



IT Service Management PV203



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March 20th, 2018

IBM Services



IBM CIC Brno visits (Apr 3 and 17) – list of participants will be located at IS of PV203

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IT Service Management - frameworks



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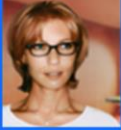
Becky "Application XYZ is not responding"
or
"Where is my report?!"



Becky
End User of IT Service



Becky "Application XYZ is not responding" or "Network is slow!"



Becky
End User of IT Service

LAN Provider: "LAN is OK"



WAN Provider: "No WAN issues"



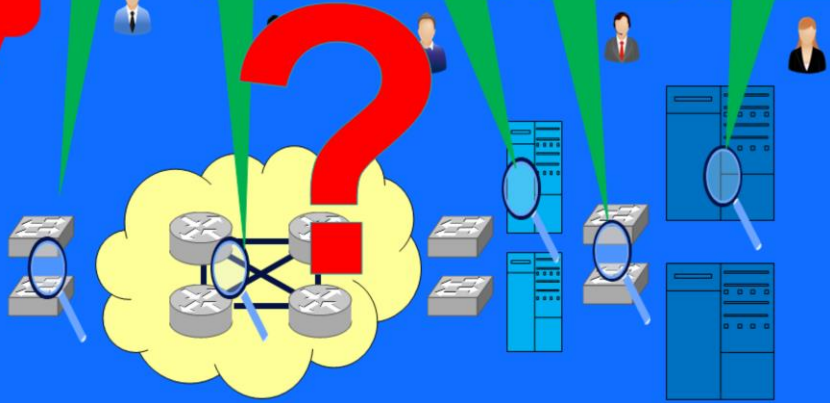
Middleware Provider: "No utilization issues"

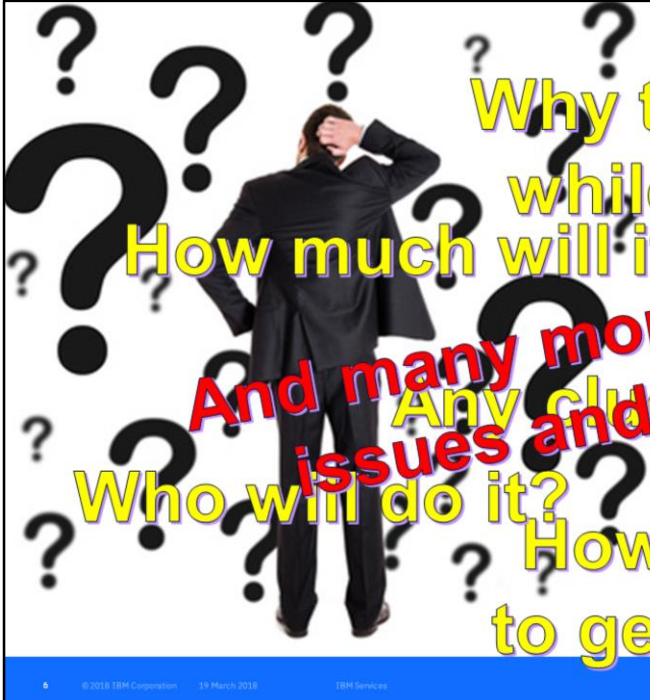


Server Provider: "No server problem"



Host Provider: "No performance problem"





Why that dpt gets it
How should
while my dpt not?
How much will it cost to manage it?
Isn't there
And many more questions,
Any clue of the way
issues and troubles...
Who will do it? How to do it?
How long will it take
to get it implemented?

