★ What is Computer Services Management ?

Computer Services Management formerly known as “ITSM” (IT Services Management) is the subject focusing on delivering IT services aligning to the customer needs, continuously under a “Service Level Agreement (SLA)"

★ There are 5 departments ruled under the IT Services Department of any company.

1. Help Desk/ Service Desk Department
2. Development Department
3. Technical Department
4. Operations Department
5. Network Department

★ What are services ?

service is an intangible offering provided by an IT organization to meet the needs and demands of its customers or users.

service is a support provided by an IT organization to meet user needs.

★ What are customer needs?

Customer needs are feelings or desires people have that are satisfied through the market.

★ Stated customer needs

Stated customer needs are what customers directly say they want or need, whether through requests, feedback, or formal documents.

For example, a software application or a requirement for 24/7 technical support availability

★ unstated customer needs

unstated customer needs are those not directly stated but understood through context, preferences, and observations.

For example, a customer might want a simple and easy-to-use interface in a software, even if they haven't said so directly.

★ Methods to Understand Customer Needs

1. **Surveys and Questionnaires**

   ➔ Directly ask customers about their needs and preferences.
   ➔ Use both open-ended and closed-ended questions for comprehensive feedback.

2. **Customer Interviews**

   ➔ Conduct in-depth interviews to gain detailed insights.
   ➔ Allows for follow-up questions to explore responses further.

3. **Customer Feedback**

    ➔ Analyze feedback from customer service interactions, reviews, and social media.
    ➔ Look for recurring themes and common issues.

4. **Data Analysis**

    ➔ Use customer data and analytics to identify patterns and trends.
    ➔ Segment customers to understand the needs of different groups.

5. **Focus Groups**
6. **Observation**
7. **Customer Journey Mapping**

★ Key Components of Customer Needs / Types of Customer Needs

1. **Functional Needs**
    The practical and utilitarian aspects of the service.
        Examples: Efficiency, reliability, convenience.

2. **Emotional Needs**
    The emotional and psychological aspects.
        Examples: Feeling valued, trust, satisfaction.

3. **Social Needs**
    How the service affects the customer's social standing or relationships.
        Examples: Prestige, acceptance, social recognition.

4. **Financial needs**

★ Strategies to Meet Customer Needs

➔ Personalization
➔ Feedback Loop
➔ Quality Assurance
➔ Customer Support
➔ Proactive Engagement

★ How to Identify Customer Needs

➔ Conduct market research.
➔ Analyze customer feedback.
➔ Monitor industry trends.
➔ Engage with customers.

★ how to Determining customer satisfaction levels

1. **Surveys:** Conducting surveys, such as customer satisfaction surveys or Net Promoter Score (NPS) surveys

2. **Customer Feedback:** Collecting feedback through various channels, including emails, helpdesk tickets, and online forums, to understand customer sentiments, preferences, and areas for improvement.

3. **User Interviews**
   Conducting one on one or group interviews with customers to delve deeper into their satisfaction levels, gather qualitative insights, and uncover specific pain points or areas of satisfaction.

4. **Usage Analytics**
   Analyzing usage data, such as system logs, user activity metrics, and application usage patterns, to identify trends, usage patterns, and areas of user engagement or dissatisfaction.

5. **Service Level Agreements (SLAs)**
6. **Customer Complaints and Escalations**
7. **Benchmarking Comparing**
8. **Customer Churn Rate Monitoring**
9. **Customer Loyalty and Retention**
10. **Online Reviews and Ratings**

★ Strategies Can Be Employed to Streamline IT Service Delivery Processes And Achieve Operational Efficiency.

- ➔ Standardization and Automation.
- ➔ Service Catalog Management Developing.
- ➔ IT Service Desk Optimization.
- ➔ Continuous Process Improvement Adopting.

