



Continual Service Improvement

Standard Practice Document



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Contents

- Section A: Introduction** 5
 - 1. Overview 5
 - 2. Definition..... 5
 - 3. Process Goals & Objective..... 5
 - 4. Scope 6
 - 5. Benefits 6
 - 6. Triggers, Inputs and Outputs 6
 - 7. Key Concepts..... 7
 - 7.1 Service Level Management..... 7
 - 7.2 The Deming Cycle – PDCA Model..... 7
 - 7.3 Service Measurement..... 8
- Section B: Roles and Responsibilities** 13
 - 1. User Roles and Functions 13
 - 2. RACI Matrix..... 14
- Section C: Process Flow** 16
 - 1. High-level CSI Management Process 16
 - 1.1. Service Review 16
 - 1.2. Process Evaluation..... 17
 - 1.3. Definition of CSI Initiatives 18
 - 1.4. Monitoring of CSI Initiatives..... 18
 - 2. CSI integration with IT Service Management Life Cycle Modules..... 19
 - 3. CSI Methods & Techniques 20
 - 3.1. Effort and Cost 20
 - 3.2. Implementation Review and Evaluation..... 21
 - 3.3. Assessments 21
 - 3.4. Gap Analysis 22
 - 3.5. Benchmarking..... 22
 - 3.6. SWOT Analysis 23
- Section D: Governance and Process Controls**..... 24
 - 1. Metrics and Measurement 24

- 2. Key Performance Indicators (KPI) & Critical Success Factors (CSF)..... 24
- 3. Reports..... 25
- 4. Escalation Matrix..... 25
- Section E: ITIL Inter-relationships and Best Practices 27**
 - 1. Relationships with other ITIL Processes 27
 - 1.1. Availability Management..... 27
 - 1.2. Business Continuity Management 27
 - 1.3. Capacity Management..... 27
 - 1.4. Problem Management..... 27
 - 1.5. Change, Release & Deployment Management..... 27
 - 1.6. Knowledge Management 28
 - 2. Challenges..... 28
 - 3. Risks..... 28
 - 4. Best Practices that support CSI..... 29

Section A: Introduction

1. Overview

The following Service Portfolio Management Process has been designed for the GAVS IT Service Management program. It will be used as a reference for the implementation and use of the Service Portfolio Management process on an ongoing basis. This process document is based on the best practices described in the Information Technology Infrastructure Library (ITIL®) Framework.

The purpose of this document is to provide a detailed overview of the Continual Service Improvement. The document consists of detailed process flow diagrams, with procedures and corresponding RACI (Responsible, Accountable, Consulted and Informed) matrix and governance, control mechanisms. This Process will have relationships with other Processes and those documents should be read and understood along with this, the primary related processes being Service Catalogue, Strategy, Financial, Demand, Business Relationship, Service Level, Capacity, IT Service Continuity, Information Security, Change, Service Asset and Configuration, Knowledge Management and, Continual Service Improvement Process.

2. Definition

CSI continually improves the effectiveness and efficiency of services and processes.

An ITIL-aligned **Continual Service Improvement** (CSI) process will typically define a set of service improvement processes to ensure that ideas for improvement are identified and implemented.

3. Process Goals & Objective

The purpose of the CSI 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. In effect, CSI is about looking for ways to improve process effectiveness, efficiency as well as cost effectiveness.

The objectives 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 ITSM processes
- Improve cost effectiveness of delivering IT services without sacrificing customer satisfaction
- Ensure applicable quality management methods are used to support continual improvement activities

4. Scope

There are four main areas the CSI covers:

- 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

5. Benefits

There are four commonly used terms when discussing service improvement outcomes:

- Improvements
- Benefits
- ROI (Return on Investment)
- VOI (Value on Investment)

Selecting and adopting the best practice as a part of the CSI programs will assist organizations in delivering significant benefits:

- Lead to a gradual and continual improvement in service quality
- Ensure that IT services remain continuously aligned to business requirements
- Result in gradual improvements in cost effectiveness through a reduction in costs and/ or the capability to handle more work at the same cost
- Use monitoring and reporting to identify opportunities for improvement in all lifecycle stages and in all processes
- Identify opportunities for improvements in organizational structures, resourcing capabilities, partners, technology, staff skills and training, and communications

6. Triggers, Inputs and Outputs

Triggers:

- Monitoring to identify improvement opportunities and it must be an ongoing process
- New incentives may trigger additional measurement activities such as charging requirements, poor performance with a process

Many **inputs** and **outputs** to the process are documented in the steps such as:

- Service Catalogue
- SLRs
- The service review meeting

- Vision and mission statements
- Governance requirements
- Budget cycle

7. Key Concepts

7.1 Service Level Management

Adopting the Service Level Management (SLM) process is a key principle of CSI. SLM involves several steps:

