational services to deliver the required business outcomes and value to the customer. This is

where any value is actually delivered and measured.

Continual service improvement identifies opportunities for improvement (which may arise anywhere within any of the lifecycle stages) based on measurement and reporting of the efficiency, effectiveness, cost-effectiveness and compliance of the services themselves, the technology that is in use and the service management processes used to manage these components. Although the measurements are taken during the operational phase, improvements may be identified for any phase of the lifecycle.

THE DEMING CYCLE

The objective is continual service improvement. This relates to the services provided by the organization and also to the processes used to deliver those services. The Deming Cycle may be used to improve, for example, an online ordering service or the service level management process within an organization.

KEY ACTIVITIES

The integration of the Plan–Do–Check–Act cycle with the seven-step improvement process identifies the activities of each stage as follows:

Plan1. Identify the strategy for improvement.2. Define what you will measure.

Do3. Gather the data.4. Process the data.

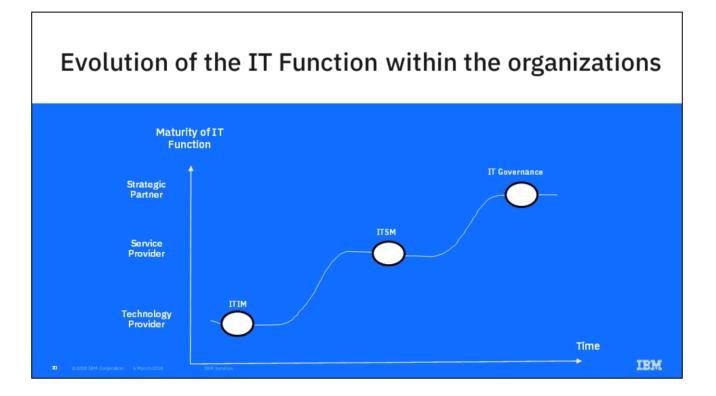
Check5. Analyse the information and data.6. Present and use the information.

Act7. Implement improvement.

Key attributes of ITSM system.

- A. Timeliness and Accuracy
- B. Data Quality and Completeness
- C. Completeness of Solution
- D. Enterprise-Wide Service Management
- E. Enterprise Relevance and Marketability
- F. Operational Availability
- G. Time to Recover
- H. Visualization and Actionable Insights
- I. Usability
- J. Productivity
- K. Extensibility
- L. Compliance
- M. Automation
 - A. The ability to provide data and information that is both timely and accurate is a critical criterion. Critical particularly for IPC (incident, Problem, Change), Release and Configuration Management. Highlight CMDB (Configuration Management Database) – many IT Processes and functions rely on CMDB data.
 - B. CMDB accuracy data quality and completeness!
 - C. Notice completeness includes the ability to continuously aaa new capabilities and improved functionality.
 - D. Can be described as applying an ITSM service model to use cases beyond IT to include Business Services in "horizontal" perspective (i.e. HR, Facilities, Field Services etc.). Such and expanded perspective greatly assists in enabling all the benefits provided by automation and end-to-end integration as applied to Business Services and associated processes.
 - E.
 - F. The percentage of scheduled operational time that the service in question is operational.
 - G. When operations of the service become unavailable it becomes critically important to restore availability as rapidly as possible. The time from when Operational Availability is lost go the time it is restored is known as Time to Recover (or Recovery Speed).