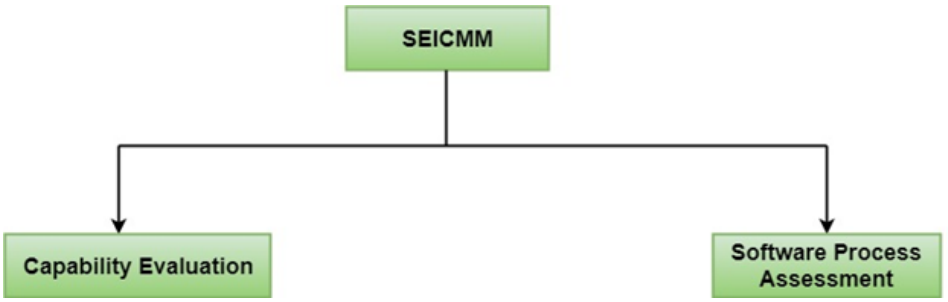
★ Capability Maturity Model (CMM)

The Capability Maturity Model (CMM) is a tool used to improve and refine software development processes.

Developed by the Software Engineering Institute (SEI)

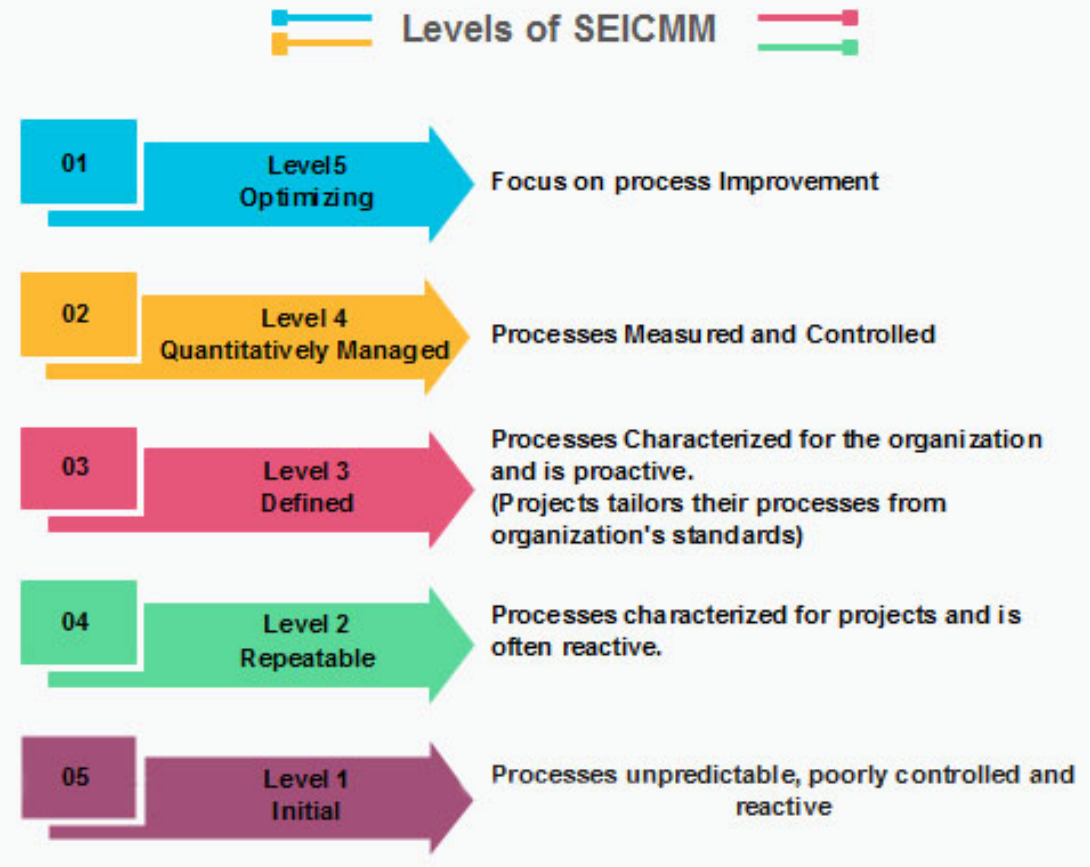
There are two methods of SEI CMM

1. Capability Evaluation
2. Software Process Assessment



The CMM Consists of Five Maturity Levels, Each Representing (Level of CMM / SEI CMM)

- ➔ Level 1: Initial
- ➔ Level 2: Repeatable
- ➔ Level 3: Defined
- ➔ Level 4: Managed
- ➔ Level 5: Optimizing



Key Process Areas (KPA) of a software organization

Except for SEI CMM level 1, each maturity level is featured by several Key Process Areas (KPAs) that contain the areas an organization should focus on improving its software process to the next level.