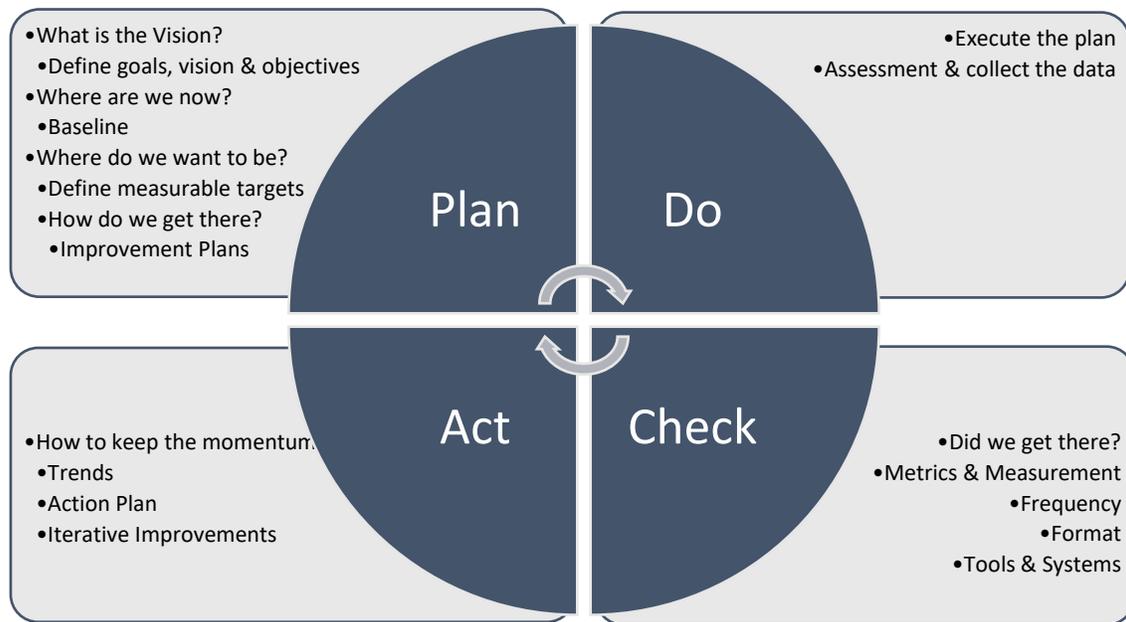
- Fully accepting that the IT organization must become a service provider to the business or cease to be relevant
- Involving the business and determining their service level requirements
- Defining the internal portfolio of services: services that are planned, in development, in production. This service portfolio also contains modular or component services which will make up a finished service package
- Defining a customer-facing Service Catalogue which details every service and service package offered by IT with options, parameters and pricing
- Identifying internal IT departmental relationships, negotiating the terms and responsibilities of the internal relationships, and codifying them with Operational Level Agreements (OLAs)
- Identifying existing contractual relationships with external vendors. Verifying that these Underpinning Contracts (UCs) meet the revised business requirements. Renegotiating them, if necessary
- Utilizing the Service Catalogue as the baseline, negotiate Service Level Agreements (SLAs) with the business
- Create a Service Improvement Plan (SIP) to continually monitor and improve the levels of service

7.2 The Deming Cycle – PDCA Model

For quality improvement, W. Edwards Deming (management philosopher) proposed the Deming Cycle.

The four key stages of the cycle are Plan, Do, Check and Act, after which a phase of consolidation prevents the circle from rolling back down the hill.

The goal in using the Deming Cycle is steady, ongoing improvement.

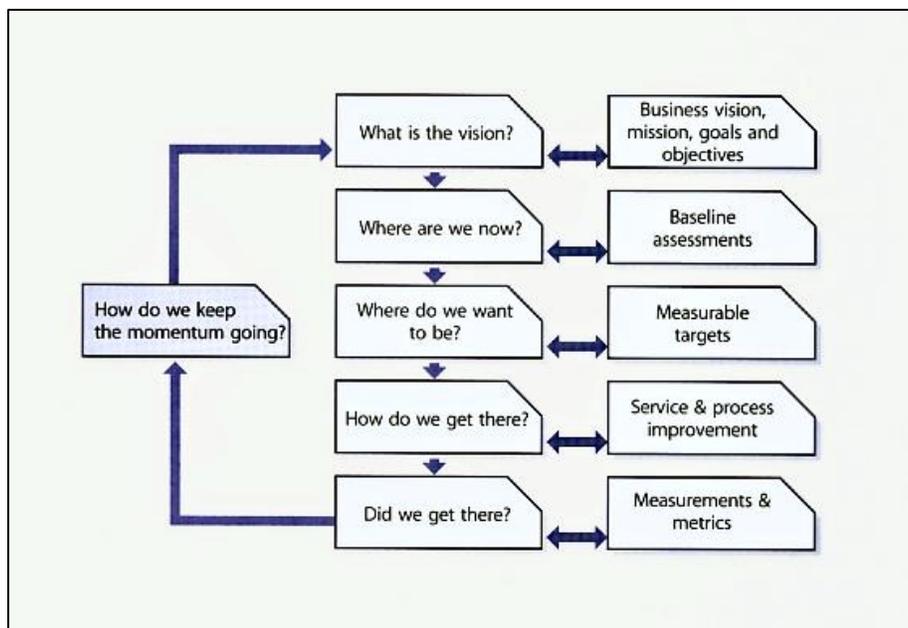


7.3 Service Measurement

7.3.1. Baseline

Baselines are used to establish an initial data point to determine if a service or process needs to be improved. As a result, it is important that baselines are documented, recognized and accepted throughout the organization. Baselines must be established at each level: strategic goals and objectives, tactical process maturity, and operational metrics and KPIs.

If a baseline is not initially established the first measurement efforts will become the baseline. Below is the figure of Continual Service Improvement Model.