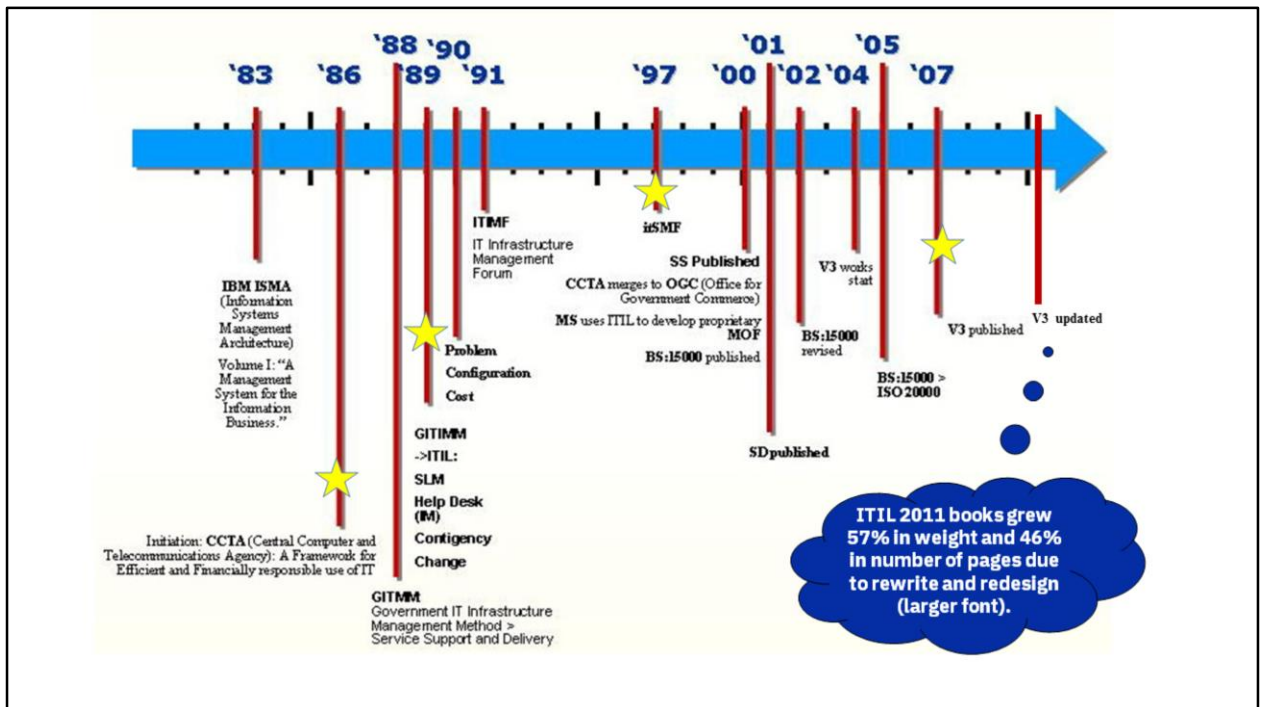
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“The first, and most obvious, IS critical success factor is service”¹
1982

The Information Technology (IT) departments in many organizations were previously focused on the production of software applications, and in the late 1980s it started to change to a service mode of operation.

For IT Service Management (ITSM), the main focus was changed from **the development of IT applications**, but rather on **the management of IT services**.

1. - Rockart JF (1982) The changing role of the information systems executive: a critical success factors perspective. Sloan Management Review 24:3-13



1972: IBM starts research on quality service delivery called Information Systems Management Architecture (**ISMA**).

1980: IBM publishes Volume I of the IBM Management series titled "**A management System for the Information Business**", first public edition of ISMA.

1986: CCTA authorizes a program to develop a common set of operational guidance with the objective of increasing efficiencies in Government IT.

1988: "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.

1989: 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**.

1989: 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).

It all started under Margaret Thatcher, the prime minister of United Kingdom during the eighties. The cost of IT in the government agencies was not in control with disparate processes ruling the roost.

Central Computer and Telecoms Agency (CCTA) was commissioned to bring down the cost and streamline processes across agencies. It took CCTA 4 years and 8 billion pounds to come up with a set of best practices, it was called Government Information Technology Infrastructure Management Method (GITIMM), conceptually similar to ITIL®. Consultants who were taken on board this project visited a number of private institutions (including IBM) to understand their processes, and how they performed their IT related activities. The processes and activities were passed through a sieve, and the best sets of processes were retained to give birth to ITIL®. GITIMM, throughout the eighties and early nineties evolved to become ITIL® v1 which consisted of over 30 books.

In 2000, the United Kingdom's Office of Government Commerce (OGC) took over CCTA, and a year later ITIL® v2 was released. V2 sub divided ITIL® as service support and service delivery. Maintenance of services came under *service support* while putting up a new service or modifying it came under *service delivery*. This version consisted of 8 volumes.

The subsequent version - ITIL® v3 was published in May 2007, and it provides a holistic view of services. It covers the entire lifecycle of a service – from the nascent stages of strategies through design, transition to live environment and support when services are active.

A major difference between v3 and its predecessors is the inclusion of a continuous improvement phase in the former. This phases stresses on the need for continuous improvement throughout the lifecycle of a service – which makes ITIL® much stronger than what it was envisioned to be.

ITIL® v3 further reduced the number of books to 5, called as the core volumes. Sometime last year, there were talks of ITIL® v4, but it turned out to be hoax in the end.