CMM Level	Focus	Key Process Areas
1. Initial	Competent People	NO KPA'S
2. Repeatable	Project Management	Software Project Planning software Configuration Management
3. Defined	Definition of Processes	Process definition Training Program Peer reviews
4. Managed	Product and Process quality	Quantitiative Process Metrics Software Quality Management
5. Optimizing	Continuous Process improvement	Defect Prevention Process change management Technology change management

The focus of each SEI CMM level and the Corresponding Key process areas.

Importance of Capability Maturity Model

- ➔ Optimization of Resources
- ➔ Evaluate Performance
- ➔ Ensure Quality
- ➔ Improve Processes
- ➔ Boost Productivity

How does the Capability Maturity Model give benefit to the Organization?

- ➔ It helps in improving the quality of the product and the reliability of the product.
- ➔ It helps in reducing development cycle time and cost.
- ➔ It helps in better project management.

List some of the alternatives of the Capability Maturity Model for the improvement of Processes.

- ➔ Six Sigma
- ➔ ISO 9000
- ➔ Agile methodologies
- ➔ Lean Software Development

★ What is Service management ?

Service management is a set of specialized organizational capabilities for providing value to customers in the form of services.

★ Service management capabilities face several key challenges

- ➔ Rapid Technological Change
- ➔ Customer Expectations
- ➔ Resource Limits
- ➔ Regulations
- ➔ Team Coordination

★ What are services ?

Services help customers achieve their goals without them having to handle the costs and risks.

★ Business Process

Business processes are key for efficient computer services. They organize tasks, improve quality, use resources well, ensure compliance, and support continuous improvement.

★ Importance For Organizational Efficiency In Computer Services Management

- ➔ **Standardization and Consistency:** Standardized procedures ensure everyone follows the same steps, leading to consistent outcomes and fewer errors.

- ➔ **Improved Productivity:** Clearly defined processes streamline operations, automate tasks, and allow employees to focus on strategic activities, boosting productivity.

- ➔ **Enhanced Quality of Service:** Best practices and consistent procedures ensure high-quality service delivery, meeting performance targets.

➔ **Better Resource Management:** Efficient processes facilitate better resource planning and allocation, optimizing human, technological, and financial resources.

➔ **Effective Problem Solving:**
Documented processes help quickly resolve issues, like IT problems, minimizing downtime and maintaining service.

➔ **Regulatory Compliance:**
Processes ensure organizations meet specific standards, complying with regulations and guidelines.

➔ **Continuous Improvement:**
Processes are regularly updated to reflect changes, improving operations and staying competitive.

➔ **Enhanced Communication:**
Clear processes improve communication across teams, enhancing coordination and efficiency.

★ What are IT frameworks?

IT framework is a set of guidelines and best practices for managing IT services and infrastructure effectively.

An IT framework provides guidelines for managing IT services.

★ What are the top IT frameworks?

➔ ITIL
➔ COBIT
➔ DevOps
➔ Agile / Scrum
➔ TOGAF

★ What is the Information Technology Infrastructure Library (ITIL)

Information Technology Infrastructure Library (ITIL) is provided with a framework of best practices for delivering IT services.

ITIL Framework for IT service management (ITSM)

key steps involved in the ITIL process of Service Level Management:

1. Identify Business Requirements
2. Define Service Level Requirements (SLRs)
3. Create Service Level Agreements (SLAs)
4. Develop Operational Level Agreements (OLAs) and Underpinning Contracts (UCs)
5. Implement Service Level Management Processes
6. Monitor Service Performance
7. Report on Service Performance
8. Review and Improve SLAs
9. Manage Expectations and Relationships
10. Continual Service Improvement (CSI)

What are the five stages of ITIL ?

1. Strategy
2. Design
3. Transition
4. Operation
5. Continual improvement

What are the 4 pillars of ITIL ? or What are the four dimensions of service management ?

1. Organizations and people.
2. Value streams and processes.
3. Information and technology.
4. Partner and suppliers.

benefits of ITIL

- ➔ Improved Service Delivery
- ➔ Enhanced Customer Satisfaction
- ➔ Better Risk Management
- ➔ Cost Efficiency
- ➔ Improved Change Management
- ➔ Higher Productivity
- ➔ Enhanced Decision Making

★ What is the difference between ITSM and ITIL ?

