



***Introduction to ITIL***

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## Intended Audience

This White Paper is for anyone interested in discovering more about the ITIL® processes for IT Service Support. It is very much a beginner's guide, and assumes no prior knowledge of ITIL® or other IT Service Management methodologies.

## About this White Paper

It is hoped this White Paper will be useful for anyone in the early stages of investigating the ITIL® framework for Service Support. We hope the paper will introduce people to key concepts and key terms. The White Paper introduces:

- Service Desk
- Incident Management
- Problem Management
- Change Management
- Release Management
- Configuration Management

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## Where did ITIL® come from?

During the late 1980's the Central Computer and Telecommunication Agency (CCTA) in the United Kingdom started to work on what is now known as ITIL®, the Information Technology Infrastructure Library.

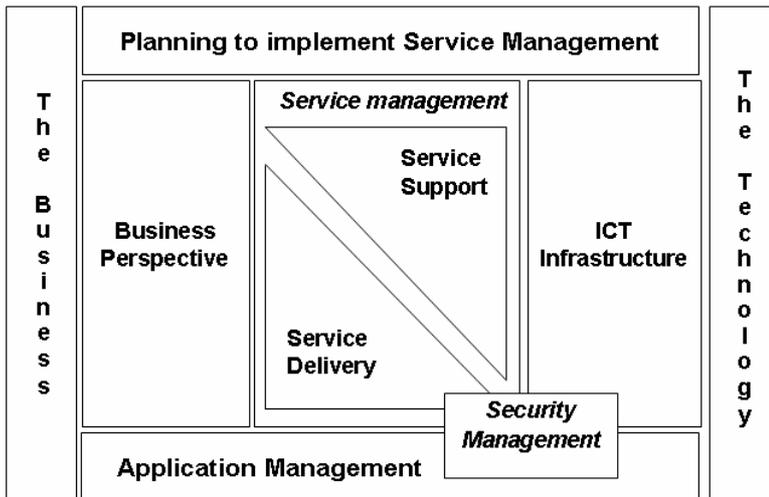
Large companies and government agencies in Europe very quickly adopted this framework in the early 1990's and it has since become known as an industry best practice for IT Service Management.

ITIL® has become the de-facto standard in delivering IT Services for all types of organisations. Both government and non-government organisations benefit from the process driven approach regardless of the size of the IT department.

Over the past decade the uptake of the ITIL® framework has spread to the rest of the world with a dramatic increase in ITIL® implementations in the US and Australasia since 2000.

## What is ITIL®?

ITIL® is a set of processes for IT Service Support and Service Delivery. The diagram below gives a graphical view of the ITIL® framework.



ITIL® has been divided into two key disciplines – *Service Support* and *Service Delivery*. Each of these has been further broken down into a number of processes.

## Service Support Processes

### Service Desk

The ITIL® Service Desk is not actually a process; it is a function which involves all the Service Support processes. The Service desk *is the single point of contact for all IT Services*. It has both an outward and an inward facing perspective on IT Services. The Service Desk is the face of IT to the business.

All customer communication should be routed through the Service Desk. Depending upon the size and structure of your organisation, your Service Desk may provide first or even second level support. In a more complex IT organisation the Service Desk may simply record call details and assign to an appropriate technician. An expert Service Desk may resolve up to 80% of calls without reference outside the desk.

The business perception of the IT service is driven by the performance of the Service Desk, so its importance should not be underestimated.

### Incident Management

The Incident Management process is involved with getting your customers back to work as quickly as possible. This process aims to minimise disruption to the IT Service by restoring service operation to agreed service levels as quickly as possible.

The Incident Management process does NOT look at the cause of the service interruption or degradation, it is simply involved with getting the customer back to work and restoring normal service – using a “sticking plaster” approach if necessary.

Incident Management is often the first process to be implemented – this is a good move as Incident Management can provide some quick wins and cost benefits for the business.

## **Problem Management**

The Problem Management process deals with “the unknown, underlying cause of one or more incidents”. This is where you start to look at the infrastructure issues that may be causing service disruptions or service degradation for your customers.

*Example: Your accounts server crashes unexpectedly, causing considerable disruption to your business. You raise an Incident for this (as part of Incident Management) and resolve the Incident when normal service is restored (by re-starting the accounts server). If you don't know why the server crashed, you'd raise a Problem and link to the original Incident. You then use the Problem to record investigations into the cause of the crash, as part of your Problem Management process.*

Problem Management has the ability to dramatically reduce the downtime experienced by IT customers. Businesses with effective Problem Management processes in place have reported very significant reductions in the number of incidents reported to the Service Desk. There have been reports showing an 80% reduction in incidents in companies with effective Problem Management.

Problem Management can further be broken down into two types: *Reactive Problem Management* and *Proactive Problem Management*.

