White Paper

Enterprise Architecture and ITIL: Implementing Service Transition

WP0102 | September 2013

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Trevor Lea-Cox has over 30 years experience in senior Information, Systems and Technology Management and CEO roles. He is a past Group-level CIO and director.

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In the previous paper "Enterprise Architecture and ITIL®[1]: Implementing Service Design" we looked at some of the more important concepts in Service Design (SD):

- The five key aspects of Service Design
- Service Requirements
- Service Design Models
- Service Delivery Models, and
- The Service Design Package.

Then we looked at a brief summary of each of the ITIL Service Design processes[2] and concluded with a small example applied to an EA[3] department to illustrate the principles.

In summary, in Service Design:

- If we are upgrading an existing IT Service, then it is likely that SD will be triggered from within Service Level Management which then passes control to Service Design Coordination.
- If we are designing a new IT Service, the SD is likely to start with Service Design Planning in the Service Design Coordination process.

Subsequently Service Design Coordination will be used to coordinate the use of each of the SD processes (in the Service Management System)

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[1] ITIL® and IT Infrastructure Library® are Registered Trade Marks of the Cabinet Office of the Government of the United Kingdom.

[2] Please note, a list of the ITIL processes by each stage of the ITIL Service Lifecycle is given in Appendix A.

[3] Please note, a list of the acronyms used in this paper and their meaning is given in Appendix B.

to produce a Service Design Package. At this point, Service Transition takes over to build and implement the new IT Services or the changes required to existing IT Services.

In this paper on Service Transition (ST), we will:

- Review (briefly) some important principles used in ITIL for managing the transition of IT Services into Service Operation.
- Summarise the main ITIL processes for managing Service Transition.
- Then show how these principles would be applied to the "EA Publishing Service".

Contents

Service Transition Highlights

The comments in this section are restricted mostly to the content of the introductory ITIL book "Introduction to the ITIL® Service Lifecycle: 2011 edition"[4]. The main Service Transition book "ITIL® Service Transition, 2011 edition"[5] is again, a much more substantial book.

The main objective of Service Transition is to build and deploy IT services, ensuring that the changes to IT Services and the Service Management processes are carried out in a coordinated way.

For ST it is worthwhile also taking note of its main purpose; to ensure that new, modified or retired IT Services meet the expectations of the business (as documented in the Service Strategy (SS) and SD stages of the Service's lifecycle).

The main value to an organization of ST is that it establishes a standard and consistent approach to transitioning new and upgraded IT Services into Service Operation and to the decommissioning and removal of old IT Services from Service Operation. Subsequent use of this approach:

- Makes IT Service Programmes and Projects easier to manage and control
- Makes it easier for the people involved to collaborate and cooperate
- Results in an increase in successful IT Service changes.

From this introduction it is hardly surprising that the key focus of ST is on managing the changes to IT Services across their lifecycle to ensure they do deliver value to the business.

The main Service Transition processes addressed are the following:

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

Note that, although they are predominantly used in the area of Service Transition, many of these processes are used in other stages of the Service Lifecycle.

Key Service Transition Principles

Without change, progress doesn't happen. It is an essential part of improving the IT Services for an organization on a continual improvement basis. But making changes is not without risk and as a result a key

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[4] Published by "The Stationery Office", ISBN 9780113313099. It is widely available, including from several on-line websites.

[5] Published by "The Stationery Office", ISBN 9780113313068.

principle of ST is that “all changes must be recorded and managed in a controlled way”. However, this does not mean that certain (standard) changes cannot be pre-authorised to avoid bureaucracy.

ITIL Definition of a Change

At this point it is useful to understand the definition of a Change in ITIL terms, namely: “The addition, modification or removal of anything that could have an effect on IT Services”. Note that here, “anything” can mean not only the components of an IT Service, but also changes to related IT Services and to the organization’s Service Management System[6].

This suggests that there are two important dimensions to ST to consider:

- The scope of IT Service change
- Managing change in a coordinated and consistent way (including adopting Programme and Project Management best practice).

The Scope of IT Service change

The scope of change using the definition above is potentially very wide. As a result, it is often useful for organizations to start by defining changes that lie outside the scope of its Change Management process. Examples might be:

- All business services not also categorised as IT Services are out of scope.
- Routine repairs to IT equipment at an operational level are out of scope.

The focal point of IT (Service) Change Management is the IT Services in the Service Portfolio. But changes to the IT Services in the Service Portfolio do not happen in isolation as they frequently affect other (related) components in the organization’s supply chain. As a result, IT Change Management must also be synchronised with the change management processes in the rest of the organization and also with that of suppliers and third party service providers[7]. For example, changes not only introduce new IT Services, retire old IT Services and change existing IT Services, but the last category can include the transfer of IT Services between third party service providers and between the IT organization and third party service providers. Changes can also be made to upgrade the organization’s Service Management System.

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[6] The Service Management System was discussed in the earlier Service Strategy paper.

[7] A useful diagram in this respect (figure 5.2) is given in on page 102 of the book “Introduction to the ITIL® Service Lifecycle: 2011 edition”.

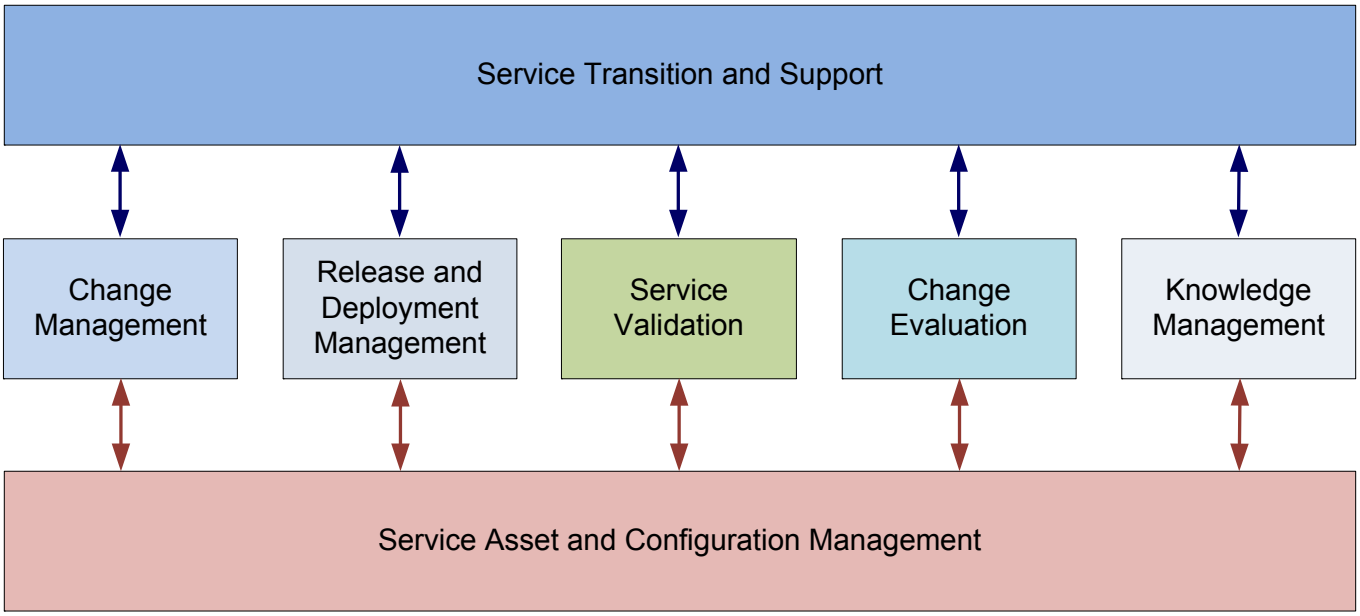

Figure 1: The inter-relationship of the Service Transition processes

Managing change in a coordinated and consistent way

The following second level ST objectives highlight the disciplines required to manage the development and deployment of an IT Service on a coordinated and consistent basis:

- To plan and manage the changes to IT Services efficiently and effectively. (Transition Planning and Support).
- To manage the risks relating to new, changed or retired IT Services. (Change Management).
- To deploy IT Service releases successfully into supported environments. (Release and Deployment Management).
- To ensure that deployed Releases and the resulting IT Services meet customer expectations. (Service Validation and Testing).
- To ensure IT Service changes do create the expected business value. (Change Evaluation).
- To provide good quality information about IT Services and their components. (Service Knowledge Management).

