

Key Concepts of Service Management — ITIL (ITIL® 4 Aligned)

Service

A **service** is a way to deliver **value** to customers by helping them achieve outcomes **without** them having to manage **costs and risks**.

Example / Use Case

Scenario	Explanation
Google Drive Cloud Storage	Users upload files without worrying about servers, backups, or security. Google manages all risks & costs.

Service Management

A set of **organizational capabilities** for delivering **value** in the form of services.

Helps in:

- ✓ Managing end-to-end services
- ✓ Enabling business outcomes
- ✓ Improving efficiency and governance

IT & business alignment is the core!

Use Case

Organization	Goal
Bank using ITSM	Ensure ATM uptime, secure transactions, faster resolution through Service Desk

Value & Value Co-Creation

Value is **perceived benefits** gained by the customer.

In ITIL, value is **co-created** — both provider & consumer collaborate.

Use Case

Example	IT Provider	Consumer
eCommerce Website	Provides platform uptime, backend services	Seller uploads items, responds to orders
Value is created together!		

Outcomes, Outputs, Costs & Risks

Term	Meaning	Example
Outcome	Result desired by consumer	Sell products online
Output	Tangible deliverable from service	Website, app, payment gateway
Cost	What consumer avoids managing	Servers, staff, maintenance
Risk	Potential harm consumer avoids	Security breaches, downtime

✓ ITIL focuses on **enhancing desired outcomes** and **reducing risks/costs**

Service Relationships

Service involves **interactions between service provider & consumer**:

Includes:

- Service Provision: Delivering service
- Service Consumption: Using service
- Service Relationship Management: Collaboration & improvement

Use Case

Laptop AMC provider:

- Provider: Repairs, updates, warranty replacement
- Consumer: Reports incidents, provides feedback

Utility & Warranty (U&W)

The **two components of value**

Term	Focus	Simple Meaning	Example
Utility	Fit for Purpose	Functionality meets needs	Zoom allows HD video meeting
Warranty	Fit for Use	Assured performance (availability, capacity, security)	Zoom works 24x7, encrypted, supports 100+ users

Both must be present to deliver full value.

Organizations & People

Right skills, culture & communication enable value delivery.

Use Case

IT Service Desk Success depends on

Resolving tickets Skilled agents, soft skills, clear processes

Processes, Products & Partners

These are resources used for service delivery:

Resource	Role	Example
Processes	Standardized ways of working	Incident ticket workflow
Products	Tools & technologies	Splunk, ServiceNow, AWS
Partners	External suppliers	Internet provider, Datacenter vendor

Balance among all three enables efficient delivery.

Service Offerings

A combination of:

- **Goods** (Laptop, software license)
- **Access to Services** (Whatsapp)
- **Service Actions** (Technical support)

Educational Use Case

Laptop Sale + Warranty + Customer Support = Complete **Service Offering**

Summary Table

Concept	Key Focus	Quick Memory Tip
Service	Value enablement	Help customer achieve outcome
Service Management	How services are delivered	Organizational capabilities
Value Co-Creation	Shared value	Provider + consumer together

Concept	Key Focus	Quick Memory Tip
Outcomes vs Outputs	Results vs Deliverables	Business value vs technical actions
Costs & Risks	Avoid burden	Shift to provider
Utility & Warranty	Purpose & Performance	Must have both!
Service Relationships	Collaboration	Provision + consumption
Resources (4D Model)	People, processes, products, partners	Balance needed
Service Offerings	Packaged services	Bundle of deliverables

Key Concepts of Service Management (ITIL)

Detailed Notes + Multiple Real-World Use Cases

Service

A **service** is a way of delivering **value** by enabling customers to achieve desired outcomes **without** them owning the associated costs and risks.

Multiple Use Cases

Example	Customer's Desired Outcome	What Provider Manages
Netflix	Watch movies anytime	Servers, licensing, scaling
Online Banking	Transfer money securely	IT infrastructure, cybersecurity
Food Delivery App	Food delivered fast	Logistics, delivery agents, app maintenance

Customer focuses only on benefits, not technical complexities.

Service Management

A **set of specialized organizational capabilities** to deliver services and value to customers.

Use Case Examples

Industry	Service	Capability Required
IT Company	IT Service Desk	Incident handling, self-service portal

Industry	Service	Capability Required
Hospital	Electronic Patient Record Service	Data security, backup & recovery
Telecom	Postpaid connection	Billing, 4G/5G network operations

Ensures **end-to-end** service experience.

Value & Value Co-Creation

Value = **Perceived benefits** + Reduced costs + Reduced risks

Created **together** by **provider & consumer**.

Multiple Use Cases

Scenario	How Consumer Contributes	How Provider Contributes
Ride-Hailing App (Uber/Ola)	Booking rides, rating drivers	App platform, driver onboarding
Online Education	Attends classes, feedback	LMS, recorded videos, trainers
Cloud Hosting (AWS)	Deploy apps	Data centers, security, high availability

If customers don't engage → value cannot be realized.

Outcomes vs Outputs vs Costs vs Risks

Concept	Meaning	Example
Output	What provider delivers	eCommerce website, login portal
Outcome	What customer achieves	Increased online sales
Cost	Money/resources avoided by customer	No need to build Data Center
Risk	Uncertainty reduced for customer	Hacking, downtime handled by provider

Use Case Example (Small Business going online)

Before Service	After Website Service
No online customers	Sales from across India
Risk of tech issues	Provider monitors website uptime

Focus is always on **achieving outcomes**.

