ITILv3 Introduction and Overview

What is ITIL - Information technology Infrastructure library

- Public framework describes the best practice in IT service management.
- It focuses on the continual improvement of the quality of the IT service delivered from both business and customer perspective.

- Benefits
  - Increased user and customer satisfaction
  - Improved service availability
  - Increased business profits and revenue
  - Financial savings from reduced rework
  - Improved decision making and optimized risk

WHY SHOULD YOU DO IT?

- It is an emerging necessity
- Customers are demanding it
- It Value-Adds to Individual Career Development

ITIL and its Objectives …

- Is a collection of books which contain recommendations & suggestions to improve provision of IT Services
- Not a standard but a provides a Framework of Best practice guidance for IT Service management.
- Needs to be adopted and/or adapted.
- Ensure that IT services are aligned to the business and actively support them

Agenda for the Session

- What is ITIL?
- What about v3?
- Key Concepts
- Service Management & Delivery
- The Service Lifecycle
- The Five Stages of the lifecycle
- ITIL Roles
- Functions and Processes
- Further Learning
- Accreditation

What is ITIL?

- Systematic approach to high quality IT service delivery
- Documented best practice for IT Service Management
- Provides common language with well-defined terms
- Developed in 1980s by what is now The Office of Government Commerce
- itSMF also involved in maintaining best practice documentation in ITIL
  - itSMF is global, independent, not-for-profit

What about v3?

- ITIL started in 80s.
  - 40 publications!
- v2 came along in 2000-2002
  - Still Large and complex
  - 8 Books
  - Talks about what you should do
- v3 in 2007
  - Much simplified and rationalised to 5 books
  - Much clearer guidance on how to provide service
  - Easier, more modular accreditation paths
  - Keeps tactical and operational guidance
  - Gives more prominence to strategic ITIL guidance relevant to senior staff
  - Aligned with ISO20000 standard for service management

ITIL V3 VS. ITIL V2

ITIL v2	ITIL v3
More process Oriented	Lifecycle Based Approach
Focus on Products, Process & People	Focus on Partners apart from 3 Ps
Security Management a part of Availability	Security Management is a separate process
Emphasize on SD & SS	Equal attention to all the processes
10 processes + 1 Function	20 processes + 4 Functions
IT & Business Alignment	IT & Business Integration

Service Life Cycle approach

4 Ps of Service Management

- People – skills, training, communication
- Processes – actions, activities, changes, goals
- Products – tools, monitor, measure, improve
- Partners – specialist suppliers

ITIL v3 PROCESSES & FUNCTIONS

1.SERVICE STRATEGY
Demand Management
Service Portfolio Management
Financial Management

5.CONTINUAL SERVICE IMPROVEMENT
•7 Step Improvement Process
–Service Reporting
–Service Measurement

Service Lifecycle Approach

4.SERVICE OPERATION
Service Desk (FUNCTION)
Incident Management
Event Management
Request Fulfillment
Access Management
Problem Management
Technical Management (FUNCTION)
IT Operations Management (FUNCTION)
Application Management (FUNCTION)

2.SERVICE DESIGN
Service Catalog Management
Service Level Management
Availability Management
Capacity Management
Supplier Management
Information Security Management
Service Continuity Management

3.SERVICE TRANSITION
Service Asset & ***Configuration Management***
Change Management
Release & Deployment ***Management***
Knowledge Management

Key CONCEPTS……..

- Utility and Warranty
- Value
- Service & Service Owner
- Service Management
- Process & Process Owner
- Functions, Staff, Roles
- Metrics, Interfaces
- RACI
- PDCA
- Compliance & Governance

Utility & Warranty

- **Utility**
- What does the service do?
- Functional Requirements
- Features, inputs, outputs
- "Fit For Purpose"

- **Warranty**
- How well does the service do it?
- Non-functional requirements
- Capacity, performance, availability
- "Fit For Use"

Value Creation

- **VALUE:**

Value is created when service providers are able to deploy their capabilities and resources (i.e. service assets), and with a certain level of assurance, deliver to the customer a greater utility of their services. As established earlier, this utility is in the form of enhancing or enabling the performance of customer assets, and contributing to the realization of business outcomes.