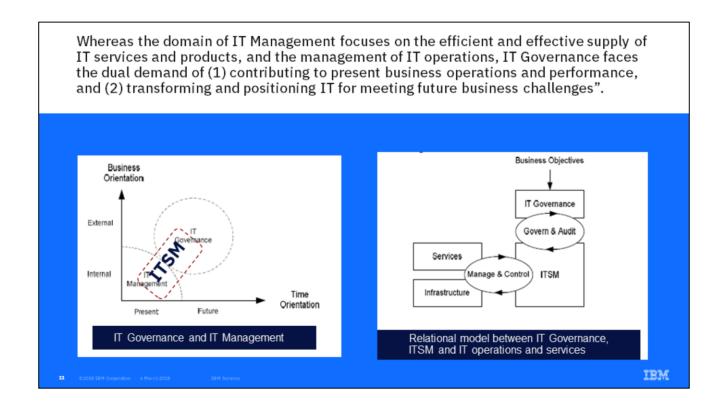
- H. Visualization often presents itself as graphically oriented displays and dashboards. It enables not just effective reporting but also improved insights that help organizations identify and address problems or potential problems sooner. Performance Analytics include KPIs (Key Performance Indicators) and metrics visualization that are related to any service management process and derived from Service Level Agreements (SLAs).
- I. Usability in relation to SW tools of Service Management
- J. Productivity or the efficiency of any effort is a critical success factor for all operations.
- K. NO two customers are the same. Extensibility represents the ability for a system capability to be customized or localized for the particular and unique requirements of each customer's environment. Discovery functionality plays a key role within any ITSM solution.
- L. The term compliance describes the ability to act according to an order, set of rules or request. Compliance assurance is a very costly effort when done reactively and out-of-compliance penalties can have dramatically negative financial legal impact.
- M. Automation in this context is that the ITSM solution mimizes the amount of manual (human) interaction or control and instead works based on its own processes and functionality – e.g. cognitive solution etc. Automation of technical, administrative and management processes from service request to configuration changes to any repetitive task is cornerstone of any viable ITSM service solution. There is also a strong connection between Automation of processes and the assumed, integrated quality of the database or CMDB. Automation is also important for the overall cost-effectiveness of any operatio from a cost of the workforce perspective. Most if not all of the key ITSM attributes described above are generally enhanced through use of Automated systems.

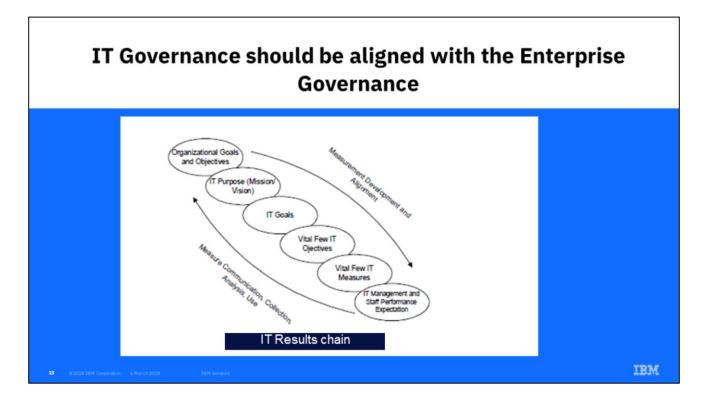


- IT governance (ITG) is defined as the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals. (Gartner Glossary)
- IT governance is a 'framework for the leadership, organizational structures and business processes, standards and compliance to these standards, which ensure that the organization's IT supports and enables the achievement of its strategies and objectives'. (IT Governance: Guidelines for Directors (Alan Calder, ITGP, 2005)

21. 0 2018 IBM Corporation 6 March 2018 IBM Service

 Gartner recongises other "types" of IT Governance too : IT demand governance (ITDG—what IT should work on) is the process by which organizations ensure the effective evaluation, selection, prioritization, and funding of competing IT investments; oversee their implementation; and extract (measurable) business benefits. ITDG is a business investment decision-making and oversight process, and it is a business management responsibility. IT supply-side governance (ITSG—how IT should do what it does) is concerned with ensuring that the IT organization operates in an effective, efficient and compliant fashion, and it is primarily a CIO responsibility.





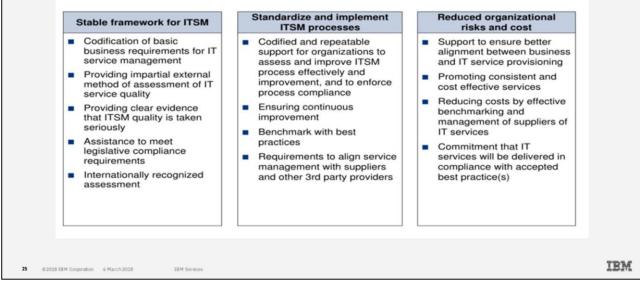
one of the IT Governance goals is to align with the business objectives defined by the Enterprise Governance. These high-level organizational goals and objectives are used as

input to derive goals, objectives and performance metrics needed to manage IT effectively. At the same time, the auditing processes are put in place in order to measure and analyze the performance of the organization. Conceptually, the process can be seen as an "IT results chain". Recursively, ITSM, its people, processes and technologies manage and control the IT services and the IT infrastructure according to the objective received from the governance. Another IT results chain is design to link ITSM with the service and infrastructure.

IT Service Management

Objectives

ITSM needs a stable framework to provide continuously high service quality, service and process improvement, and to reduce organizational risks and costs.