Service Relationships

Includes **Service Provision, Service Consumption, Relationship Management**

Example — IT AMC Support

Actor	Activities
Consumer (Bank)	Logs ticket for ATM down
Provider (Vendor)	Resolves issue, performs preventive maintenance
Relationship Role	Service reporting, reviews, improvement plans

Continuous collaboration ensures experience & trust.

Utility & Warranty

The **two elements of value**.

Term	Meaning	Example
Utility ("What it does")	Fit for Purpose	MS Teams allows chat & video meetings
Warranty ("How well it works")	Fit for Use	99.99% uptime, encryption, 10K users supported

Use Case Table

Service	Utility	Warranty
ATM	Withdraw cash	24x7 availability, <5 sec processing
Air Conditioner	Cooling	Meet 18°C even at 45°C environment
Gmail	Emails	15GB storage, spam filtering, no downtime

If either one fails → service fails.

Organizations & People

People skills, culture & structure are essential for value.

Use Case Examples

Sector	Importance of People
IT Service Desk	Empathy reduces escalation & churn
Airlines	Ground staff support impacts travel satisfaction
Banking	Secure operations depend on trained staff

"Right people in the right roles"

Processes, Products, Partners & People (4 Dimensions Model)

Dimension	Focus	Example
Organizations & People	Skills, culture	Knowledge articles, ITIL awareness
Information & Technology	Tools & data	ServiceNow, CMDB, Monitoring tools
Partners & Suppliers	Outsourcing/Support	Cloud hosting by AWS
Value Streams & Processes	Workflows	Incident → Change → Deployment

Use Case

Launching a new mobile banking app requires all 4 dimensions aligned.

Service Offerings

Combination of **goods**, **access to resources**, and **service actions**.

Use Case Bundles

Provider	Service Offering
Apple	iPhone (good) + iCloud (access) + Apple Care (support)
ISP	Wi-Fi router + Internet + Technician support
Data Center	Server hardware + power + remote hands service

Customers select offerings based on value proposition.

Quick Revision -

Key Concept	Core Idea	Example
Service	Enable outcomes	Netflix, UPI apps
Service Management	Capabilities to deliver	ITSM tools
Value Co-Creation	Joint effort	Ola/Uber
Utility	Fit for Purpose	App features
Warranty	Fit for Use	Reliability, security
Output	What is delivered	Website
Outcome	What customer gains	More sales
Service Offering	Package	Mobile + SIM + Support

ITIL Service Value System (SVS) — Overview

The **Service Value System (SVS)** describes **how all components of an organization work together to create value** through services.

It ensures that:

- ✓ Services align with business goals
 - ✓ Continuous improvement remains integral
 - ✓ Stakeholders co-create value
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Components of the SVS

Component	Purpose
Guiding Principles	Universal recommendations for every situation
Governance	Directs & controls organization at all levels
Service Value Chain	Operating model for value creation
Practices	Set of organizational capabilities for performing work
Continual Improvement	Ongoing enhancement of products and services

All operate within **organizational culture and external environment**.

Why SVS is Important?

- Aligns IT strategies to business outcomes
 - Breaks silos through collaboration
 - Promotes agility, innovation, customer focus
 - Drives risk management and governance
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SVS Detailed Breakdown + Use Cases

Guiding Principles

Universal and flexible recommendations:

1. **Focus on Value**
2. **Start Where You Are**
3. **Progress Iteratively with Feedback**
4. **Collaborate and Promote Visibility**
5. **Think and Work Holistically**
6. **Keep It Simple and Practical**
7. **Optimize and Automate**

Use Case Examples

Principle Applied	Scenario
Focus on Value	ITSM team prioritizes resolving high-impact issues affecting 1000+ users vs. minor low-impact issue
Keep It Simple	Service Desk reduces 15-step ticket workflow → 6-step fail-proof process
Optimize & Automate	Chatbot handles common password resets → reduces agent workload by 30%

Governance

Ensures:

- ✓ Policies are followed
- ✓ Service delivery aligns with business needs
- ✓ Risk management and compliance

Use Case Examples

Organization	Governance Action
Bank regulator mandates uptime	IT sets SLA: ATM uptime 99.9%
Cybersecurity compliance	SOC conducts access review every quarter
Change approval board (CAB)	Prevents high-risk unauthorized deployments

Governance **oversees**, does not **operate** services.

Service Value Chain (SVC)

The **core operational model** of SVS → how value is created.

Six Value Chain Activities

Activity	Purpose	Example
Plan	Vision, strategy	Annual IT roadmap, budget planning
Improve	Stepwise enhancements	Post-incident review → automation
Engage	Interaction with stakeholders	Service Desk, BRMs, feedback
Design & Transition	Requirements → Live services	Mobile banking app release
Obtain/Build	Acquire or develop components	Cloud server provisioning
Deliver & Support	Day-to-day service operations	Monitoring, ticket resolution

Every service flows through these activities to produce **value**.

