

ITIL

Topics to discuss

- Introduction to ITIL and ITSM
- What is ITIL?
- ITSM Introduction — ITSM
- Why ITSM — ITSM
- Basic concept of ITIL4 and RACI
- What Is ITIL V4?
- RACI Matrix
- Difference between ITIL v3 and ITIL 4
- Service Value System and Framework v0.1
- ITIL v4 Service Value Chain Defined
- Service Level Management and Change Control v0.1
- SLM Example - Explained using Pizza Delivery



Topics to discuss

- What is change Management
- What Is Change Management Flow
- Change Management- Example
- Service Management Practice Overview v0.1
- Event Management
- Incident Management v0.1
- Incident Management - Explained
- Prioritization
- Problem Management
- Problem Management - Explained
- Service Request Fulfillment



What is ITIL?

- Full form – *Information Technology Infrastructure Library*.
- ITIL is a framework for ITSM (Information Technology Service Management).
- ITSM encompasses various **processes, policies, and procedures** aimed at designing, delivering, managing, and improving the way IT services are utilized within an organization.
- For business, ITIL Provides best practice & technique for:
 - Selecting
 - Planning
 - Delivering
 - Maintaining,



What is ITIL?

- ITIL is a set of best practices for IT service management (ITSM) that focuses on aligning IT services with the needs of the business.
- Originally developed by the UK government's Central Computer and Telecommunications Agency (CCTA) in the 1980s, ITIL has evolved into a globally recognized framework used by organizations worldwide.

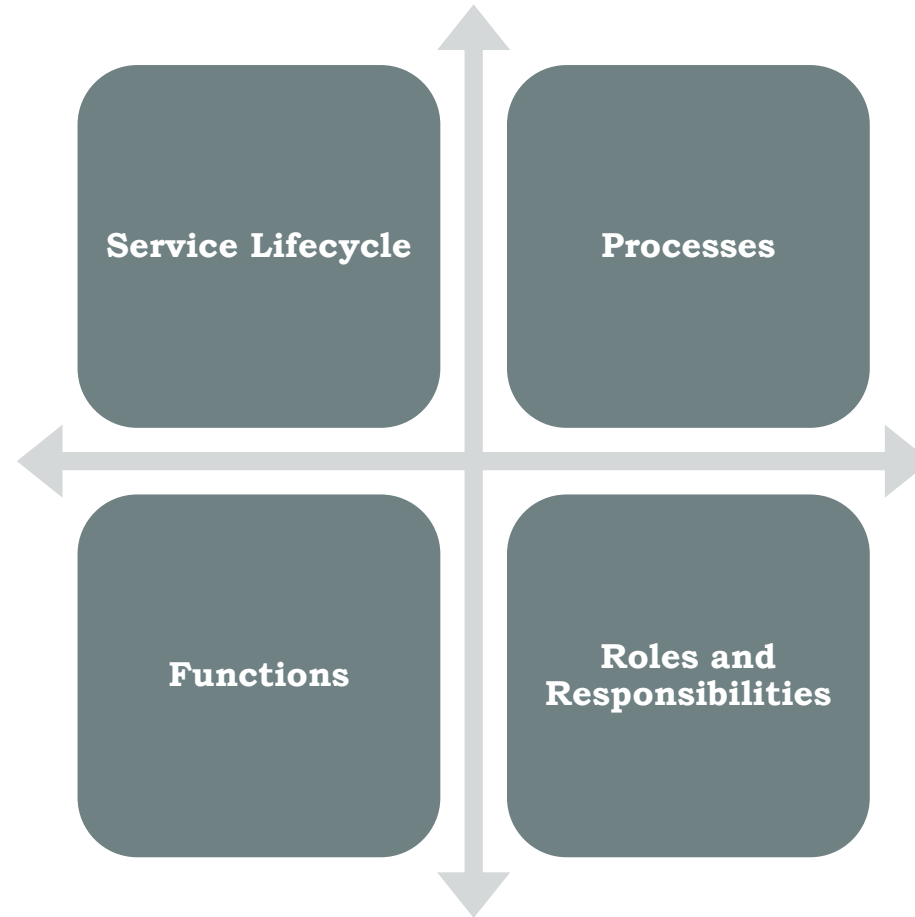


ITIL history timeline

- ITIL V1 → 1989
- ITIL V2 → 2001
- ITIL V3 → 2007
- *ITIL V4* → 2019



Key Concepts of ITIL



Key Concepts of ITIL – Service Lifecycle

- The ITIL service lifecycle is divided into five stages, each focusing on a different aspect of IT service management:
 - **Service Strategy:** Defines the perspective, position, plans, and patterns that a service provider needs to execute to meet an organization's business outcomes.
 - **Service Design:** Transforms service strategy into a plan for delivering the business objectives. It covers designing processes, technology, and architecture.
 - **Service Transition:** Ensures that new or changed services are built, tested, and deployed into the live environment successfully.
 - **Service Operation:** Manages the day-to-day operation of services. It ensures that services are delivered effectively and efficiently.
 - **Continual Service Improvement:** Provides a mechanism for improving all aspects of IT services and the ITSM processes used to support them.