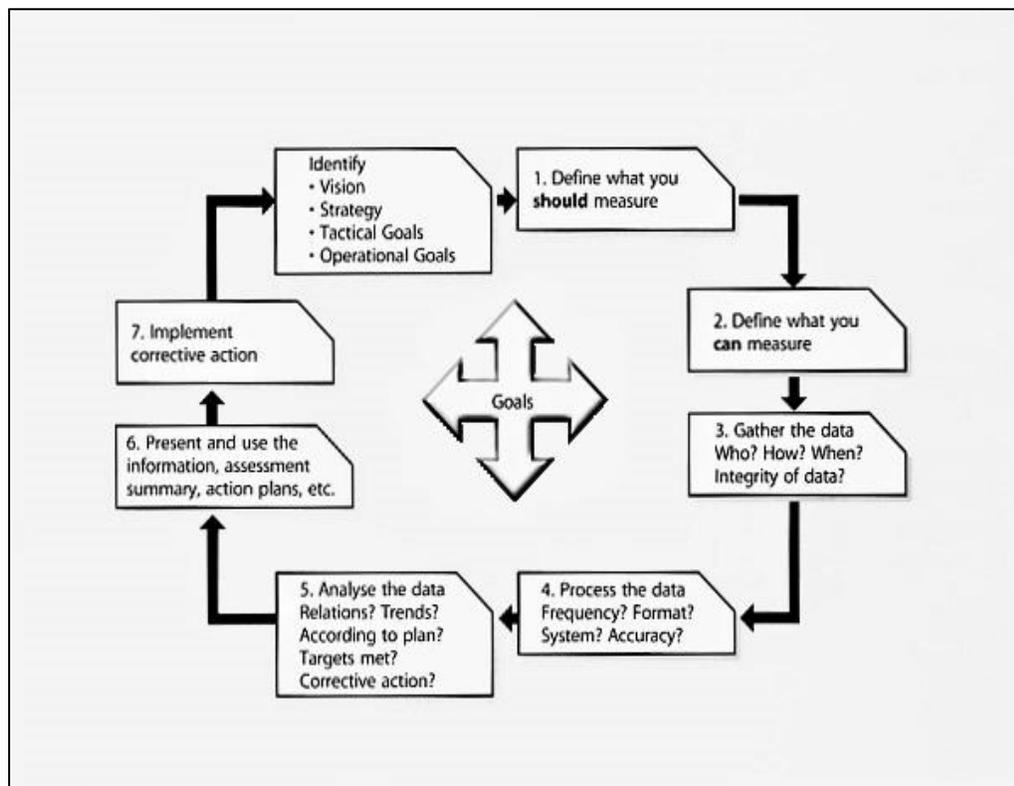
7.3.2. Value to Business

Basically, there are four reasons to monitor and measure:

- **To validate** - monitoring and measuring to validate previous decisions
- **To direct** - monitoring and measuring to set direction for activities in order to meet set targets. It is the most prevalent reason for monitoring and measuring
- **To justify** - monitoring and measuring to justify, with factual evidence or proof, that a course of action is required
- **To intervene** - monitoring and measuring to identify a point of intervention including subsequent changes and corrective actions

7.3.3. The 7-step Improvement Process

CSI uses the 7-Step Improvement Process as the concept of measurement. The improvement process spans not only the management organization but the entire service lifecycle.



1. Define what you should measure

At the onset of the service lifecycle, Service Strategy and Service Design should have identified this information. CSI can then start its cycle all over again at 'Where are we now?' This identifies the ideal situation for both the Business and IT.

Identify and link the following items:

- Corporate vision, mission, goals and objectives

- IT vision, mission, goals and objectives
- Critical success factors
- Service level targets
- Service level requirements and targets
- Service Catalogue
- Vision and mission statements
- Corporate, divisional and departmental goals and objectives
- Legislative requirements
- Governance requirements

2. Define what you can measure

This activity related to the CSI activities of 'Where do we want to be?' By identifying the new service level requirements of the business, the IT capabilities (identified through Service Design and implemented via Service Transition) and the available budgets, CSI can conduct a gap analysis to identify the opportunities for improvement as well as answering the question 'How will we get there?'

List of what you should measure:

- Process flows
- Procedures
- Work instructions
- Technical and user manuals from existing tools

Existing reports

3. Gathering the data

In order to properly answer the 'Did we get there?' question, data must first be gathered (usually through Service Operations). Data is gathered based on goals and objectives identified. At this point the data is raw and no conclusions are drawn.

Inputs to gather-the-data activity:

- New business requirements
- Existing SLAs
- Existing monitoring and data capture capability
- Availability and Capacity Plans
- Service improvement plans
- Previous trend analysis reports
- List of what you should measure
- List of what can be measured
- Gap analysis report
- List of what to measure

- Customer satisfaction surveys

Outputs from gather-the-data activity:

- Updated Availability and Capacity Plans
- Monitoring procedures
- Identified tools to use
- Monitoring plan
- Input on IT capability
- Collection of data
- Agreement on the integrity of the data

4. Processing the data

Here the data is processed in alignment with the CSFs and KPIs specified. This means that timeframes are coordinated, unaligned data is rationalized and made consistent, and gaps in data are identified. The simple goal of this step is to process data from multiple disparate sources into an 'apples to apples' comparison. Once we have rationalized the data, we can then begin analysis.

Inputs to processing-the-data activity:

- Data collected through monitoring
- Reporting requirements
- SLAs
- OLAs
- Service Catalogue
- List of metrics, KPI, CSF, objectives and goals
- Report frequency
- Report template

Outputs of processing-the-data activity:

- While it is important to identify the outputs of each activity such as data and decisions it is even more important to determine the output of the procedure, the level of detail, the quality, the format etc.
- Updated Availability and Capacity Plans
- Reports
- Logical groupings of data ready for analysis

5. Analyzing the data

Here the data becomes information as it is analysed to identify service gaps, trends and the impact on business. It is the analysing step that is most often overlooked or forgotten in the rush to present data to management.

6. Presenting and using the information

Here the answer to 'Did we get there?' is formatted and communicated in whatever way necessary to present to the various stakeholders an accurate picture of the results of the improvement efforts. Knowledge is presented to the business in a form and manner that reflects their needs and assists them in determining the next steps.

There are usually three distinct audiences to whom the data are usually presented:

- **The business** - Their real need is to understand whether IT delivered the service they promised at the levels they promised and if not, what corrective actions are being implemented to improve the situation.
- **Senior (IT) management** - This group is often focused on the results surrounding CSFs and KPIs such as, customer satisfaction, actual vs. plan, costing and revenue targets. Information provided at this level helps determine strategic and tactical improvements on a larger scale. Senior (IT) management often wants this type of information provided in the form of a Balanced Scorecard or IT scorecard format to see the big picture at one glance.
- **Internal IT** - This group is often interested in KPIs and activity metrics that help them plan, coordinate, schedule and identify incremental improvement opportunities.

7. Implementing corrective action

The knowledge gained is used to optimize, improve and correct services. Managers identify issues and present solutions. The corrective actions that need to be taken to improve the service are communicated and explained to the organization. Following this step, the organization establishes a new baseline and the cycle begins anew.