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.

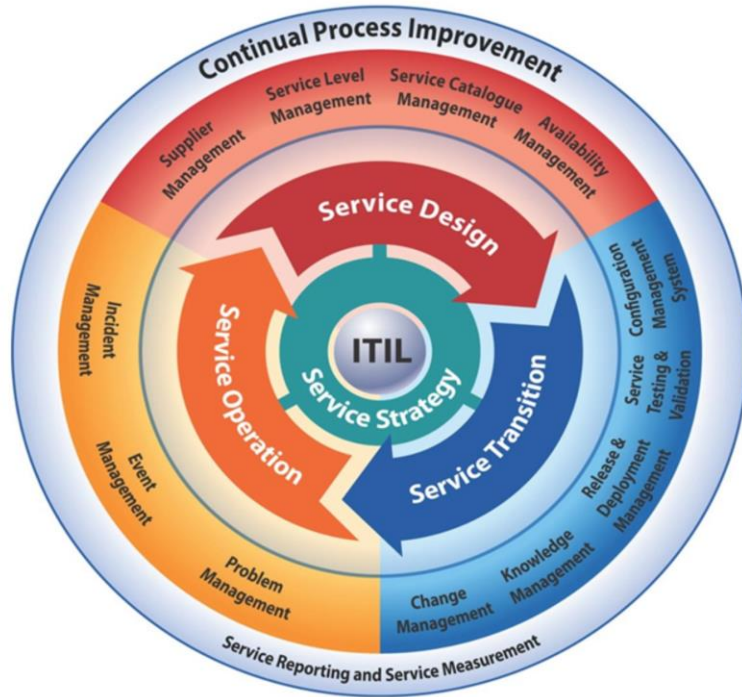
Lean: a production practice centred around creating more value with less work.

PRINCE2: The standard UK government methodology for project management.

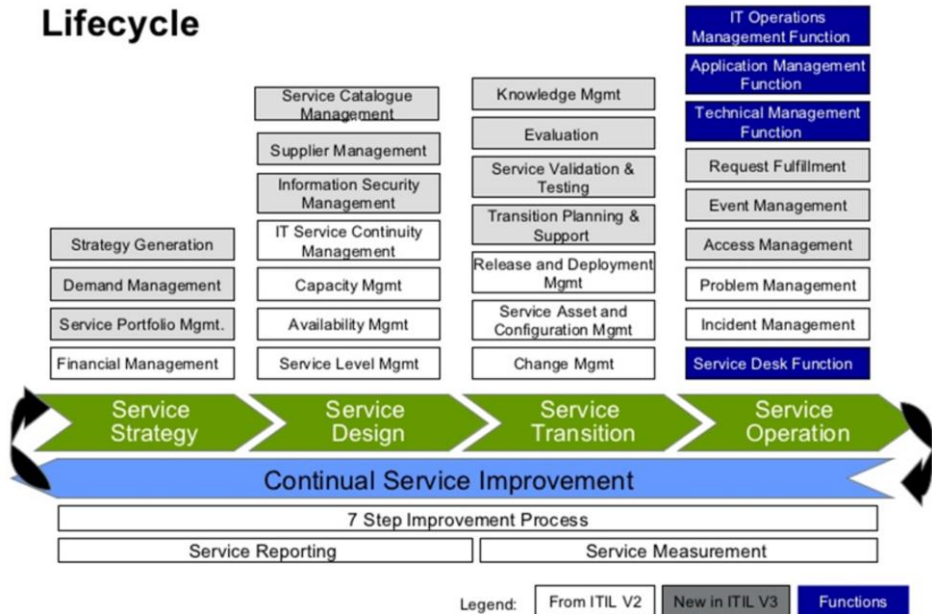
SOX: the Sarbanes-Oxley framework for corporate governance.

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

ITIL v3 (2011 Edition) Lifecycle approach



ITIL V3 Processes and Services Lifecycle



Legend: From ITIL V2 (white box), New in ITIL V3 (grey box), Functions (blue box)