End-to-End Use Case of Value Chain

Scenario: Launching Online Student Portal

SVC Stage	Activity
Plan	Decide features, align with student needs
Engage	Collect feedback from faculty & students
Design & Transition	Develop portal, test user experience
Obtain/Build	Purchase servers, licenses

SVC Stage	Activity
Deliver & Support	Monitoring uptime, helpdesk for login issues
Improve	Add chatbot, improve UI based on feedback

Demonstrates value creation loop of SVS.

Practices (34 ITIL Practices)

Capabilities needed for Service Management.

Grouped into:

- **General Management** (e.g., Information Security, Continual Improvement)
- **Service Management** (e.g., Incident Mgmt, Change Enablement, Service Catalog)
- **Technical Management** (e.g., Deployment Mgmt, Infrastructure & Platform Mgmt)

Use Case Examples

Practice	Benefit
Incident Management	Faster restoration of service outages
Change Enablement	Safe deployment of new features
CMDB/Asset Mgmt	Visibility into IT infrastructure
Monitoring & Event Mgmt	Predicting failures before outage

Practices support every value chain activity.

Continual Improvement

Every level + everyone participates in improvement.

CI Register Example

- Service Desk automation idea
- SLA breach reduction project
- Improving password reset workflow

Use Case Scenario

Before	After Continual Improvement
Incident resolution time 45 mins	Improved KB → average 20 mins
Manual certificate renewal	Automated job avoids downtime

Small improvements → big value overtime.

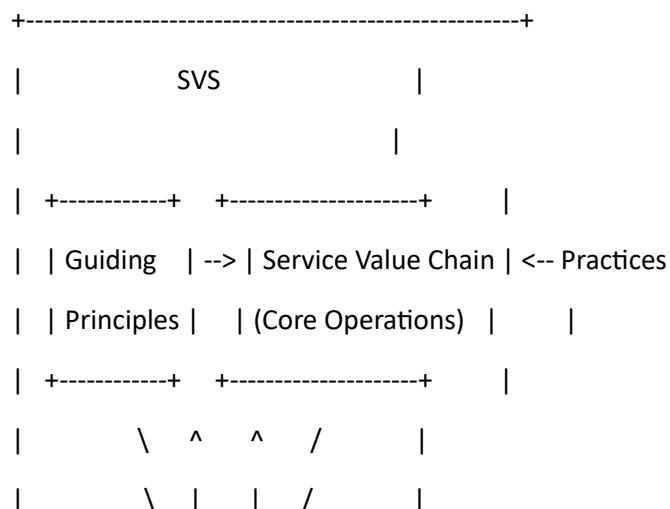
Complete SVS Use Case Scenario

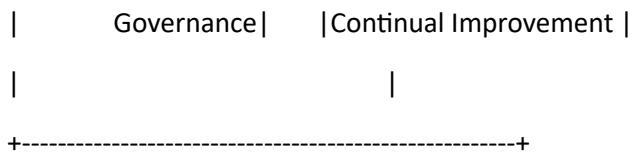
Scenario: Bank Mobile App Modernization

SVS Element	Contribution
Guiding Principles	Focus on value → improve UI & security
Governance	Approval through CAB & security standards
Service Value Chain	From planning → deployment → support
Practices	Incident Mgmt, DevOps, Security Mgmt used
Continual Improvement	Add UPI support after release

1. Value delivered: Fast UPI payments, better customer experience.
 2. Risks reduced: Fraud detection
 3. Costs reduced: Lower branch visits
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Simple SVS Memory Diagram (Text Form)





All components interconnect to **co-create value**.

ITIL Guiding Principles

Foundation of the ITIL Service Value System (SVS)

They guide **every decision and action** to ensure effective Service Management.

There are **7 Guiding Principles**:

1. Focus on Value
 2. Start Where You Are
 3. Progress Iteratively with Feedback
 4. Collaborate and Promote Visibility
 5. Think and Work Holistically
 6. Keep It Simple and Practical
 7. Optimize and Automate
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1. Focus on Value

Everything must deliver value **as perceived by the customer**.

- ✓ Understand customer needs
- ✓ Prioritize what impacts business outcomes
- ✓ Measure value, not just activity

Use Case Examples

Scenario	Action for Focus on Value
Service Desk receives 200 tickets/day	Prioritize severity and business impact first, not "first-come-first-served"
Bank ATM outages vs printer issue	Fix ATM first → major business loss if delayed
Adding features to app	Only deliver features users want (validated by feedback/data)

Avoid working on low-value tasks.

2. Start Where You Are

Don't reinvent the wheel
Use what already works
Analyze current state before improving

Use Case Examples

Scenario	Result
New ITSM tool planned	Evaluate existing tool's modules → may already support workflows
Existing CMDB 70% accurate	Fix and enhance → avoid building new CMDB
Hiring new vendor	Assess existing vendor performance before replacing

Avoid waste of time & money.

3. Progress Iteratively with Feedback

Break work into **small steps**, review results, adjust.

- ✓ Agile mindset
- ✓ Faster learning
- ✓ Reduce risks of big failures

Use Case Examples

Scenario	Small Iterations
Rollout of HR Portal	First internal pilot → refine → release to department → full rollout
Chatbot in Service Desk	Start with password reset → expand to more use cases
Mobile banking new UI	A/B testing with small user base

Quick wins → motivation & momentum.

4. Collaborate and Promote Visibility

Share information
Remove silos
Transparent progress builds trust

Use Case Examples

Scenario	Collaboration Result
Dev & Ops working separately	DevOps → faster deployment & fewer outages
Change approval delays	CAB visibility → faster & safer approvals
Incident response war room	Engineers + vendor + NOC + InfoSec → quicker RCA

Everyone sees progress → better decisions.