Key Concepts of ITIL – Processes

- ITIL outlines various processes within these stages, such as:
 - **Incident Management:** Restoring normal service operation as quickly as possible after an incident.
 - **Change Management:** Managing the lifecycle of all changes to minimize disruption.
 - **Problem Management:** Identifying and managing the root causes of incidents.
 - **Service Level Management:** Ensuring that agreed-upon service levels are met.
 - **Capacity Management:** Ensuring that IT infrastructure meets current and future capacity needs.



Key Concepts of ITIL – Functions

- ITIL also identifies key functions that provide **structure and stability** to the service lifecycle:
 - **Service Desk:** A single point of contact for users to communicate with the IT department.
 - **Technical Management:** Manages the infrastructure and provides technical expertise.
 - **Application Management:** Manages applications throughout their lifecycle.
 - **IT Operations Management:** Manages the day-to-day operations of the IT infrastructure.



Key Concepts of ITIL – Roles & Responsibilities

- ITIL defines various roles to ensure **accountability and clarity** within the IT service management framework:
 - **Service Owner:** Responsible for the overall design, performance, integration, and improvement of a single service.
 - **Process Owner:** Ensures that a process is fit for its purpose and is responsible for process design, performance, and improvement.
 - **Service Manager:** Manages the development and delivery of IT services.
 - **IT Operations Manager:** Ensures efficient and effective delivery of IT services.



Benefits of ITIL

- Lower cost
- High-Quality of IT service.
- Increased business productivity.
- Improved Return on Investment (ROI).
- Greater Satisfaction.
- Improved resources utilization.



What is ITSM?

- It focuses on meeting the needs of customers and aligning IT services with business objectives.
- ITIL is a specific framework for ITSM,
 - ITIL → providing detailed guidance on processes, functions, roles, and best practices, while
 - ITSM → is a broader concept encompassing the overall management and delivery of IT services within an organization.
- Both ITIL and ITSM aim to improve the **quality, efficiency, and alignment** of IT services with business objectives.



Key Components of ITSM

- Service Strategy
- Service Design
- Service Transition
- Service Operation
- Continual Service Improvement (CSI)



Key Components of ITSM - Service Strategy

- Align IT services with business objectives and customer needs.
- Key Processes:
 - Service Portfolio Management
 - Demand Management
 - Financial Management
 - Business Relationship Management



Key Components of ITSM - Service Design

- Design new or changed IT services and ensure they meet current and future business requirements.
- Key Processes:
 - Service Level Management
 - Availability Management
 - Capacity Management
 - IT Service Continuity Management
 - Information Security Management
 - Supplier Management



Key Components of ITSM - Service Transition

- Ensure that new, modified, or retired services are implemented smoothly and effectively.
- Key Processes:
 - Change Management
 - Release and Deployment Management
 - Service Asset and Configuration Management
 - Knowledge Management
 - Transition Planning and Support



Key Components of ITSM - Service Operation

- Manage day-to-day IT services to ensure they meet business needs and deliver value.
- Key Processes:
 - Incident Management
 - Problem Management
 - Event Management
 - Request Fulfillment
 - Access Management



Key Components of ITSM - Continual Service Improvement

- Continuously identify and implement improvements to IT services and ITSM processes.
- Key Processes:
 - The 7-step Improvement Process
 - Service Review
 - Process Evaluation
 - Definition of CSI Initiatives



The 7-step Improvement Process

- This process helps organizations systematically identify and implement improvements to IT services and processes.
- Here are 7 steps of CSI:
 1. Identify the Strategy for Improvement
 2. Define What You Will Measure
 3. Gather the Data
 4. Process the Data
 5. Analyze the Data and Information
 6. Present and Use the Information
 7. Implement Improvement



The 7-step Improvement Process

- **Identify the Strategy for Improvement:** Define what you want to improve and align the improvement efforts with business objectives and goals.
- **Define What You Will Measure:** Determine the metrics and key performance indicators (KPIs) that will help measure the success of the improvements. This step involves understanding what data is needed and how it will be collected.
- **Gather the Data:** Collect the relevant data from various sources. Ensure that the data is accurate, reliable, and complete. This step may involve automated tools, manual processes, or a combination of both.
- **Process the Data:** Convert the raw data into a format that can be analyzed. This may include sorting, filtering, and summarizing the data to make it more manageable.



The 7-step Improvement Process

- **Analyze the Data and Information:** Examine the processed data to identify trends, patterns, and areas for improvement. This step helps to uncover the root causes of issues and understand the impact of the current processes and services.
- **Present and Use the Information:** Share the analysis results with stakeholders and decision-makers. Present the findings in a clear and concise manner, using reports, charts, and presentations. Use the information to make informed decisions about the improvements.
- **Implement Improvement:** Develop and execute a plan to implement the identified improvements. Monitor the progress and measure the success of the changes. Ensure that the improvements are embedded into the organization's processes and are sustainable.