Section B: Roles and Responsibilities

1. User Roles and Functions

The responsibilities of various user roles in Availability Management are listed as follows:

| Roles | Responsibilities |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Manager | <ul style="list-style-type: none"> • Manages the development, implementation, evaluation and on-going management of new and existing products and services. • Provide leadership on the development of the Business Case and product line strategy and architecture, new service deployment and lifecycle management schedules. • Perform service cost management activities in close partnership with other organizations such as operations, engineering and finance. Many of these organizations are held to strict internal supplier agreements. • Manage various and sometimes conflicting objectives in order to achieve the organization's goals and financial commitments. • Create an imaginative organization which encourages high performance and innovative contributions from its members within a rapidly changing environment |
| CSI Manager | <ul style="list-style-type: none"> • Accountable for the success of all improvement activities • Responsible for development of the CSI domain • Responsible for communicating the vision of CSI across the IT organization • Ensures that CSI roles have been filled • Works with the Service Owner to identify and prioritize improvement opportunities • Works with the Service Level Manager to ensure that monitoring requirements are defined • Works with the Service Level Manager to identify service improvement plans • Ensures that monitoring tools are in place to gather data • Ensures that baseline data is captured to measure improvement against it • Defines and reports on CSI CSFs, KPIs and CSI activity metrics • Identifies other frameworks, models and standards that will support CSI activities • Ensures that Knowledge Management is an integral part of the day-to-day operations • Ensures that CSI activities are coordinated throughout the service lifecycle • Reviews analyzed data • Presents recommendations to senior management for improvement • Helps prioritize improvement opportunities • Lead, manage and deliver cross-functional and cross divisional improvement projects • Build effective relationships with the business and IT senior managers • Identify and deliver process improvements in critical business areas across |

| Roles | Responsibilities |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> manufacturing and relevant divisions Set direction and provide framework through which improvement objectives can be delivered Coach, mentor and support fellow service improvement professionals Possess the ability to positively influence all levels of management to ensure that service improvement activities are receiving the necessary support and are resourced sufficiently to implement solutions |
| CSI Analyst | <ul style="list-style-type: none"> Perform analysis on existing and new data that will be captured Identify trends that are either having a positive or negative impact on IT and the Business Further, analyze the trends as well to understand if it is a good trend or bad trend Reviews and analyze data from components, systems and sub-systems in order to obtain a true end-to-end service achievement |
| Process Owner/ Architect | <ul style="list-style-type: none"> Accountable for the overall quality of the process and oversees the management of, and organizational compliance to, the process flows, procedures, data models, policies and technologies associated with the IT business process. |
| Service Owner | <ul style="list-style-type: none"> Accountable for specific service within an organization Provide leadership on the development of the Business Case, new service deployment and lifecycle management schedules. Perform service cost management activities in close partnership with other organizations such as operations, engineering and finance. Many of these organizations are held to strict internal supplier agreements. Manage various and sometimes conflicting objectives in order to achieve the organization's goals and financial commitments. Create an imaginative organization which encourages high performance and innovative contributions from its members within a rapidly changing environment |

2. RACI Matrix

The following RACI chart outlines which positions are Responsible, Accountable, Consulted, and Informed for each service desk process.

| Sr. No. | Activity Description | CSI Manager | Service Level Manager | Service Owner | Other Roles |
|---------|-------------------------|-------------|-----------------------|---------------|-------------|
| 1 | Perform Service Reviews | AR | | R | IC |
| 2 | Process Evaluation | AR | R | R | IC |

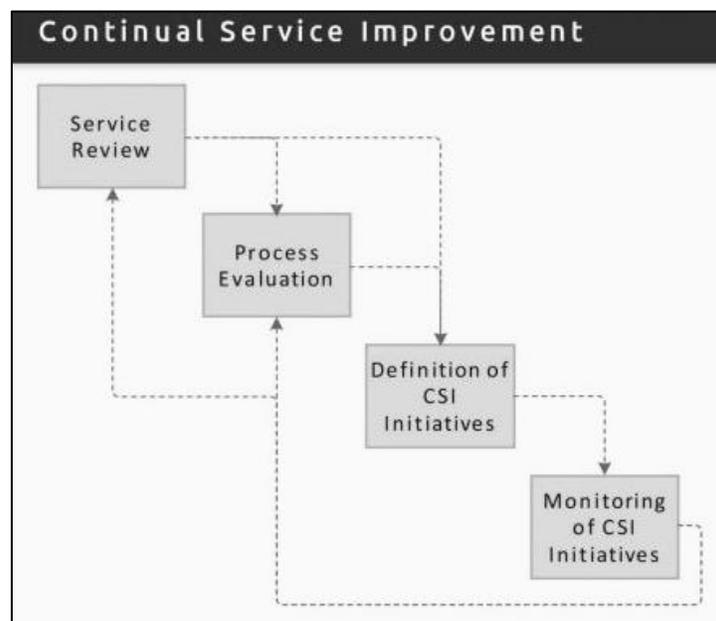
| Sr. No. | Activity Description | CSI Manager | Service Level Manager | Service Owner | Other Roles |
|---------|-----------------------------------------|-------------|-----------------------|---------------|-------------|
| 3 | Definition of CSI Initiatives | AR | | R | R |
| 4 | Implement Service Improvements | AR | | R | R |
| 5 | Monitor Service Improvement Initiatives | AR | | | I |

Section C: Process Flow

1. High-level CSI Management Process

An ITIL-aligned Continual Service Improvement (CSI) process will typically define a set of service improvement processes to ensure that ideas for improvement are identified and implemented, as described below:

- Service Review
- Process Evaluation
- Definition of CSI Initiatives
- Monitoring of CSI Initiatives



1.1. Service Review

Objective: To review business services and infrastructure services on a regular basis. The aim of this process is to improve service quality where necessary, and to identify more economical ways of providing a service where possible.