ITSM is a professional discipline for managing IT operations.

ITIL is a guiding framework to implement ITSM.

★ What is IT Service Management (ITSM) ?

ITSM is simply how IT teams manage the end-to-end delivery of IT services to customers.

Key aspect

- ➔ Service Lifecycle Management
- ➔ Integrated Processes
- ➔ User Centric Approach
- ➔ Comprehensive Service Coverage
- ➔ Proactive Management and Support

ITSM stakeholders can be divided into two categories

Stakeholders are people or groups with a stake in a project or organization.

1. **Internal stakeholders:** Professionals who work in the same organization. For internal IT service providers, these are also the customers.

2. **External stakeholders:** Parties that are not a part of the same organization. They can be vendors, suppliers, customers, and others.

Challenges of ITSM

1. Knowledge transfer
2. Auto-generated alerts
3. Mixing incident and service requests
4. Adoption of new technology
5. Transparency

Benefits of ITSM

1. Increases efficiency and reduces operational costs
2. Minimizes risks
3. Measures performance effectively

ITSM tools

1. Zendesk Support Suite
2. Freshservice
3. SolarWinds Service Desk
4. SysAid
5. Jira Service Desk

Challenges in securing funding for IT project

1. **Lack of Understanding of IT Value**
   Explanation: Leaders may not see the strategic value or ROI of IT projects.
   Impact: IT projects are viewed as costs, making funding harder to justify.

2. **Competing Priorities**
   Explanation: Multiple projects compete for limited resources.
   Impact: IT projects may be deprioritized in favor of initiatives with clearer business outcomes.
3. **Economic Constraints**
   Explanation: Economic downturns or budget cuts reduce available funding.
   Impact: IT projects may be delayed or canceled due to financial limits.

4. **Inadequate Business Cases**
   Explanation: Poorly made business cases that don't clearly show benefits and ROI.
   Impact: Decision-makers may hesitate to fund projects without strong justification.

5. **Rapid Technological Changes**
   Explanation: Fast tech changes make it hard to predict long-term benefits and costs.
   Impact: Uncertainty about tech investments can deter funding.

6. **Legacy System Dependencies**
   Explanation: Outdated systems complicate new IT projects and increase costs.
   Impact: Risks and complexities of integrating or replacing legacy systems can hinder funding.

7. **Risk Aversion**
   Explanation: Organizations may be wary of large or innovative IT projects.
   Impact: Fear of failure or cost overruns can lead to reluctance in funding new initiatives.

★ Strategies to Address funding challenges

➔ **Clearly Demonstrate Value**
- ◆ Strong Business Case: Highlight ROI, cost savings, and alignment with business goals.
- ◆ Success Stories: Share examples of successful IT projects.

➔ **Align with Business Objectives**
- ◆ Engage Stakeholders: Collaborate early to meet business needs.
- ◆ Business Language: Focus on outcomes like customer satisfaction and competitive advantage.

➔ **Optimize Cost Management**
- ◆ Budget Planning: Prepare realistic budgets with contingencies.
- ◆ Phased Implementation: Spread costs over time.

➔ **Enhance Communication**
- ◆ Regular Updates: Keep stakeholders informed on progress and changes.
- ◆ Transparent Reporting: Build trust through clear reporting of benefits, costs, and risks.

➔ **External Funding Sources**
- ◆ Grants and Subsidies: Explore government and industry funding.
- ◆ Partnerships: Form alliances to share costs.

➔ **Risk Management**
- ◆ Mitigation Plans: Develop strategies for potential risks.
- ◆ Pilot Projects: Propose pilot initiatives to reduce risks.

➔ **Long-term Benefits**
- ◆ Total Cost of Ownership (TCO): Analyze total cost of ownership for savings.
- ◆ Future-proofing: Position for future growth and tech advancements.

➔ **Compliance and Security**
- ◆ Regulatory Compliance: Ensure adherence to regulations.
- ◆ Security Enhancements: Improve security against cyber threats.

★ What is the Consumer liaison ?

Consumer liaison involves managing communication between an organization and its customers to ensure satisfaction and resolve issues.