Furthermore, all of these disciplines require the solid foundation of (information from) Service Asset and Configuration Management to be effective.

A simple view of their inter-relationships are summarized in the diagram above (Figure 1).

Service Transition Planning and Support introduces the concept of a “Service Transition Plan” which describes the tasks and activities required to release a new or upgraded IT Service and to deploy that release into the test environments and then into production (or to decommission an IT Service no longer required). This is effectively using programme and project management best practice at the planning level

by tailoring a standard approach wherever possible to the characteristics of the specific IT Service.

The remaining ST processes provide the disciplines required to execute the Service Transition Plan successfully and to provide a stable base on which to further improve the IT Service in future if and when this is required.

ITIL Processes for managing Service Transition[8]

Transition Planning and Support

Key Objective of the Process:
To plan and coordinate resources to develop and deploy a major release of an IT Service within the predicted cost, time and quality estimates.

Additional Notes[9]:
The purpose of Transition Planning and Support is to provide overall planning for Service Transition and to coordinate the resources they require. In this respect it has two key perspectives:

- Planning improvements to the ST stage of the Service Management System. That is, providing an overall framework, including one or more Service Transition Models for managing ST programmes and projects. Within these ST programmes and projects, each specific Service Transition Plan should be developed from a (proven) Service Transition Model.
- Planning the service transition for a specific IT Service, including integration with related business programmes and projects. More specifically, each ST Plan needs to be integrated with: The Change Schedule and Release and Deployment Management Plans.

The trigger to start the preparation of the ST Plan is usually the authorisation of a (significant) change to the IT Service. Typically the ST Plan will include all the activities required to:

- Plan the IT Service release
- Acquire the release components, including build and test components not being bought in
- Package the release
- Deploy the release
- Evaluate the new or upgraded IT Service

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[8] A significant additional source of information for this section is the "IT Process Maps GbR", which includes the set of ITIL process maps provided by Orbus Software.

[9] The following is not stated in the ITIL books – hence the footnote. ITIL does not cover Project Management. However, there are two processes in particular that overlap very significantly with those of Project Management:
- Service Design Coordination (in Service Design)
- Transition Planning and Support (in Service Transition).

If there is an established Project Management methodology in your organization, then these processes would probably fit more naturally in Project Management.

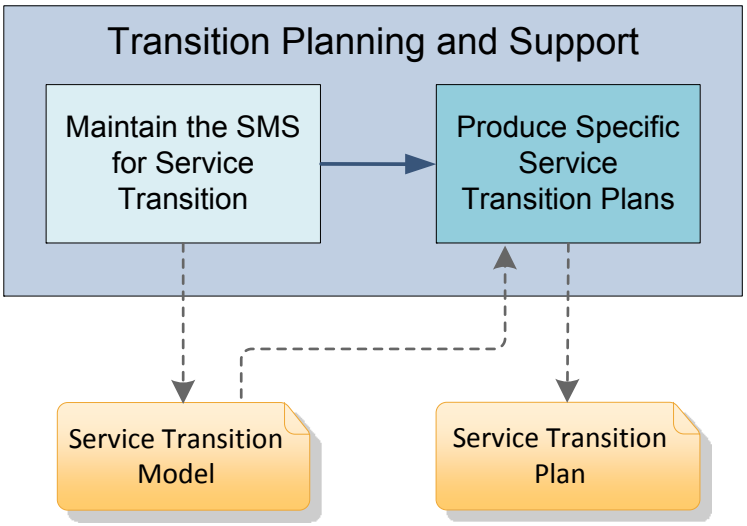


Figure 2: A ST Model provides the framework for producing a ST Plan

- Proactively improve the IT Service through early life support.

Overall Approach:

- Manage improvement of the ST stage processes
- Provide ST Management support
- Establish and maintain approved ST models
- Work with (or within) Project Management to: Develop and approve ST Plans, Implement each ST Plan and Review and close the ST projects.

Change Management

Key Objective of the Process:
To control the lifecycle of all changes to an IT Service and in particular, to enable (beneficial) changes to be made with minimum disruption to customers.

Additional Notes:
Service and infrastructure changes can (and do) have a serious negative impact on an organization if the changes that are made;

- disrupt services
- do not meet the organization's requirements.

As a result a primary focus of Change Management is to balance the risk and the rewards of change and to be proactive about managing adverse risk. It is also for these reasons, that no change to an IT Service or to its components should take place without authorisation. Furthermore, these principles also apply to changes to the Service Management System.

ITIL definition of a Change
At this point it is useful to understand the ITIL definition of a change, namely: "The addition, modification or removal of anything that could have an effect on IT Services".

This has some big implications and to manage the risk and minimise the bureaucracy that might arise from this, there are a number of concepts and controls that typically are implemented. One of the keys to doing this is to understand the types of change that can be requested as they range widely in size and complexity.

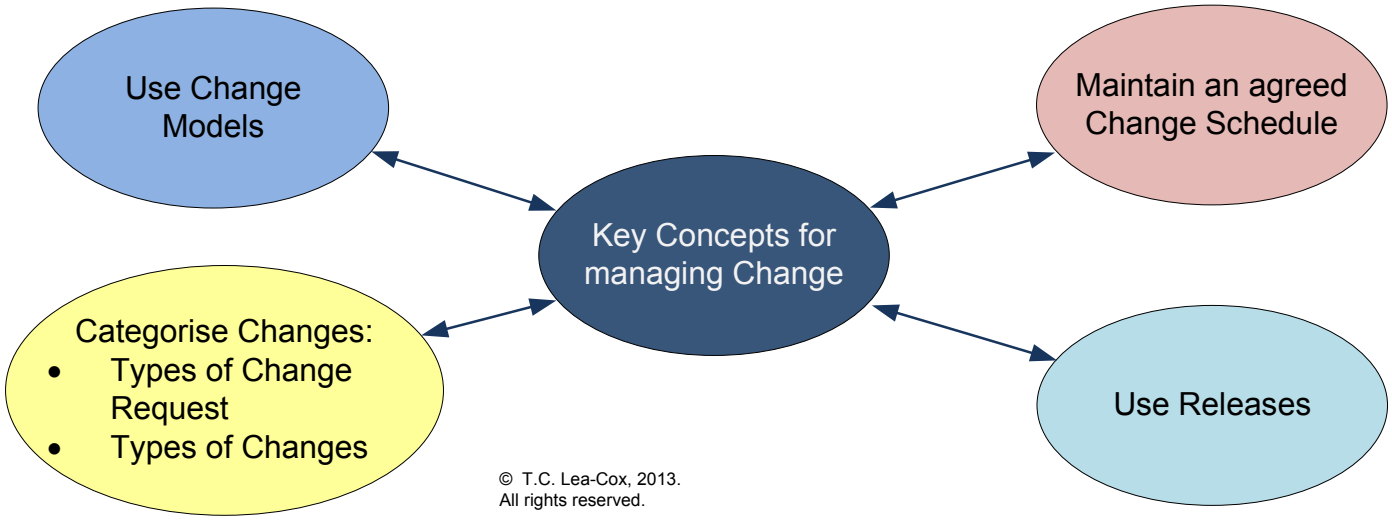


Figure 3: Key Concepts for managing Change successfully

Types of Change Requests

There are essentially two types of Change Request:

- A request for a major change, for example, the introduction of a new IT Service. This usually requires a Change Proposal to be made initially, often including the business case, for example, for a new service.
- A request for a smaller changes, usually to established IT Services or their components using a standard Request for Change (RFC) form, either electronically or on paper. If a Change Proposal is approved this is normally followed by one or more RFCs.

