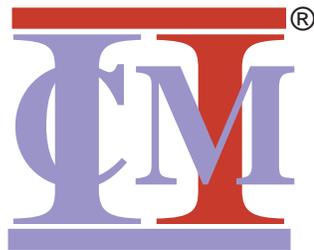# W H I T E   P A P E R

Information Technology Infrastructure Library (ITIL) Relative to CMII
(Rev B)

SUMMARY —ITIL provides a framework for organizing service management in an IT environment and is used to reveal the interfaces and any communications deficiencies within existing IT processes.

ITIL makes CM an integral part of the service management process. However, it would appear that the steps used to process reported incidents are excessive.

Incidents could be processed more efficiently and the number of steps could be reduced through better integration of the CM-related activities.
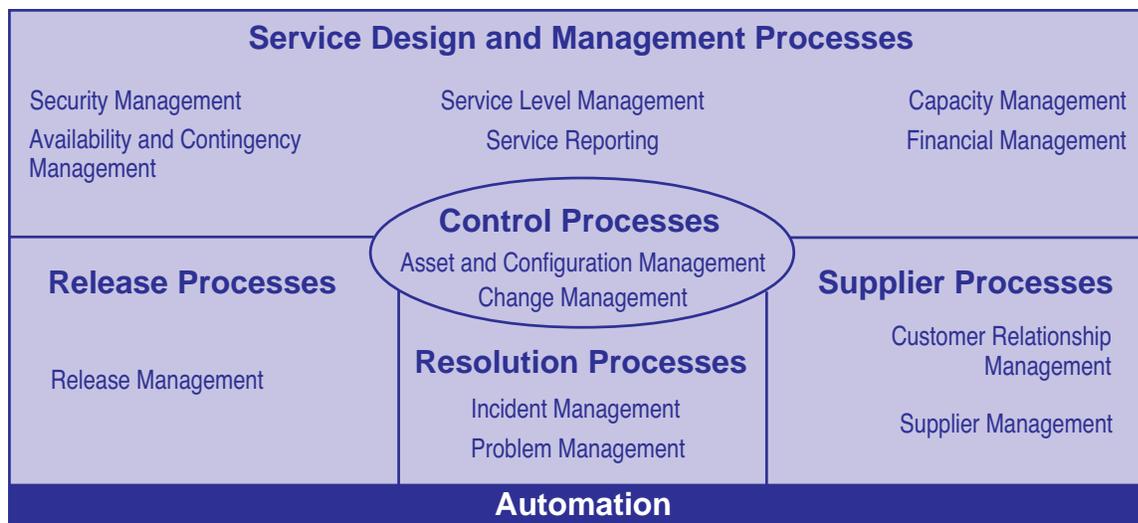
Institute of Configuration Management
The Home of CMII

IT INFRASTRUCTURE LIBRARY (ITIL)

ITIL (Information Technology Infrastructure Library) is a registered trademark of the Office of Government Commerce (OGC) within the UK.

ITIL is closely aligned with BSI standard BS 15000 and Code of Practice (PD0005). It provides a framework for organizing service management.

It provides a framework in which to place existing IT processes to reveal their interfaces and any communications deficiencies.

Service Design and Management Processes

Security Management

Availability and Contingency Management

Service Level Management

Service Reporting

Capacity Management

Financial Management

Control Processes

Asset and Configuration Management

Change Management

Release Processes

Release Management

Resolution Processes

Incident Management

Problem Management

Supplier Processes

Customer Relationship Management

Supplier Management

Automation

Code of Practice for IT Service Management - PD0005; http://www.tso.co.uk/demo/itil2/cd/content/ss/ss01_09.htm, Nov 2002

Insight to how these processes interrelate is provided by the following life cycle example of an *incident*:

1. *A user calls the Service Desk to report difficulties with online service.*

2. *The Incident Management process deals with Incident.*

3. *The Problem Management process investigates underlying causes and calls in Capacity Management to assist in this process. Service Level Management is alerted that the SLA has been breached.*

4. *The Change Management process raises and coordinates a Request for Change.*

5. The *IT Financial Management* process assists with the business case cost justification for the hardware upgrade.

6. The *IT Service Continuity* process gets involved in the *Change Management* process to ensure recovery is possible on the current backup configuration.