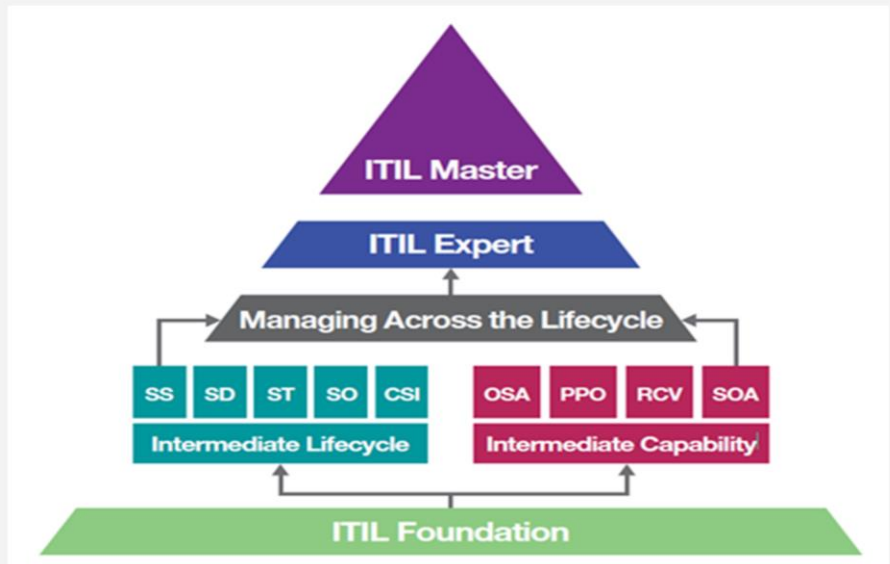
Source: © Nortel ITIL Program & ITIL V3 Core Publications

Why is ITIL important to ...?

- Reduced disruption to IT Services
- Greater control of IT infrastructure & changes to it
- Lower IT cost – centralized & standardized services
- Connects the IT infrastructure to the business it supports so that IT investment is focused on the highest priority business needs
- Single point of contact for end-users for incidents, service requests, and information – reduces multiple help desks
- Vendor-neutral language to describe IT service management – helps to manage IT support across multiple suppliers
- End-to-end integration of IT management processes
- Supports business controls compliance

RESULTS IN BETTER QUALITY, LOWER TCO, IT ALIGNMENT TO BUSINESS, AND EASIER SOURCING

ITIL Qualification System



What problems are organisations trying to solve with IT

- Establish baseline of process/process supporting tools/knowledge
 - Some of them don't have processes established in some areas – like problem management
- Stabilize/Standardize/Centralize infrastructure
- Process/ITSM tools standardization
 - Either across customer internal lines of business or across suppliers
- Integration of infrastructure and application management
 - Want to be able to improve infrastructure stability by integrating applications & infrastructure
- Right size infrastructure to support critical business services
- Link IT investment and support to business strategies and priorities

Marrone, M. & Kolbe research in 2011

Propositions:

P1: There is a positive relationship between implemented processes and perceived maturity of the ITIL implementation.

P2: There is a negative relationship between maturity levels of the ITIL implementation and perceived challenges of implementation.

P3a: There is a positive relationship between maturity levels of the ITIL implementation and perceived realized benefits.

P3b: There is a positive relationship between maturity levels of the ITIL implementation and usage of metrics to measure the realized benefits.

P3c: There is a positive relationship between maturity levels of the ITIL implementation and acknowledgement by the business of the realized benefits.

BUSTED or CONFIRMED?

 **confirmed.**

Marrone, M. & Kolbe, L.M. Bus Inf Syst Eng (2011) 5: 5. | SP-Gabler Verlag

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Information Technology Infrastructure Library

IT Service Management ~ ITSM covers IT services, processes, technology, and staffing and personnel practices that contribute to the management of IT infrastructure

ITIL® represents the best practices in IT Service Management

- ✓ Becoming international standard
- ✓ Adopt & Adapt to organization's business needs
- ✓ The Client's business enablement is the main focus – not the technology

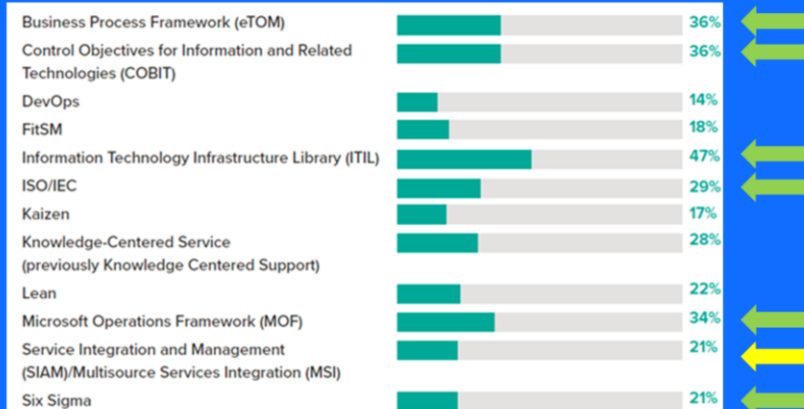
Summary:

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.