- **Service**
  The means of delivering value to the customer by achieving the customer desired results while working within given constraints

- **Service Management**
  - A set of specialized organizational capabilities which help us providing value to the customers in the form of services they enjoy AND/OR a set of Functions & Processes which manage the service

Key Concepts >> Service Owner

Service Owner

An individual or a team which is responsible towards customer for a given service and he is responsible for

- To act as **prime customer contact** for all service-related enquiries and issues
- To **ensure that the ongoing service delivery and support meet agreed customer requirements**
- To identify **opportunities for service improvements**
- To **liaise** with the appropriate process owners
- To solicit required data, statistics, and reports for analysis
- To be **accountable** to **the IT director or Service Management director**

Key Concepts >> Process

- Process

  A set of activities which are carried out in a given manner to achieve the desired objective

- A Process may define Policies, Standards, Guidelines, Activities, and Work Instructions if they are needed
  - A process is
    - Measurable
    - Yields desired result
    - Delivers result to customers
    - Responds to specific events or requirements
    - Closed Loop

Key Concepts >> Process Owner

Process Owner

Documenting and publicizing the process

- **Defining the KPIs to evaluate the effectiveness and efficiency of the process**
- Reviewing KPIs and taking the required action following the analysis
- Assisting with and being ultimately **responsible for the process design**
- **Improving the effectiveness and efficiency of the process**
- Reviewing any proposed enhancements to the process
- Providing input to the ongoing Service Improvement Plan
- Addressing any issues with the running of the process
- Ensuring that all relevant staff have the required training in the process
- Ensuring that the process, roles, responsibilities, and documentation are regularly reviewed

Key Concepts >> Function

- Function
  - A Group of people & their tools used to carry out one or more processes or activities
  - Units of organizations specialized to perform a certain type of work and responsible for specific outcomes.
  - self-contained with capabilities and resources necessary for their performance and outcomes.

- Staff
  - The personnel who are assigned to carry out specified tasks or activities
- Roles
  - A set of authorities, responsibilities & activities assigned to individual or personnel

Key Concepts >> Matric and Interface

- Metrics or KPIs
  - A measurement unit which imparts an ability to “Judge” the performance of a service

- Interfaces
  - The overlaps or linkages between two or more processes
  - Processes exchange data (input or output) via these linkages

Memorization aid to remember the Main processes in Service Life cycle

- In Software Development Testing Outputs are obtained for the Inputs provided Where
  - Software - Stands for Service strategy
  - Development – Stands for Service Design
  - Testing – Stands for Service Transition
  - Outputs – Stands for Service Operation
  - Inputs – Stands for Continuous Service Improvements

Service Strategy

Service Strategy

What Is Service Strategy?

The Service strategy volume provides guidance on how to design, develop, and implement service management not only as an organizational capability but also as a strategic asset.

- **Successful Service Strategy will ensure:**

- IT goals are aligned to business goals.
- Annual IT initiatives that support business goals have been identified.
- There is agreement on both the strategy and a corresponding plan for achieving the goals and initiatives.
- The strategy is assessed against business outcomes.
- Opportunities for improvement are identified.

Service Strategy

- **Activities Performed:**

- Aligning IT goals to business goals.
- Mapping and prioritizing business functions to the IT service portfolio.
- Defining initiatives.
- Finalizing and agreeing on an annual strategy.
- Managing performance.

Service Strategy

- **Demand Management**
- Managing Demands – Challanges
- Activity Based Demand Management
- Business Activity Patterns
- Service Packages

Financial Management

Benefits

Concepts, Inputs and Outputs

Methods, Models, Activities and Techniques

Key Decisions for Financial Management

Service Portfolio Management

Definition → Analyse → Approve → Charter

Service Strategy >> Financial

- Is our differentiation strategy resulting in higher profits or revenues, lower costs, or greater service adoption?
- Which services cost us the most, and why?
- What are our volumes and types of consumed services, and what is the correlating budget requirement?
- How efficient are our service provisioning models in relation to alternatives?

Service Strategy >> Financial

- Does our strategic approach to service design result in services that can be offered at a competitive
- ‘market price’, substantially reduce risk or offer superior value?
- Where are our greatest service inefficiencies?
- Which functional areas represent the highest priority opportunities for us to focus on as we
- generate a Continual Service Improvement strategy?

Service Strategy >> Demand

- **Demand Management Key Factors**
- Excess Capacity generates cost without creating value that provides a basis for cost recovery.
- Customers may be reluctant to pay for idle capacity unless has a value for them
- Insufficient capacity has impact on the quality of services delivered --> Stunted growth of service

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- **Tools to Manage Demand**
- Service level agreements, forecasting, planning, and tight coordination with the customer can reduce
- the uncertainty in demand but cannot entirely eliminate it.
- Techniques such as off-peak pricing, volume discounts and differentiated service levels can influence
- the arrival of demand in specific patterns.

