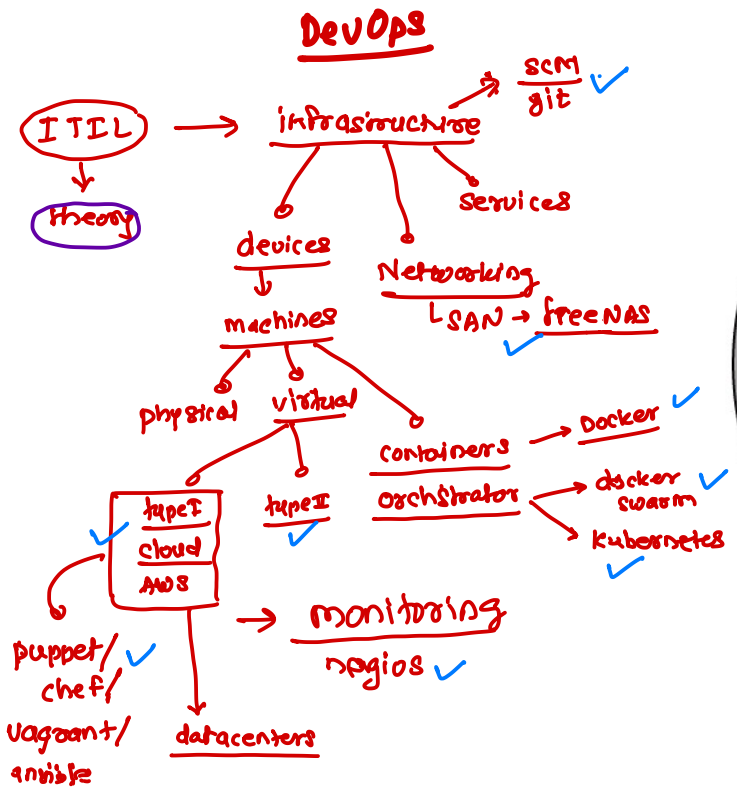
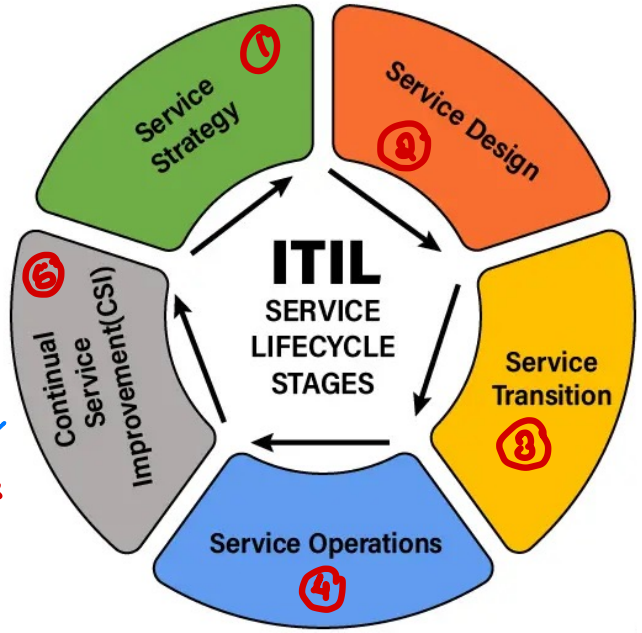




Information Technology Infrastructure Library

What is ITIL ?

- ITIL (Information Technology Infrastructure Library) is a framework designed to standardize the selection, planning, delivery, maintenance and overall lifecycle of IT services within a business
- The goal is to improve efficiency and achieve predictable service delivery
- The ITIL framework enables IT administrators to be business service partners, rather than just back-end support
- ITIL guidelines and best practices align IT department actions and expenses to business needs and change them as the business grows or shifts direction

History

- ITIL started in the 1980s, when data centers decentralized and adopted more geographically diverse architectures
- This practice caused process and deployment discrepancies and brought inconsistent or suboptimal IT service performance into organizations
- The United Kingdom's Central Computer and Telecommunications Agency (CCTA) recognized the importance of perceiving IT as a service and applying consistent practices across the entire IT service lifecycle, so it developed the Government Information Technology Infrastructure Management methodology
- CCTA released ITIL v1 in 1989
- In 2000, CCTA folded into the Office of Government Commerce and released ITIL v2 in 2001
- ITIL v3 emerged in 2007 and was updated in 2011 to include feedback from the user and training community, as well as to resolve errors and inconsistencies