Think and Work Holistically

End-to-end value delivery requires seeing **the whole picture**.

- ✓ Avoid local optimizations
- ✓ Consider people, processes, technology, partners

Use Case Examples

Scenario	Holistic Action
Speed up ticket closure	Also improve knowledge base → reduce ticket volume
Faster app build	Ensure testing + security + deployment pipeline supports speed
Adding new server	Check network, monitoring, license, backup compatibility

Optimize the **whole system**, not just one part.

Keep It Simple and Practical

Remove **root causes of complexity**.

- ✓ Less steps = fewer errors
- ✓ Simplify approvals, workflows & documentation

Use Case Examples

Scenario	Simplified Approach
12-level approval chain for changes	Reduce to 3 levels based on risk score
Ticket categorization with 200 categories	Reduce to 15 meaningful categories

Scenario	Simplified Approach
Long onboarding checklist	Convert to quick standard templates

Complexity = cost + delay + waste.

Optimize and Automate

Improve workflows → then automate **repetitive tasks**.

- ✓ Automation comes **after** optimization
- ✓ Frees people for more valuable work
- ✓ Improves consistency and quality

Use Case Examples

Automation	Value
Self-service password reset	Reduces Service Desk calls 30–40%
Auto-scaling cloud servers	Boosts performance during peak usage
Monitoring alerts with auto-remediation	Avoid downtime, faster recovery

Machines handle routine tasks → people innovate.

Summary Cheat Sheet

Principle	Key Message	Quick Use Case
Focus on Value	Do what matters to customers	Fix ATM outage first
Start Where You Are	Use existing strengths	Improve current CMDB
Progress Iteratively	Deliver in small increments	Pilot → rollout
Collaborate & Visibility	Work together openly	DevOps war room
Work Holistically	End-to-end view	Feature + testing + monitoring
Keep It Simple	Remove complexity	Reduce approvals
Optimize & Automate	Improve → then automate	Chatbots, auto-scaling

ITIL Service Value Chain (SVC)

The **core operating model** of the ITIL Service Value System (SVS).
It shows **how value is created** step-by-step through services.

Six Value Chain Activities

	Main Purpose	Typical Teams Involved
Plan	Vision, direction, priorities	Strategy, Enterprise Architecture
Improve	Incremental improvements	Continual Improvement, Service Owners
Engage	Stakeholder relationships & feedback	Service Desk, BRM, Vendor Mgmt
Design & Transition	New/changed services to live environment	Dev, QA, Change Enablement
Obtain/Build	Acquire/develop components	DevOps, Procurement, Cloud teams
Deliver & Support	Day-to-day operations, reliability	NOC, SOC, SRE/Operations

Every service uses these 6 activities to **co-create value**.

Linking Practices to Each Value Chain Activity

SVC Activity	Key ITIL Practices Supporting It
Plan	Portfolio Mgmt, Architecture Mgmt, Information Security, Risk Mgmt, Continual Improvement
Improve	Continual Improvement, Problem Mgmt, Measurement & Reporting
Engage	Service Level Mgmt, Incident Mgmt, Relationship Mgmt, Asset & Configuration Mgmt, Supplier Mgmt
Design & Transition	Change Enablement, Release Mgmt, Service Validation & Testing, Service Catalog Mgmt
Obtain/Build	Software Dev & Mgmt, Infrastructure & Platform Mgmt, Deployment Mgmt
Deliver & Support	Incident Mgmt, Service Request Mgmt, Monitoring & Event Mgmt, Access Mgmt

Practices are NOT mapped exclusively — they support multiple activities.

Detailed Example Flow

Incident → Problem → Change → Value Delivery (End-to-End Use Case)

Scenario

Online Banking application login downtime reported by customers.

Step-by-Step Flow Through SVC

SVC Activity	What Happens	Supporting Practices
Engage	Customer calls Service Desk → Incident logged → Ticket priority P1	Incident Mgmt, Service Level Mgmt
Deliver & Support	NOC investigates, temporary workaround applied → Services restored	Event Mgmt, Access Mgmt
Improve	Problem Mgmt identifies root cause is faulty authentication module	Problem Mgmt, Knowledge Mgmt
Design & Transition	Fix designed and tested as a Change → risk assessment done → CAB approval	Change Enablement, Release & Deployment Mgmt, Testing
Obtain/Build	DevOps builds patch, new container image deployed → staged rollout	Deployment Mgmt, Software Dev Mgmt
Deliver & Support	Updated service monitored → No regression → Customers satisfied	Monitoring & Event Mgmt, Request Fulfillment
Plan	Insights fed into improvement backlog → Future authentication redesign planned	Continual Improvement, Portfolio Mgmt

Outcome: Faster login, fewer outages, better customer experience

Value Delivered: Reliability + Customer satisfaction + Business continuity

Visual Summary of Example Flow

Incident Detected



Engage → Deliver & Support (Quick Fix)



Improve (Root Cause)



Additional Mini Use Cases

Scenario	SVC Flow Summary
Deploy new HR Portal	Plan → Engage → Design & Transition → Obtain/Build → Deliver & Support → Improve
Infrastructure Migration from On-Prem → Cloud	Plan → Engage (Vendor) → Obtain/Build → Design & Transition → Deliver & Support → Improve
Observability Tool Implementation (Splunk/Dynatrace)	Plan KPIs → Engage users → Build dashboards → Deploy → Train → Improve alerts

Every service lifecycle flows through the Value Chain repeatedly.