Types of IT Service Changes

There are usually three types of IT Service Change:

- Standard Changes: Such changes are low risk, pre-authorized changes that follow an established and agreed procedure. As long as accountability for such changes has been established, these changes can often be made without much more than formal notification that the change is being made.
- Emergency Changes: These changes are urgent and must be implemented as quickly as possible within reason, for example, implementing a security patch required to software or a response to a major incident. These changes are implemented using emergency change procedures.
- "Normal" Changes: These are effectively all other changes and make up the bulk of changes managed. They are made on the basis that they will be scheduled and completed as soon as resources allow[10]. Note that these changes do require authorization.

[10] There is usually also some mechanism for prioritising such changes, especially in an agile development context.

Change Models

A Change Model is a way of pre-defining the steps that need to be taken to handle a particular type of change. For example, there is likely to be one or more Change Models for Standard Changes. A key advantage of these models is that it allows support tools to be used to help manage and automate specific change processes. They are useful in a wide variety of situations, including for emergency changes.

The Change Schedule

Change Management are responsible for maintaining and distributing a schedule of changes that are going to be made (the Change Schedule), including projecting when IT Services are not going to be available (the Projected Service Outages Report). Both need to be agreed with all the stakeholders affected by the changes.

An important principle behind this is that careful planning of changes will ensure that there is no ambiguity behind the tasks that need to be performed within the IT organization to manage changes and how these tasks interface with those of customers and related suppliers (including third-party service providers). To assist this another key principle is that wherever possible, changes should be designed, built, tested and deployed in Releases.[11]

ITIL definition of a Release

The ITIL definition of a Release is: One or more changes to an IT Service that are built, tested and deployed together. A single release may include changes to hardware, software, documentation, processes and other components.

Subsequently, by using pre-agreed change and release “windows” in the Change Schedule, an organization can substantially improve the planning and throughput of changes and releases.

Overall Approach:

- Provide Change Management support
- Assess Change Proposals
- Log and review RFCs
- Assess and if approved, implement emergency changes
- Assess non-emergency changes and approve standard (minor) changes
- Schedule approved changes and authorise the build stage
- Review releases and if approved, authorise release deployment
- Verify and track minor changes and deployments

[11] See Release and Deployment Management.

- Review significant changes post implementation
- Close completed changes.

Service Asset and Configuration Management

Service Asset	Any resource or capability of a Service Provider.
Configuration Item (CI)	Any component or other service asset that needs to be managed in order to deliver an IT Service. Information about each Configuration Item is recorded in a configuration record within the Configuration Management System and is maintained throughout its lifecycle by Service Asset and Configuration Management.
Configuration Management System (CMS)	A set of tools, data and information that is used to support service asset and configuration management. The CMS is part of the overall Service Knowledge Management System and includes tools for collecting, storing managing, updating, analysing and presenting data about all Configuration Items and their relationships.
Configuration Management Database (CMDB)	A database used to store configuration records throughout their lifecycle. The CMS maintains one or more CMDBs, and each database stores attributes of Configuration Items and relationships with other Configuration Items.

Table 1: Some important Service Asset and Configuration Management definitions.

Key Objective of the Process:
To ensure the assets and configurations under the control of the IT organization are identified, controlled and properly cared for throughout their lifecycle. This includes maintaining information about these assets and configurations and the relationships between them.

Additional Notes:
There are a number of key concepts and definitions that are required to understand and implement Service Asset and Configuration Management (SACM) successfully.

A group of important ITIL definitions for SACM are given in *Table 1*.

It is important to note that the CMS is set of tools, data and information. A Configuration Management System typically purchased part of Service Management COTS software, is seldom able to manage all aspects of SACM and in particular:

- All the information about IT assets, especially that of specialized assets and related categories of information, for example, the financial information about assets (which are typically more appropriately managed in the financial environment).
- The architecture and all the diagrams pertaining to Configuration Items, their structure and their relationships.

For these we need specialised systems. More specifically, note that an Enterprise Architecture Management System is a key part of the Configuration Management System environment.

The Configuration Model

In this respect there is a further concept not mentioned in the Introduction to ITIL book that deserves mention here, that of the Configuration Model. The main Service Transition book has this to say about the Configuration Model[12]: "Service asset and configuration management delivers a model of the services, assets and infrastructure by recording the relationships between CIs … The real power of the service asset and configuration management's logical model of the services and infrastructure is that it is the model – a single common representation used by all parts of IT service management and beyond, such as HR, finance, suppliers and customers". This presents an interesting challenge to Enterprise Architects: How manage the overlap between EA and the Configuration Model.

Definitive Media Library

The final key concept in SACM is that of the Definitive Media Library (DML). When a new release has been completed and approved, all the components of that release (CIs) represented in electronic file format should be baselined and stored in a special, protected (electronic) location called a DML. This applies especially to software and its associated documents, including licences.

The diagram below (Figure 4) shows how all these concepts are related:

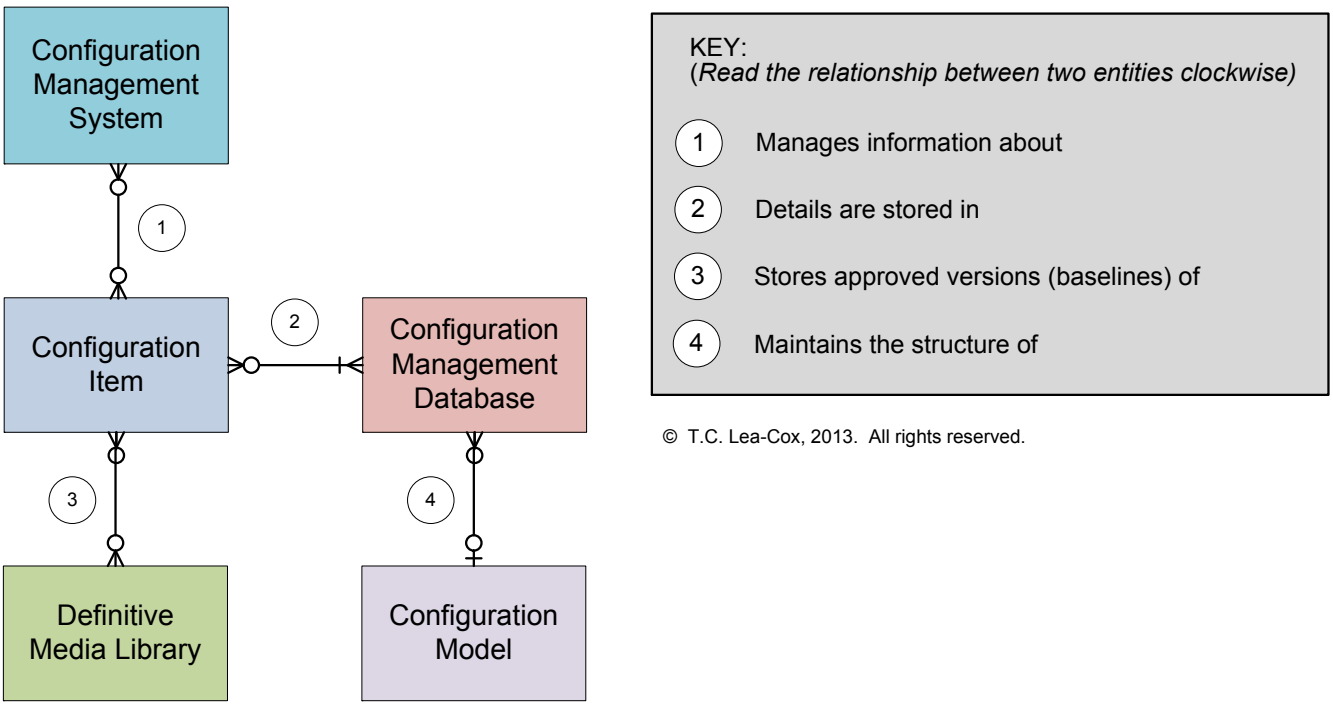


Figure 4: How key Configuration Management concepts are related

[12] ITIL Service Transition, p 92.