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

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

9. The *Configuration Management* process ensures the *Configuration Management Data Base (CMDB)* is updated throughout the process.

10. The *Customer Relationship Management* process liaises with Customer throughout the process to ensure he/she is kept abreast of progress.

Code of Practice for IT Service Management - PD0005; http://www.tso.co.uk/demo/itil2/cd/content/ss/ss01_09.htm, Nov 2002

A configuration management system is used to identify relationships between items to be changed and other elements of the infrastructure.

Relationships between configuration management, change management, capacity management and release management are shown below.
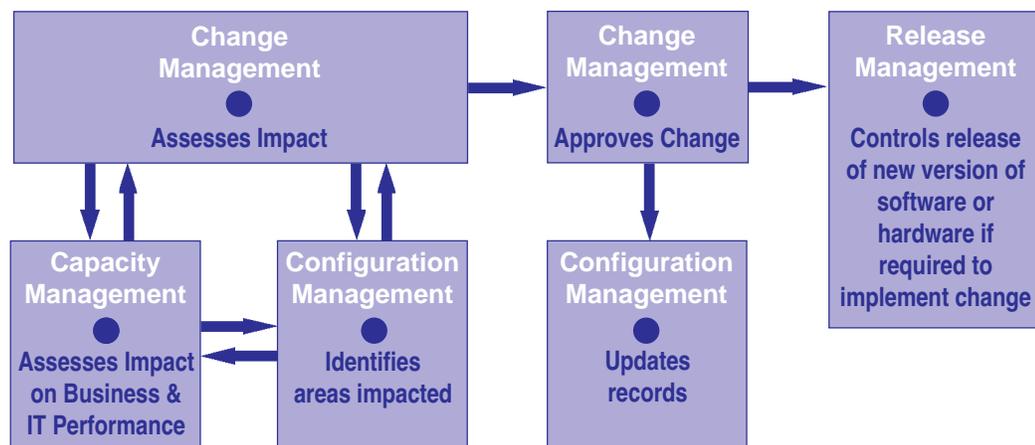
Configuration Management; http://www.tso.co.uk/demo/itil2/cd/content/ss/ss02_01.htm, Nov 2002

Configuration Management is an integral part of all other Service Management processes. With current, accurate and comprehensive information about all components in the infrastructure, the management of Change, in particular, is more effective and efficient. It is recommended that the logging and implementation of Changes be done under the control of a comprehensive Configuration Management system. All Changes should be entered into the Configuration Management Database (CMDB) and the records updated as the Change processes through to implementation.

The CMDB should be available to the entire Service Support group so that Incidents and Problems can be resolved more easily by understanding the possible cause of the failing component. The CMDB should also be used to link Incident and Problem records to other appropriate records such as the failing Configuration Item (CI) and the User. Release Management will be difficult and error prone without integration of the Configuration Management process.

The Change Advisory Board is a group of people who can give expert advice to the Change Management team on the implementation of changes. This board is made up of representatives from all areas within IT and business units.

Although ITIL focuses on the operation and maintenance phase of the life cycle, it can be easily expanded to include development.

Key (and CMII-compliant) strengths of ITIL include:

- Strong emphasis on processes and process owners.

- Recognition that ability to process changes effectively is dependent upon the infrastructure of the information to be changed.

- Emphasis on the importance of the configuration management data base (CMDB) and integrity of the information contained therein.

- The CMDB is a moving baseline in that it is promptly updated with each change. All users have access to the CMDB.