1.1.1. Inputs and Outputs

The following are used in Service Review to represent process outputs and inputs:

- **Service Review Report** - A document containing the results and findings from a Service Review. This report is an important input for the definition of improvement initiatives.
- **Suggested Service Improvement** - Suggestion for improving service quality or economics, handed over from other Service Management processes to the Continual Service Improvement process. Suggestions may originate from anywhere within or

outside of the IT organization and may include suggestions for improving the way a service is provided or for modifying service agreements (SLAs, OLAs and UCs).

1.2. Process Evaluation

Objective: To evaluate processes on a regular basis. This includes identifying areas where the targeted process metrics are not reached, and holding regular benchmarking, audits, maturity assessments and reviews.

1.2.1. Process Evaluation sub-processes

- **Process Management Support:** To support all parties involved in managing and improving processes, the Process Owners. This process will also coordinate all modifications to processes and update the Process Architecture, thereby making sure that all processes cooperate in a seamless way.
- **Process Benchmarking:** To evaluate processes in relation to comparable organizations, with the aim of identifying shortcomings and developing plans for improvement.
- **Process Maturity Assessment:** To evaluate processes in relation to best practice, with the aim of identifying shortcomings and developing plans for improvement (see Process Evaluation Report).
- **Process Audit:** To perform process audits in order to certify compliance of the processes with certain standards or regulatory requirements.
- **Process Control and Review:** To submit processes to regular reviews, and to identify process weaknesses which should be addressed by process improvement initiatives.

1.2.2. Inputs and Outputs

The following are used in Process Evaluation to represent process outputs and inputs:

- **Change Request to Process Architecture:** A request to change or extend the Process Architecture, usually issued from the Service Design process when the introduction or modification of a service is not possible within the constraints of the existing process framework.
- **KPI Target Value:** The to-be value of a Key Performance Indicator (KPI). It is the responsibility of the Process Owners to manage and optimize processes so that KPI targets are achieved.
- **Process Architecture:** An overview of all processes and process interfaces, used as a tool to make sure that all processes within an organization cooperate in a seamless way. The Process Architecture is part the Enterprise Architecture.
- **Process Assessment Guideline:** A guideline describing the four most-often used approaches to evaluate the underlying service management processes: Process Maturity

Assessments, Benchmarks, Audits and Process Reviews.

- **Process Design:** The description of a process including its inputs and outputs, activities, and responsibilities. Process Designs are under the control of Process Management.
- **Process Evaluation Program:** The purpose of the Process Evaluation Program is to make sure all relevant processes and areas of the organization are subject to regular Process Maturity Assessments, Benchmarks, Audits and/ or Process Reviews, as appropriate.
- **Process Evaluation Report:** The results from a Process Maturity Assessment, Benchmarking, Audit, or Process Review, including identified shortcomings and areas which must be addressed by improvement initiatives.
- **Process Metric (KPI):** Process Metrics (Key Performance Indicators – KPIs) define what is to be measured and reported to help manage a process.
- **Seven-Step Improvement Guideline:** The Seven-Step Improvement approach (7-Step Improvement) is presented in the ITIL books as the Seven-Step Improvement Process. Rather than a process it is in fact the description of a methodology which can be universally applied to identify shortcomings in services and processes and to implement improvements.
- **Suggested Process Improvement:** Suggestion for improving Service Management processes, handed over to the Continual Service Improvement process. Suggestions for process improvements may originate from anywhere within the IT organization.

1.3. Definition of CSI Initiatives

Objective: To define specific initiatives aimed at improving services and processes, based on the results of service reviews and process evaluations. The resulting initiatives are either internal initiatives pursued by the service provider on his own behalf, or initiatives which require the customer's cooperation.

1.3.1. Inputs and Outputs

The following are used in Definition of CSI Initiatives to represent process outputs and inputs:

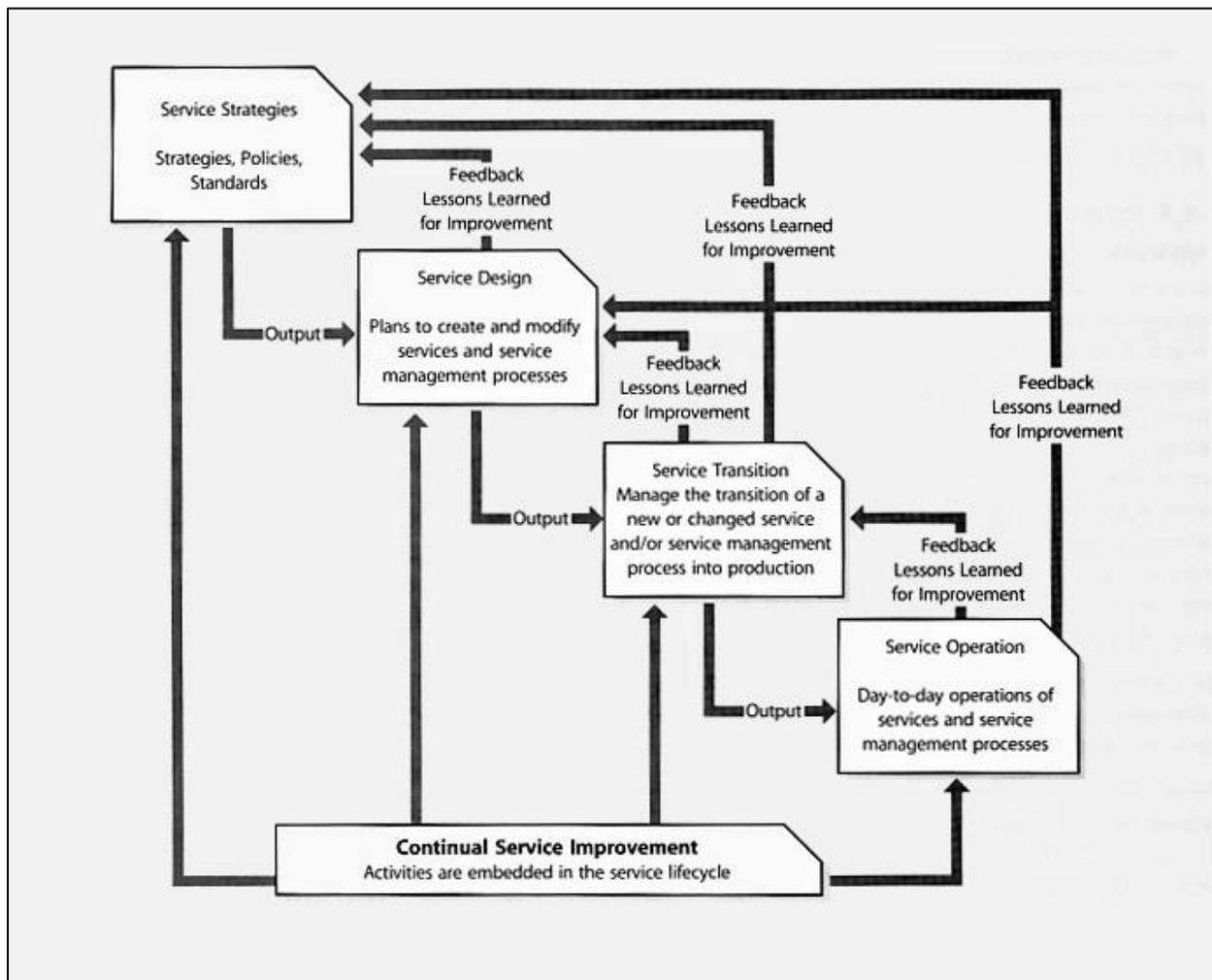
- **CSI Register:** The CSI Register is used to record and manage improvement opportunities throughout their lifecycle. The addition of new entries to the CSI Register is typically triggered by Continual Service Improvement.