Benefits of ITSM

- Improved Service Quality
- Increased Efficiency
- Enhanced Customer Satisfaction
- Better Decision-Making
- Cost Optimization



Why ITSM???

- Improved Service Quality
- Enhanced Customer Satisfaction
- Efficient Resource Utilization
- Better Decision-Making
- Alignment with Business Goals
- Risk Reduction
- Cost Optimization

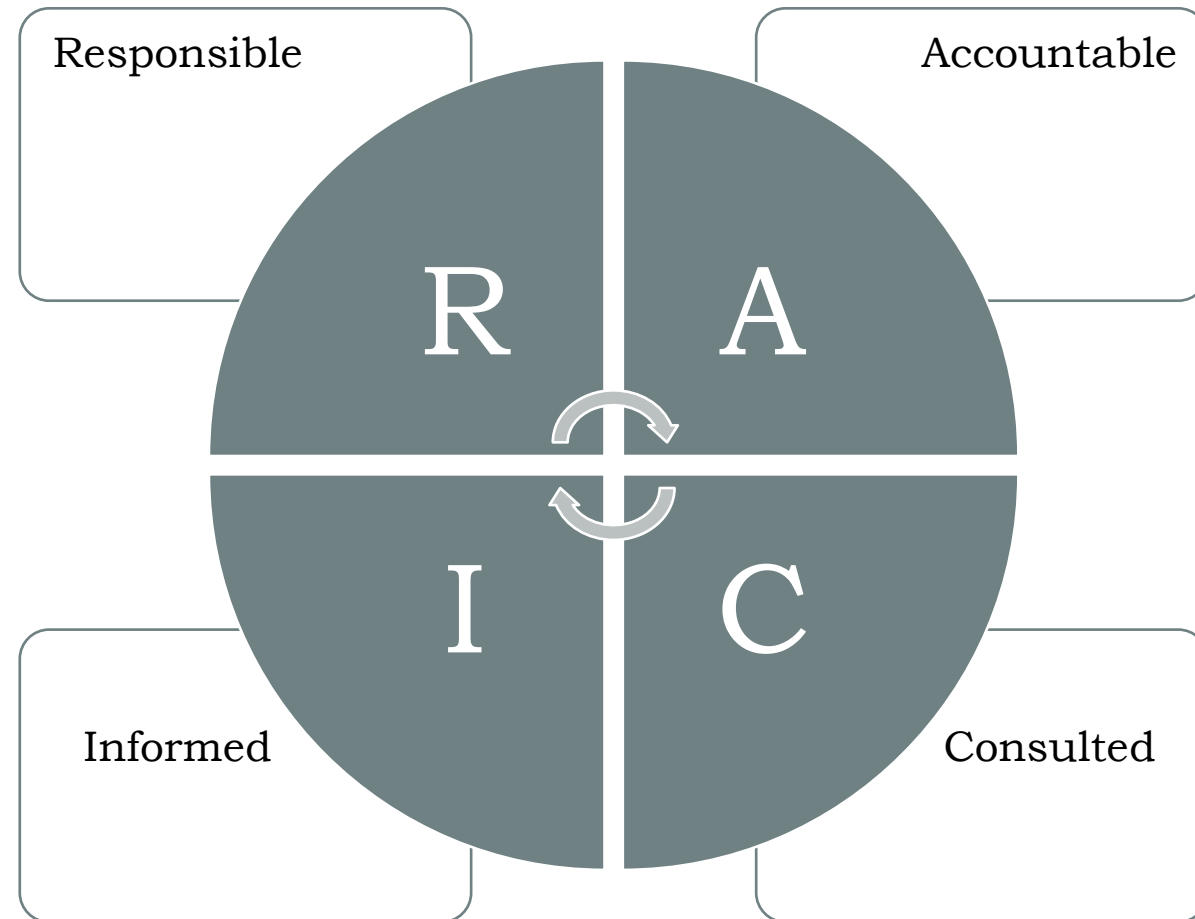


Basic concept of ITIL4

- Service Value System (SVS)
- Service Value Chain (SVC)
- Guiding Principles
- Four Dimensions of Service Management
- Service Value System (SVS) Components
- ITIL Practices
- Continual Improvement



RACI



RACI Matrix

- The RACI matrix defines clear roles and responsibilities within IT service management:
 - **Responsible (R):** Executes the task
 - **Accountable (A):** Owns the task
 - **Consulted (C):** Provides input
 - **Informed (I):** Kept in the loop



RACI matrix – task VS people

Step	Project Initiation	Project Executive	Project Manager	Business Analyst	Technical Architect	Application Developers
1	Task 1	C	A/R	C	I	I
2	Task 2	A	I	R	C	I
3	Task 3	A	I	R	C	I
4	Task 4	C	A	I	R	I



Why RACI?

- Facilitates communication
- Helps to avoid people overload
- Helps to avoid work overload
- Helps to eliminate confusion.



How to create RACI matrix?