On the other hand, it would appear that the steps required to process an incident are excessive and/or the participating activities could be better integrated.

With CMII, all CM-related activities are brought together under one umbrella.

CM, AS REINVENTED, UNDER CMII

Configuration management is a multifaceted process with many elements. Those elements are often fragmented and may exist under various names.
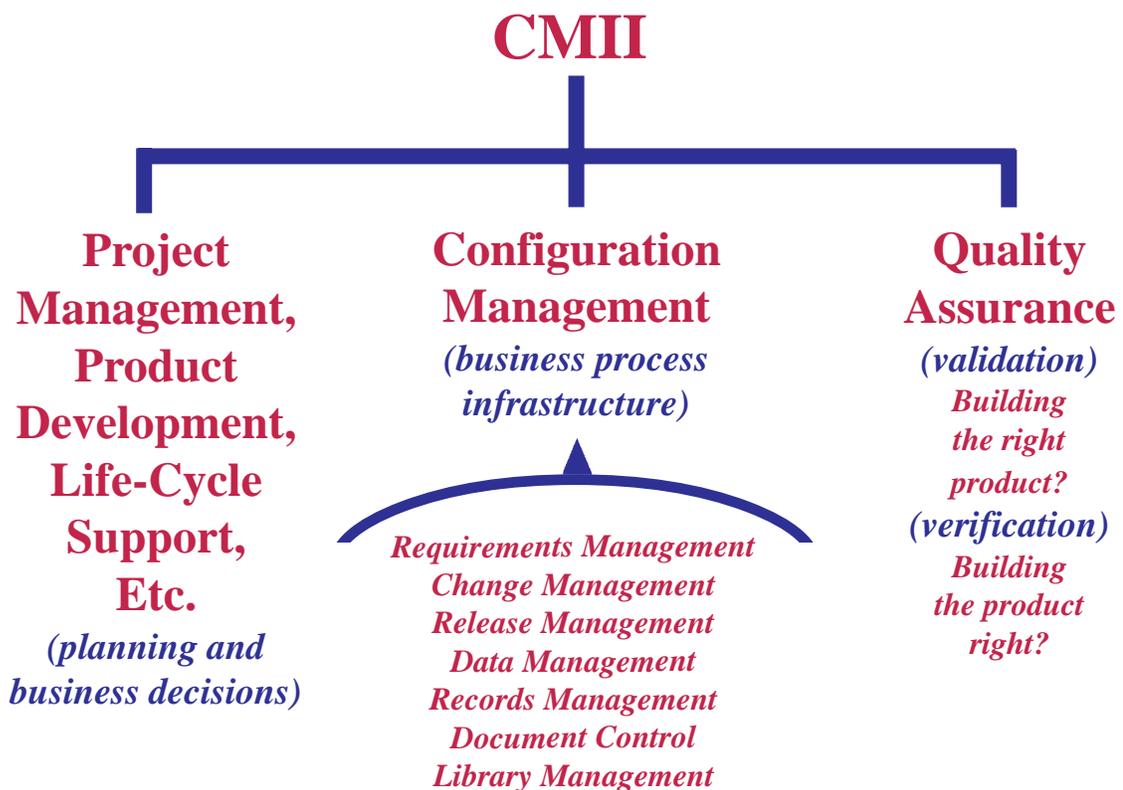
Each element is important in its own way. With CMII, they are brought together under one umbrella and integrated into one cohesive unit.

Overall effectiveness, before and after integration, is measured by the ability to accommodate change and keep the baselines clear, concise and valid.

As information integrity improves, the need for corrective action declines. As corrective action declines, real improvements become increasingly robust.

To "reinvent CM" is to provide a better *business process infrastructure* and thereby enable other core business processes to be more reliable and efficient.

The power of CMII is derived from how the CM-related elements are identified and integrated into one cohesive unit.