The framework characteristics

- Public frameworks and standards have been validated across diverse environments.
- Knowledge of them is widely distributed among industry professionals.
- Training and certification programs are publicly available.
- The acquisition of knowledge through the labour market is more readily achievable.

The proprietary knowledge of enterprises and individuals is usually customized for the local context and specific business needs of an organization. It may only be available to a wider market under commercial terms and may be poorly documented and hard to extract. If embedded within individuals it may not be documented at all.

Enterprises deploying solutions based on good and best practice should, in theory, have an optimal and unique solution. Their solution may include ideas that are gradually adopted by other enterprises and, having been widely accepted, eventually become recognized inputs to good and best practice.



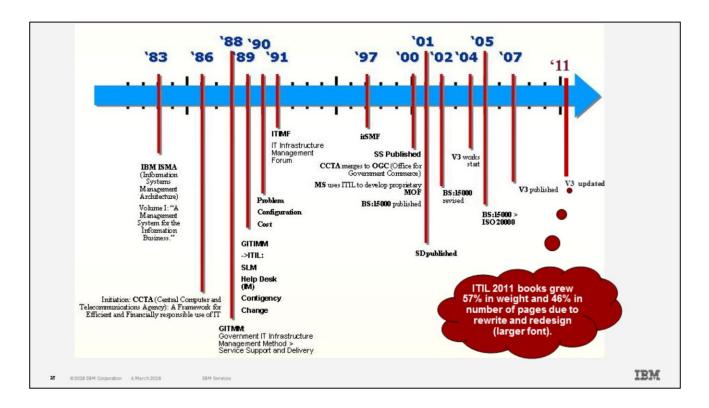
Enterprises operating in dynamic environments need to improve their performance and competitive maintain advantage. Adopting practices in industrywide use can help to improve capability.

ITIL is not a standard in the formal sense but a framework which is a source of good practice in service management. The standard for IT service management (ITSM) is ISO/IEC 20000, which is aligned with, but not dependent on, ITIL. The objective of the ITIL service management framework is to provide guidance applicable to all types of organisations that provide IT services to businesses. irrespective of their size, complexity, or whether they are commercial service providers or internal divisions of a business.

IBM

Enterprises operating in dynamic environments need to improve their performance and maintain competitive advantage. Adopting practices in industry-wide use can help to improve capability. The term 'best practice' generally refers to the 'best possible way of doing something'. As a concept, it was first raised as long ago as 1919, but it was popularized in the 1980s through Tom Peters' books on business management.

The idea behind best practice is that one creates a specification for what is accepted by a wide community as being the best approach for any given situation. Then, one can compare actual job performance against these best practices and determine whether the job performance was lacking in quality somehow. Alternatively, the specification for best practices may need updating to include lessons learned from the job performance being graded. Enterprises should not be trying to 'implement' any specific best practice, but adapting and adopting it to suit their specific requirements. In doing this, they may also draw upon other sources of good practice, such as public standards and frameworks, or the proprietary knowledge of individuals and other enterprises. More recently, the ITIL framework has offered a supplementary list



: IBM starts research on quality service delivery called Information Systems Management Architecture (**ISMA**).

: IBM publishes Volume I of the IBM Management series titled "**A management System for the Information Business**", first public edition of ISMA.

: CCTA authorizes a program to develop a common set of operational guidance with the objective of increasing efficiencies in Government IT.

: "Government Infrastructure Management Method (**GITMM**)", is formalized and issued as 'guidelines' for Government IT operations in the UK focused on Service Level Management. Same year, the development team was expanded and work continued on Cost, Capacity, and Availability.

: GITMM title is inadequate. It is not a method, (last M), and it should lose its G letter in order to be marketable out of government. Renamed to **ITIL**.

: First 'ITIL' book published, **Service Level Management**, then **Help Desk** (incorporating the concepts of Incident Management), **Contingency Planning**, and **Change Management**. Books had 50-70 pages.

1990: Problem Management, **Configuration Management** and **Cost Management for IT Services** published.

1991: Published - Software Control & Distribution, on 89 pages.

1992: Availability Management, 69 pages.

1996: (July) First ITIL Service Manager class delivered in US by US company, ITSMI, 16 attended, 10 candidates, nine passes, one distinction, first US company authorized as an ITIL accredited course provider - ITSMI.

1997: Customer focused update to the Service Level Management book, 106 pages.

1997: ITIMF legally becomes what we know today as the IT Service Management Forum (**itSMF** UK).

2000: Service Support V2 published, 306 pages.