Service Value Chain (SVC) — Multiple Real-World Use Cases

Use Case #1 — Incident → Problem → Change → Value Delivery

Scenario: Banking App outage (customers unable to log in)

SVC Activity	Actions	Practices
Engage	Incident logged; P1 bridge call	Incident Mgmt, Service Desk
Deliver & Support	Workaround applied; login partially restored	Event Mgmt, Access Mgmt

SVC Activity	Actions	Practices
Improve	Problem ticket raised → RCA: SSL cert expired	Problem Mgmt, Knowledge Mgmt
Design & Transition	Change created, CAB approves patch	Change Enablement, Testing
Obtain/Build	DevOps updates cert & container	Deployment Mgmt, Dev / Infra Mgmt
Deliver & Support	Fix deployed + post-validation	Monitoring & Event Mgmt
Plan	Plan long-term auto-cert-renewal	Portfolio Mgmt, Continual Improvement

Value Delivered → Faster login + Reduced downtime + Better compliance

Use Case #2 — Data Center to Cloud Migration (AWS/Azure/GCP)

SVC Activity	Key Steps	Practices
Plan	Cloud strategy, business case	Architecture Mgmt, Risk Mgmt
Engage	Cloud vendor contracts	Supplier Mgmt, BRM
Design & Transition	Migration blueprint	Change Enablement, Test Mgmt
Obtain/Build	Cloud VMs created; monitoring set	Infra & Platform Mgmt
Deliver & Support	Run systems; auto-scaling enabled	Monitoring, Incident Mgmt
Improve	Optimize billing alerts, right-sizing	Continual Improvement, FinOps

Value: Cost reduction, enhanced scalability, resilience

Use Case #3 — Chatbot for Password Resets (Automation)

SVC Activity	What Happens	Practices
Plan	Reduce Service Desk load	Service Financial Mgmt
Engage	Feedback from users	Service Level Mgmt
Design & Transition	UX design, security approval	Change Enablement, Testing
Obtain/Build	Bot developed & integrated with IAM	DevOps, Access Mgmt

SVC Activity	What Happens	Practices
Deliver & Support	Bot goes live; agents handle exceptions	Request Mgmt, Monitoring
Improve	Train NLP, add new automation tasks	Continual Improvement

Value: 40% fewer tickets + faster service fulfillment

Use Case #4 — E-commerce Platform Performance Upgrade

SVC	Example Actions	Practices
Plan	Capacity forecasting for sale season	Performance Mgmt, Architecture
Engage	Customer feedback on slow checkout	Service Desk
Design & Transition	New caching + DB replication	Release Mgmt, Change Mgmt
Obtain/Build	Provision load balancer & infra	Deployment & Infra Mgmt
Deliver & Support	SRE monitors; autoscaling active	Event Mgmt, Incident Mgmt
Improve	Optimize queries; alert tuning	Continual Improvement

Value: Higher sales conversion + customer satisfaction

Use Case #5 — Mobile Banking New Feature: UPI AutoPay

SVC	Example Actions	Practices
Plan	Identify feature demand & ROI	Portfolio Mgmt
Engage	Regulatory discussion & users survey	Relationship Mgmt
Design & Transition	Security testing, release planning	Change & Release Mgmt
Obtain/Build	API integration with NPCI	Software Dev Mgmt
Deliver & Support	End-user communication; support KBs	Service Request Mgmt
Improve	Add limits, alerts based on feedback	Continual Improvement

Value: Revenue growth + competitive advantage

Use Case #6 — University Online Exam System Deployment

SVC	Actions	Practices
Plan	Identify exam schedule, load requirements	Capacity Planning
Engage	Stakeholders: faculty + students	BRM, SLA Mgmt
Design & Transition	Remote-proctoring, user training	Service Catalog, Change Mgmt
Obtain/Build	VM scaling + security modules	Deployment Mgmt
Deliver & Support	Live support during exams	Incident Support, Monitoring
Improve	Address cheating loopholes	Problem Mgmt

Value: Operational continuity during lockdown/online shift

Use Case #7 — SOC Alert Reduction (Security Improvement Project)

SVC	Actions	Practices
Plan	Reduce alert fatigue & MTTD	Risk Mgmt
Engage	Feedback from SOC analysts	Workforce Mgmt
Design & Transition	SIEM rules tuning roadmap	Change Mgmt
Obtain/Build	Add threat intel feeds	Security Mgmt, Detections Dev
Deliver & Support	Automated response for common alerts	Monitoring & Event Mgmt
Improve	Weekly review of false positives	Continual Improvement

Value: Faster threat detection and lower analyst burnout

Quick Visual (Applicable to All)

Plan → Engage → Design & Transition → Obtain/Build → Deliver & Support → Improve → (Value Delivered)

This loop happens continuously, not just once.

Practices plug in wherever needed.

