

The Value of ITIL to IT Audit

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Hong Kong Chapter

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IT Infrastructure Library

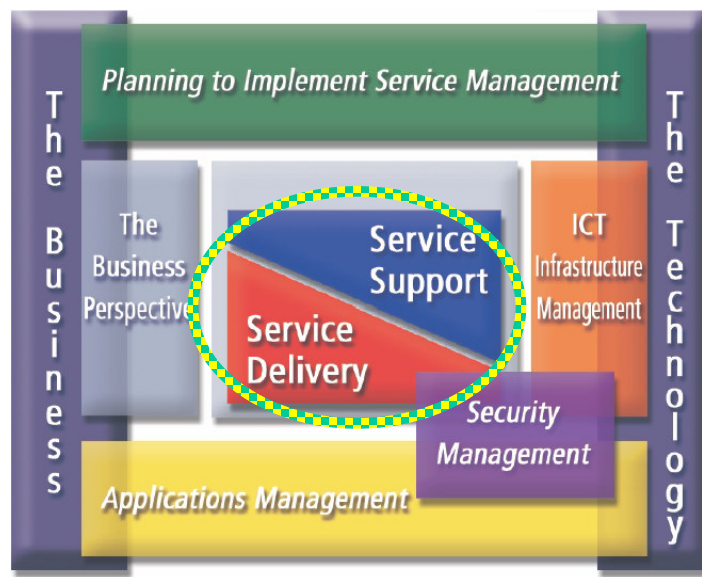


ITIL

- Best practice in IT Service management, developed by Office of Government Commerce (OGC), UK in the late 1980s.
- Worldwide, ITIL is the most widely used best practice for IT Service Management.
- Series of books giving guidance on quality IT services
 - Processes and their requirements
 - Relationships, Options, Benefits, Challenges
 - Roles and Responsibilities



ITIL Publications



COBIT

- Control Objectives for Information and related Technology, developed and promoted by the IT Governance Institute
- 34 IT processes
- High level approach to control over these processes
- 318 detailed control objectives and audit guidelines to assess the 34 IT processes

COBITCampus

COBIT®

Quick Demo →

List of Courses Available

- CobiT Awareness
- CobiT Foundation Course (e-learning/virtual instructor led)

Click below to view complete course listing and details

[Course Catalog](#)

Other Courses →

- ITIL/ITSM Awareness
- ITIL Foundation Course
- MOF Orientation Course

Service Support

- Incident Management
- Problem Management
 - **DS10 Manage Problem and Incidents**
- Change Management
- Release Management
 - **AI6 Manage Changes**
- Configuration Management
 - **DS9 Manage the Configuration**
- Service Desk

Service Delivery

- Service Level Management
 - **DS1 Define and manage service level**
- Availability Management
- Capacity Management
 - **DS3 Manage Performance and Capacity**
- IT Service Continuity Management
 - **DS4 Ensure continuous service**
- Financial Management for IT Services
 - **PO5 Manage IT investment**

Service Desk

- To provide a **strategic central point of contact for customers**, and an operation single point of contact for managing incidents to resolution.



Service Desk

- Receive and record all calls from Users: deal directly with simple requests/ complaints
- Provide initial assessment of all incidents: resolve and/or refer to 2nd line support
- Monitor and escalate all Incidents
- Keep users informed on status and progress
- Produce management reports

Incident Management

- To **restore normal service operation as quickly as possible** and to minimise adverse impact on business operations
- Incident is any event which is not part of the standard operation and which causes, or may cause, an interruption to, or a reduction in, the quality of that service

Incident Management

- Detection and recording
- Classification and initial support
- Investigation and diagnosis
- Resolution and recovery
- Incident closure
- Ownership, monitoring, tracking and communication

Problem Management

- To **minimise the adverse impact** of incidents and problems on the business that are caused by errors in the IT infrastructure and to prevent recurrence of incidents related to these errors.
- Problem Management seeks to get to the **root cause of the error** and to initiate action to remove the error.