History

- The U.K. Cabinet Office and Capita PLC formed Axelos in 2013
- The organization's mission is to "make individuals and organizations more effective by providing practical guidance, content and qualifications distilled from real-world experience and developing practices"
- Axelos currently oversees ITIL development
- It announced the latest ITIL guidelines in 2017, releasing ITIL v4 and related modules throughout 2019 and 2020
- Axelos continues to manage the development and oversight of best practice certifications and methods, including ITIL

Best Practice Approaches

- ITIL is recognized worldwide as a best-practice approach for delivering IT services and IT service management
- It focuses on the processes, functions, and capabilities required to support IT services in business
- Organizations need to remain competitive in the marketplace and can compare themselves to peers to identify where they can gain a competitive advantage
- Commonly, they look to industry best practices to ensure they are using the best available methods and techniques to deliver a service
- A number of best-practice approaches to IT are available, and organizations can use them as a benchmark to ensure that they are delivering IT services efficiently
- It is important to recognize that these approaches must enable IT service providers to meet the needs of the customer, while remaining cost-effective and within the customer's budget

Best Practice Approaches

- **Proprietary knowledge/internal experience**
  - This is often deeply embedded in an organization
  - Although this is valuable, it is very difficult to share with another organization
  - It is also often undocumented, held as knowledge by the individual
  - Proprietary knowledge is specific to the organization and can be so customized as to be ineffective in another organization, unless it requires the same conditions
  - The sharing of this knowledge may be constrained by ownership, and it may be subject to legal or financial negotiations
- **Standards/industry practices**
  - This is preferable to organizations when compared to proprietary knowledge
  - Standards and commonly used industry practices are captured, documented, and made available publicly
  - Standards also have the advantage of being verified in a variety of situations and environments, rather than a single organization's experience
  - The standards are vetted and reviewed by a wide range of partners, competitors, and suppliers.
  - Commonly used standards include the following: ITIL, Lean, Six Sigma, COBIT, CMMI, Prince2, PMBOK, ISO 9000, ISO/IEC 20000, and ISO/IEC 27001

Best Practice Approaches

- **Training and education/academic research**
  - Information and education on publicly available standards and research let organizations educate their staff in a consistent manner
  - It is easier for organizations to acquire knowledge through the marketplace, because levels of skill and qualification can be standardized

Why Is ITIL So Successful?

- For a while after its origins in the 1980s, ITIL was the best-kept secret in the IT sector; however, the framework has become the recognized approach for service management excellence
- **Vendor Neutrality**
  - The ITIL framework is not based on a specific technology platform or industry type
  - It is not tied to any specific vendors; it is owned by the U.K. government and has no associations to any commercial proprietary practices or solutions
  - As a consequence, the guidance it provides for service management is applicable across any industry sector or enterprise
  - This allows its guidance to be globally adopted by any organization
- **Nonprescriptive**
  - From the beginning of its development, ITIL has recommended the approach of “adopt and adapt” to the guidance it offers
  - The true benefit of its application is in the adaptation to meet the specific requirements for value creation in an individual organization
  - The guidance contains time-tested, robust, and mature practices that can be utilized by any service organization

Why Is ITIL So Successful?