What framework or processes are you employing to support your ITSM strategy?



Source : 2017 Forbes Insights survey on The State of Information Technology Service Management (ITSM)

17

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What is COBIT 5

It's the leading framework for the governance and management of enterprise IT.

It helps enterprises of all sizes:

- Maintain high-quality information to support business decisions
- Achieve strategic goals through the effective and innovative use of IT
- Achieve operational excellence through reliable, efficient application of technology
- Maintain IT-related risk at an acceptable level
- Optimize the cost of IT services and technology
- Support compliance with relevant laws, regulations, contractual agreements and policies

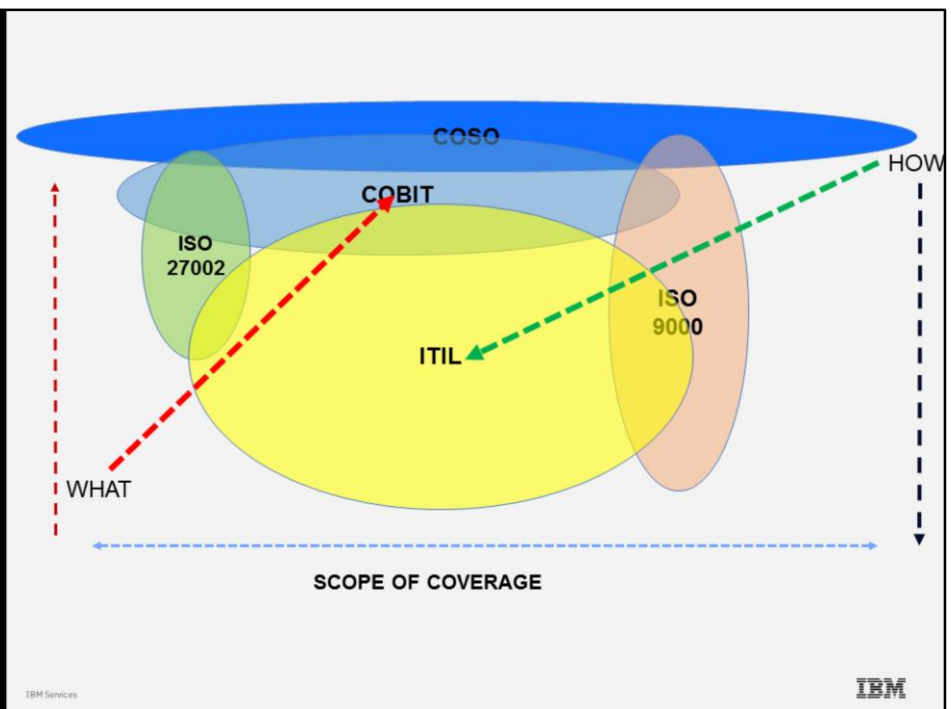
18

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COBIT and Other ITSM Frameworks



In many ways COBIT provides the “what” and ITIL shows the “how.”

When companies start with ITIL, they can then move to effectively integrating IT into their core business processes. IT provides a support role to the organization similar to HR or Purchasing, but a major difference is that IT is often constantly present throughout the corporate operational cycle – whereas the other two only play a specific role in given circumstances, or when needs arise. Therefore, it is relevant to include IT in the entire operational cycle in a manner such that it can effectively support it and add value to the business.

ITIL provides detailed advice on how to carry out several COBIT processes. [Change Management](#) is an example where ITIL clearly defines a structure and a process to accomplish it properly.

COBIT’s Principle 1 (Meeting Stakeholder Needs) includes the **goals cascade** mechanism that enhances ITIL effectiveness (when both are present) by supporting Service Management in: prioritizing Service Management improvement opportunities; identifying its key activities; and acting as a means of justification for improvement proposals by linking those to concrete organizational objectives.

COSO - The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a joint initiative of the five private sector organizations listed on the left

and is dedicated to providing thought leadership through the development of frameworks and guidance on enterprise risk management, internal control and fraud deterrence. It guide executive management and governance entities on relevant aspects of organizational governance, [business ethics](#), [internal control](#), [enterprise risk management](#), [fraud](#), and [financial reporting](#). COSO has established a common internal control model against which companies and organizations may assess their control systems. COSO is supported by five supporting organizations, including the [Institute of Management Accountants](#) (IMA), the [American Accounting Association](#) (AAA), the [American Institute of Certified Public Accountants](#) (AICPA), the [Institute of Internal Auditors](#) (IIA), and [Financial Executives International](#) (FEI).