Reactive Problem Management looks at the underlying causes of Incidents reported to the Service desk, identifies the underlying errors and takes steps to eliminate the error in the infrastructure. This is by far the easiest type of Problem Management to implement.

Proactive Problem Management concentrates on pinpointing errors in the infrastructure *before* they have caused any incidents. This is a

much more difficult process to implement. Proactive Problem management involves looking at trends and reviewing all the changes that have occurred in the infrastructure.

Generally Problem Management is one of the weakest processes in most IT departments but is the ITIL® process that can provide the highest returns.

Serio have another White Paper entitled 'Problem Management – Why and How?' that expands on this topic – the White Paper is available at <http://www.seriosoft.com>.

## **Change Management**

Change Management is described in ITIL® as "the process of controlling changes to the infrastructure, or any aspect of services, in a controlled manner thus enabling approved changes to be implemented with minimum disruption."

The ultimate goal of Change Management is to ensure that no new Incidents are created as a result of changes to the infrastructure. Anything that changes the content of the Configuration Database must be managed – equipment changes, software changes, network changes...

Change Management ensures that we have a controlled environment. Change Management is not Change control. Change Control is what we do for individual changes, Change Management looks at all those controlled changes and ensures that we can do them without impacting on the stability of the infrastructure. It is possible to have good change control but still have failures due to poor Change Management. For example:

*Two different IT teams are working on changes that will change the application server, both teams control their changes very well but problems occur at implementation because one change is having a detrimental change on the other change. With Change Management the fact that two changes were planned for the same server would have been noticed and the teams would have liaised with each other to avoid a change failure.*

Change Management simultaneously manages the lifecycle of a number of controlled changes to the infrastructure.

Change Management allows us to plan changes and ensure that users are aware of changes that may affect them through the Forward Schedule of Changes that is published as part of this process.

## Release Management

Release Management is often seen as a subset of the Configuration Management Process. It is however, an important process in its own right. Often it is actually the release of a change that will fail, rather than the change itself.

The Goals of Release Management as identified by ITIL® are comprehensive but very precise:

1. To plan and oversee the successful rollout of software and related hardware
2. To design and implement efficient procedures for the distribution and installation of Changes to IT systems
3. To ensure that hardware and software being changed is traceable, secure and that only correct, authorised and tested versions are installed
4. To communicate and manage expectations of the Customer during the planning and rollout of new Releases
5. To agree the exact content and rollout plan for the Release, through liaison with change management
6. To implement new software Releases or hardware into the operational environment using the controlling processes of configurations management and Change Management - a Release should be under Change Management and may consist of any combination of hardware, software, firmware and document ci's
7. To ensure that master copies of all software are secured in the definitive software library (DSL) and that the configuration management database (CMDB) is updated
8. To ensure that all hardware being rolled out or changed is secure and traceable, using the services of Configuration Management .

Release Management is a key process that is becoming increasingly important as IT pushes further out into the fabric of the business. Release Management should be seen as a constant activity, not a process that happens infrequently when there is a large rollout of software of hardware.

## Configuration Management

In ITIL® terms Configuration Management “provides a logical model of the infrastructure or a service by identifying, controlling, maintaining and verifying the versions of Configuration Items in existence.”

If you are new to IT Service Management, you may find this description a bit opaque. What it is talking about is a logical picture of how the IT infrastructure is composed and fits together to deliver services to customers. Configuration Management aims to deliver to us an accurate description (or documentation set) of the IT infrastructure we have to support. This description is called the Configuration Management Data Base, often just shortened to CMDB. The CMDB is composed of component elements – computers, web servers, network links and so on. Within ITIL® these are called *Configuration Items*, or CIs for short. Within the Serio tool, they are referred to simply as Items.

The goals of incident Management are listed in ITIL® as:

1. Account for all the *IT* assets and configurations within the organisation and its services.
2. Provide accurate information on configurations and their documentation to support all the other Service Management processes. For instance, providing an accurate information resource that can be used to perform impact assessments during Change Management.
3. Provide a sound basis for *Incident Management, Problem Management, Change Management* and *Release Management*.
4. Verify the configuration records against the infrastructure and correct any exceptions

Configuration Management is seen by many ITIL® practitioners as being the hub of all ITIL® processes. All processes benefit from being able to draw accurate information from the CMDB and some, like Change Management, feed information back into the CMDB to ensure it is an accurate representation of the infrastructure.

The key difference between Configuration Management and IT Asset Management is that Configuration Management shows us the relationship between configuration items (CIs). Visibility of these relationships allows the Service Desk to correctly ascertain impact and assign priority to calls.

### **Further Reading**

'Service Support', published by OGC. ISBN 0 11 330015 8

'Service Delivery', published by OGC. ISBN 0 11 330017 4

### **About Serio**

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