Service Strategy >> Portfolio

- Decide what services to offer
- Understand
  - Why Should a customer buy these services?
  - Why should they buy it from us?
- Provide direction to Service Design
  - So they can manage a fully exploit the services into the future

Service Strategy >> Portfolio

- Service Name
- Service Description
- Service Status
- Service Classification and criticality
- Applications used
- Data and/or data schema used
- Business owners
- IT Owners
- Service Warranty level, SLA, and SLR references
- Supporting Services and supporting resources
- Dependent Services
- Supporting OLA’s Contracts and agreements
- Service Costs
- Service Charges (If Applicable)
- Service Revenue (If Applicable)
- Service Matrics

Service Strategy >> Activity

- You are a startup and approaching a customer for service provisioning. You have to
- work on the following Points:

- **Portfolio:** Why did you choose this Portfolio?

- **Delivery:**
- How will you deliver this? (you can check on the team strength on level of support i.e.
- If it is 24x7 then how are you going to deliver)
- How will you measure the performance of the service provided?
- How will you charge the customer for those services?
- **Differentiation Factor:**
- How are you different from the Competition?

Service Design

Service Design

- Service Catalogue Management

- -Sub Part of Portfolio Management
- -List of specific Services provided
- -Helps in designing manpower req.
- -Also forms Basis of SLA

Some Terms:

MTTR – Mean Time to Re`pair

MTBF – Mean Time Between Failures

MTBSI – Mean Time Between System Incidents

Availability Management

-High Availability

-Reliability

-Resilience

-Maintainability / Recoverability

-Serviceabilty

Planning & Monitoring

-Determinig the Availability

-Designing for Availability

-Designing for Recoverability

-Security Issues

-Maintenance Management

-Developing the Availability Plan

Monitoring

-Measureing & Reporting

Service Design

- Service Level Management:

- Set of People and systems that allow
- the organization to ensure that
- Agreed quality of services are being
- Met and that the necessary Resources
- are being provided.

- Service Continuity Management

- ITSCM supports overall Business
- Continuity Management (BCM) by
- Ensuring that required IT Services
- Can be restored within agreed
- Business timescales.

Service Design >>

SLM

- May be the driver for Service Improvement Plan

- Process of
- - Negotiating
- - Defining
- - Measuring
- - Managing and
- - Improving
- *All this must take place in an environment with a rapidly changing Business Needs and Technology

- **Objectives**
- - Integrate elements required for the provision
- Of IT Services
- - To Create documents that clearly describes the
- services by the various elements
- - To describe the services provided to the
- customer in understandable terms
- - Align IT Services to Business needs
- - Improve IT Service delivery in a controlled
- manner

Service Design >> SLM

- **Responsibilities**
- **Identify** – Customer Needs / Understand them
- **Define** – Service to be provided to meet needs
- **Finalize** – The contract (Nego. For Cost, SLA etc.)
- **Monitor** – Service Levels -Technical+Procedural
- **Report** – Drawing up Service Level Reports. Sharing with Customer, comparing with Service Level Achievements
- **Review** – The service together with the Customer to determine opportunities for improvement.

- **Related Documents :**
- Service Level Requirement (SLR)
- Service Specification Sheet
- Service Quality Plan (SQP) – KPI,CSF (How we Deliver). Covers Targets for each process
- Service Catalogue – Operational Services
- Service Level Agreement (SLA) – What we Deliver. Standard for measuring IT Service
- Operational Level Agreement (OLA)
- Underpinning Contracts (UC)
- Service Level Achievement
- Service Level Reports
- Service Improvement Programme (SIP)

Service Design >> ITSCM

- Ensures resumption of services within
- agreed time-scale

- Business Impact Analysis informs
- decisions about resources

- **ITSCM Supports overall BCM by**
- **Ensuring that required IT Infra and IT**
- **Services can be restored within**
- **Agreed business time-scales**

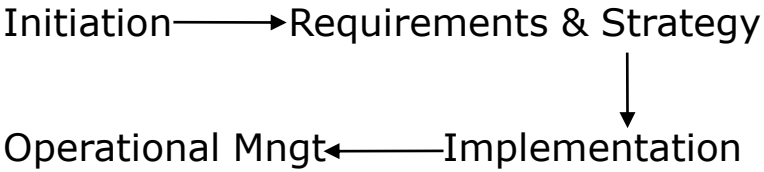
- E.g. Stock Exchange can’t afford 5 minutes downtime but 2 hours downtime probably wont badly affect a departmental accounts office or a college bursary