Overall Approach:

- Provide SACM management support
- Manage the Configuration Management standards and controls:
  - o Configuration Identification standards
  - o Configuration controls
  - o Status accounting and reporting standards
  - o Verification and audit standards
- Manage changes to the CMS and CMDB:
  - o Maintain the CMDB structure
  - o Perform impact assessments
  - o Administer changes to CIs (update the CMS)
  - o Establish and store baselines
  - o Perform (regular) SACM Audits.

Release and Deployment Management

Key Objective of the Process:
To plan, schedule and control the movement of Releases into the test and live environments.[13]

Additional Notes:
Release Unit
We learned in Change Management that "wherever possible, changes should be designed, built, tested and deployed in Releases". In other words a Release consists of one or more changes. But releases can be managed at various levels of granularity. As a result the "Release Unit" level for each of the IT Service components (Configuration Items) is a key decision as it determines the appropriate level of granularity and hence the level of control over changes made.

For example, for a business application situation, the Release Unit is likely to be set at the computer system level, whereas for a website the Release Unit is often at the page level.

Release Package
This is the set of Configuration Items that will be built, tested and then deployed together as a single Release. Here "Configuration Item" means those configurations and assets that are provided for the Release Package at the Release Unit level – all of which will be version-controlled.

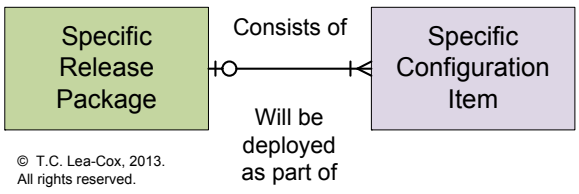


Figure 5: Release Package composition

[13] The ITIL definition of a release was given in Change Management. In summary; one or more changes to an IT Service that are built, tested and deployed together.

The Role of Architecture
A primary goal of Release Management is to ensure the integrity of the live environment is protected. To do this, the release teams need to understand the relevant IT Service architecture to be able to plan, build, package and test a Release to support the new or upgraded IT Service and, to meet the requirements specified in the Service Design Package (SDP). There is an important implication here; not all the components of an IT Service are necessarily affected by a “Release Package”.

Overall Approach:

- Provide release and deployment management support
- Prepare release planning, including release testing
- Build and test the new release
- Baseline approved releases
- Deploy an approved release
- Provide “early life support” to Service Operation for the IT Service
- When the release is stable, close the (implementation) project.

Service Validation and Testing

Key Objective of the Process:
To ensure that deployed releases and the resulting IT Services meet customer expectations and, to verify that IT Operations is able to support the IT Service.

Additional Notes:
No Service Provider can fully guarantee their service performance but they can provide a measured degree of confidence in their ability to perform, especially to meet customer’s service requirements and to deliver the value required.

This degree of confidence (confidence level) is identified through comprehensive and repeatable testing, the results of which depend on the business context and complexity of the IT Service and its relationships.

A further important outcome from Service Validation and Testing is an understanding of the risks associated with the IT Service, achieved largely from understanding the architecture of the IT Service and the results of the tests[14].

[14] An important generic model used for identifying the structure of an IT Service’s requirements and then relating all testing to these requirements is the V-Model. Although the Introduction to the ITIL Service Lifecycle book does not mention the V-Model, the main ITIL Service Transition book contains a good summary diagram of the V-Model for Services on page 108.

Overall Approach:

- Define and design Test Models (sets of test cases)
- Collect and verify all release components
- Perform Release testing
- Perform IT Service Acceptance testing.

Change Evaluation

Key Objective of the Process:
To assess major changes, such as the introduction of a new IT Service or a substantial change to an existing IT Service, before those changes are allowed to proceed to the next phase in their lifecycle.

The purpose of these assessments is to ensure that initially, the predicted performance and then subsequently, the actual performance of the changed IT Service is acceptable and that there are no unacceptable risks.

Additional Notes:
The Change Evaluation process provides a consistent and standardized approach to determine the performance of IT Service change in the context of the likely impact on:

- Business outcomes
- Existing and proposed IT Services and infrastructure.

This approach helps the IT organization to identify changes that adversely affect service capability and to ensure that these are explicitly tracked and managed - also to manage stakeholder expectations in this respect.

The key principles behind Change Evaluation are:

- Every (significant) change to an IT Service or its components must be authorised by a suitable change authority at various points in its lifecycle.
- Evaluation is required before each of these authorizations to provide the change authority with the appropriate advice and guidance.
- Not all changes require formal Change Evaluation (although all changes require some degree of evaluation). The decision to use formal Change Evaluation or not will be documented in the Change Model used to manage each type of change.

Initially the focus is on ensuring the proposed changes do provide the value expected in terms of predicted performance. Then as soon as release packages have been built and tested the focus moves to ensuring that the actual performance meets predicted performance (and hence provides the value expected). A similar focus is applied to the risk introduced by the changes.

Overall Approach:

- Prepare an appropriate Evaluation Plan (consistent with the Change Model)
- Evaluate the proposed IT Service changes:
  - o Prior to (ST) planning
  - o Prior to the build phase
  - o Prior to deployment
  - o After deployment.
- Agree subsequent action (derived from the relevant evaluation report) with the customer.

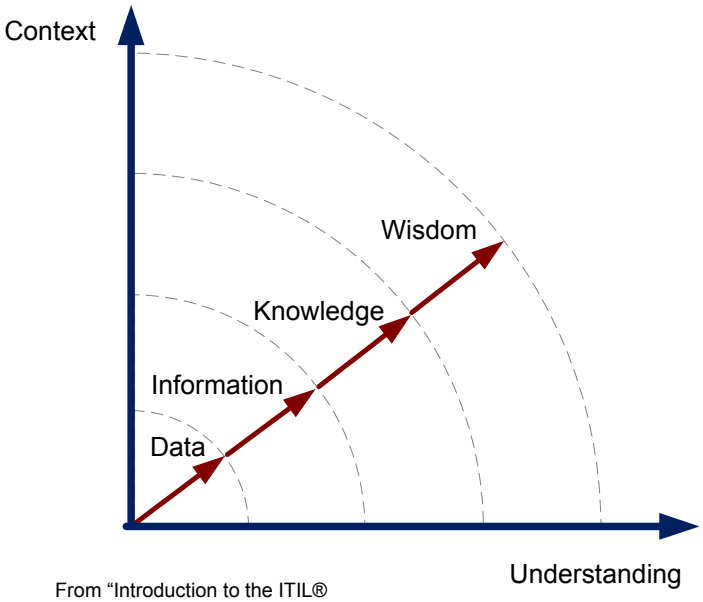
Knowledge Management

Key Objective of the Process:
To gather, analyse, store and share knowledge and information within an organization.

The primary purpose of Knowledge Management is to improve efficiency by reducing the need to rediscover knowledge.

Additional Notes:
The classic diagram showing the progression of processing Data through Information and Knowledge to Wisdom is shown below.