1. Identity the roles of the project.
2. Identify tasks & deliverables of the project.
3. Assign tasks to each role.
4. Share with your team.
5. Share with the major stakeholders.



Rules of a RACI matrix creation

- Every row must contain at an “R” – responsible.
- There should be single “A” – accountable for a task.
- No too many “C” – consulted for a task.



Assigning person to a project

	Adam	Ali	Emir	Peter	Sara	Nermin
Collect data	A	I	C	R		I
Analyze data	A	I		R	C	
Order parts	C	A	I			R
Install parts	I	A	R	C		I
Test		A	R	I		
Document	A	I	I		C	R

Disadvantages of RACI

1. It can add confusion through a lack of understanding of differences between the terms.
2. It can be time-consuming to create.
3. It's often ignored after approval.
4. It can add unnecessary complexity to a project.
5. It does not account for the approval process on tasks or deliverables.



RACI alternatives

DACI | RASCI

Driver, Approver, Contributor, and Informed

Responsible, Accountable, Supportive,
Consulted, and Informed



Difference between ITIL v3 and ITIL v4

	ITIL v3	ITIL v4
Service value system (SVS)	Focuses on service lifecycle.	Introduces the service value system (SVS)
Service Value Chain (SVC)	Does not include the concept of a Service Value Chain	ITIL 4 introduces the Service Value Chain
Guiding Principles	v3 does not explicitly define a set of Guiding Principles	ITIL 4 introduces seven Guiding Principles.
Four Dimensions of Service Management	v3 does not explicitly define four dimensions of service management.	ITIL 4 expands the focus beyond traditional processes and functions
Flexibility and Integration	provides a structured approach to IT service management	ITIL 4 emphasizes flexibility and integration



ITIL Framework

- ITIL 4 introduces the concept of the "ITIL 4 Framework," which is an evolution from the previous version of ITIL.
- The ITIL 4 Framework encompasses various components and concepts aimed at modernizing IT service management and aligning it with evolving business practices.
- Here are some key aspects of the ITIL 4 Framework v0.1:
 - Service Value System (SVS)
 - Service Value Chain (SVC)
 - Guiding Principles
 - Continual Improvement
 - Practices



ITIL v4 Service Value Chain Defined

- Plan
- Improve
- Engage
- Design and Transition
- Obtain/Build
- Deliver and support.



Service Level Management & Change Control v0.1

- Service Level Management (SLM) and Change Control are two key components of service management aimed at ensuring that IT services meet agreed-upon service levels and that changes to IT infrastructure are managed effectively.
- While these concepts are not explicitly defined as separate components in the ITIL 4 Framework v0.1, they are integral parts of the broader framework and are addressed within the context of service management practices and processes.



Service Level Management (SLM)

- SLM focuses on defining, negotiating, documenting, and managing service level agreements (SLAs) with customers and stakeholders.
- The primary objective of SLM is to ensure that IT services meet agreed-upon service levels and performance targets.
- SLM involves activities such as identifying service requirements, defining SLAs, monitoring service performance, and reporting on service level achievements.
- By establishing clear SLAs and continuously monitoring service performance, organizations can ensure that IT services align with business needs and customer expectations.



Change Control

- Change Control is the process of managing changes to IT infrastructure, systems, applications, and services in a controlled and systematic manner.
- The goal of Change Control is to minimize the risk of disruptions and negative impacts on service quality and stability.
- Change Control involves activities such as assessing proposed changes, prioritizing changes based on impact and urgency, reviewing change requests, approving changes, implementing changes, and evaluating their effectiveness.
- By implementing effective Change Control processes, organizations can ensure that changes are implemented smoothly and that service disruptions are minimized.



Service Level Management (SLM) - Pizza Delivery

1. **Customer Orders Pizza** → Request Service
2. **Pizza Shop Agrees on Delivery Time** → SLA Defined
3. **Pizza is Delivered Late** → SLA Violation
4. **Customer Gets Compensation** → SLA Compliance & Improvement



