Quick Reference Guide

ITIL® Continual Service Improvement

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Abstract

This Quick Reference Guide provides a summary of the Continual Service Improvement lifecycle for Information Technology Infrastructure Library, more commonly ITIL. The information contained is derived from the Axelos ITIL Foundation Handbook and supplemented from the ITIL Service Strategy Lifecycle publication. The document is based on ITIL 2011.

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Background

ITIL is the well-known set of practices for IT service management (ITSM) that focuses on aligning IT services with the needs of business.

Figure 1 provides a high level overview of the complete ITIL service lifecycle. This Quick Reference Guide (QRG) is the 5th and last in our series of Quick Reference Guides for ITIL and covers the Continual Service Improvement lifecycle phase of ITIL.

So far, we have learned some of the key concepts of ITIL Service Management, Service Strategy, Service Design, Service Transition and Service Operation.

Continual Service Improvement (CSI) focuses on increasing the efficiency, maximizing the effectiveness and optimizing the cost of IT services and the underlying processes. These objectives are achieved by identifying improvement opportunities throughout the service lifecycle.
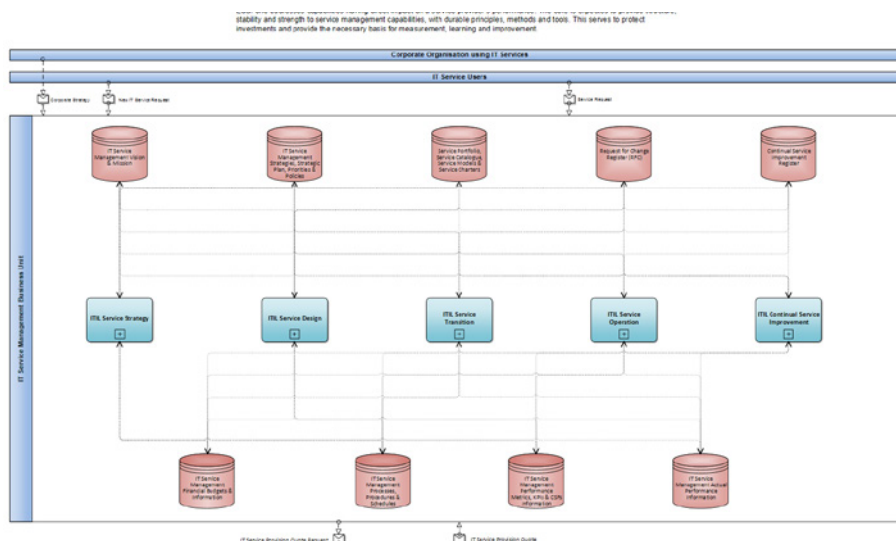

Figure 1: Continual Service Improvement Context

CSI provides direction on creating and maintaining value for customers through better strategy, design, transition and operation of services, by combining:

> ▶ Principles, practices and methods from quality management
>
> ▶ Change management
>
> ▶ Capability improvement.

CSI defines best practice for achieving incremental and large-scale improvements in:

> ▶ Service quality
>
> ▶ Operational efficiency
>
> ▶ Business continuity

It also ensures that the service portfolio continues to be aligned to business needs.

Guidance is provided for linking improvement efforts and outcomes with:

> ▶ Service Strategy
>
> ▶ Service Design
>
> ▶ Service Transition
>
> ▶ Service Operation

A closed loop feedback system, based on the Plan-Do-Check-Act (PDCA) cycle, or Deming Cycle, is established. Feedback from any stage of the service lifecycle can be used to identify improvement opportunities for any other stage of the lifecycle.