Data is a set of facts without context, typically found in data files (of many different types). Information is derived from data using one or more relevant contexts to give the data meaning. Knowledge is the "internalisation" of Information by a person, usually as a result of learning, experience, insights and judgement[15]. Wisdom is the ability of a person to make well-informed decisions using their knowledge, usually to create value or to avoid destroying value.



From "Introduction to the ITIL® Service Lifecycle" book, p117.

Figure 6: The typical evolution of Data to Knowledge (and then Wisdom)

A commonly used model to help understand how to manage knowledge is Professor Ikujiro Nonaka's SECI Model, summarized in the following table (although this is a very static representation of the model)[16]:

[15] For a brief introduction on the origins of knowledge management refer to: http://en.wikipedia.org/wiki/Tacit_knowledge

[16] For an introduction to the SECI Model, refer to: http://en.wikipedia.org/wiki/The_SECI_Model

	To Tacit knowledge	To Explicit knowledge
From Tacit knowledge	***Socialization***	***Externalization***
From Explicit knowledge	***Internalization***	***Combination***

Table 2: The SECI Model – Managing Knowledge

In this model, Tacit Knowledge is the knowledge "internalized" within a person. Explicit Knowledge is knowledge that has been written down in various forms (and nowadays, usually stored on electronic media) and effectively has become Information. The SECI Model illustrates how knowledge is converted between these two types and distributed to a wider audience.

Service Knowledge Management System (SKMS)
In ITIL, a SKMS is used to manage the knowledge in an organization about its Services. It is a logical system consisting of many physical systems managing organised sets of data and information and significantly, it includes the knowledge and wisdom of the people in the organization who know how to manage its Services. Note that the CMS and CMDB are particularly important parts of the SKMS.

Overall Approach:

- Identify and maintain a suitable framework for managing SM knowledge
- Identify and publish policies and standards for managing data, information and knowledge (especially those that protect the value of these for the organization).
- Establish processes and facilities to manage the conversion of "tacit knowledge" to "implicit knowledge" and vice versa (cf. socialization, internalization, externalization).
- Perform periodic audit and management reviews of the SKMS.

Applying Service Transition principles to a small EA department

Enterprise Architecture Publishing Service (EA Publishing Service)

In the Service Design of the EA Publishing Service we effectively produced a "bill of materials" for the construction of the EA Publishing Service, especially in architectural terms. In Service Strategy we also learned that our organization has implemented the following Service Transition processes on a formal basis:

- (Service) Asset and Configuration Management
- Change Management
- Release and Deployment Management

Note that this excludes Change Evaluation (which was introduced only in ITIL v2011, so this is a fairly common situation).

One of the more challenging aspects of the Service Transition stage is knowing how the ST processes all fit together. These inter-relationships are complex! As a result, for the rest of this paper I think it would be more appropriate to illustrate these inter-relationships at an inter-process level, rather than to focus on the details of the ST processes.

The details of these processes are described very well in the ITIL Process maps supplied with iServer for Visio. These diagrams add a great deal of value to the management of IT Services throughout their lifecycle, especially to the development and deployment of new IT Service releases (Service Transition).

Managing the Change Proposal

Now that we have introduced Change Management principles we have some catching up to do! The most important issue is the concept of the Change Proposal. With formal Change Management in place, a Change Proposal should be submitted to Change Management for all major changes that involve significant cost, risk or other impact on the organization and it is done through Service Portfolio Management in Service Strategy (SS). Typically it includes:

- A high-level description of the change
- A full business case (cost-benefit analysis)
- An outline schedule for the design and implementation of the change.

In many organizations our EA Publishing Service, because it is a new IT Service, would be considered a major change justifying a Change Proposal, even though the scale of the change may be regarded as relatively small. Figure 7 illustrates the flow between the various ITIL processes.

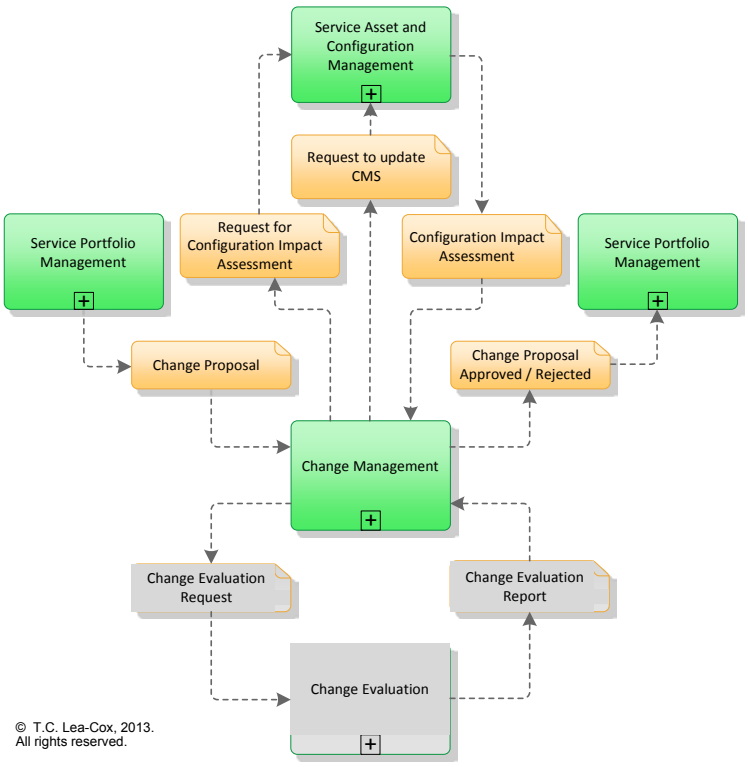


Figure 7: Managing the approval of a Change Proposal

Service Portfolio Management is responsible for preparing the Change Proposal and submitting it to Change Management. If Change Evaluation was implemented then the Change Manager would request an Evaluation of the Proposal. The resulting Change Evaluation Report would then be used to assess the feasibility and acceptability of the Change Proposal. However as Change Evaluation has not been implemented the Change Manager will coordinate the evaluation of the Proposal, with the assistance of the Configuration Manager if required, to identify the impact of the Change Proposal on the rest of the (IT) organization and to update the CMS as required.

If the Change Proposal is approved, then Service Portfolio Management is authorized to initiate the Service Design Processes.

Preparing and approving the EA Publishing Service Transition Plan

Figure 8 illustrates a typical Service Transition Planning process using the ST processes:

Service Design identifies details of the changes that need to be made in the EA Publishing Service Design Package (SDP). This information is used to produce one or more Requests for Change (RFCs) which are subsequently submitted to Change Management for Logging and Review. If Change Evaluation was established as a formal process in our organization, part of the Change Review procedure would be to obtain

