IT Governance e Business Technology (approfondimenti su ITIL)

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Evolving by “System” to “Service” Management

- **System management**: (*“refers to enterprise-wide administration of distributed computer systems. Systems management is strongly influenced by network management initiatives in telecommunications. System management may involve one or more of the following tasks:
  - Hardware inventories.
  - Server availability monitoring and metrics.
  - Software inventory and installation.
  - Anti-virus and anti-malware management.
  - User's activities monitoring.
  - Capacity monitoring.
  - Security management.
  - Storage management.
  - Network capacity and utilization monitoring.”

- **IT Service Management (ITSM)** (*“is a discipline for managing information technology (IT) systems, philosophically centered on the customer's perspective of IT’s contribution to the business. ITSM stands in deliberate contrast to technology-centered approaches to IT management and business interaction. The following represents a characteristic statement from the ITSM literature”

* Extracted from wikipedia.org*
“In 1937, British-born economist Ronald Coase concluded that the boundaries of firms are determined by transaction Costs (1)”

(1) ITIL Service Strategy, TSO
Service Management

A survey for CIO and IT executives in 2009 suggests what are the area where they think to have better results.

2009 IBM Global CIO Study
Few metrics...

- Expected investments in “IT Management Software as a Service (SaaS)” by USD 1 billion in 2008 to USD 2.4 billion in 2012
- Impact on different disciplines
Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

From Nist, National Institute Standard and Technologies
Core Components of Service Managed Virtualization and Clouds

For Locating and Requesting Services

Deploying Cloud Services

Secure User Centric Self-Service Portal, Automation engine and Catalog

Managing Cloud Services

Automated Provisioning and Image Management

Monitoring, Security and Metering
Something profound is now happening with the infusion of intelligence into the way the world works.

Our world is becoming **INSTRUMENTED**

Our world is becoming **INTERCONNECTED**

Virtually all things are becoming **INTELLIGENT**

... *Our planet is becoming smarter*
ITIL is not a standard

- A **technical standard** (*) is “an established norm or requirement. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes and practices.”

- A technical standard “can also be a controlled artifact or similar formal means used for calibration.”

- Reference Standards and certified reference materials “have an assigned value by direct comparison with a reference base. A primary standard is usually under jurisdiction of a national standards body. Secondary, tertiary, check standards and standard materials may be used for reference in a metrology system.”

* Extracted from wikipedia.org
ITIL is a de facto Standard for Service Management built on industry „Best practice“

What is ITIL?
- ITIL stands for Information Technology Infrastructure Library
- A set of books that describe best practices IT service management
- An internationally-recognized set of best practices in the public domain
- Provides guidance, but not a step-by-step methodology
- A holistic approach to IT infrastructure management
- ITIL by its widespread use became a de facto standard

The aims in developing the IT Infrastructure Library are
- To facilitate the quality management of IT services and in doing so increase the efficiency with which the corporate objectives and business requirements are met.
- To improve efficiency, increase effectiveness, and reduce risks.
- To provide codes of practice in support of total quality.

Benefits of implementing ITIL
- Enhanced Customer satisfaction as it is clear what service providers know and deliver.
- Formalizes the use of procedures so that they are more reliable to follow.
- Improved quality of service – more reliable business support.
- Better motivated staff through better management of expectations and responsibilities.
The BSI roadmap to make ITIL a Standard for Service Management

- **British Standard Institution (BSI)**

  - 1998 - Code of Practice [PD0005]
  - 2000 - Self-assessment Workbook [PD0015]
    - Specification [BS15000:2000]
  - 2001 - Early adopters → Feedback
  - 2002 - Rewrite as Part 1 & 2
    - Rewrite PD0015/PD0005
  - 2003 - Formal certification scheme
  - 2006 - ISO Standard
The Genesis of ITIL®: “In the beginning…”

- The British government commissioned a study to find out “what is the best way to align IT with business objectives, lower costs and improve quality.” Results published in 40+ books as the Information Technology Infrastructure Library (ITIL)

- Revisions between 2000 and 2004 resulted in Version 2 of ITIL® as a consolidated framework for IT Service Management

- Version 3 released in 2007 establishes a lifecycle approach to IT Service Management
The BSI roadmap to make ITIL a Standard for Service Management

BS 15000 / ISO IEC 20000

Part 1. Specification

Part 2. Code of Practice

PD0005 PD0015

ITIL

Account Policies, Processes & Procedures

What to achieve?