ITIL SVC Classroom Activity

Map real-life digital services to ITIL SVC model

Swiggy — Food Delivery Service

SVC Activity	What Happens	Practices Supporting It	Value Delivered
Plan	Market expansion, discounts for festivals	Portfolio Mgmt, Architecture Mgmt	Matching supply with demand
Engage	Customers place orders, ratings, offers	SLA Mgmt, Relationship Mgmt, Service Desk	Easy ordering & trust
Design & Transition	New features like Swiggy One	Change Enablement, Testing	Better subscription experience
Obtain/Build	App updates, partner onboarding	Supplier Mgmt, DevOps, Deployment Mgmt	More restaurants & speed
Deliver & Support	Order delivery, live tracking	Incident Mgmt, Event Monitoring	Fast & reliable delivery
Improve	Improve ETA accuracy based on delay feedback	Continual Improvement	Efficiency + customer satisfaction

Overall Value: Food delivered fast, convenience, real-time transparency

PhonePe — UPI Payments / Recharge App

SVC Activity	What Happens	Practices	Value Delivered
Plan	Compliance with RBI & UPI upgrades	Risk Mgmt, Info Security	Safe digital payments
Engage	Onboarding users, KYC verification	Access Mgmt, Service Desk	Smooth transactions
Design & Transition	Push new features: AutoPay, Bill Split	Change & Release Mgmt	Better user experience
Obtain/Build	API integration with banks	Software Dev Mgmt, Deployment Mgmt	Strong ecosystem
Deliver & Support	Transaction processing, fraud alerts	Event Mgmt, Monitoring	Secure & instant payments

SVC Activity	What Happens	Practices	Value Delivered
Improve	Reduce transaction failures by RCA	Problem Mgmt, Continual Improvement	Lower payment drop rates

Overall Value: 24x7 instant secure payments, financial inclusion

WhatsApp — Messaging Application

SVC Activity	Operational Example	Practices	Value Delivered
Plan	Expand user base, introduce WhatsApp Pay	Portfolio Mgmt	Product innovation
Engage	Communicating feedback via app store reviews	Relationship Mgmt	Better app quality
Design & Transition	New UI, voice/video enhancements	Change & Test Mgmt	Richer communication
Obtain/Build	Message encryption, cloud storage	Software Dev, Infra Mgmt	Security & reliability
Deliver & Support	Handling downtime & bugs	Incident Mgmt, Continuity Mgmt	High availability
Improve	Improve performance, reduce app size	Continual Improvement	Better speed, usability

Overall Value: Fast, simple, secure communication anywhere

Core ITIL Practices – Part 1

This module covers the most essential Service Management practices used in every organization:

- 1** Incident Management
- 2** Problem Management
- 3** Change Enablement
- 4** Service Request Management

Each contributes directly to **service reliability & value delivery**.

1 Incident Management

Purpose: **Restore normal service operation as quickly as possible and minimize business impact.**

Key Concepts

- **Incident** = Unplanned interruption or reduction in service quality
- Focus on **quick restoration**, not full fix
- **Workarounds** allowed until root cause fixed later

Process Activities

- ✓ Logging → Categorizing → Prioritizing → Assignment
- ✓ Investigation & diagnosis
- ✓ Communications & escalation
- ✓ Closure & user satisfaction

Metrics/KPIs

- MTTR (Mean Time to Restore)
- First Call Resolution %
- SLA compliance %

Use Cases

Industry	Incident Example	Resolution
Banking	ATM down	Switch to different network → restore service quickly
IT	Email outage	Restart mailbox services → RCA later
E-Commerce	Checkout failure	Apply rollback → enable orders again

👉 Handshake with: **Service Desk, Problem Mgmt, Change Mgmt**

2 Problem Management

👉 Purpose: **Prevent incidents from happening again** by finding and fixing **root causes**.

Key Concepts

- **Problem** = Unknown cause of recurring incidents
- Outputs → **RCA, Known Errors, Workarounds**
- Reduces business risk and ticket volume

Activities

- ✓ Trend analysis (Proactive)
- ✓ Major Incident review (Reactive)
- ✓ Manage Known Error DB (KEDB)

KPIs

- Reduction in repeat incidents
- Better stability & performance

Use Cases

Recurring Issue	Problem Management Action	Value
Daily network slowness	Identify faulty switch & replace	Fewer user complaints
SSL cert expiry	Auto-renewal process created	Prevents future outages
Frequent database deadlocks	Rewrite SQL queries	Faster app performance

📌 Often leads to a **Change** -> improves service permanently

3 Change Enablement (formerly Change Management)

📌 Purpose: Ensure **controlled, safe changes** with **balanced risk vs speed**.

Types of Change

Type	Risk	Examples
Standard	Low, pre-authorized	Applying OS patches, creating new user
Normal	Medium-high	Application release
Emergency	Very high, urgent	Fix P1 outage, security breach patch

Activities

- ✓ Change logging & assessment
- ✓ CAB (Change Advisory Board) approvals
- ✓ Scheduling
- ✓ Deployment validation
- ✓ Post-implementation review

KPIs

- Change success rate
- Reduced failed changes
- Controlled risk during deployments

Use Cases

Scenario	Change Type	Value
New version of mobile app	Normal	New features to market
Firewall rule patch for security attack	Emergency	Prevents data breach
DNS config update	Standard	Increased reliability

Ensures smooth **Design → Build → Deploy** transitions

Service Request Management

📌 Purpose: **Efficiently handle user requests** (information, support, access, service delivery)

Not an Incident!