Overview

Continual Service Improvement provides support for four main areas within IT Service Management (ITSM):

▶ The overall health of ITSM as a discipline

▶ The continual alignment of the service portfolio with the current and future business needs

▶ The maturity and capability of the organization, management, processes and people utilized by the services

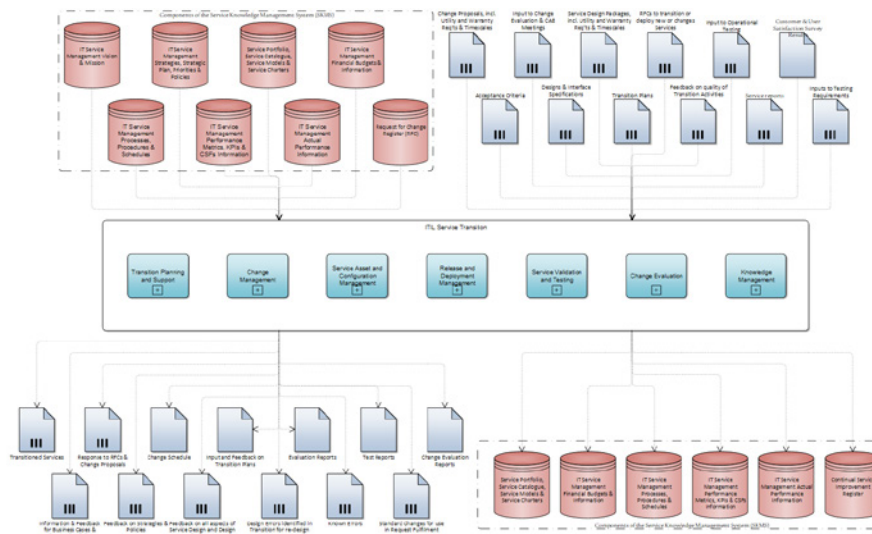▶ Continual improvement of all aspects of the IT service and the service assets that support them.

Figure 2: Continual Service Improvement Overview

Purpose and Objectives

The purpose of the CSI stage of the lifecycle is to align IT services with changing business needs by identifying and implementing improvements to IT services that support business processes. These improvement activities support the lifecycle approach through service strategy, service design, service transition and service operation. CSI is always seeking ways to improve service effectiveness, process effectiveness and cost effectiveness.

The objectives of CSI are to:

▶ Review, analyze, prioritize and make recommendations on improvement opportunities in each lifecycle stage: service strategy, service design, service transition, service operation and CSI itself

▶ Review and analyze service level achievement

▶ Identify and implement specific activities to improve IT service quality and improve the efficiency and effectiveness of the enabling processes

▶ Improve cost effectiveness of delivering IT services without sacrificing customer satisfaction

▶ Ensure applicable quality management methods are used to support continual improvement activities

▶ Ensure that processes have clearly defined objectives and measurements that lead to actionable improvements

▶ Understand what to measure, why it is being measured and what the successful outcome should be.

Overview of CSI Processes

The processes contained within the ITIL Continual Service Improvement lifecycle are arranged around a 7 step improvement process shown in Figure 3.

Each of the steps falling into one of the 4 phases of the Deming Cycle, more commonly known as the Plan-Do-Check-Act (PDCA) cycle.

PDCA is a very well-known iterative four-step management method that is commonly used in business for the control and continuous improvement of processes and products.

PDCA was made popular by Dr W. Edwards Deming, considered by many to be the father of modern quality control; however, he apparently always referred to it as the "Shewhart cycle".

Later in Deming's career, he modified PDCA to "Plan, Do, Study, Act" (PDSA) because he felt that "check" emphasized inspection over analysis.

This change in emphasis is quite important, although often overlook in business process improvement documentation.