2001: Service Delivery V2 published, 376 pages.

2001: CCTA became a part of the Office of Government Commerce (OGC)

2002: Application Management, 158 pages, **Planning to Implement IT Service Management**, 208 pages and **ICT Infrastructure Management**, 283 pages, published.

2003: Software Asset Management, 146 pages, published.

2004: Business Perspective: The IS View on Delivering Services to the Business, published, 180 pages.

2006: (June) ITIL Glossary V2 published

2006: (June) APM Group Limited announced as preferred bidder of ITIL accreditation & certification program, over the itSMF International (expectant winner)

2007: (May) ITIL V3 five core books published.

2011: (July) ITIL 2011 update published.

Let's analyse this timeline a bit:

ITIL V1 was rather similar to IBM's ISMA, especially in support/delivery domain. Core ITIL V2 books did not differ much from ITIL V1. Only a few processes were altered slightly, but the focus and perspective was pretty much unchanged. And this process lasted for some 20 years.

ITIL V3 approximately doubled the scope, almost tripled the number of processes and functions and introduced a few new dimensions and perspectives. We have the first set of core books now, but a lot of time will be needed to develop all the complementary books, to groom and mature the training materials and to polish best implementation practices.

ITIL 2011 books grew 57% in weight and 46% in number of pages due to rewrite and redesign (larger font).

RELATED MATERIAL

Apart from the ISO/IEC 20000 standard, ITIL is also complementary to many other standards, frameworks and approaches. No one of these items will provide everything that an enterprise will wish to use in developing and managing their business. The secret is to draw on them for their insight and guidance as appropriate. Among the many such complementary approaches are:

Balanced scorecard: A management tool developed by Dr Robert Kaplan and Dr David Norton. A balanced scorecard enables a strategy to be broken down into key performance indicators (KPIs). Performance against the KPIs is used to demonstrate how well the strategy is being achieved. A balanced scorecard has four major areas, each of which are considered at different levels of detail throughout the organisation.

COBIT: Control OBjectives for Information and related Technology provides guidance and best practice for the management of IT processes. COBIT is published by the IT Governance Institute.

CMMI-SVC: Capability Maturity Model Integration is a process improvement approach that gives organisations the essential elements for effective process improvement. CMMI-SVC is a variant aimed at service establishment, management and delivery.

EFQM: The European Foundation for Quality Management is a framework for organisational management systems.

eSCM–SP: eSourcing Capability Model for Service Providers is a framework to

help IT service providers develop their IT service management capabilities from a service sourcing perspective.

ISO 9000: A generic quality management standard, with which ISO/IEC 20000 is aligned.

ISO/IEC 19770: Software Asset Management standard, which is aligned with ISO/IEC 20000.

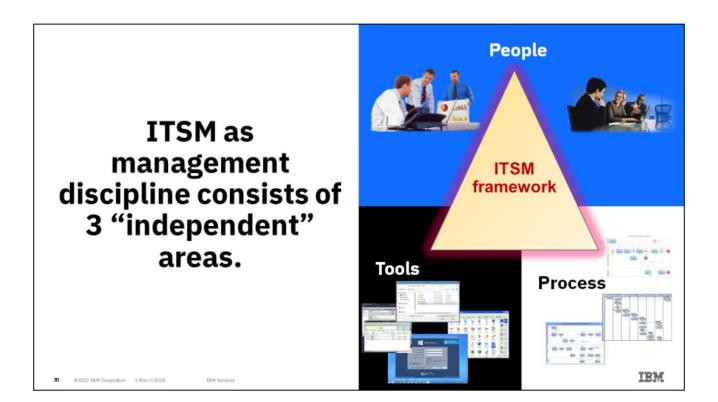
ISO/IEC 27001: ISO Specification for Information Security Management. The corresponding code of practice is ISO/IEC 17799.

Lean: a production practice centred around creating more value with less work.

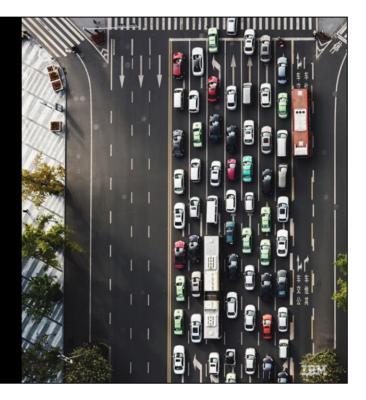
PRINCE2: The standard UK government methodology for project management.