1.4. Monitoring of CSI Initiatives

Objective: To verify if improvement initiatives are proceeding according to plan, and to introduce corrective measures where necessary.

2. CSI integration with IT Service Management Life Cycle Modules

In order to support improvement activities, it is important to have CSI integrated within each lifecycle stage including the underlying processes residing in each lifecycle phase.



Monitoring and Data Collection happens throughout the Service Lifecycle:

- **Service Strategy** is responsible for monitoring the progress of strategies, standards, policies and architectural decisions that have been made and implemented. Service improvement opportunities could be driven by external factors such as new security or regulatory requirements, new strategies due to mergers or acquisitions, changes in technology infrastructure or even new business services to be introduced. Feedback from the other core phases of the service lifecycle will also be important.
- **Service Design** monitors and gathers data associated with creating and modifying (design efforts)

of services and service management processes, and measure CSFs and KPIs that were defined through gathering business requirements. This also measures project schedules, progress to project milestones, and project results against goals and objectives. New strategies, architecture, policies and business requirements will drive the need for continual improvement within Service Design.

- **Service Transition** monitors and gathers data on the actual release into production of services and service management processes. It ensures that the services and service management processes are embedded in a way that can be managed and maintained according to the strategies and design efforts. Service transition develops the monitoring procedures and criteria to be used during and after implementation. As new strategies and designs are introduced this provides an excellent opportunity for continual improvement.
- **Service Operation** is responsible for the monitoring and initial reporting related to the people, processes and infrastructure technology necessary to ensure a high quality, cost-effective provision of IT services which meet the business needs. When there is a discrepancy between what was actually delivered and what was expected this becomes a service improvement opportunity. Within the Service Operation phase of the lifecycle, internal reviews would be performed to determine the results, what led to these results, and if necessary, recommendations for some level of fine tuning. The integration of service improvement within the service lifecycle is an approach that provides for Continual Service Improvement activities to be in place within each of the other core disciplines of the service lifecycle.

CSI receives the collected data as input in the remainder of CSI activities.

3. CSI Methods & Techniques

3.1. Effort and Cost

CSI improvement activities can require a considerable amount of effort and money for larger-scale improvement projects to minimal time and effort for some incremental improvements. If the effort is going to be costly then the organization, both IT and the business must ask is it worth it?

Possible major cost topics are:

- Labor cost
- Tooling cost
- Training cost
- Expertise cost

When deciding whether the measurement framework is worth the effort, consider the amounts to spend on:

- Implementation of the measurement framework, initially and if it changes

- Operation
- Maintenance

3.2. Implementation Review and Evaluation

Implementation review and evaluation is key to determining the effectiveness of a CSI improvement programme.

Review and evaluation of a CSI initiative fall within two broad categories:

- Issues closely tied to the original problem situation with respect to the IT service provision to the business and ensuing business aims and strategy for the improvement thereof
- Issues in relation to the planning, implementation and proceedings of the IT improvement programme itself and associated projects such as measurements, problems, actions and changes

3.3. Assessments

Assessments are an effective method of answering the question 'Where are we now?' Understanding how an existing service is performing or how effective and efficient service management processes are, is important for identifying the gap between where we are and where we want to be.

The advantage of assessments is they provide an approach to sample elements of a process or the process organization which impact the efficiency and the effectiveness of the process.

The initial step in the assessment process is to choose (or define) the maturity model and in turn the maturity attributes to be measured at each level. These frameworks define maturity models directly or a model can be inferred.

When to assess?

- **Plan (project initiation)** - Assess the targeted processes at the inception of process introduction to form the basis for a process improvement project. Processes can be of many configurations and design which increases the complexity of assessment data collection.
- **Plan (project midstream)** - A check during process implementation or improvement activities serves as validation that process project objectives are being met and, most importantly, provide tangible evidence that benefits are being achieved from the investment of time, talent and resources to process initiatives.
- **Do/Check (process in place)** - Upon the conclusion of a process project, it is important to validate the maturation of process and the process organization through the efforts of the project team. In addition to serving as a decisive conclusion for a project, scheduling periodic reassessments can support overall organizational integration and quality efforts.