ISO/IEC 27002 is an [information security standard](#) published by the [International Organization for Standardization](#) (ISO) and by the [International Electrotechnical Commission](#) (IEC), titled *Information technology – Security techniques – Code of practice for information security controls*.

ISO 9000 – quality management systems

COBIT 5 - Principles



Source: COBIT® 5, figure 2. © 2012 ISACA® All rights reserved.

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Business Process Framework (eTOM)

THE BUSINESS PROCESS FRAMEWORK IS AN OPERATING MODEL FRAMEWORK FOR TELECOM SERVICE PROVIDER IN THE TELECOMMUNICATIONS INDUSTRY. THE MODEL DESCRIBES THE REQUIRED BUSINESS PROCESSES OF SERVICE PROVIDER, AND DEFINES KEY ELEMENTS AND HOW THEY SHOULD INTERACT¹.

It is a hierarchical catalog of the key business processes required to run a service-focused business. At the conceptual level, the framework has three major areas, reflecting major focuses within typical enterprises:

- Strategy, Infrastructure and Product
- Operations
- Enterprise Management

Modern eTOM – V15.5

	Strategy, Infrastructure & Product						Operations						eTOM 15.5	
	Strategy & Commit		Infrastructure		Product		Operations Support & Readiness		Fulfillment		Assurance		Billing & Revenue Management	
Market/Sales Domain	Market Strategy & Policy	Sales Forecasting	Market Research		Sales Development	Advertising	Market Sales Support & Readiness	Sales Channel Management	Selling		Market Performance Management			
Product Domain	Product & Offering Portfolio Planning	Product Offer Capability Delivery	Product Capacity Mgmt		Product Specification & Offering Development & Retirement		Product Support & Readiness		Product Configuration Management	Product Performance Management				
Customer Domain							Customer Support & Readiness		Order Handling	Problem Handling	Customer QoS/SLA Management		Bill Invoice Mgmt	Bill Payments & Receivables Mgmt
Service Domain	Service Strategy & Planning	Service Capability Delivery			Service Development & Retirement		SMO Support & Readiness		Service Configuration & Activation		Service Problem Management	Service Quality Management		Service Guiding & Mediation
Resource Domain	Resource Strategy & Planning	Resource Capability Delivery			Resource Development & Retirement		RM&O Support & Readiness	Workforce Management	Resource Provisioning		Resource Trouble Management	Resource Performance Management		Resource Mediation & Guiding
Engaged Party Domain	Party Strategy & Planning	Party Tender Management			Party Offering Development & Retirement		Party Support & Readiness	Party Privacy Management	Party Order Handling		Party Problem Handling	Party Performance Management	Party Bill Inquiry	Party Settlements & Payments Mgmt
Enterprise Domain	Strategic & Enterprise Planning	Financial & Asset Management	Knowledge & Research Management	Stakeholder & External Relations Management	Enterprise Risk Management	Enterprise Effectiveness Management	Human Resource Management	Common Enterprise Processes					Cataloging	Capacity Management

eTOM Image Design © 2017, www.RobertBratluc.com • eTOM Content © 2015, TM Forum • For more information: www.RobertBratluc.com

Business Process Framework (eTOM) *Relationship to ITIL*

TM Forum's Business Process (eTOM) and Information (SID) Frameworks deliver a reusable, agreed, and widely adopted service-oriented architecture, with processes that can be linked directly with ITIL's good practices.

Microsoft Operations Framework - MOF

Microsoft Operations Framework (MOF) is a collection of best practices, principles, and models that provide comprehensive technical guidance for achieving mission critical production system reliability, availability, supportability, and manageability for solutions and services built on Microsoft products and technologies.