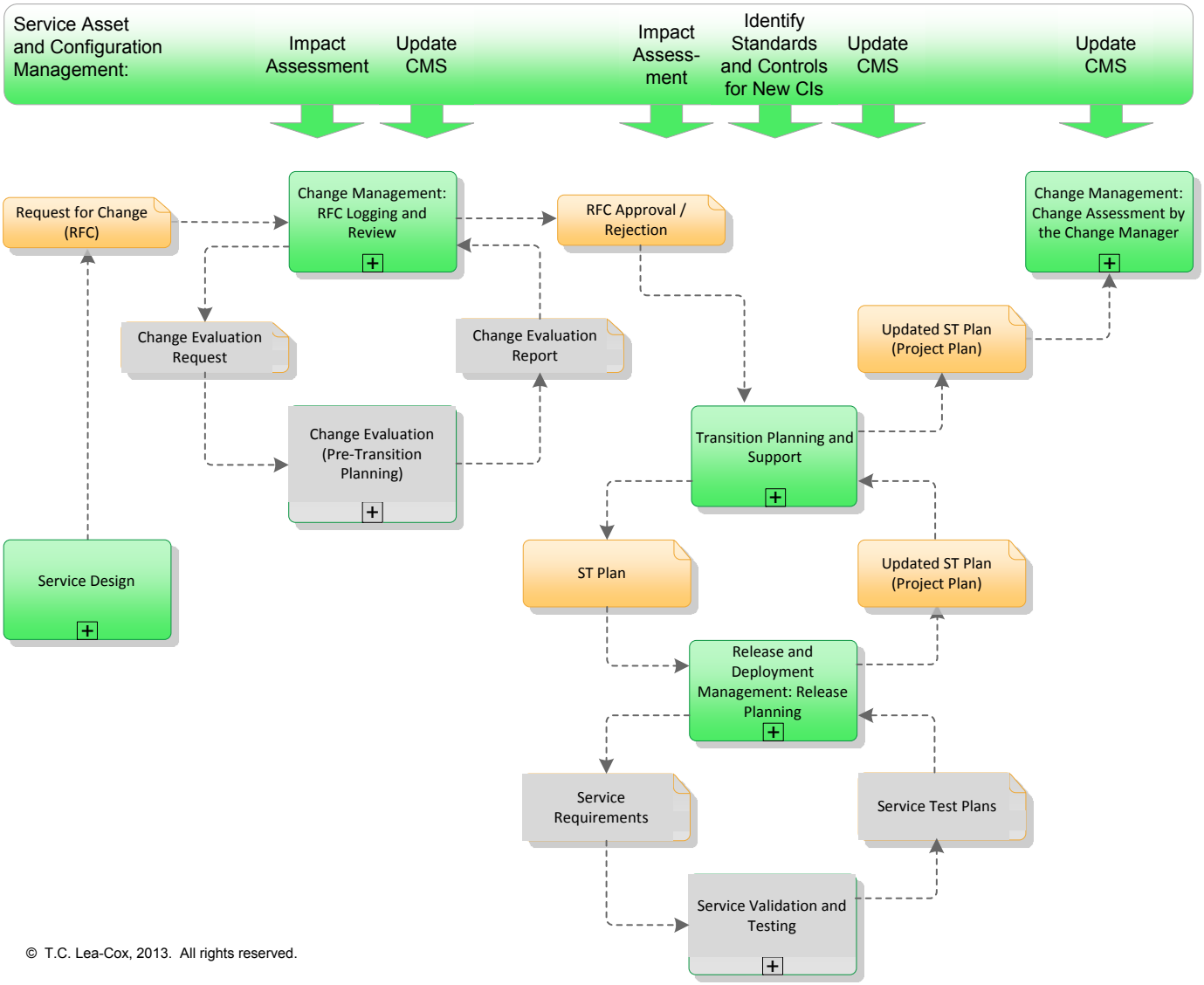


Figure 8: Preparing the Service Transition Plan (Project Plan)[17]

[17] To keep the diagram simple, I have removed the information flows to and from Service Asset and Configuration Management (SACM) and summarised the actions required in the SACM summary bar at the top of the diagram.

an Evaluation Report to assist in the review. As Change Evaluation is not a formal process, evaluation of the RFCs is effectively coordinated (if not done) by the Change Manager. Usually this would include a Configuration Impact assessment by the Configuration Manager. This provides the information required to approve or reject the RFCs[18].

If the RFCs are approved, authorisation is given to prepare a Service Transition Plan and control is passed to Transition Planning and Support. Although this process is also not formally implemented in our organization, it is very likely that nevertheless it exists as part of Project Planning, where a Service Transition Plan is simply a type of project[19].

Transition Planning and Support (Project Planning) transforms the contents of the SDP into a specific ST Plan for the EA Publishing Service and hands this to Release Planning to decide how the new EA Publishing Service release will be structured and built. A key part of the Release Planning process is to:

- Identify the requirements at each release component level
- Identify the Test Plans that will be used to test and validate the EA Publishing Service components once they have been built or acquired through third party suppliers or service providers. (cf. The V-Model; addressed in the footnote in Service Validation and Testing).

If new CIs are introduced during the planning process then SACM will identify the standards and controls required for these CIs. SACM will also update the CMS, especially when the status of CIs change.

Finally, Release Planning updates the “ST Plan” (Project Plan) and this is passed through Transition Planning and Support (Project Planning) to Change Management for approval and authorisation to proceed to the Release Build phase.

Building and authorising the new EA Publishing Service Release

Before the new EA Publishing Service can be built it needs to be evaluated by Change Management to ensure the updated “ST Plan” does not contain any new adverse implications. This and the process that follows to build the new Release is summarized in Figure 9.

The Change Manager will assess the updated ST Plan and if formal Change Evaluation was in place would call for an Evaluation Report. As the introduction of the EA Publishing Service represents a significant change it will probably be submitted to a Change Advisory Board (CAB) for assessment and approval.

[18] Note that, as in all assessments by Change Management, if approval cannot be given, the reasons why will be documented. These are seldom “terminal” and the required adjustments are often relatively easily made.