★ What is the Customer liaison ?

Customer liaison is the main contact between a service provider and its customers.

What is a help desk ?

A help desk is the first point of contact for customers and employees alike.
Customers need answers and the help desk is where they turn.

When customers can’t get into their systems, need help with setup, or encounter a bug, it’s the help desk that typically gets a call.

Help desk vs. service desk

Help desk	Service desk
IT-centricity (mainframe computing)	IT service-centricity
The main focus of a help desk is fixing issues	The service desk's main focus is delivering service to its customers or users.
Task-oriented Approach	Process-oriented Approach

Types of help desks

1. IT support help desk
2. Customer service help desk
3. Business help desk

Help desk roles

- ➔ Help desk manager
- ➔ Help desk agent
- ➔ Help desk team lead

Primary functions of a help desk

- ➔ User Communication
- ➔ Knowledge Base Maintenance
- ➔ Service Coordination
- ➔ Service Level Management

What is a service desk ?

The single point of contact between the service provider and the users.

Simulation of a customer liaison scenario

Scenario: Resolving a Service Issue

Background: You work as a customer liaison officer for a telecommunications company. A customer, Mr. Smith has been experiencing frequent internet outages over the past week and is frustrated with the service disruptions.

Steps in the Scenario:

1. **Initial Contact:**
   Receive a call from Mr. Smith regarding his internet issues.
   Introduce yourself and empathize with his frustration. Assure him that you're here to help resolve the issue.

2. **Gathering Information:**
   Ask Mr. Smith for specific details about the outages (times, duration, any error messages).
   Verify account details to access his service history and current subscription plan.

3. **Investigation:**
   Check the system status and recent service logs to identify any network issues or maintenance activities that might be affecting his service.

4. **Providing Updates:**
   Inform Mr. Smith about what you're checking and estimate the time it will take to investigate further.
   Keep him updated periodically if the investigation takes longer than expected.

5. **Resolution:**
   Once the issue is identified (e.g., a faulty router, network congestion), explain the problem to Mr. Smith in clear, non-technical terms.
   Offer solutions based on the issue (e.g., sending a technician, troubleshooting steps).

6. **Confirmation and Follow-up:**
   Confirm with Mr. Smith that the issue has been resolved to his satisfaction.
   Provide contact details or a reference number for any follow-up queries or feedback.

7. **Closure:**
   Thank Mr. Smith for his patience and apologize again for the inconvenience caused.
   Document the interaction and any actions taken in the customer service system for future reference.

★ Key Responsibilities Of A Customer Account Manager In The Context Of IT Service Management

- ➔ Relationship Management
- ➔ Service Level Management
- ➔ Issue Resolution
- ➔ Communication
- ➔ Account Planning

★ Strategies Can Be Employed to Ensure Clear And Consistent Communication Between Customer Account Managers And Their Clients

- ➔ Regular Meetings and Updates
- ➔ Clear Communication Channels
- ➔ Effective Use of Technology
- ➔ Clear Documentation
- ➔ Feedback Mechanisms
- ➔ Transparent Communication

★ What is Capacity planning ?

Capacity planning is the strategic process of determining the production capacity needed to anticipate and meet customer demand.

Capacity planning is the process of determining the resources and capabilities necessary to meet business demands.

The Goals of Capacity Planning

Effective capacity planning ensures that resources are not wasted or underutilized, leading to improved financial performance, higher client satisfaction, and increased team productivity.

Main Types of Capacity Planning

1. **Long-term or Strategic Capacity Planning**
   Plans for several years, aligning with business goals and growth.
   The main strategies include supply and need forecasting.

2. **Short-term or Operational Capacity Planning**
   Plans for months to a year, managing seasonal changes.
   Strategies include scheduling, workforce management, and day-to-day optimization.

3. **Medium-term or Tactical Capacity Planning**
   Plans for days to weeks, meeting immediate needs.
   strategies are scheduling, forecasting, utilization tracking, and strategic planning.

What is Resource planning ?

Resource planning focuses on managing and utilizing resources to meet actual demand efficiently.

Benefits of Capacity Planning

1. **Optimized Resource Allocation**
   Capacity planning ensures that resources are allocated efficiently, maximizing their use and minimizing waste.