What to assess and how?

- **Process** - Assessment only of process attributes based on the general principles and guidelines

of the process framework which defines the subject process.

- **People, process and technology** - Extend the process assessment to include assessment of the skills, roles and talents of the managers and practitioners of the process as well as the ability of the process enabling technology deployed to support the objectives and transaction state of the process.
- **Full assessment** - Extend the people, process and technology assessment to include an assessment of the culture of acceptance within the organization, the ability of the organization to articulate a process strategy, the definition of a vision for the process environment as an 'end state', the structure and function of the process organization, the ability of process governance to assure that process objectives and goals are met, the business/IT alignment via a process framework, the effectiveness of process reporting/metrics, and the capability and capacity of decision-making practices to improve processes over time.

All these factors are compared to the maturity attributes of the selected maturity model.

3.4. Gap Analysis

Gap analysis is a business assessment tool enabling an organization to compare where it is currently and where it wants to go in the future. This provides the organization with insight to areas which have room for improvement.

The process involves determining, documenting and approving the variance between business requirements and current capabilities. Gap analysis naturally flows from benchmarking or other assessments such as service or process maturity assessments. Once the general expectation of performance is understood then it is possible to compare that expectation with the level of performance at which the company currently functions. This comparison becomes the gap analysis. Such analysis can be performed at the strategic, tactical or operational level of an organization.

Gap analysis can be conducted from different perspectives such as:

- Organization (e.g. human resources)
- Business direction
- Business processes
- Information technology

3.5. Benchmarking

Benchmarking is a process used in management, particularly strategic management, in which organizations evaluate various aspects of their processes in relation to best practice, usually within their own sector. This then allows organizations to develop plans on how to adopt such best practice, usually with the aim of increasing some aspect of performance. Benchmarking may be a one-time occurrence event but is often treated as a continuous process in which organizations continually seek to challenge their practices.

It will be necessary to:

- Ensure **senior management support**.

- **Take an external view** - Bring together business intelligence and internal performance to draw conclusions about the way internal resources and
- **Processes** must be improved to achieve and surpass the performance of others.
- **Compare processes, not outputs** - Comparisons with organizations in the same sector are unlikely to identify the significant improvements that have been made elsewhere or overturn the conventions of the sector.
- **Involve process owners** - Their involvement encourages acceptance and buy-in by those who will be affected immediately by the changes which will be required to improve performance.
- **Set up benchmarking teams** - As a benchmarking culture develops, people will apply the method as part of the normal way in which they manage their work.
- **Acquire the skills** - People who undertake benchmarking require a small amount of training and guidance; an experienced in-house facilitator or external consultant will probably be required to provide technical assurance and encouragement in the application of the method.

3.6. SWOT Analysis

SWOT stands for **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats.

This technique involves the review and analysis of four specific areas of an organization: the internal strengths and weaknesses, and the external opportunities and threats. Once analyses, actions should be taken to:

- Develop, exploit and capitalize on the organization's strengths
- Reduce, minimize or remove weaknesses
- Take maximum advantage of opportunities
- Manage, mitigate and eliminate threats

The first step is to define the desired end state or objective. This objective definition must be explicit and approved by all participants in the process.

Once the objective is identified, SWOT are discovered and listed:

- Strengths are internal attributes of the organization that are helpful to the achievement of the objective.
- Weaknesses are internal attributes of the organization that are harmful to the achievement of the objective.
- Opportunities are external conditions that are helpful to the achievement of the objective.
- Threats are external conditions that are harmful to the achievement of the objective

SWOT analysis can be conducted on a service or a process.

Section D: Governance and Process Controls

1. Metrics and Measurement

It is important to remember that there are three types of metrics that an organization will need to collect to support CSI activities as well as other process activities. The types of metrics are:

- **Technology metrics** - These metrics are often associated with component and application-based metrics such as performance, availability etc.
- **Process metrics** - These metrics are captured in the form of CSFs, KPIs and activity metrics for the service management processes. These metrics can help determine the overall health of a process. Four key questions that KPIs can help answer are around quality, performance, value and compliance of following the process. CSI would use these metrics as input in identifying improvement opportunities for each process.
- **Service metrics** - These metrics are the results of the end-to-end service. Component metrics are used to compute the service metrics.

2. Key Performance Indicators (KPI) & Critical Success Factors (CSF)

The following lists the Critical success factors & key performance indicators (KPIs) that have been selected for tracking the success of the CSI plan.

| Sl. No. | CSF | KPI |
|-------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Service Review KPIs | | |
| 1. | Number of Service Reviews | Number of formal Service Reviews carried out during the reporting period |
| 2. | Number of identified Weaknesses | Number of weaknesses which were identified during Service Review, to be addressed by improvement initiatives |
| Process Evaluation KPIs | | |
| 1. | Number of Process Benchmarking, Maturity Assessments, and Audits | Number of formal Process Benchmarking, Maturity Assessments, and Audits carried out during the reporting period |
| 2. | Number of Process Evaluations | Number of formal Service Evaluations carried out |
| 3. | Number of identified Weaknesses | Number of weaknesses which were identified during Service Evaluation, to be addressed by improvement initiatives |

| Sl. No. | CSF | KPI |
|------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 4. | Number of CSI Initiatives | Number of CSI initiatives, resulting from identified weaknesses during Service Reviews and Process Evaluations |
| 5. | Number of completed CSI Initiatives | Number of CSI initiatives which were completed during the reporting period |
| Definition of CSI Initiatives KPIs | | |
| 1. | Number of CSI Initiatives | Number of CSI initiatives, resulting from identified weaknesses during Service and Process Evaluation |
| 2. | Number of completed CSI Initiatives | Number of CSI initiatives which were completed during the reporting period |

3. Reports

The following table lists the report that help identify trends and allow review of the health of the process. The acid test of the relevance of a report is to have a sound answer to the question, "What decisions is this report helping management to make?"