CMII

Project Management, Product Development, Life-Cycle Support, Etc.
(planning and business decisions)

Configuration Management
(business process infrastructure)

Requirements Management
Change Management
Release Management
Data Management
Records Management
Document Control
Library Management

Quality Assurance
(validation)
Building the right product?
(verification)
*Building the product right?*

PROJECT MANAGEMENT: TWO CYCLES, NOT ONE

The project management cycle (plan, do, study and act) is ideal for demonstrating the proper role of CM and how key elements should be integrated.

First, it must be recognized that project management is two cycles, not one. A requirements cycle coexists with a physical item cycle.

The physical item cycle is driven by the requirements cycle. Quality assurance activities (validation and verification) have their proper place in each cycle.

Requirements must lead and physical items must conform. A fast and efficient change process is a prerequisite.
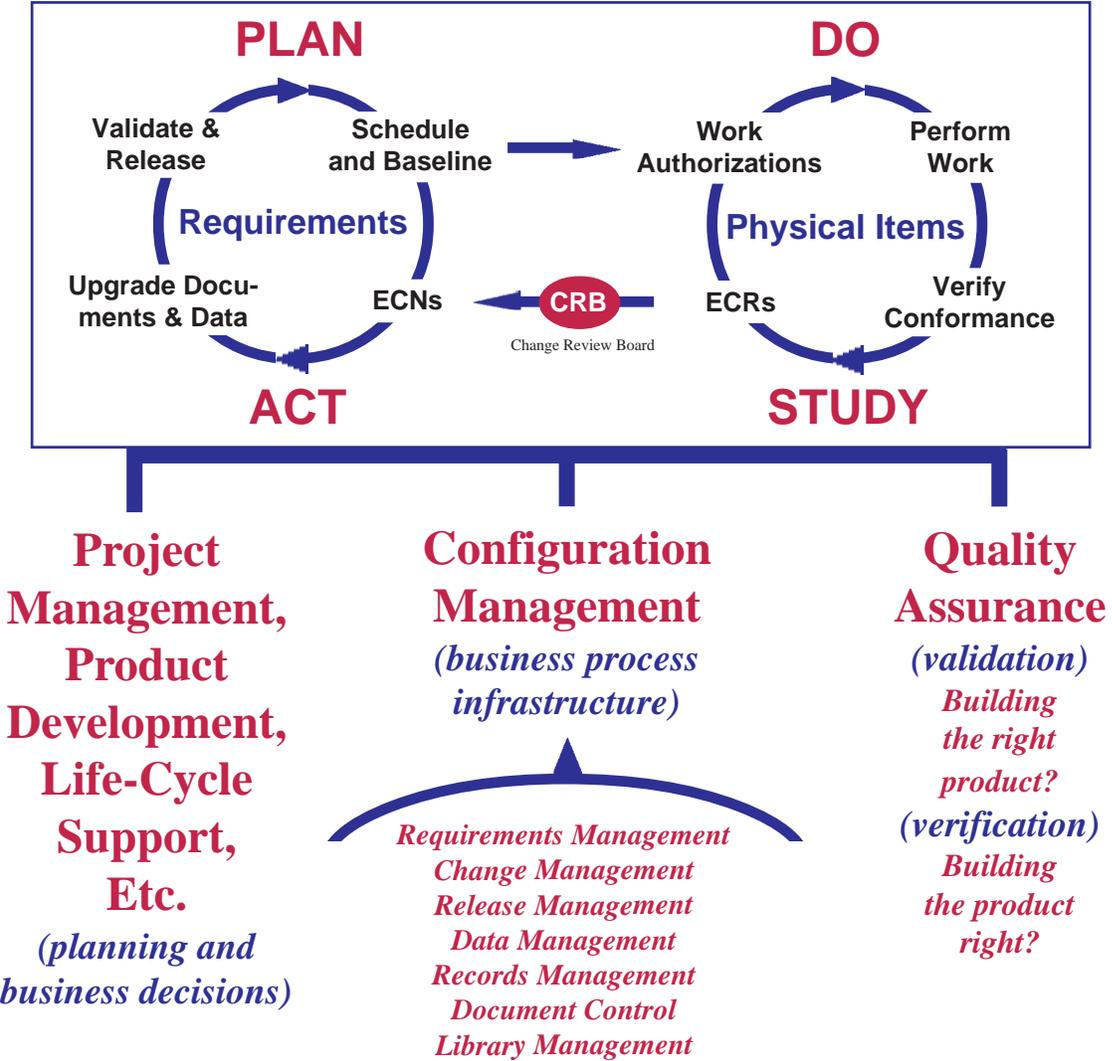
KEYS TO CM AND INFORMATION MANAGEMENT