[19] As a result this activity has not been greyed out on Figure 8

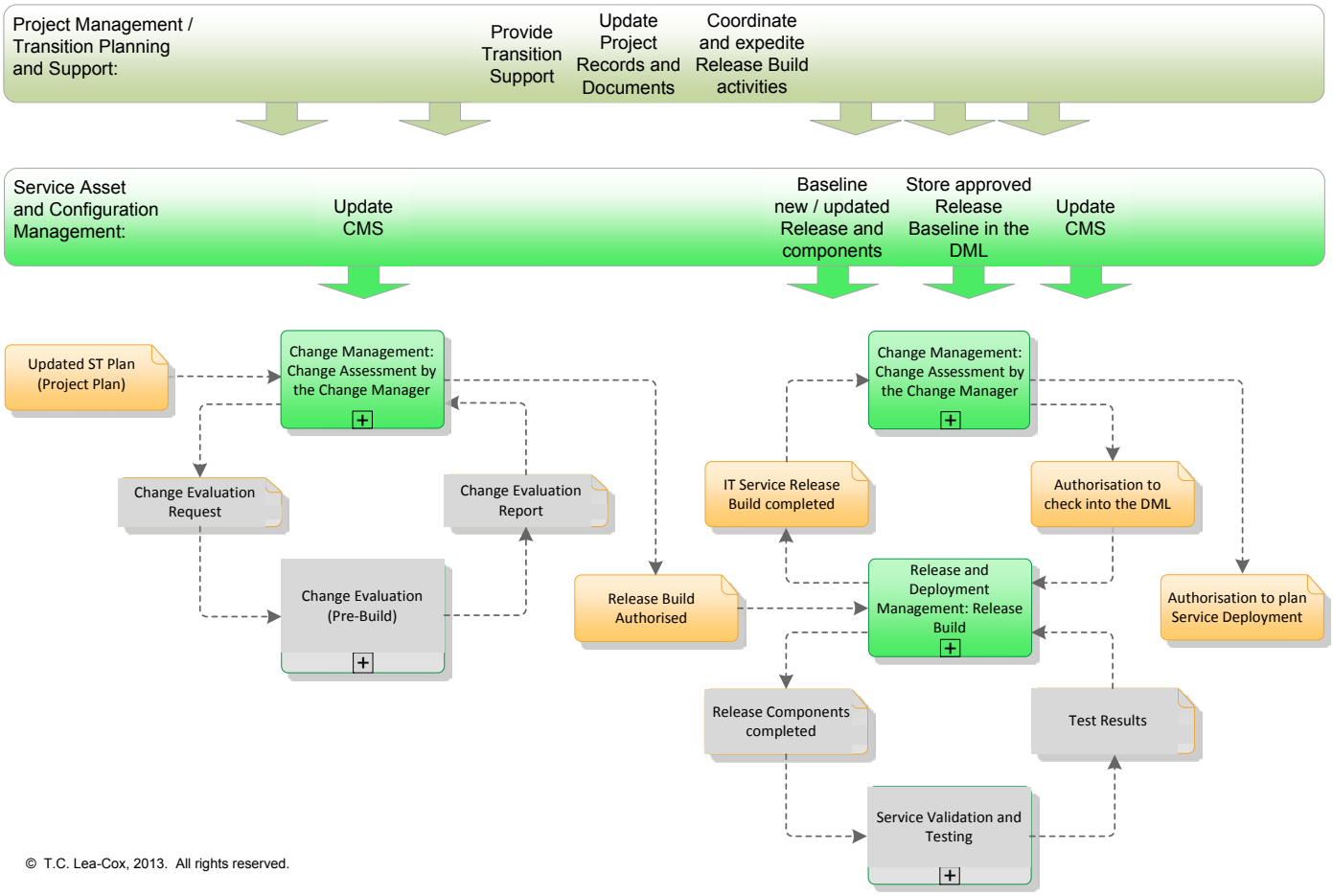


Figure 9: Building and authorising a new IT Service Release

If approval is given, the new release of the EA Publishing Service can be built using the SDP and ST Plan (including the Release Plan) to guide what is done and in what sequence. In our example, because Service Validation and Testing has not yet been formalized, the Release Build phase will control moving the completed components from the development environment into the test environment and subsequent unit, integration and (usually) User Acceptance testing for the new EA Publishing Service.

On completion of the new EA Publishing Service release, the electronic components (files) will be baselined and everything together with the updated project documentation submitted to Change Management for approval. The purpose of this assessment is to:

- Authorise the baselined new EA Publishing Service release files to be stored in the DML
- Give approval to plan deployment of the new EA Publishing Service release, the next key phase.

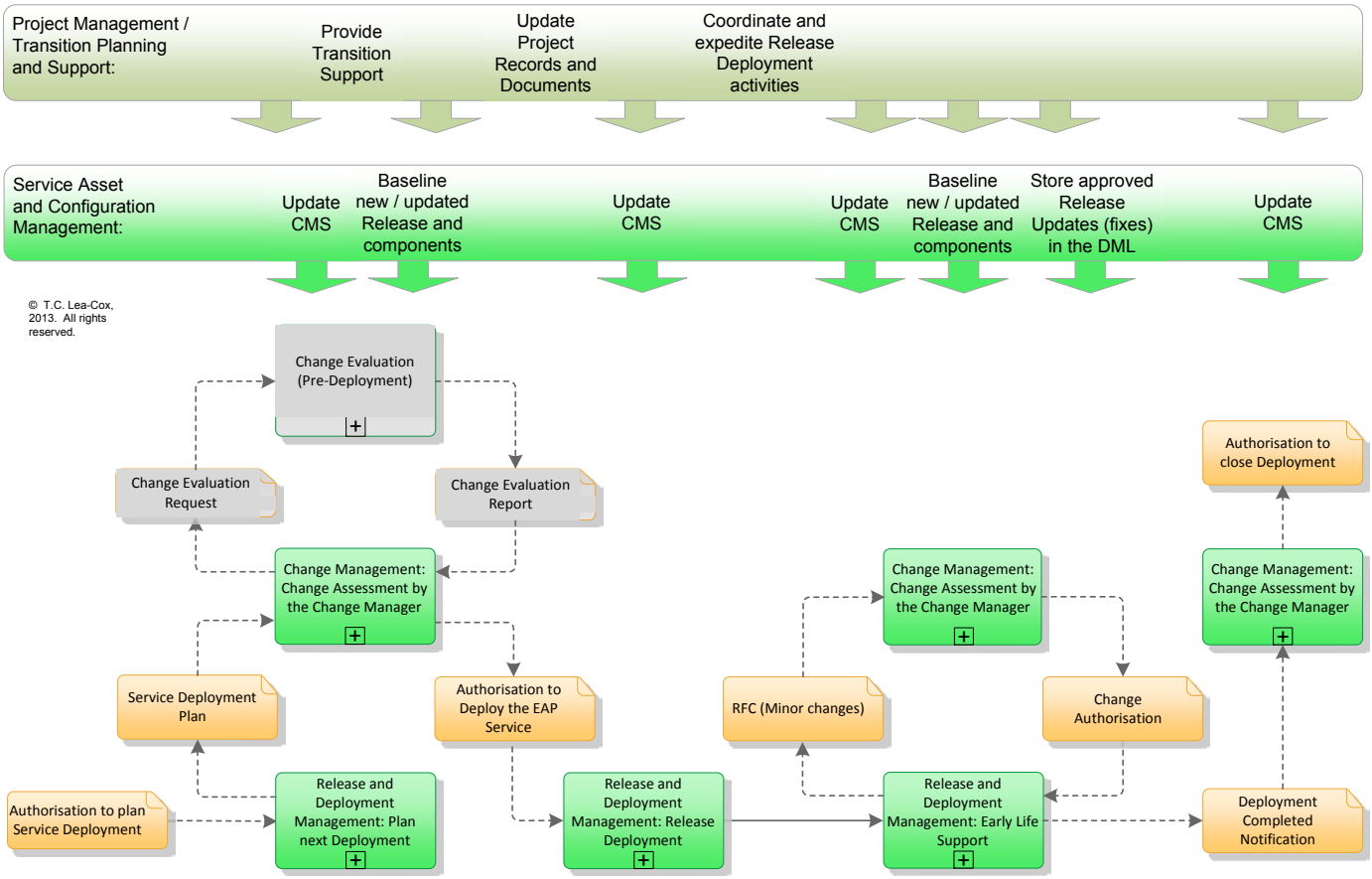


Figure 10: Deploying and providing Early Life Support for the new IT Service Release

Deploying the new EA Publishing Service Release

An important principle to remember is that a release of an IT Service can have more than one deployment and that each deployment may be different in its approach. More importantly, each deployment needs to be authorised by Change Management prior to starting the deployment so that it can be assessed and scheduled. Note also that, although unlikely in the case of the EA Publishing Service, the deployment of a specific release can be part of the deployment of a bigger release. An overview of a typical deployment phase is given in Figure 10.

In respect of the EA Publishing Service, it is probable that the first implementation will be a pilot deployment of the service in an area where:

- The risk of any damage if things go wrong will be minimal
- There will be the time and resources available to fix any problems identified properly (so that a sound basis for future deployments will be created.

So for the first implementation of the EA Publishing Service we would try to choose, for example, a programme or project where the need for EA is appreciated and there are few (or no) critical or challenging deadlines.

The authorisation to plan (the first) EA Publishing Service deployment from the Build Phase will trigger preparation of an EA Publishing Service Deployment Plan which is then submitted to Change Management for assessment. If Change Evaluation was established, the Change

Manager may also call for a (Pre-Deployment) Change Evaluation of the Deployment Plan.

When approval has been given and the authorisation to deploy the EA Publishing Service has been received, the Deployment Plan can be implemented and the changes made to move the EA Publishing Service into production and to handover to those who will operate the service from then on during a phase of Deployment called "Early Life Support"[20].

Immediately after the EA Publishing Service has been implemented it will require close supervision to ensure it is stabilized and the initial problems are identified and resolved as expeditiously as possible. During the early life support phase, further changes may be required and these will be submitted as RFCs to Change Management for approval. Usually these changes will be minor (often for software in the form of "fixes") as the new service should have been reasonably thoroughly tested prior to deployment. If a major problem is encountered at this stage, it usually means that the whole deployment will be halted and the environment rolled back to its state prior to the deployment.

Note that both Service Asset and Configuration Management and Transition Planning and Support (Project Management) are active throughout deployment and the early life support phase.