Service Request = Planned or expected action

Examples:

- Password reset
- Access to a folder
- New laptop onboarding
- Software installation

Key Activities

- ✓ Service Catalog availability
- ✓ Standard fulfillment workflows
- ✓ Automation where possible (Chatbots, Self-service portal)

KPIs

- Request fulfillment turnaround time
- Customer satisfaction (CSAT)
- Percentage automated requests

Use Cases

Industry	Request	Fulfillment
Corporate	New joiner laptop	Automated workflow → reduced waiting
Students	Access to online exam portal	Self-service request → Grant access

Industry	Request	Fulfillment
Finance	MIS report request	Auto-generated through dashboard

💡 Improves efficiency → reduces load on Service Desk

Relationship Between the Practices (Real Flow)

Incident → Problem → Change → Request → Value Delivery

Example:

- Email service outage (Incident)
- RCA: Mailbox limit misconfiguration (Problem)
- Fix through setting update (Change)
- New access policy created (Service Request)

Final Value: Stability + better user experience

Quick Comparison Table

Practice	Focus	Goal	Outcome
Incident Mgmt	Restore service	ASAP recovery	Less downtime
Problem Mgmt	Remove causes	Prevent recurrence	Stability
Change Enablement	Safe transitions	Reduce risk	Reliable releases
Request Mgmt	User needs fulfilment	Fast, efficient support	Higher satisfaction

Activity 1: Scenario Mapping

💡 Objective: Identify which ITIL practice is applied **first, second, third** in real situations.

Scenario A — “ATM is Down”

Step	What Happens	ITIL Practice
1	Customer reports outage to bank	Incident Management
2	Operations find recurring network issue	Problem Management
3	New network switch configuration required	Change Enablement

Step	What Happens	ITIL Practice
4	Request for updated runbook	Service Request Management

Learning: One event may trigger multiple practices.

Scenario B — "Email Service Slow for Everyone"

Flow	Practice Involved
Service Desk logs ticket	Incident
RCA → database lock issue	Problem
Patch needed → CAB approval	Change
Users ask for storage increase	Request

Scenario C — “New Employee Joining”

Action	Practice
Provide laptop, email, VPN	Service Request
Laptop setup issues	Incident
Recurring setup failure → RCA	Problem
Standardize image updates	Change

💡 Variation: Emergency Change Scenario

Scenario

A sudden surge in fraudulent transactions detected — a firewall security rule must be changed immediately.

Key Constraints

Very high business risk

Limited testing time

CAB meeting must be quick

Key Constraints

Immediate rollback must be possible

Role-play outcomes may include:

- ✓ Risk manager requests temporary controls
- ✓ Security demands forensic logging enabled
- ✓ Service owner insists on off-peak deployment
- ✓ CAB lead grants conditional approval

Students learn difference between:

- **Emergency Change**
 - **Normal Change**
 - **Standard Change**
-

Evaluation Criteria (Scoring Table)

Criteria	Max Score
Clear articulation of role responsibilities	5
Risk & impact analysis accuracy	5
Collaboration & debate	5
Decision justified with data	5
Documentation (change record content)	5
Total: 25 points	
Top team gets CAB Champion Badge	

Student Deliverables

Each group submits:

- ✓ Change Proposal Document
 - ✓ Risk Matrix
 - ✓ Rollback strategy
 - ✓ Final Decision Summary (Go / No-Go)
-

Core ITIL Practices – Part 2

Covers four essential practices that help organizations improve service experience and outcomes:

- 1** Service Level Management
 - 2** Knowledge Management
 - 3** Monitoring & Event Management
 - 4** Continual Improvement Model
-

1 Service Level Management (SLM)

Purpose: Ensure **services meet agreed performance targets** between provider and customer.

Key Terms

Term	Who Agrees?	Covers	Example
SLA — Service Level Agreement	Provider ↔ Customer	Service outcomes and metrics	Email uptime 99.9%
OLA — Operational Level Agreement	Internal teams	Backend support dependencies	Server reboot within 10 mins
XLA — eXperience Level Agreement	Based on user experience	Satisfaction, usability	App response < 2 sec, CSAT > 90%

Modern ITSM is shifting from **SLA → XLA** (focus on customer experience)

KPIs

- SLA compliance %
 - Number of SLA breaches
 - CSAT (Customer Satisfaction score)
 - Experience score (e.g., from RUM insights)
-

Use Cases

Service	SLA	XLA
Mobile banking	Uptime 99.9%	Login < 3s, smooth UX
Food delivery	Delivery < 40 mins	App accuracy, freshness
SaaS app	Support response <30 min	First-contact resolution

Value delivered → Predictable + meaningful service outcomes

2 Knowledge Management

📌 Purpose: **Capture and share knowledge** to make informed decisions and resolve issues faster.