Problem Management

- Problem Control
 - Identification and recording
 - Classification
 - Investigation and diagnosis
- Error Control
 - Identification and recording
 - Assessment and resolution
 - Closure and monitoring resolution progress
 - **Request for Change (RFC)** if required

Change Management

- To ensure that **standardised methods and procedures** are used for efficient and prompt handling of all changes so as to **minimise the impact of change-related** Incidents and to improve day-to-day operations

變幻才是永恒

The only constant is change

Change Management

- Raising and recording changes
- **Assess impact, cost, benefit, and risk**
- Develop business justification and obtaining approval
- **Manage change implementation**
- **Monitor and report on implementation**
- Review and close Requests for Change

Change Advisory Board

- to approve Changes and to assist Change Management in the assessment and prioritisation of changes.
- Board Members
 - Change Manger, chairing the process
 - IT services staff
 - External service provider
 - Customers and users
 - Expert and technical consultants

Safe Deposit Boxes Incident **2nd Oct 2004**

Configuration Management

- To **identify, record and report on all IT components** that are under the control and scope of Configuration Management
- Provide accurate information on configuration and documentation to support all other Service Management Processes

Case Study

- Serious traffic congestion occurred on 9 May 2005
- The Secretary for the Environment, Transport and Works appointed a Task Force to review and recommend enhancement measures for emergency transport coordination.
- Report was submitted on 5 July 2005



Terms of Reference

To review and make recommendations on -

- **the crisis management mechanism;**
- internal coordination to expedite immediate remedial works;
- **congestion relief measures;** and
- dissemination of information to the public, with a view to facilitating better handling of similar unforeseen emergency situations with substantial traffic impacts in the future

Crisis Management Mechanism Recommendation

- Assessment of the situation
 - Initial assessment ...made by officers at the scene
 - However, they may not have knowledge of the big picture, .. sufficient knowledge to make an accurate assessment of the situation

Crisis Management Mechanism Recommendation

- ..important for departments to provide sufficient guidance, such as checklist and guidelines, to enhance their judgement. Officers should be made aware of the macro-picture and the wider implication of their actions.

Congestion Relief Measures Recommendation

- Data Collection
- Traffic Management
- Traffic Impact Assessment
- Measures to Facilitate Diversion
- Recovery Management
- **Road Design and Rail Network**
 - **Outside the Task Force's ambit**

Congestion Relief Measures Recommendation

- **Data Collection**
 - Problem identification and recording
- **Traffic Impact Assessment**
 - Problem classification
 - Problem investigation and diagnosis
- **Measures to Facilitate Diversion and Recovery Management**
 - Resolution and recovery, Request for Change
 - Close problem

Release Management

- Release Management takes a **holistic view of a change** to an IT service and should ensure that all aspects of a Release – both technical and non-technical – are considered together
- The focus of Release Management is the protection of the live environment and its services through the use of formal procedures and checks

Service Delivery

- Service Level Mgmt
- Availability Mgmt
- Capacity Mgmt
- IT Service Continuity Mgmt
- Financial Management for IT Services

Availability Management

- To optimise the capability of the IT infrastructure, services and supporting organisation to deliver a **cost-effective and sustained level of availability** enabling the business to meet their objectives

Availability Management

- Availability
- Reliability
- Maintainability
- Serviceability
- Security

Capacity Management

- To ensure that all the **current and future capacity performance** aspects of the business requirements are provided cost-effectively

Capacity Management

- **Monitor** the performance and throughput of IT services and supporting IT component
- **Tuning** activities to make efficient use of resources
- Understanding the **current demands** for IT resources and deriving forecasts for future requirements
- Producing a **Capacity Plan** predicting the IT resources needed to achieve agreed service levels.

The Capacity is to handle...

- Lines jammed after anxious callers flood phone network.
- 八號風球高懸，市民紛紛致電親友，令全港電話網絡大癱瘓 (11/Sept/02)。



IT Service Continuity Management

- To ensure that the required IT technical and services facilities can be recovered within required and agreed timescales
- **IT Service Continuity Planning** is a systematic approach to the creation of a plan and procedures – which are regularly tested and updated – **to prevent, cope with, and recover from the loss of critical services for extended periods**

Recovery Options

- Do nothing - is this a real option?
- Revert to manual procedures - can you?
- Make reciprocal arrangements
- **Cold standby**
 - gradual recovery (in hours/days)
- **Warm standby**
 - intermediate recovery (in minutes/hours)
- **Hot standby**
 - immediate recovery (in seconds/minutes)