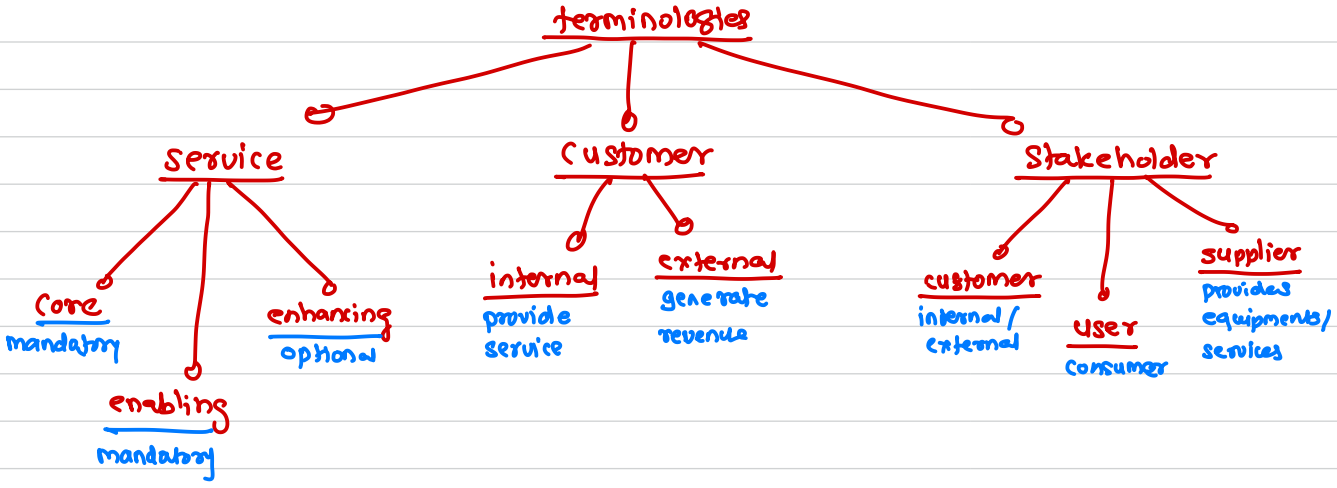
- It is relevant to public and private sectors, internal and external service providers, and organizations of any size
- It is not dependent on the techno- logical environment, and it provides pragmatic guidance applicable and adaptable to any situation

- **Best Practice**
  - ITIL delivers the accumulated knowledge and guidance from the best sources of service management practices across the world

ITIL Motivations

- Creation of value for customers through the services provided
- The emphasis on integration with the business, ensuring that the business strategy and customer requirements are reflected in the service management strategy
- The ability to measure, monitor, and optimize IT services and the performance of service providers
- Management of the investment for IT services and budgetary controls
- Risk management in alignment with the business
- Knowledge management across the service management enterprise
- The delivery of services effectively and efficiently, through the management of the resources and capabilities required
- The adoption of a standard approach to service management across the organization
- A change of culture as part of the approach to service management, developing and maturing the processes to deliver effective IT services
- Improvement in the interaction and relationship between the service provider and their customers
- The ability to coordinate the delivery of goods and services and to be able to optimize and reduce costs

Services, Customers, and Stakeholders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internal /
external
user
consumer
supplier
provides
equipments/
services

Services

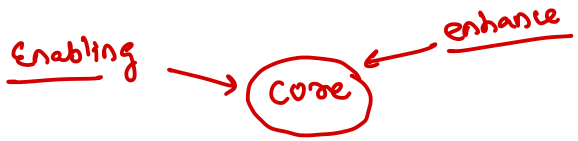
- Services are a means of delivering value to customers, by facilitating the outcomes customers want to achieve, without the ownership of specific costs and risks
- Think of it in terms of an actual service, such as email
- Email provides the ability to create a written communication in an electronic format, which is a desirable outcome for a business
- But the user of the email service does not want to understand or manage the complexity of the infrastructure that supports the email service (network, server, client and application software, user accounts, and so on)
- The customer recognizes that the service has a cost and that this cost covers the “hidden” elements of the provision, but the ownership of these costs and associated risks in delivery are managed by the service provider, not the customer

Services

- The services facilitate the desired outcomes by enhancing the performance of the tasks associated with the delivery of service, and reducing the effect of constraints, such as technology limitations, funding, or regulation
- By enhancing performance and reducing constraint, the desired outcome is more likely to be achieved
- This is applicable whether the service is enhancing the performance of a task required by the business or whether it is performing the task itself
- This is a recurring pattern in the delivery of a wide range of services
- Understanding these patterns of service provision enables us to manage the delivery more effectively, in terms of complexity, cost, flexibility, and variety
- Simply put, it means you can apply the same strategic approach to the management of a wide variety of services and make only minor adjustments to meet the specific requirements of each business
- This is the core of ITIL's approach to service management