The PDCA cycle provides steady, ongoing improvement, which is both fundamental tenet of CSI and the underlying philosophy of most process improvement methodologies and practices.
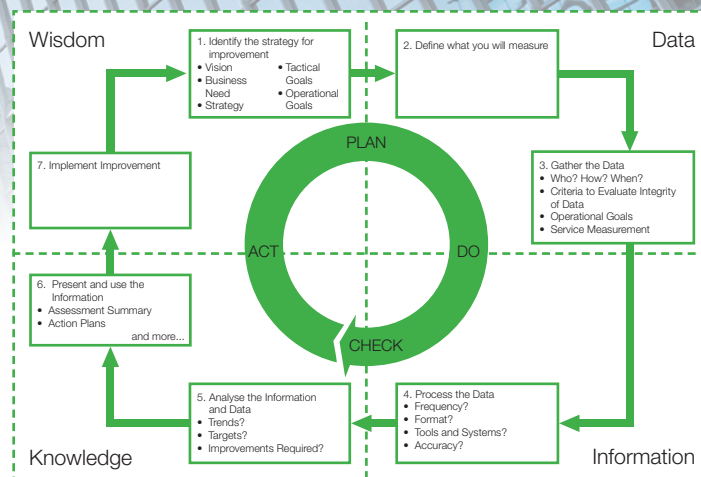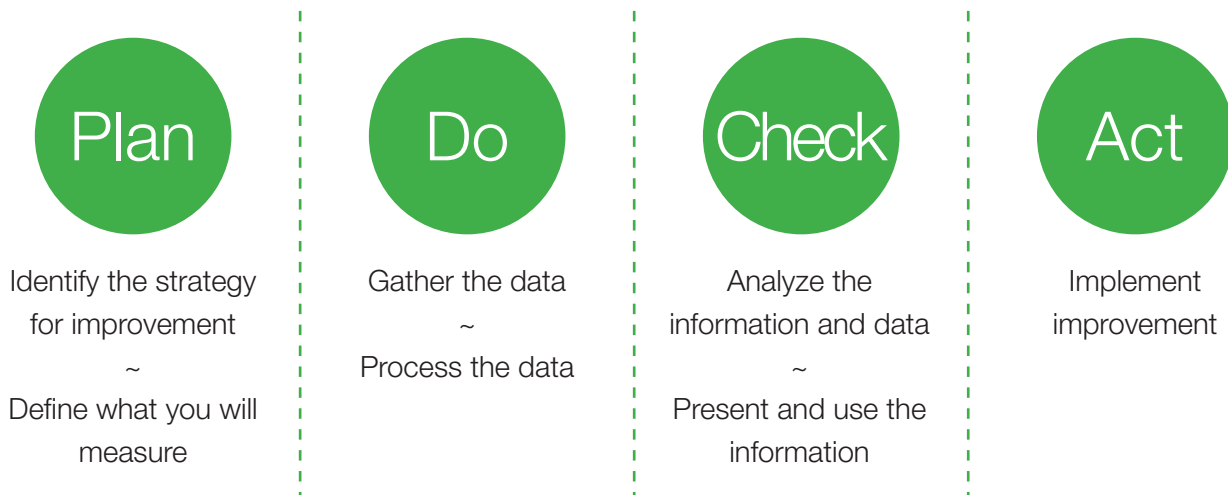
Figure 3: Seven-step improvement process

Figure 3 also shows how the cycle fits into the Data-to-Information-to-Knowledge-to-Wisdom (DIKW) structure of knowledge management.

The integration of the PDCA cycle and the seven-step improvement process is as follows:

Plan	Do	Check	Act
Identify the strategy for improvement ~ Define what you will measure	Gather the data ~ Process the data	Analyze the information and data ~ Present and use the information	Implement improvement

7 Step Improvement Process

Overview

The seven-step improvement process includes analysis of the performance and capabilities of services, processes throughout the lifecycle, partners and technology.

It includes the continual alignment of the portfolio of IT services with the current and future business needs as well as the maturity of the enabling IT processes for each service. It also includes making best use of the technology that the organization has and looks to exploit new technology as it becomes available where there is a business case for doing so.

The scope also includes reviewing and improving:

▶ Organizational structure

▶ Capabilities of the people within the organization;

▶ Determining whether the right people are working in appropriate functions and roles, and if they have the required skills.

Purpose and Objective

The purpose of the seven-step improvement process is to define and manage the steps needed to identify, define, gather, process, analyze, present and implement improvements.

The objectives of the seven-step improvement process are to:

▶ Identify opportunities for improving services, processes, tools etc.