2. **Improved Project Management and Delivery**
   By anticipating resource needs, capacity planning helps in scheduling and managing projects more effectively, leading to timely delivery and better project outcomes.

3. **Enhanced Agility and Flexibility**
   Capacity planning allows organizations to quickly adapt to changing demands and conditions, providing the flexibility to scale operations up or down as needed.

4. **Cost Savings (Financial Benefits)**
   Efficient resource use and reduced need for last-minute resource allocations lead to cost savings. Additionally, better planning supports financial predictability and budgeting.

Downsides of Poor Capacity Planning

- ➔ Increased Operational Costs
- ➔ Reduced Customer Satisfaction
- ➔ Lower Employee Morale
- ➔ Missed Opportunities
- ➔ Supply Chain Disruptions

★ What is the End-to-end service ?

"End-to-end service" means managing a service from start to finish without interruptions, ensuring a seamless user experience.

★ What are business processes ?

Business processes are sequences of steps designed to achieve goals.

Why are business processes important ?

- ➔ It saves time
- ➔ Reduces Opportunity cost
- ➔ Increases the efficiency

Types of Business Process

1. **Operational processes**

   These are the main functions of the business. These processes are directly related to the fundamental values, vision, and mission of the business. They are also known as primary processes. You need to give extra attention to these processes as they are the primary revenue streams of the company.

   E.g., McDonald's restaurant's operating process would be taking orders, making food, and serving it to the customers.

2. **Management processes**

   The processes that plan, organize, coordinate and control all the functions of the business fall under managing processes. These processes are goal-oriented. It includes helping and motivating your team to achieve their targets.

   E.g., CEOs, managers, and top-level management are generally involved in management processes.

3. **Supporting processes**

   These are the processes that are not directly related to the delivery of the service or product to the customer. But they help the business create an environment where the primary processes can work better. That is where the name "supporting process" comes from.

   E.g Hiring a new employee is a supporting function that helps the business expand.

★ Customer relationship management (CRM)

Customer relationship management (CRM) is a technology for managing interactions with current and potential customers.

Benefits of Customer relationship management (CRM)

- ➔ Improved Customer Relationships
- ➔ Enhanced Communication
- ➔ Increased Efficiency
- ➔ Improved Customer Service
- ➔ Scalability
- ➔ Analytics and Reporting

What are the three types of CRM ?

1. Operational CRM
2. Collaborative CRM
3. Analytical CRM

★ What is Project cost management ?

Project cost management is the process required to ensure that the project is completed within an approved budget.

★ Project cost management process

1. Cost estimating
2. Cost budgeting
3. Cost control

★ Costing

Once services are defined and planned, costing involves assigning costs to each service based on the resources required to deliver them. This includes:

- ➔ **Activity-Based Costing (ABC):** Allocating costs based on the activities required to deliver specific services.

- ➔ **Service-Based Costing:** Assigning costs directly to individual services based on their consumption of resources.

★ Charging

Charging refers to the process of billing customers or departments for the IT services they consume. This involves:

- ➔ **Service Pricing:** Determining the pricing strategy for each service based on its cost and value to the business.

- ➔ **Billing and Invoicing:** Generating bills or invoices based on the usage of IT services by different departments or customers.

Methods of Charging Services

- ➔ Fixed Price
- ➔ Subscription-Based
- ➔ Usage-Based
- ➔ Tiered Pricing

★ What is the budget ?

A budget is a financial plan that tracks expected income and expenses.

Steps in Budget Planning

- ➔ Identify Goals
- ➔ Gather Data
- ➔ Forecasting
- ➔ Allocating Resources
- ➔ Approval

★ What is the Software service level agreement (SLA) ?

An SLA is a documented agreement between a service provider and a customer.

Here are key components typically included in a SLA

- ➔ Service Description
- ➔ Service Availability
- ➔ Performance Metrics
- ➔ Maintenance and Updates
- ➔ Customer Responsibilities

3 Types of Service Level Agreements (SLA)

1. **Customer-based SLA -** Agreed service levels for individual customers.
2. **Service-based SLA -** Standard service levels for all users of a service.
3. **Multi-level SLA -** Different service levels based on customer groups or specific aspects of the service.