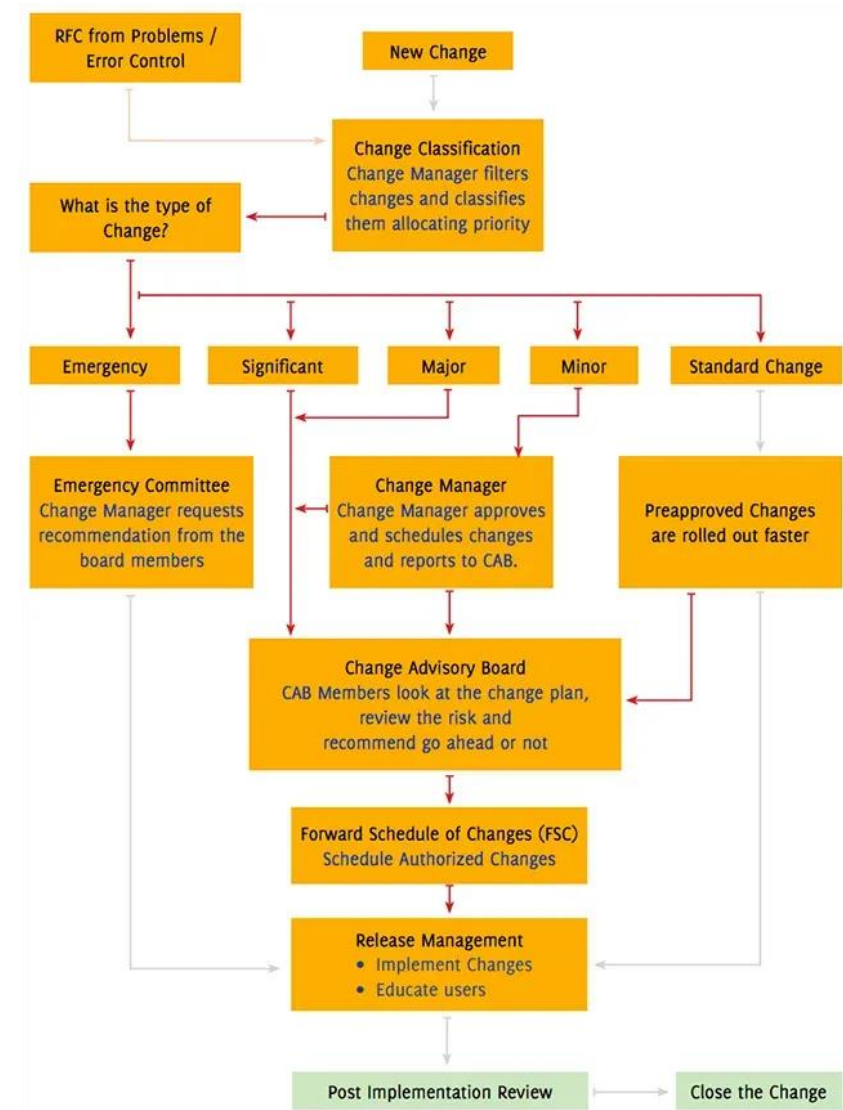
What is Change Management?

- Change Management in ITIL is a structured approach to managing changes to
 - IT services,
 - systems,
 - processes, and
 - infrastructure in a controlled and systematic manner.
- The primary objective of Change Management is to minimize the risk of disruptions and negative impacts on service quality and stability while facilitating beneficial changes that support business objectives.



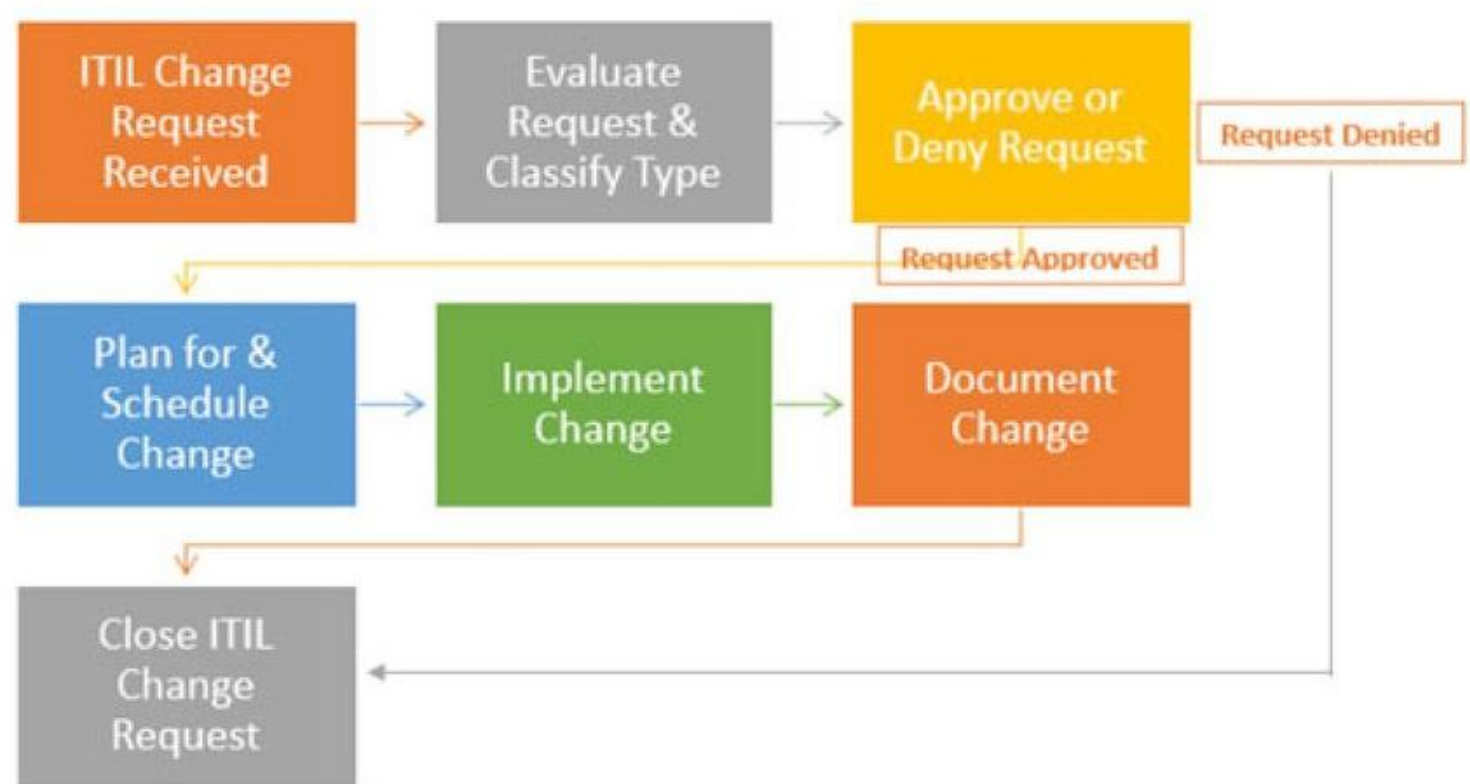
Key aspects of Change Management in ITIL