A CSI summary report can have the following details:

| Sl. No. | Data | Notes |
|---------|--------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 1. | Monthly overview | This is a summary of the service measurement for the month and discusses any trends over the past few month |
| 2. | Results | This section outlines the key results |
| 3. | Accomplishments, Issues & Challenges | Are there any issues or activities that contributed to the results for this month? |
| 4. | Actions to take | What action have you taken or would like to take to correct any undesirable results? |
| 5. | Upcoming Milestones | Define what the future actions and results will be |

4. Escalation Matrix

Escalation matrix allows you to notify the right stakeholders in the event of critical issues. You can notify the right people at the right time about critical activities based on the escalation matrix. The escalation matrix is time zone specific and can be available 24X7.

Please find the link to the escalation matrix template:

<https://mygavs.gavstech.com/ims/>

Section E: ITIL Inter-relationships and Best Practices

1. Relationships with other ITIL Processes

ITIL describes an integrated set of processes which, collectively, describe an overall approach or framework to service management. These interdependencies for Availability Management process are described below.

1.1. Availability Management

Availability management provides IT with the business and user perspective about how deficiencies in the infrastructure and underpinning process and procedures impact the business operation. The use of business-driven metric enables CSI to make recommendations. The following are some of availability management methods can help CSI activities.

- Component failure impact analysis
- Fault tree analysis
- Service failure analysis

1.2. Business Continuity Management

The BCM process involves reducing the risk to an acceptable level and planning for the recovery of business processes should a risk materialize and a disruption to the business occur. It allows an IT organization to identify, assess and take responsibility for managing its risks, thus enabling it to better understand the environment in which it operates, decide which risks it wishes to counteract, and act positively to protect the interests of all stakeholders (including staff, customers, shareholders, third parties and creditors). CSI can complement this activity and help to deliver business benefits.

1.3. Capacity Management

The capacity management process must be responsive to changing requirements for processing capacity. New services are required to underpin the changing business. Existing services will require modification to provide extra functionality. Old services will become obsolete, freeing up capacity. Capacity management must ensure enough hardware, software and personnel resources are in place to support existing and future business capacity and performance requirements. Capacity management can play an important role in helping the IT support organization recognize where it can add value by exploiting its technical skills and competencies in a capacity context. The continual improvement technique can be used by capacity management to harness this technical capability. Business capacity, component & service capacity management are useful in CSI activities.

1.4. Problem Management

Problem management supports CSI activities through trend analysis and the targeting of preventive action. Problem management activities are generally conducted within the scope of service operation and CSI must take an active role in the proactive aspects of problem management to identify and recommend changes that will result in service improvements.

1.5. Change, Release & Deployment Management

CSI is an ongoing activity constantly monitoring, analysing and researching improvement opportunities, whereas release and deployment management depends on the change management process for its

work. There are many activities of the release and deployment management process that can be utilized by CSI. Once CSI has come up with a recommendation for improvement, a change request is submitted. The proposed change is then scheduled as part of a release. The release and deployment management process will identify any areas requiring improvement for new or updated services during the early life support phase.

1.6. Knowledge Management

Capturing, organizing, assessing for quality and using knowledge is great input in CSI activities. An organization must gather knowledge and analyse what the results are in order to look for trends in service level achievements and/or results and output of service management processes. This knowledge is used to identify improvement opportunities for inclusion in the CSI register, for subsequent review and prioritization of the register, and for building SIP.

2. Challenges

- Lack of management commitment
- Inadequate resources, budget and time
- Lack of mature service management processes
- Lack of information, monitoring and measurements
- Lack of Knowledge Management
- A resistance to planning and a reluctance to be proved wrong
- A lack of corporate objectives, strategies, policies am business direction
- A lack of IT objectives, strategies and policies
- Lack of knowledge and appreciation of business impacts and priorities
- Diverse and disparate technologies and applications
- Resistance to change and cultural change
- Poor relationships, communication and a lack of cooperation between IT and the business
- Lack of tools, standards and skills
- Tools too complex and costly to implement and maintain
- Over-commitment of resources with an associated inability to deliver (e.g. projects always late or over budget)
- Poor supplier management and/or poor supplier performance

3. Risks

- Being over-ambitious - don't try to improve everything at once. Be realistic with timelines and expectations
- Not discussing improvement opportunities with the business - the business must be involved in improvement decisions that will impact them
- Not focusing on improving both services and service management processes

- Not prioritizing improvement projects
- Implementing CSI with little or no technology
- Implementing a CSI initiative with no resources - this means that people must be allocated and dedicated to this
- Implementing CSI without knowledge transfer and training - this means educating first (acquire knowledge), then training (practice using the newly acquired knowledge). The training should be done as close to the launch of improvement as possible
- Not performing all steps of the 7-Step Improvement Process - it is important that all steps of the improvement process be followed; missing any one step can lead to a poor decision on what and how to improve
- Lack of making strategic, tactical or operational decisions based on knowledge gained - reports are used; people see that the reports are being used
- Lack of management acting on recommended service improvement opportunities
- Lack of meeting with the business to understand new business requirements
- The communication/awareness campaign for any improvement is lacking, late or missing altogether
- Not involving the right people at all levels to plan, build, test and implement the improvement
- Removing testing before implementation or only partially testing. This means that all aspects of the improvement (people, process and technology) must be tested, including the documentation as well

4. Best Practices that support CSI

- ISO/IEC 2000
- Service Level Management
- Business Relationship Management
- COBIT
- COBIT defined processes to support CSI
- Six Sigma
- CMMI
- Project Management
- Swim Lane
- Value Stream Mapping
- Total Quality Management (TQM)
- Deming Cycle (PDCA)
- Juran 4-phased approach

- Crosby TQM Approach
Management Governance Framework