Microsoft Operations Framework (MOF)

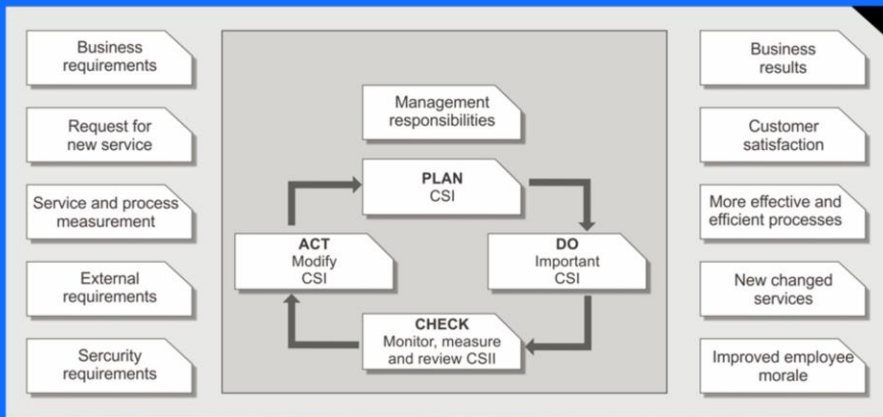
- MOF is an alternative framework to the Information Technology Infrastructure Library (ITIL). Like ITIL, MOF includes guidelines for the entire lifecycle of an IT service, from concept to retirement or replacement.
- MOF encompasses three phases and a foundation layer of the IT service lifecycle:
 - **The plan phase** ensures alignment with business and IT objectives, policy compliance, financial management and reliability.
 - **The deliver phase** covers envisioning, planning, building, stabilizing and deploying the service.
 - **The operate phase** keeps operations, service monitoring and control service, customer service and problem management in line with service level agreement (SLA) goals.
- The manage layer helps IT professionals manage governance, risk, and compliance (GRC); change and configuration; and team service.

Six Sigma

Six Sigma is an effective and adaptable measurement-based improvement methodology which can be used for delivering quality IT services. The main aim of Six Sigma is to reduce variation in processes by offering a structure by which organizations can constantly improve routine IT processes and eliminate defects, waste and cost, thereby increasing service quality and customer satisfaction.

Six Sigma is a quality program that, when all is said and done, improves your customer's experience, lowers your costs, and builds better leaders. — Jack Welch

Six Sigma e.g. compliments ITIL CSI with Deming's PDCA cycle



6 sigma and ITIL

Whilst using both models can benefit businesses, Six Sigma and ITIL aren't generally used together, but rather in combination as **a complimentary set of practices** that can improve businesses from a number of angles.

Six Sigma is a methodology based on formulas, calculations and the analysis of business processes in order to improve them. Whilst Six Sigma focuses on the **'how'** of improving processes, ITIL is more concerned with the theory and guidelines put in place to determine the **'what'** of the processes.

By utilizing ITIL methods, a business can determine **what needs to be done** in order to improve processes and areas. Six Sigma on the other hand, can help a business work out **what the cause of an issue is** or where a fault in a process lies and then ascertain how this can be fixed. However, as Six Sigma relies on statistical analysis, it is best practice to sample process improvements on a small trial basis to ascertain whether the benefits are scalable.

**ISO 20000
says what you
need to do,
while ITIL tells
you how to do
it.**



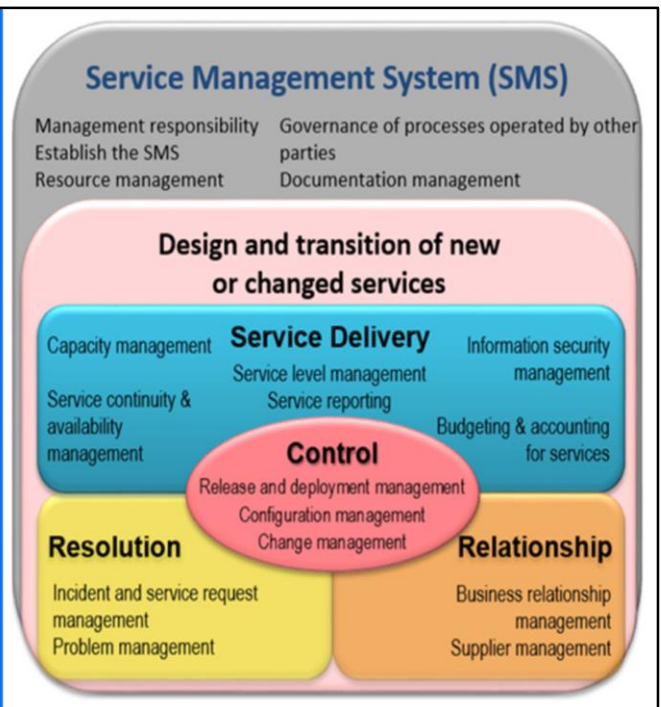
ISO 20000

ISO 20000 is the international standard for IT Service Management (ITSM), published by ISO (the International Organization for Standardization), and ICE (the International Electrotechnical Commission). To become an international standard, ISO 20000 had to be agreed upon by a majority of member countries, which means it is accepted by a majority of countries worldwide.