Service Design >> ITSCM

- **Disaster:** An Event that affects a service or
- A System such that significant effort is
- Required to restore the original
- Performance level

- Examples: Fire, Water Damage, Large Scale
- Power outage

Activities:



- **Methods Used for Recovery:**

- **Cold**
- Accommodation and environment
- ready but no IT equipment
- **Warm**
- As cold plus backup IT equipment to
- receive data
- **Hot**
- Full duplexing, redundancy and
- fail-over

Service Design

- **Supplier Management**

- Supplier Management is where the
- complete relationship with vendor is
- Maintained, which includes but is not
- Limited to:
- Monitoring Performance of the Vendor
- Monitoring Contract and Expiry
- Logging calls with Vendor (if req.)

- **Information Security Management**

- **Confidentiality**
- Making sure only those authorised can see
- data
- **Integrity**
- Making sure the data is accurate and not
- corrupted
- **Availability**
- Making sure data is supplied when it is
- requested

Service Design

- Capacity Management
- Definition: Right Capacity, Right Time, Right Cost!
- Design your capacity requirements such that it is cost effective for current needs and is also able to fulfil future needs.
- Balances Cost against Capacity so minimises costs while maintaining quality of service

Service Transition

Service Asset & Configuration Management
Change Management
Release & Deployment Management
Knowledge Management

Service Transition

- Service Transition Basic Steps:
- Build - Deployment - Testing - User acceptance - Bed-in

A good Service transition ensures:

Set customer expectations
Enable release integration
Reduce performance variation
Document and reduce known errors
Minimise risk
Ensure proper use of services

Some things excluded:

Swapping failed device

Adding new user

Installing standard software

Service Transition

- **Service Asset and Configuration Management**
- Managing these properly is key
- Provides Logical Model of Infrastructure and Accurate
- Configuration information
- Controls assets
- Minimised costs
- Enables proper change and release management
- Speeds incident and problem resolution

- **Change Management**
- Any deviation in the current configuration of the IT Infrastructure is a change.

Service Transition >>
Configuration Management

- Provides reliable and up-to date information
- about IT Infrastructure

- Checks if changes in IT Infrastructure have been
- Recorded correctly

- Maintains relationship between all items in IT
- Infrastructure

- Monitors status of all IT Components

- Ensures an accurate picture of the versions of
- All IT Components

- Configuration Item: Any IT Component and
- services provided with them

- CMDB: Configuration management Database

- **Points to rememeber:**
- Only Change Management can authorize change
- in CMDB

- Incident Management may change only the
- Status of the CI.

Change Management

- What is Change?
- Why Do we Need Change Management?
- Inputs for Change Management.
- Outcomes of Change Management.
- Types of Changes

Change Management

- Ensures that all changes are
  - Assessed
  - Approved
  - Implemented
  - Reviewed

  in a controlled manner.

Why Do We Need It?

- Keep a track on any change in the Infrastructure
- Filtering RFC and accepting them
- Classifying the changes by category /Priority
- Consolidating, planning and coordinating the changes. Making sure all resources are available for the change to take place.
- Involving CAB whenever necessary.
- Coordinating for closure
- Evaluating the change, if it has achieved the purpose by means of a PIR
- Closing the changes after review.
- Arrange all authorizations required to implement a change.

Inputs and Outputs Of Change Management

Change Can Be Triggered By

Resolution of an Incident

Resolution of a Problem

Introduction of a New or Changed CI

New or changed Business Requirement

Customer / User Dissatisfaction

Regulatory Changes

Inputs for Change Management

RFC's

CMDB Information

Information from Other Processes

Change Planning

Output for Change Management

Updated Change Planning (FSC's)

CAB Agenda

Minutes of Meetings

Other Change Management Reports

Also Triggers Configuration and Release Management

Change Manager / CAB Meetings

Change Manager is Responsible For

Filtering

Accepting

Classifying

all RFC's

Changes are assessed / Prioritized based on:

Business Requirements

Financial Impact

Technical Feasibility

Regulatory Requirements and Constraints.