- Change Control Process
- Change Types
- Change Advisory Board (CAB)
- Change Models and Templates
- Change Authorization and Approval
- Change Implementation and Review
- Post-Implementation Review (PIR)



Change Management Flow/Process

- Request for Change (RFC)
- Initial Assessment
- Change Evaluation
- Change Approval
- Change Planning
- Change Implementation
- Change Review and Closure
- Change Communication and Documentation



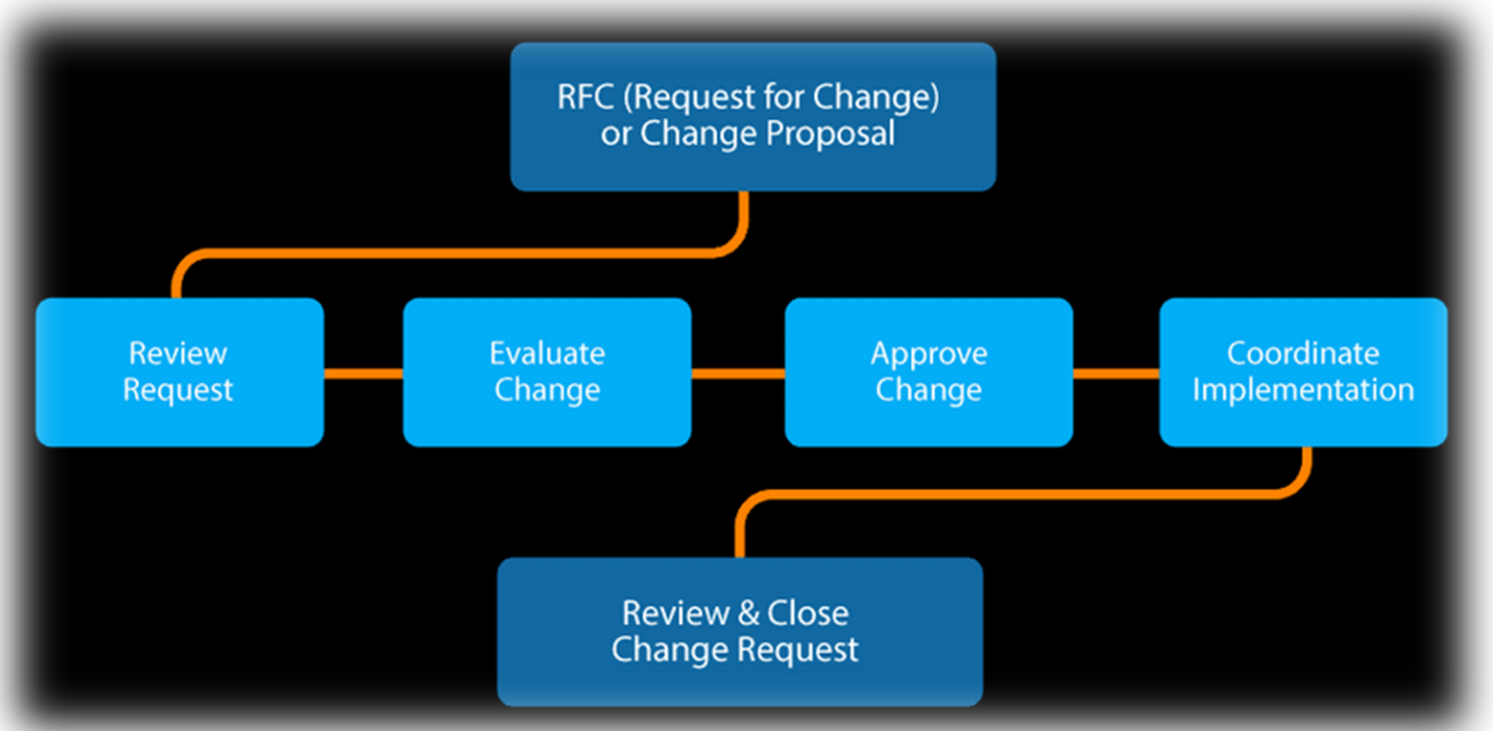
Change Management Flow – easy steps

- Request for Change (RFC) is raised.
- Change is assessed.
- Approval is granted.
- Change is implemented.
- Post-implementation review is conducted.