Closing the EA Publishing Service Transition Project

When authorisation to close the deployment of our EA Publishing Service is received, Change Management may also call for a Post Implementation Review (PIR). If such a review is required, it is usually because something has gone wrong with the changes implemented but not necessarily so. A review may be required simply because it is the first implementation of a new type of change or IT Service that has been implemented. For example, if our EA Publishing Service is the first time an EA Management service has been introduced it may be worthy of a review. Figure 11 shows the process if such a review is required.

If a PIR is not required:

- Release and Deployment Management ensure all the Project, CMS and Release documentation and records are up-to-date and correctly filed. The Release is then closed and Change Management notified.

[20] The following important note is not in the Introduction to the ITIL Service Lifecycle but is in the main Service Transition book. "At the beginning of early life support there should be a formal notification that the service is now in live use. At the end of early life support there should be a formal notification that all SLAs are now being enforced and the service is fully operational".

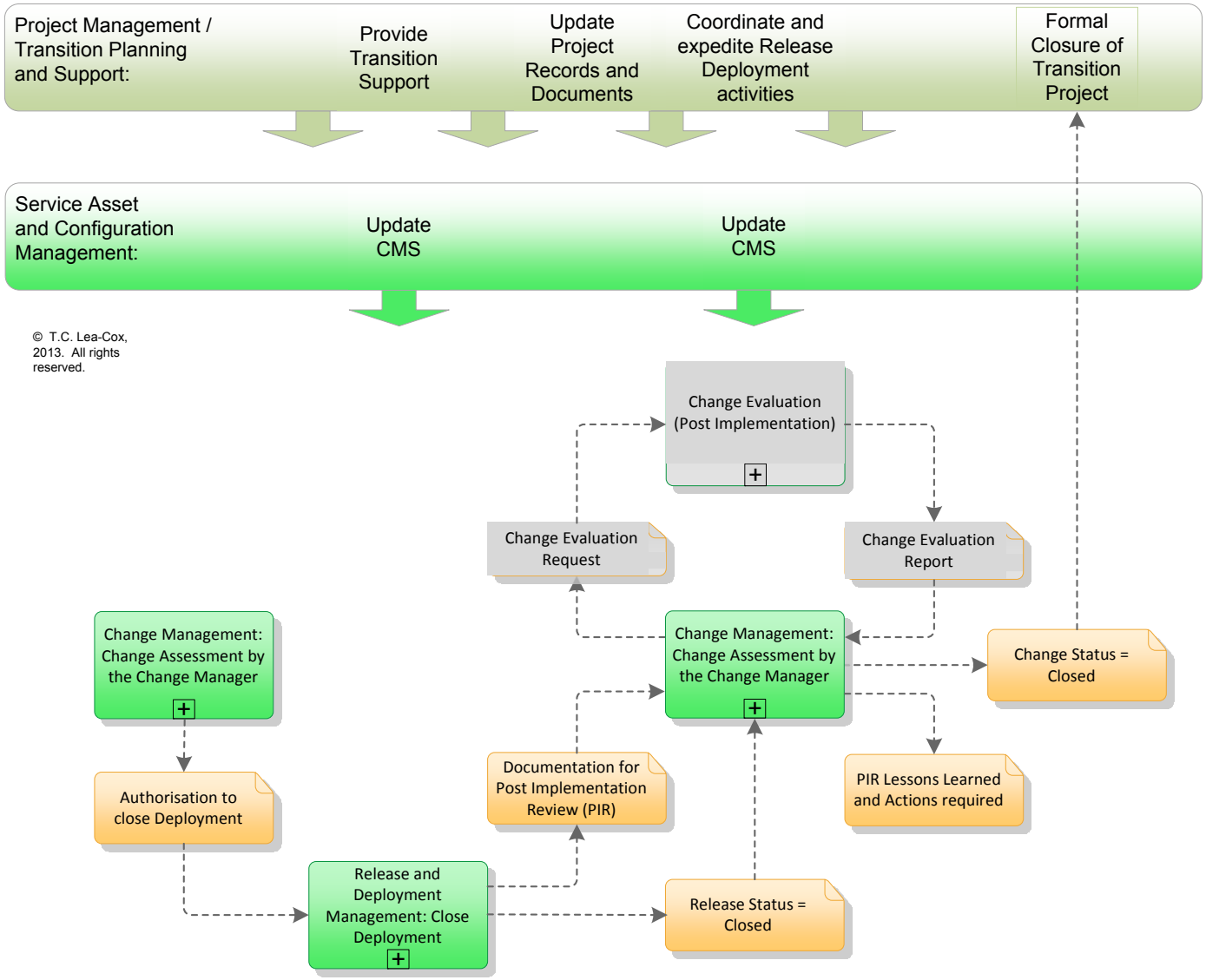


Figure 11: Closing the Transition Project for the new EA Publishing Service

- Change Management check all documentation and records are up-to-date and correctly filed, close the Change record(s) and notify Transition Planning and Support.
- Transition Planning and Support (Project Management) then formally close the Project, which may also include a business review of the success of the project, in this case, of our EA Publishing Service set up and initial deployment.

If a PIR is required:

- Change Management will perform the Post Implementation Review after receiving notification from Release and Deployment Management. If formal Change Evaluation was available, then they would request a Post Implementation Evaluation Report before doing the assessment. The lessons learned from the PIR and required action for future changes of the same type will be documented as part of the review.
- Subsequently, the Change Management and Transition Planning procedures are the same as for when no PIR is required.

A Note on Knowledge Management

If Knowledge Management was formally established there would be a framework for managing Service Knowledge. It is likely that Project Management (or transition Planning and Support) would be responsible for updating the information and knowledge of the people involved in the EA Publishing Service using the recommendations of this framework.

At the end of the EA Publishing Service transition project a knowledge audit or management review may be required.

In Conclusion

The handover to the Operations team is a key moment in the life of our EA Publishing Service. It represents the stage at which those responsible for operating the service take control and manage it thereafter.

How they do this (or should do this) is the subject of Service Operation, to be addressed in the next paper in the series.

Appendix A: Summary of the Processes at each ITIL Service Lifecycle Stage

ITIL Service Lifecycle Stage	ITIL Process
Service Strategy	Strategy Management for IT Services Service Portfolio Management Financial Management for IT Services Demand Management Business Relationship Management
Service Design	Design Coordination Service Catalogue Management Service Level Management Availability Management Capacity Management IT Service Continuity Management Information Security Management Supplier Management
Service Transition	Transition Planning and Support Change Management Service Asset and Configuration Management Release and Deployment Management Service Validation and Testing Change Evaluation Knowledge Management
Service Operation	Event Management Incident Management Request Fulfilment Problem Management Access Management
Continual Service Improvement	Seven-step Improvement Process

Appendix B: Summary of acronyms used and their meaning

Acronym used	Meaning
CI	Configuration Item
CIO	Chief Information Officer
CMDB	Configuration Management Database
CMS	Configuration Management System
COTS	Commercial, Off-the Shelf (usually applied to information systems)
DML	Definitive Media Library
EA	Enterprise Architecture
IT	Information Technology
ITIL	IT Infrastructure Library
ITSCM	IT Service Continuity Management
LAN	Local Area Network
OLA	Operating Level Agreement
PAAS	Platform as a Service
PIR	Post Implementation Management
RFC	Request for Change
SAAS	Software as a Service
SACM	Service Asset and Configuration Management
Scrum	Scrum is not an acronym but the name given to an agile software development method.
SD	Service Design
SDP	Service Design Package
SKMS	Service Knowledge Management System
SLA	Service Level Agreement
SM	Service Management
SMS	Service Management System
SS	Service Strategy
ST	Service Transition
SOA	Service Oriented Architecture
TOGAF	The Open Group Architecture Framework
VM	Virtual Machine
WOA	Web Oriented Architecture

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