Guidance

Management Overview

Process definitions

Deployed solutions
Useful Links

http://www.tso.co.uk/demo/itil2
http://www.itsmf.co.uk/Shop/Products/itSMF_self_assessment.aspx

ITIL® v3 Pocket Guide has been made available by ITSMF free of charge
Improving business processes ...

- **ITIL** provides a framework of best practice guidance for managing IT Services.

- **ISO/IEC 20000** specifies the components needed to demonstrate a fully deployed, integrated and proactively managed set of processes.

- **COBIT** provides maturity models for control over IT processes, so management can map where the organisation is today, where it stands in relation to the best in class in its industry and to international standards.

- **SIX SIGMA** management framework for improving the quality of the processes: it identifies the number of defects and errors in business processes and seeks the causes in order to remove them.
What is ITIL?

ITIL is a library of books that aim to describe best practices for IT Service Management

Content of ITIL
“Currently ITIL consists in a set of books, which document and place existing methods and activities in a structured context."

ITIL as a Guidance
"ITIL does not cast in stone every action you should do on a day to day basis because that is something that will differ from organization to organization. Instead it focuses on best practice that can be utilized in different ways according to need."
What is ITIL®?

- **ITIL® is a library of books that document industry accepted best practices for IT Service Management (considered a de facto standard in the area of Service Management)**

- **A framework of IT Service Management best practices originating from a study funded by the UK government in the late 1980’s**
  - V1 mainframe oriented – 1980’s
  - V2 released early 2000’s
  - V3 lifecycle-based released May 2007

- **ITIL® stands for the “IT Infrastructure Library”**
  - **ITIL® is a Registered Trade Mark, and a Registered Community Trade Mark of the Office of Government Commerce, and is Registered in the U.S. Patent and Trademark Office**
Customers across the globe are asking more and more about ITIL

Benefits of ITIL

- More professional staff
- Enhanced customer satisfaction as service providers know and deliver what is expected of them
- Better service quality and responsiveness
- Properly aligned roles and responsibilities
- ITIL incorporates a QM-Strategy
- Long term cost reduction for IT services
- Improved alignment of IT with the business and improved service delivery
- ITIL brings a cross-organizational focus on business results and customer satisfaction
ITIL Implementation: Adopt and Adapt

- ITIL describes what needs to be done but not how it should be done.

- ITIL does not define:
  - Every role, job or organization design
  - Every tool, every tool requirement, every required customization
  - Every process, procedure and task required to implement

- ITIL does not claim to be a comprehensive description of everything within IT, but IT management “best practices” observed and accepted in the industry.

- **Adopt** ITIL as a common language and reference point for IT Service Management best practices and key concepts.

- **Adapt** ITIL best practices to achieve business objectives specific to each company.
ITIL v3 Service lifecycle

- Iterative and multidimensional
- Aimed to provide structure, stability and strength to the Service Management
- Ensures leverage capabilities in one area for learning and improvements in others
ITIL v3 Service lifecycle
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ITIL v3 Service lifecycle

**Strategy**
- Determine requirements from the business

**Design**
- Design service
- Consider warranty attributes (availability, capacity, etc.)
- Create service via development and integration

**Transition**
- Test service
- Coordinate RFCs to put service into production
- Deploy release
- Run service pilots

**Operation**
- Operate and monitor service
- Support service
- Manage requests

**Improvement**
- Report service metrics
- Identify ROI
- Improve services
**Service Strategy**  strategic plan designed to achieve defined objectives

### Activity

**Market definition**
- Define a Strategy
- Client understanding
- Understanding the opportunity
- Define marketplace

**Develop the offer**
- Define Services
- Service Portfolio, Pipeline and Catalog

**Develop Strategic Asset**
- Policies of investment
- Service management as strategic asset

**Prepare the execution**
- Analyze critical factors
- Define Objectives, Policies and boundaries

### Process
- Strategy Generation
- Service Portfolio Management
- Demand Management
- IT Financial Management
Service Design key concepts for the design of the service.

**Key concepts**
- Service Design Package
- Strategy of Sourcing and Supplier Management

**Activities**
1. Design of new services
2. Design of services portfolio
3. Design of architecture and technology
4. Design of process
5. Design of metrics

**Processes**
- Service Catalogue Management
- Service Level Management
- Capacity Management
- Availability Management
- Service Continuity Management
- Information Security Management
- Supplier Management
Service Transition how to move a service or configuration item from one status to the other

Definition

Service Transition consists of process management and coordination, systems and functions requested to build, test and move in production the new or changed service or configuration item.