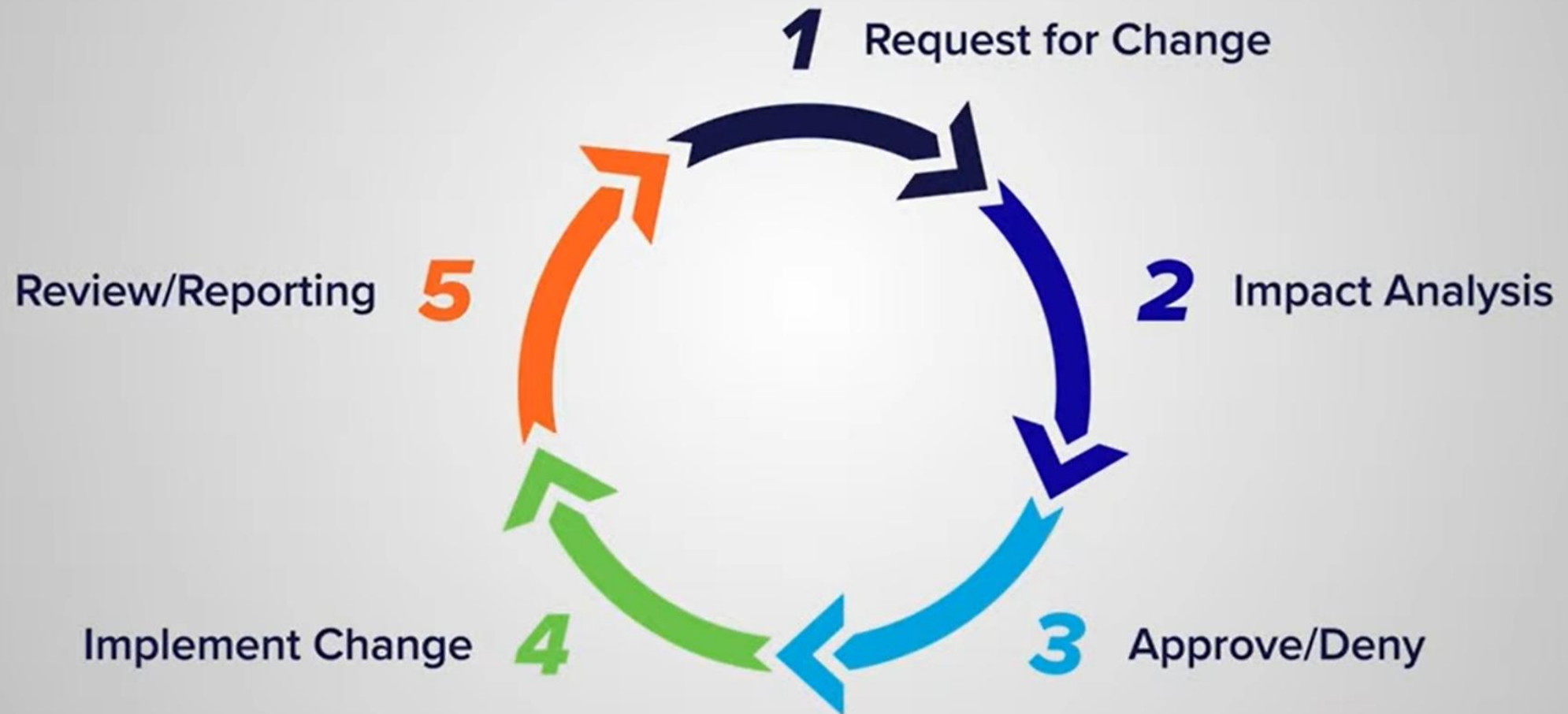


Key aspects of Change Management in ITIL

- Change Control Process
- Change Types
- Change Advisory Board (CAB)
- Change Models and Templates
- Change Authorization and Approval
- Change Implementation and Review
- Post-Implementation Review (PIR)



Change Management



Service Management

- It refers to the set of practices, processes and capabilities used to design, deliver, manage and improve IT services to meet the needs of customers and support business objectives effectively.
- It encompasses the entire lifecycle of IT services from initial planning and design to ongoing operations, support and optimization.
- Key aspects of Service management includes:
 - Service strategy
 - Service design
 - Service transition
 - Service Operation
 - Continual Service Improvements (CSI)



Service Management – Service Strategy

- Service Strategy in ITIL is the phase where an organization defines its approach to delivering value to its customers and stakeholders through IT services.
- It's about aligning IT service management with business objectives and ensuring that IT resources are utilized effectively to support business goals.
- Examples:
 - Defining service offerings
 - Assessing Market Demands
 - Establishing Service Portfolios
 - Defining Service Level Agreements (SLAs)
 - Identifying Strategic Assets
 - Financial Management for IT Services