✓ “Right info to the right person at the right time”

Types of Knowledge

- **Technical articles**
 - **FAQs**
 - **Runbooks**
 - **Known Errors**
 - **Self-service content**
-

Uses

Team	Benefit
Service Desk	Fast ticket resolution
End Users	Self-service → fewer tickets
DevOps/SRE	Reliable runbooks during incidents

KPIs

- Knowledge reuse rate
 - Ticket deflection %
 - Time to publish/update articles
-

Use Cases

- FAQ helps reduce password reset calls by 50%
- Known Error article assists quick Incident resolution
- Standard scripts improve consistency across shifts

Drives **efficiency, consistency & lower MTTR**

3 Monitoring & Event Management

📌 Purpose: Detect events early and **prevent incidents** through alerting & analytics

Event Types

Event Type	Meaning	Example
Informational	Normal operation	"Backup completed"
Warning	Needs attention soon	High CPU 80%
Exception	Something is broken	Payment API failure

Practices Integrated With

Integrated With	Result
Incident Mgmt	Automatic ticket creation
Problem Mgmt	Trend analytics
Change Mgmt	Pre/post change validations
SRE	Golden signals monitoring

KPIs

- MTTD (Mean Time to Detect)
 - False alert reduction %
 - Auto-remediation %
-

Use Cases

System	Event	Automated Response
E-commerce	CPU 95%	Auto-scale servers
SOC	Suspicious login	Block & alert
DB	Memory leak detected	Restart + create ticket

Value → Detect → Respond → Reduce downtime

Continual Improvement (CI) Model

📌 Purpose: Ensure **incremental improvements** at every level of the organization — process, service, culture, and technology.

Continual Improvement Model (7 Steps)

Step	Question	Goal
1	Vision – Why are we doing this?	Align with strategy
2	Where are we now?	Baseline current performance
3	Where do we want to be?	Target outcomes
4	How do we get there?	Improvement plan
5	Take action	Implement
6	Did we get there?	Validate metrics
7	Keep momentum	Next improvements

No improvement is “final” → continuous cycle

CI Register

A prioritized backlog of improvement opportunities.

KPIs

- Reduction in repeat incidents
 - Better SLA & XLA success
 - Faster Deployment Velocity
-

Use Cases

Scenario	CI Action	Value
Frequent DB issue	DB optimization	Stability
Slow service desk	New chatbot	Efficiency

Scenario	CI Action	Value
High uptime cost	Right-sizing cloud	Cost optimization

Culture of learning & improvement

Quick Comparison / Exam Table

Practice	Core Focus	Tangible Output	Main Value
SLM	Commitments & expectations	SLAs/XLAs/OLAs	Better service experience
Knowledge Mgmt	Shared expertise	Knowledge Base	Faster resolution
Monitoring & Event Mgmt	Early detection & action	Alerts/events	Reliability & uptime
Continual Improvement	Ongoing enhancements	CI Register	Innovation, cost & quality gains

Classroom Activities – Core ITIL Practices (Part 2)

Activity 1 — SLA + XLA Mapping (Netflix Case Study)

⌚ Objective: Understand difference between SLA (performance metrics) and XLA (experience metrics)

📌 Task for Students:

In groups of 3–4, map Netflix services into SLA and XLA targets.

Service Component	SLA Example	XLA Example
Streaming availability	Uptime 99.95%	Users should play a movie within 5 sec
Content delivery	Latency < 50 ms	No buffering during HD playback
Customer support	Response within 20 min	>90% users rated support 4★+
Video quality	4K supported on eligible devices	Auto-quality adjustment without visible pixelation



Deliverable:

Each group presents **2 SLA** and **2 XLA** metrics with justification.



Discussion prompt:

Which matters more to customers — uptime or smooth streaming experience?

Activity 2 — Create a Knowledge Base (KB) Article

Topic: VPN Not Connecting



Objective: Learn documentation quality & structure



Template students should fill:

Section	Student Response
Title	Clear issue name
Symptoms	What user sees
Root Cause	Why it occurs (if known)
Step-by-Step Resolution	Clear troubleshooting
Workaround	Temporary fix
Additional Notes	Screenshots, escalation

Example hints:

- Check Wi-Fi connected
- Restart VPN service
- Ensure correct credentials
- Clear cached configs
- Contact IT for MFA reset



Deliverable:

A well-structured KB article — evaluated on clarity & reusability

Activity 3 — Event → Incident → RCA → Change Proposal



Objective: Show relationship among Monitoring, Incident, Problem & Change practices



Scenario to simulate:

Payment API CPU goes above 95% and response time crosses 10 seconds.

Team tasks:

- 1 Event triggered by monitoring tool
- 2 Convert to Incident — workaround applied
- 3 RCA (Problem Management) — SQL query performance issue
- 4 Change Proposal — optimize DB indexing + scale infra

Worksheet:

Task	Output
Event details	Alert ID, timestamp, severity
Incident logged	Incident #, workaround
RCA summary	Root cause explanation
Change proposal	Description, risk, rollback, schedule



Deliverable:
1-minute presentation per group on recommended change approval decision.

Activity 4 — Continual Improvement Model Workshop

🎯 Objective: Apply CI Model to real improvement idea

📌 Student groups choose ONE improvement such as:

- Reduce login failures in college portal
- Enhance cafeteria ordering system
- Improve Wi-Fi coverage on campus
- Increase First Call Resolution in Service Desk

Fill the **7-step CI model** table:

Step	Question	Student Response
1	Why improve?	Vision/business benefit
2	Current state?	Baseline metrics
3	Target?	SMART goal
4	How to get there?	Improvement actions
5	Execute	Who/When/Cost
6	Did we get there?	Metrics and review

Step	Question	Student Response
7	Keep momentum	Next improvements

📌 Deliverable:
Poster/chart presentation → Top plan wins “CI Champion Team” 🏆