Processes
- Transition Planning and Support
- Change Management
- Service Asset and Configuration Management
- Release and Deployment Management
- Service Validation and Testing
- Evaluation
- Knowledge Management

Key concepts:
- Configuration Management System & CMDB
- Service Knowledge Management System
- Definitive Media Library
- Service V-Model
- Organizing service Transition Functions, roles and responsibilities
Service Operation how to implement and support services assuring client and provider with the value of the service

Definition

Service Operation implies the coordination and execution of activities and processes requested to provide and manage services for business client within SLA

Process
- Event Management
- Incident Management
- Request Management
- Problem Management
- Request Fulfilment
- Access Management
- Operational Management

Key Concepts
- Request, Events, Incident
- Problem, Workaround, Known Error KEDB
- Access Management
- Monitor and control loop
Continual Service Improvement how to increase the value of the service or realign to business needs

**Definition**

Il Continual Service Improvement deals with service improvement and has to be applied to all the lifecycle

**Process**

- Service Measurement
- Service Reporting
- Service Improvement

**Key Concepts**

- Service Measurements
- Business case focus – ROI perspective
- Service improvement model
Certification Schema

- **P&R**: Service Portfolio & Relationship
- **O&S**: Service Operation & Support
- **M&C**: Service Monitoring & Control
- **D&O**: Service Design & Optimisation

ITIL v3 Foundation Certificate in IT Service Management

© OGC’s Official Accreditor - The APM Group Limited 2007
Key elements - Process Implementation

- Content:
  - Understanding processes and their implementation
  - Understanding the real need of using processes
  - Understanding the benefits, the success factors, the problem areas, and the costs
  - IT Service Management Project
Key elements - Process Implementation
Service, Process and Procedure

A Service
A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.

A Process
Is a connected series of actions, activities, changes etc, performed by agents with the intent of satisfying a purpose or achieving a goal.

A Procedure
Is a description of logically related activities, and who carries them out. A procedure may include stages from different processes. A procedure defines who does what, and varies depending on the organization.
Key elements - Process Implementation
What is a process?

- A process is a sequence of interrelated activities that collectively take an input, add value to it and produce an output which achieves a specific objective.

- ITIL focus on Processes
Key elements - Process Implementation

A process flows across the organizational hierarchies within a company and sometimes flows across company boundaries.
Key elements - Process Implementation

Why do we need Processes?

- Process serves as a foundation for the definition of the remaining elements of the management system-organization and technology

- Processes capture and document:
  - Ownership, responsibilities, measurements
  - Consistent, structured working practices
  - Policy decisions, scope and objectives
  - Clear interfaces and two-way communication paths with other processes, people and tools

- Processes ensure a stable, controlled, repeatable service that can be objectively measured against contract deliverables and service levels

- Processes enable:
  - Efficient and effective service to meet both client and provider needs
  - Cost and quality improvement

„Service-focussed processes enable to manage IT technology and organisation in ways which facilitate alignment with clients' business objectives“
Key elements - Process Implementation

Mission critical changes or reorgs within an IT corporate require new processes or needs to improve existing processes.

- **Which problems do IT organizations face today?**
  - Non-allocated service costs.
  - Difficulties to justify investments.
  - Improvement of services are not measurable.
  - A few persons with too many responsibility.
  - No willing to change organization culture
  - Lack of relationship management.

- **Which challenges do IT organization stands today?**
  - Should IT services quality be improved?
  - Is there a “merging” with another organization planned?
  - Are there mission critical business changes planned
    - Server consolidation
    - Additional Clients to manage
  - Is there any OS Migration planned?
Key elements - Process Implementation
What are the benefits?

- Gartner has reported that:
  - Around 70% of systems management technology implementations fail due to neglect of process and organization considerations
  - Approximately 80% of unplanned downtime is caused by process and people issues, with the remainder caused by technology failures and disasters
  - Up to 70% of ROI derives from process improvements rather than tools

- The implementation and continual improvement of effective processes utilizing best practices enable delivery of a service in which these errors are reduced

„Processes are critical to maintain effective business operations“
Key elements - Process Implementation

ITSM Project

Following process model should be used by the organization as the framework for process improvement/ introduction project.