ITIL
IT Infrastructure
Library Overview
**Vocabulary**

- **Incident** - any event which is not part of the standard operation of a service and which causes or may cause an interruption to or reduction in the quality of that service.

- **Problem** - The *unknown root cause* of one or more incidents.

- **Error** - an incident or problem *for which the root cause* is known and for which a temporary workaround or a permanent alternative has been identified.
Vocabulary - 2

◆ OGC - Office of Government Commerce (OGC)
◆ BS 15000 - Specification for IT Service Management
◆ PD0005 - A Code of Practice for IT Service Management
◆ PRINCE2 – Projects in Controlled Environments Version 2 (PRINCE2)
◆ Customer – Senior managers who commission, pay for and own the IT Services
◆ User - people who use the services on a day-to-day basis
Definitive Copy – Master Library component
Organisations are increasingly dependent upon IT to satisfy their corporate aims and meet their business needs.

- This growing dependency leads to growing needs for quality IT services – quality that is matched to business needs and user requirements as they emerge.

- The authors of ITIL have tried to introduce “Engineering” think and practices into the IT world.
**IT Service Management** is concerned with delivering and supporting IT services that are appropriate to the business requirements / objectives of the organisation.

IT service providers must continually strive to improve the quality of their service, while at the same time trying to reduce the costs or, at a minimum, maintain costs at the current level.
ITIL provides a comprehensive, consistent and coherent set of best practices for IT Service Management processes, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems.

ITIL processes are intended to be implemented so that they underpin, but do not dictate, the business processes of an organisation.
Based on the CMMI Framework, CMMI Models are tailored to assist an organization in aligning the application of the model with its business objectives.
For a focus on Quality Management to be successful, it must be tied to the organization’s business objectives:

- What are the organization’s highest priorities?
- What business consequences have resulted from weak or ineffective focus on quality management functions?
- What action is being taken to correct the cause?
- How can a focus on Quality Management support the organization’s business objectives?
Helping The Business

◆ Process improvement should be done to help the business—not for its own sake.
ITIL Background

- Developed in the late 1980s, the IT Infrastructure Library (ITIL) has become the world-wide *de facto* standard in Service Management.

- Starting as a guide for UK government, the framework has proved to be useful to organisations in all sectors.

- ITIL has been adopted by many companies as the basis for Service Management, and for consultancy, education and software tools support.
The IT Infrastructure Library documents industry best practice guidance.

**ITIL is a framework** that describes the goals, general activities, inputs and outputs of the various Service Management processes, which can be incorporated within IT organisations.

**The CMMI is a framework** that organizes CMMI components, including common elements of the current CMMI models, their appraisal methods and their training materials.
In the past, many IT organisations were internally focused and concentrated on technical issues.

These days, businesses have high expectations of the quality of services.

This means that for IT organisations to live up to these expectations, they need to concentrate on service quality and a more customer-oriented approach.

It means doing these things at the right price.

In short, it means managing IT as a business.
ITIL Background - 4

- ITIL focuses on both tactical and operational level
  - Tactical processes are centered on the relationships between the IT organisation and their Customers
  - **Service Delivery** is partially concerned with setting up agreements and monitoring the targets within these agreements. *(SAM – ISM)*
  - On the operational level, the Service Support processes can be viewed as responding to the changes needed in, and any failures in, the services laid down in these agreements *(SAM – ISM)*
On both the tactical and operational levels there is a strong relationship with quality systems such as ISO 9000 or CMMI and a total quality framework such as European Foundation for Quality Management (EFQM) or Baldridge and even project management systems such as PMI or Prince2.

ITIL supports these quality systems by providing defined processes and best practices for the management of IT Services but it must be remembered that there needs to be on-going review of the quality of processes aligned with business requirements.
The IT Infrastructure Library
Jigsaw Diagram

Deliver IT Services

Support IT Services

Managing Applications

The Business Perspective

Manage the Infrastructure
The major elements of ITIL can be compared to overlapping jigsaw puzzle pieces (or perhaps better as tectonic plates), some of which have a precise fit, and some of which overlap or do not fit together accurately.
The Business Perspective covers a range of issues concerned with understanding and improving IT service provision, as an integral part of an overall business requirement for high quality IS management. These issues include:

- Business Continuity Management
- Partnerships and Outsourcing
- Surviving change
- Transformation of business practice through radical change
Service Delivery

Service Delivery looks at what service the business requires of the provider in order to provide adequate support to its business customers.

To provide the necessary support Service Delivery is broken down into the following topics:

- Capacity Management
- Financial Management for IT Services
- Availability Management
- Service Level Management
- IT Service Continuity Management.
Service Support

- Service Support is concerned with ensuring that the User has access to the appropriate services to support its business functions

- Issues discussed under Service Support are:
  - Service Desk
  - Incident Management
  - Problem Management
  - Configuration Management
  - Change Management
  - Release Management
ICT Infrastructure Management

- ICT Infrastructure Management includes:
  - Network Service Management
  - Operations Management
  - Management of Local Processors
  - Computer Installation and Acceptance
  - Systems Management
Applications Management

- Applications Management embraces the software development lifecycle expanding the issues touched upon in Software Lifecycle Support and Testing of IT Service.
- Applications Management expands on the issues of business change with emphasis on clear requirement definition and implementation of the solution to meet business needs → CMMI Requirements Development and Technical Solution with Requirements Management.
Interrelationship of ITIL Processes

◆ All the processes described in ITIL relate to each other – Example – Life-cycle of an “Incident”
  ◇ A User calls the Service Desk to report response difficulties with the on-line service
  ◇ The Incident Management process deals with Incident
  ◇ The Problem Management process investigates underlying cause and calls in Capacity Management to assist in this process
    • Service Level Management is alerted that the SLA has been breached
    • Request for Change (RFC) raised if appropriate
  ◇ The Change Management process co-ordinates the Request for Change (RFC)
  ◇ The IT Financial Management process assists with the business case cost justification for any upgrade
The **IT Service Continuity** process gets involved in the Change Management process to ensure recovery is possible onto current back-up configuration.

The **Release Management** process controls the implementation of the Change by rolling out replacement hardware and software. Release Management updates Configuration Management with details of new Releases and versions.

The **Availability Management** process is involved in considering the hardware upgrade to ensure that it can meet the required availability and reliability levels.

The **Configuration Management** process ensures the Configuration Management Database (CMDB) information is updated throughout the process.
Customers and Users

- **Customer** - Generally senior managers (CEO, CTO, CFO, COO) who commission, pay for and own the IT Services
  - The primary point of contact for Customers is either the Service Level Manager or the Business Relationship Manager
- **Users** - Those people who use the services on a day-to-day basis
  - The primary point of contact for Users is the Service Desk
- **Users and Customers** have related but different needs
  - Users may demand **high availability**
  - Customers look for **value for money at different levels of availability**
ITIL is written mainly from an in-house service provider’s perspective, but it is generally relevant to all other methods of service provision.

ITIL is applicable to those involved in outsourced service provision or working in partnerships.
Business managers can use ITIL in understanding and establishing best practice IT services and support.

Managers from supplier organisations should also find ITIL relevant when setting up agreements for the delivery and support of services.