SOX: the Sarbanes–Oxley framework for corporate governance.

Six Sigma: a business management strategy, initially implemented by Motorola, which today enjoys widespread application in many sectors of industry.



Business Benefits of IT Service Management



Why	Percentage organizations reporting each business driver				
imple	ITSM Business Driver (reason for using ITSM)	Less Advanced ITSM organizations	More Advanced ITSM organizations	Difference between organizational types	
ment	Increasing employee productivity	24%	40%)	-16%	
ITSM?	Cost reduction	20%	17%	+3%	
	Minimizing risk	20%	13%	+7%	
	Move to a digital enterprise	16%	21%	-7%	
	Enabling compliance	12%	14%	-2%	
	Improving operational efficiency	8%	60%)	-52%	
	Enabling transformational agility	8%	6%	-2%	
	Driving employee engagement/productivity	4%	2%	-2%	
	Improving customer experience	0%	8%	-8%	
	. Delivering Value to Today's Digital Enterp United States, 2017	rise: The State of IT Service Management		IBM	

According to the survey, there is a noticeable difference in the number of business drivers each type of organization can satisfy. Restated from Figure 22 in the Forbes Insights survey, here are the most important business drivers listed for less advanced ITSM organizations (by percentage reported for each business driver) versus the percentages that more advanced ITSM organizations reported.

The most interesting thing is that there are only two business drivers (cost reduction and minimizing risk) that less advanced ITSM organizations reported more often than more advanced ITSM organizations. Conversely, the other seven business drivers were reported more often for more advanced ITSM organizations versus less advanced ITSM organizations. And two of the business drivers were reported at a significantly higher rate for more advanced organizations (i.e., increasing operational efficiency at a 52% difference and increasing employee productivity at a 16% difference).

The lesson we can draw here is that less advanced ITSM organizations are mostly concerned with the starter business drivers of ITSM (employee productivity, cost reduction, minimizing risk, moving to a digital enterprise, etc.) and in fewer business drivers overall. More advanced organizations are also concerned with these items, but in much higher numbers. In short, the longer an organization runs an ITSM environment and the more centered ITSM implementation is around the entire enterprise and its competitive strategy, the more business drivers it can satisfy within that environment.

Who benefits?

Percentage organizations experiencing each benefit					
ITSM Benefit	Less Advanced ITSM organizations	More Advanced ITSM organizations	Differential		
Cost savings in IT systems	(28%)	49%	-21%		
Cost savings in business processes	(28%)	40%	-12%		
Increased employee productivity	16%	48%)	-32%		
Faster time to market for product/services	16%	14%	+2%		
Faster response to customers	12%	25%	-13%		
Better support for digital opportunities	8%	3%	+5%		

There's a similar difference when you look at the ITSM benefits incurred between less advanced and more advanced ITSM organizations. Restated from Figure 24 of the Forbes Insight survey, here are the top ITSM benefits experienced for less advanced ITSM organizations versus more advanced organizations.

Here the differences are more stark. In four out of six benefit categories, more advanced ITSM organizations are experiencing benefits at a greater level than less advanced ITSM organizations. And most of the differences are in double digits.

The finding here is clear. More advanced ITSM companies experience more benefits than less advanced organizations.

One Sentence Summary:

The Difference Between ITIL and ITSM is - ITSM is how you manage the services you deliver to end users, and ITIL teaches you the best practices for ITSM.

Whether services are being provided by an internal unit of the organization or contracted to an external agency, all services should be driven solely by business needs and judged by the value that they provide to the organization.

The term 'best practice' generally refers to the 'best possible way of doing something'. As a concept, it was first raised as long ago as 1919, but it was popularised in the 1980s through Tom Peters' books on business management. The idea behind best practice is that one creates a specification for what is accepted by a wide community as being the best approach for any given situation. Then, one can compare actual job performance against these best practices and determine whether the job performance was lacking in quality somehow. Alternatively, the specification for best practices may need updating to include lessons learned from the job performance being graded. Enterprises should not be trying to 'implement' any specific best practice, but adapting and adopting it to suit their specific requirements. In doing this, they may also draw upon other sources of good practice, such as public standards and frameworks, or the proprietary knowledge of individuals and other enterprises.

talk about next?	 IT Services – insourcing vs. outsourcing IT Services delivery models The basic steps of the Managed Services Model Key levers to drive quality and productivity 	
35 @ 2018 (BM Corporation 5 March 2018	18M Services	

Questions?

See you in one week