▶ Reduce the cost of providing services and ensuring that IT services enable the required business outcomes to be achieved

▶ Identify what needs to be measured, analyzed and reported to establish improvement opportunities

▶ Continually review service achievements to ensure they remain matched to business requirements; continually align and re-align service provision with outcome requirements

▶ Understand what to measure, why it is being measured and carefully define the successful outcome.

Improvements in quality should not be implemented if there is a cost associated with the improvement and if this cost has not been justified. Every potential improvement opportunity should have a business case justification to show that the business will have an overall benefit.

Process Activities

As illustrated in Figure 3, there are 7 key steps in the seven step improvement process.

While these 7 steps appear to form a continuous and circular set of activities, in fact this is not quite right. The ITIL CSI Guide describes them as:

> "… constituting a knowledge spiral. Knowledge gathered and wisdom derived from the knowledge at one level of the organization becomes a data input to the next: from operational management, to tactical management, to strategic management."

Put simply, each step gathers information that is a critical will both support and overlap the next step.

Step 1

Identify Strategy for improvement

The purpose of the first step is to define the goals and objectives of the improvement process.

What are we trying to achieve for the business and how can the IT organization contribute through improvements?

Ensure Take into account current and future plans.

Step 2

Define what you will measure

The purpose of the second step is to define the metrics that are to be collected and analyzed to identify possible areas for improvement. This can be based on previous studies or customer feedback and complaints.

As well as identifying the metrics to be collected, it is also important to determine how this information will be collected and the ease and cost of collecting such information.

Compare what you should ideally measure with what you can actually measure, identify gaps, and develop a realistic measurement plan to support the improvement strategy. Take into account the current capabilities of tools and processes.

Step 3

Gather the data

The purpose of the third step is to collect the identified data for later analysis. Note, this process step may be undertaken for short periods or alternatively be an ongoing activity that collects data for all sorts of analysis.

Use monitoring to gather the data. Monitoring can be undertaken using technology and tools or can be a manual process.

Triggers, Inputs and Outputs

Triggers

- Monitoring to identify improvement opportunities is and must be an ongoing process. New incentives may trigger additional measurement activity such as changing business requirements, poor performance with a process or spiraling costs.

Inputs

- Service catalogue
- Service level requirements (SLRs)
- The service review meeting
- Vision and mission statements
- Corporate, divisional and departmental goals and objectives

- Legislative requirements
- Governance requirements
- Budget cycle
- Customer satisfaction surveys
- The overall IT strategy

Step 4 — Process the data

Process the data

The purpose of the fourth step is to process the gathered raw data into a form that is ready and able to be further analyzed in the next step.

Convert the data gathered into the required format for the intended audience. This can be seen as converting metrics into KPI results, and turning data into information.

Step 5 — Analyze the information and data

Analyze the information and data

The purpose of the fifth step is to analyze the information produced in the previous step to identify opportunities for process improvements. The analysis will identify both areas for improvement as well as positive results that indicate practices to be evaluated extension and expansion

Once identified, these opportunities are then further developed into firm process improvement proposals.

Combine multiple sources of data and transform the information into knowledge. Develop an understanding of the real meaning of identified patterns and trends. Answer questions such as:

- Is this good or bad?

- Is this expected and in line with targets?

Step 6 — Present and use the information

Present and use the information

Communicate the information at the right level of detail for the audience and in a way that is understandable, provides value and supports informed decision making.

Step 7 — Implement improvement

Implement improvement

Use the knowledge gained and combine it with previous experience to make informed decisions about the improvements that should be made. These improvements should focus on optimizing and correcting services, processes, tools etc.

Outputs

- Market expectations and competition

- New technology drivers (e.g. cloud-based delivery and external hosting)

- Flexible commercial models (e.g. low capital expenditure and high operational expenditure commercial models, and rental models).

- Data required for metrics, KPIs and CSFs

- Service reports

- Improvement opportunities for inclusion in the CSI register

- Requests for change (RFCs) for implementing improvements.

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David and Roderick are passionate about helping organizations understand and document their own business processes, using frameworks such as APQC's Process Classification Framework and standards such as BPMN as well as applying simple approaches to improve and simplify these business processes.