Service Management – Service Design

- Service Design in ITIL is the phase where organizations translate their strategic objectives and customer requirements into actionable plans for delivering IT services.
- It focuses on designing new or modified services that meet business needs, are cost-effective, and align with service strategy.
- Examples:
 - Service Catalog Management
 - Service Level Management
 - Capacity Management
 - Availability Management
 - IT Service Continuity Management
 - Information Security Management



Service Management – Service transition

- Service Transition in ITIL is the phase where organizations plan and manage the transition of new or modified IT services into operation while ensuring that changes are implemented effectively and efficiently.
- It focuses on minimizing the risk of disruptions to IT services and maximizing the value delivered to customers and stakeholders.
- Examples:
 - Change Management
 - Release and Deployment Management
 - Service Validation and Testing
 - Knowledge Management
 - Configuration Management
 - Transition Planning and Support



Service Management – Service Operation

- Service Operation in ITIL is the phase where organizations ensure that IT services are delivered and supported effectively to meet business needs and customer expectations.
- It focuses on executing day-to-day operational activities, handling service requests and incidents, and maintaining service quality and availability.
- Example:
 - Incident Management
 - Request Fulfillment
 - Problem Management
 - Access Management
 - Event Management
 - Continuous Monitoring and Reporting



Service Management – Continual Service Improvements

- CSI in ITIL is a phase focused on systematically identifying and implementing improvements to IT services, processes, and capabilities to enhance service quality, efficiency, and alignment with business objectives.
- CSI emphasizes the importance of ongoing evaluation, feedback, and learning to drive continuous improvement across the IT organization.
- Example:
 - Define CSI Approach
 - Identify Opportunities for Improvement
 - Assess Current State
 - Define Improvement Initiatives
 - Implement Improvements
 - Measure and Monitor Progress
 - Review and Learn



Event Management

- Event Management in ITIL is a process focused on monitoring and managing events that occur within an IT infrastructure or service environment.
- An event is defined as any detectable occurrence that has significance for the management of IT services or infrastructure.
- Examples:
 - Detection of Events
 - Categorization and Prioritization
 - Event Filtering and Correlation
 - Notification and Escalation
 - Incident Identification and Resolution
 - Proactive Management and Root Cause Analysis
 - Reporting and Analysis



Incident Management

- Incident Management in ITIL is a process focused on restoring normal service operation as quickly as possible following an unplanned interruption or reduction in the quality of IT services.
- The primary goal of Incident Management is to minimize the impact of incidents on business operations and service delivery by ensuring that incidents are promptly reported, categorized, prioritized, diagnosed, and resolved



Incident Management

- Incident Identification and Reporting
- Incident Logging and Categorization
- Initial Assessment and Prioritization
- Incident Diagnosis and Escalation
- Incident Resolution and Workaround
- Incident Closure and Documentation
- Continuous Improvement



Incident Management - Examples

Imagine you're driving a car, and suddenly it starts making a strange noise and slows down. That's an incident – something unexpected that affects your journey (like an IT service being disrupted).

- Reporting the Incident:
 - You notice the problem and tell someone – maybe a mechanic (like reporting to IT support).
- Noting Down the Details:
 - The mechanic logs the issue and figures out what's wrong (like IT support categorizing and understanding the problem).
- Deciding How Urgent It Is:
 - They decide if it's a quick fix or if it needs immediate attention (like determining the severity of an IT issue).



Incident Management - Examples

- Fixing the Problem:
 - The mechanic repairs the car or provides a temporary solution so you can keep driving (like IT support resolving the IT issue).
- Keeping Track:
 - They make a note of what happened and what they did to fix it (like documenting the incident and resolution in a system).
- Learning and Improving:
 - Afterwards, they might look at why it happened and how to prevent it in the future (like analyzing incidents to improve IT services).



Prioritization

- Incident Prioritization
- Change Prioritization
- Service Request Prioritization
- Problem Prioritization
- Task Prioritization
- Resource Allocation



Problem Management

- Problem Management is a process focused on
 - identifying,
 - analyzing, and
 - resolving the root causes of recurring incidents or problems within the IT infrastructure.
- While Incident Management focuses on restoring service operation as quickly as possible, Problem Management aims to prevent incidents from recurring by addressing their underlying causes.



Problem Management

- Identification of Problems
- Logging and Categorization
- Investigation and Diagnosis
- Workarounds and Temporary Fixes
- Resolution and Closure
- Knowledge Sharing and Documentation
- Continuous Improvement



Service Request

- Service Request refers to a formal request from a user or a customer for access to an IT service or for some specific action to be taken by the IT service provider.
- Unlike incidents, which represent unplanned disruptions to IT services, service requests are typically routine, pre-approved, and do not require troubleshooting or resolution.
- Breakdown of Service Requests in ITIL:
 - Definition
 - Examples
 - Characteristics
 - Fulfilment Process
 - Service Level Agreements (SLAs)









That's all Folks!