Again, a change process cannot be fast and efficient change if the information being changed is not properly identified, structured, linked and owned.

Baselines are the ideal place to maintain and display the structure for each model and to link each item at each level to its supporting documents.
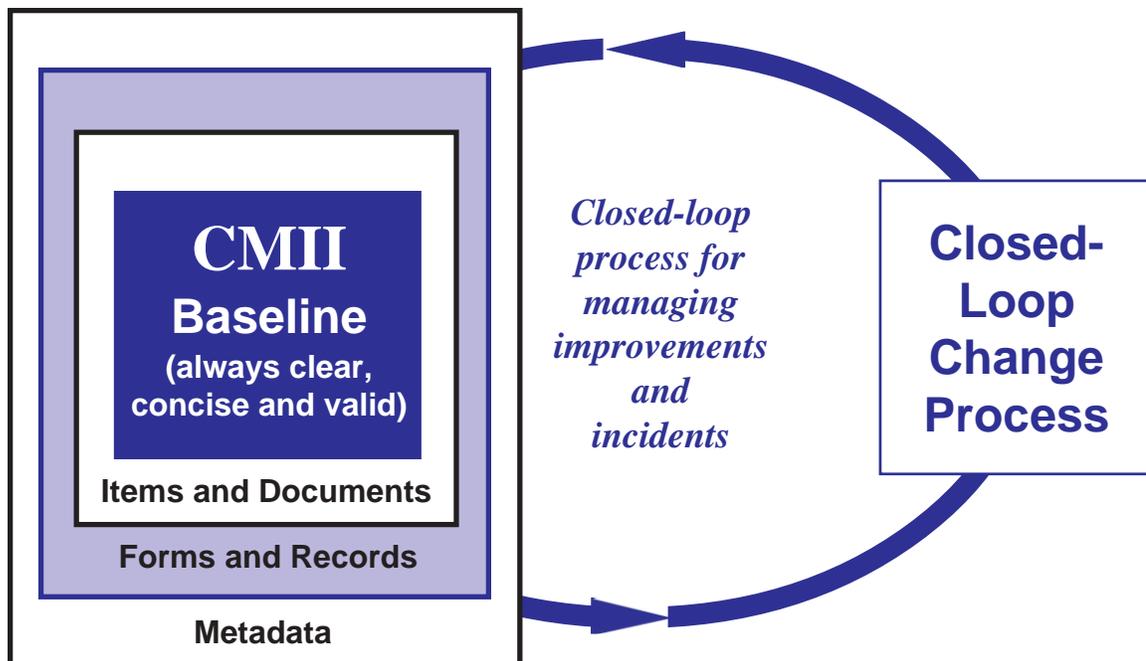
Physical item hierarchies provide the ideal framework for dividing huge amounts of design and process information into manageable increments.

Once baselines and their content are properly established, it is then possible to design the change process in a manner that optimizes speed and integrity.

The appropriate change process is closed-loop (to enhance integrity) and includes a fast-track feature (to enhance speed).

Speed and integrity are further optimized by ensuring that each information set is co-owned by its assigned creator and one or more designated users.

Physical items, documents, forms and records are the lowest common denominators for managing information.

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