Service Level Management

- To maintain and improve IT Service quality through a constant **cycle of agreeing, monitoring and reporting** to meet the customers' business objectives

Basic Concept in Service Level Management

- Planning
- Co-ordinating
- Drafting
- Agreeing
- Monitoring
- Reporting
- On-going review of service achievements

Financial Management for IT Services

- Seeks to provide **cost-effective IT assets and resources** used in providing IT services
- **Attribute all spending** to specific and general services delivered to customers
- Assist management in **decision-making on IT investment** by providing financial information in support of business cases made

Benefits of ITSM

- **Alignment of IT with the business**
 - Services matched to business needs
- **Improved reliability and availability**
 - less lost productivity
- Flexible to **cope with change**
- Improved **competitiveness**
- Improved **customer satisfaction**

Exercise

- Because of its increased dependency on information systems, a national insurance firm decides that there must be assurances for the provision of IT service following an interruption.
- Which process should be implemented to provide this assurance?
 - A. Availability Management**
 - B. IT Service Continuity Management**
 - C. Service Level Management**
 - D. Service Management**

Exercise

- A steel company is merging with a competitor. The IT departments and IT infrastructure of both companies will be combined.
- Which process is responsible for determining the required disk and memory space required for applications running in the combined IT infrastructure?
 - A. Application Management**
 - B. Capacity Management**
 - C. Computer Operations Management**
 - D. Release Management**

Exercise

- A company sets up an Intranet for its graphic design workstations. The bandwidth must be increased because of the high volume of illustrations sent over the network.
- Which ITIL process is responsible for approving the implementation of increased bandwidth?
 - A. Capacity Management**
 - B. Change Management**
 - C. Availability Management**
 - D. Problem Management**

COBIT

- a framework and a knowledge base for IT processes and their management.
- is built with reference to existing standards and practices.
- a practical management tool rather than a definitive standard, which enables IT personnel, business people, and audit and control specialists to relate to COBIT easily.

COBIT

- helps implement management's perspective of control systems because COBIT operates at a level above the actual technology used and has a business focus.
- focuses on getting the "what" right, without worrying about "how" things need to be done.

Relation with other standards

(from the eyes of COBIT)

- ITIL is a collection of best practices in IT service management. It is focused on the "how" of IT or service and its processes and the central role of the user.
- **ITIL maps service delivery to process execution and technical aspects of process control.**
- **COBIT focuses on process control as well as strategic control in an enterprise.**

Certification



ISEB Pass Statistics

Foundation Certificate in ITSM

Financial Year	Candidates	Pass	Fail	% Pass	% Fail
1995/ 1996	370	313	57	85%	15%
1996/ 1997	1,030	679	351	66%	34%
1997/ 1998	983	695	288	71%	29%
1998/ 1999	1,414	1,243	171	88%	12%
1999/ 2000	2,698	2,286	412	85%	15%
2000/ 2001	3,530	3,273	257	93%	7%
2001/ 2002	7,630	6,521	1,109	85%	15%
2002/ 2003	10,108	8,986	1,122	89%	11%
2003/ 2004	15,165	13,496	1,669	89%	11%
	42,928	37,492	5,436	87%	13%

ISEB Pass Statistics IT Service Management



Financial Year	Candidates	Pass	Fail	Distinction	% Pass	% Dist
1998/ 1999	283	149	110	24	53%	8%
1999/ 2000	585	329	221	35	56%	6%
2000/ 2001	757	374	320	63	49%	8%
2001/ 2002	877	501	326	49	57%	6%
2002/ 2003	1,098	556	473	69	51%	6%
2003/ 2004	1,484	739	637	108	50%	7%
	5,084	2,648	2,087	348	52%	7%



www.itsmf.com

The IT Service Management Forum

- The only internationally recognised and independent organisation dedicated to IT Service Management.
- A major influence on, and contributor to, industry “best practice” and standards worldwide.
- Formed in the UK in 1991, there are now 27 national chapters in an ever-increasing number of countries.





*it***SMF**
Hong Kong Chapter

www.itsmf.org.hk

- Officially formed on 20 January 2005
- Enhance the awareness of technology, best practices and standards in IT service management through:
 - Promotion and development of globally recognized qualifications
 - Facilitated knowledge sharing among members and practitioners

Thank You!