CAB Meeting Attendees are:

Change Manager

Service Level manager

Service Desk Rep / Problem Management

IT Line Managers

Business Managers – Client Side

User Group Representatives

Other Stake Holders (Requester / Supplier Representatives)

Change Types and Procedural Changes

- Standard
- Routine Management Tasks.
- Handled by Service Requests

- Creating User ID
- Changing network Connections
- New PC Installations

Normal

Any change following a normal procedure.

Low Impact

Low Urgency

Low Criticality

Emergency

Do Not Follow Normal CAB Procedure

Offlline Approvals are saught

Triggered by Sev 1 Incidents

Service Transition

- Release And Deployment Management
- Release is a collection of authorised and tested
- changes ready for deployment

- A roll-out introduces a release into the live
- environment
- **Full Release**
- e.g. Office 2007
- **Delta (partial) release**
- e.g. Windows Update
- **Package**
- e.g. Windows Service Pack

Roll-out Types

Phased

Big Bang

- Knowledge Management
- Vital to enabling the right information
- to be provided at the right place and
- the right time to the right person to
- enable informed decision

- Stops data being locked away with
- individuals

- Obvious organisational advantage

Service Operations

Incident Management
Event Management
Request Fulfillment
Access Management
Problem Management

Service Desk (FUNCTION)
Technical Management (FUNCTION)
IT Operations Management (FUNCTION)
Application Management (FUNCTION)

Service Operations

- Maintenance
- Management
- Realises Strategic Objectives and is where the Value is seen

Service Operations

- Service Desk
- Local, Central or Virtual : Examples?
- Single point of contact

Skills for operators
Customer Focus
Articulate
Interpersonal Skills (patient!)
Understand Business
Methodical/Analytical
Technical knowledge
Multi-lingual

Service desk often seen as the bottom of the pile
Bust most visible to customers so important to get right!

- Incident Management

Deals with unplanned interruptions to IT Services or reductions in their quality

Failure of a configuration item that has not impacted a service is also an incident (e.g. Disk in RAID failure)
Reported by:
Users
Technical Staff
Monitoring Tools

Service Operations

- Event Management

- Event Management monitors all events that
- occur throughout the IT infrastructure, to
- monitor normal operation and to detect and
- escalate exception conditions.
- 3 Types of events
- - Information
- - Warning
- - Exception (Higher Latency)
- -Need to make sense of events and have
- appropriate control actions planned and
- documented

- Request Fulfilment

- Request Fulfilment is the process for dealing with Service Requests – many of them actually smaller, lower-risk, changes – initially via the Service Desk, but using a separate process similar to that of Incident Management but with separate request Fulfilment records/tables – where necessary linked to the Incident or Problem Record(s) that initiated the need for the request. To be a Service Request, it is normal for some prerequisites to be defined and met
- (e.g. needs to be proven, repeatable, pre-approved, proceduralized).

Service Operations

- Access Management
-

  Access Management is the process of granting authorized users the right to use a service, while restricting access to non authorized users. It is based on being able accurately to identify authorized users and then manage their ability to access services as required during different stages of their Human Resources (HR) or contractual life-cycle Access Management has also been called Identity or Rights Management in some organizations.

- Problem Management
  - Aims to prevent problems and resulting incidents
  - Minimises impact of unavoidable incidents
  - Eliminates recurring incidents
  - Proactive Problem Management
  - Identifies areas of potential weakness
  - Identifies workarounds
  - Reactive Problem Management
  - Identifies underlying causes of incidents
  - Identifies changes to prevent recurrence

Service Operations

- Technical Management
- Technical Management provides detailed technical skills and resources needed to support the ongoing operation of the IT Infrastructure
- The aim of the technical management is to achieve an optimum design of resilient, cost-efficient technology infrastructures

- IT Operations Management
- IT Operations Management executes the daily operational activities needed to manage the IT Infrastructure. This is done according to the Performance Standards defined during Service Design.
- Operations control: processing of the console management, job scheduling, backup & restore procedures, printout and output management as well as the maintenance work for the various technologies
- Facility Management: management of the physical IT environment. Typically this includes the data center rooms, recovery sites or network room as well as securing the air-conditioning and a reliable power supply.

Service Operations

- Application Management
-

  Application Management is responsible for managing Applications throughout their lifecycle. The Application Management function supports and maintains operational applications and also plays an important role in the design, testing and improvement of applications that form part of IT services. Application Management is usually divided into departments based on the application portfolio of the organization, thus allowing easier specialization and more focused support.