The standard describes a set of management processes designed to help you deliver more effective IT services (both to those within your business and to your customers). ISO 20000 gives you the methodology and the framework to help you manage your ITSM, while allowing you to prove your company follows best practice. With the requirements of the standard you will achieve best practice, helping to improve your delivery of IT services. And ISO 20000 is applicable to any company size and any industry.

ISO 20000 helps organizations benchmark how they deliver managed services, measure service levels and assess their performance. It is broadly aligned with, and draws strongly on, ITIL®.

ISO 20000 is IT Service Management System Standard that specifies ISO 2000 certification requirements for the service provider to plan, establish and maintain ISO 20000 controls for an effective Service Management System within an organization.

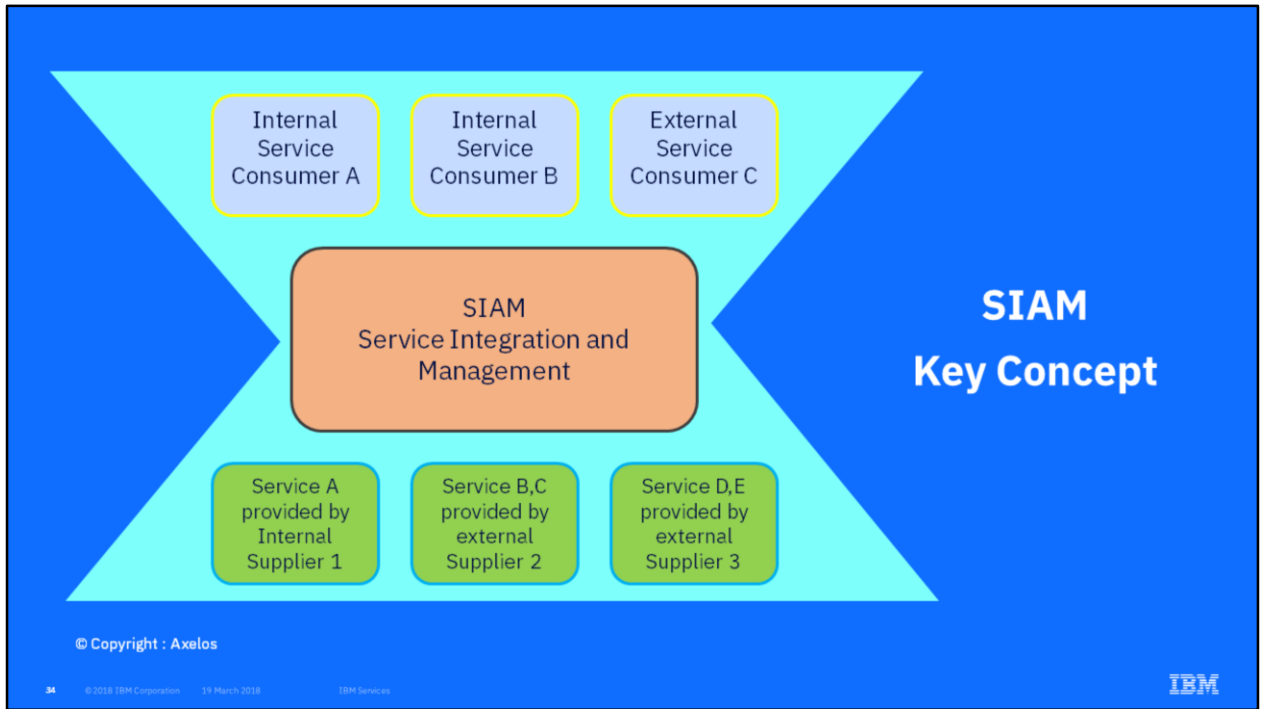


ITIL provides advice on best practices in IT service management, including options that may be adopted and adapted by organisations according to business need, local circumstances and the maturity of the service provider.



SIAM

SIAM – Service Integration and Management is a new concept, based on an old one – i.e. the need to co-ordinate and manage a number of IT suppliers in a single ‘supply chain’. The ‘new’ element is the idea that multiple outsourced suppliers need to be managed by one (SIAM) management layer, so that a single service view is managed and delivered across the supply chain. This uses ITSM concepts in a more commercially focused way and is gaining credence and adoption.



What shall we
talk about
next?

Customer Services

(Jiří Kovárník)

IBM Services