CSI – Continual Service Improvement

Service Reporting

7 Step Improvement Plan

CSI – Continual Service Improvement

About CSI

Focus on Process owners and Service Owners

Ensures that service management processes continue to support the business

Monitor and enhance Service Level Achievements

Plan – do –check – act (Deming)

Service Reporting

An ideal approach to the implementation of a business-focused service reporting is to take the time to define and agree the guidelines and rules with the business and the service design. This includes:

The target groups and their business views.

Agreement on what is to be measured and to whom the report is to be sent.

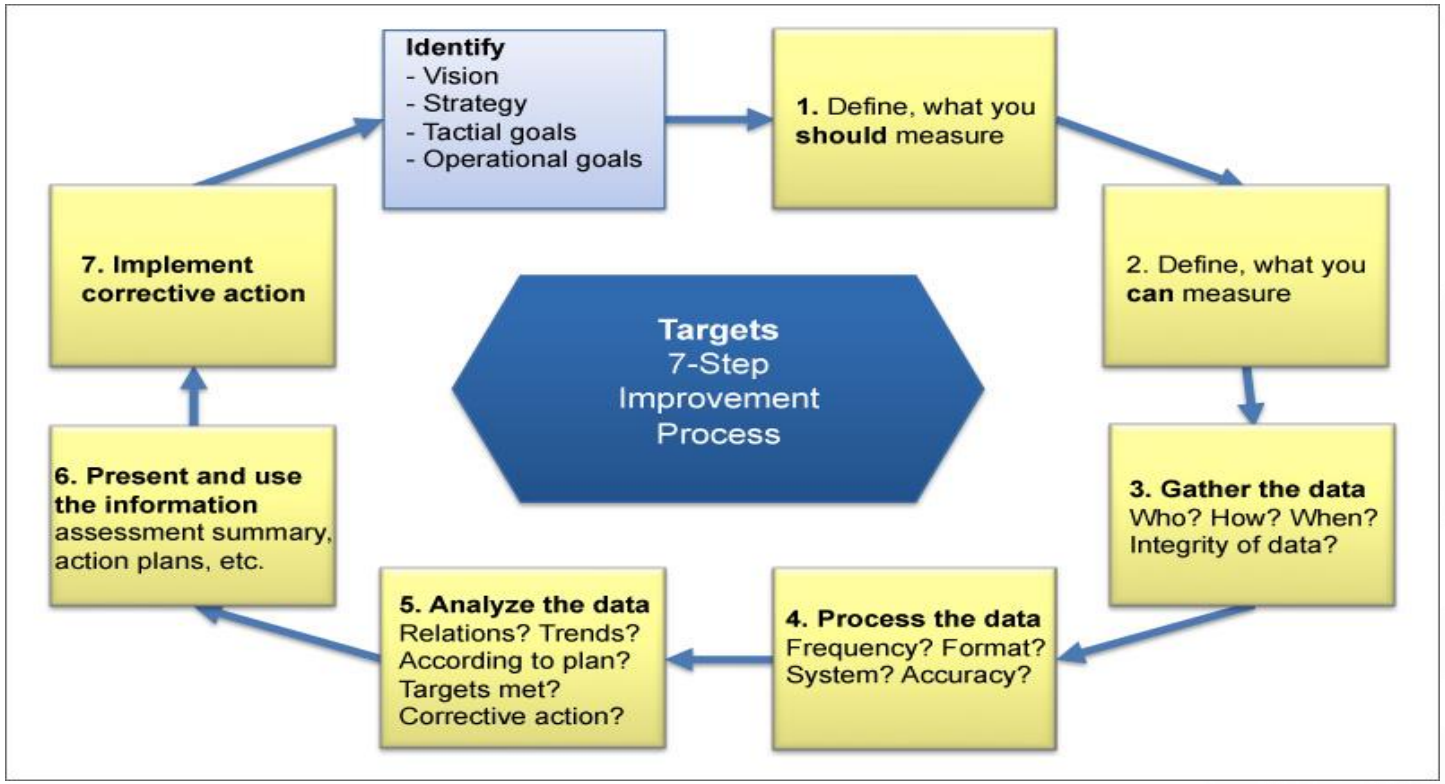
Basis for all calculations.

Reporting times.

Access to the reports and the delivery medium.

Review meetings for improving the service report

CSI >> 7 Step Improvement Plan



Any Questions ??

Thank You ....

Rohit Kachroo | Logos Consultancy

rohit.kachroo@gmail.com | +91-9920440734