Types of Services

- **Core Services** → mandatory
  - These are services that deliver the basic outcomes required by one or more customers
  - They are services that provide the value the customer wants and for which they are willing to pay
  - It is usually this set of core services that provides the capability for the business-critical functions to take place
  - An example that is often considered to be a core service is email
- **Enabling Services** → mandatory
  - These are services that are needed to ensure that the core service can be delivered successfully
  - These services may not be immediately visible to the customer and may not even be perceived as services in their own right
  - But without them, the core services cannot be delivered
  - Using our email core service example, the supporting services would cover the infrastructure and network to enable the service to work effectively

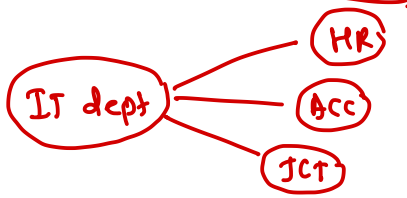


Types of Services

- **Enhancing Services** → optional
  - These are additional services that enhance the core service, making it more attractive or appealing to the customer
  - They are not essential to the delivery of the core services but are extra factors that make the offerings more attractive to the customer
  - Using our core service email example, an enhancing service associated to the core might be the ability to access the email service remotely, through a web-based portal or the use of smart phone access to email
  - It is not an essential element of the core service functionality but adds something that provides value and customer satisfaction

Customer

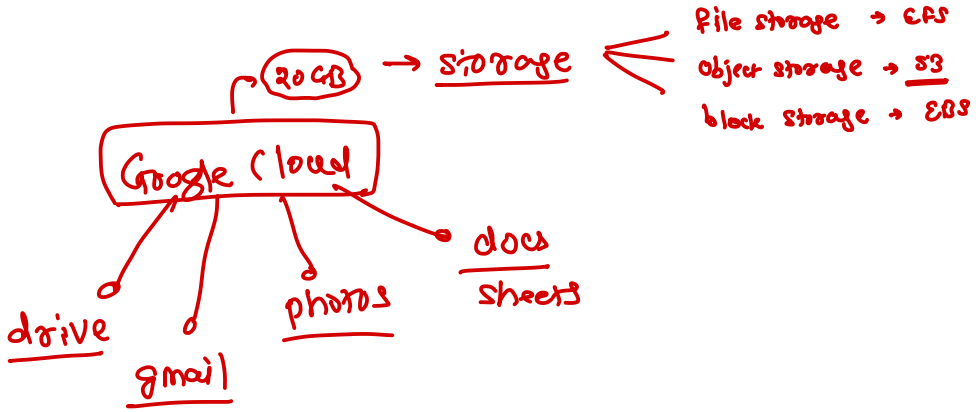
- Although it may not be relevant in your particular organization, for a great percentage of businesses, there are two types of customers
- ITIL differentiates between internal and external customers, because there is a difference between those customers who work within the same organization and those working for a separate organization



- **Internal Customers**
  - These are people who work in the same organization as the service provider
  - For example, the HR department is an internal customer of the IT department because it uses IT services
  - It is likely that the service provider is funded through the internal accounting system, rather than as a revenue stream, although obviously this is entirely dependent on the financial strategy within the organization
  - Funding internally can sometimes cause challenges in managing the budget for IT services, because it may be hard to demonstrate the direct benefit to the business in terms of revenue

Customer

- **External Customers**
  - These are people who are not employed by the organization or are employed by a separate legal entity
  - External customers pay for services under agreement through a legally binding contract
  - In this situation, funding is direct, rather than through the internal accounting systems, and is managed through the specified contractual obligations



Stakeholders

- ITIL classifies stakeholders as those individuals or groups that have an interest in an organization, service, or project and are potentially interested or engaged in the activities, resources, targets, or deliverables from service management
- There may be many different stakeholders in a service provider organization, including the functions, groups, and teams that deliver a service
- There are also other stakeholders external to the service provider organization; they include the following types:
- **Customers**
  - These are the individuals or groups that buy goods or services
  - They are responsible for agreeing on and defining the targets in the service level agreements with the IT service provider
  - They are the people within the organization who have financial authority over the services provided by the IT service provider and may be the key signatories for the service level agreement

Stakeholders

- **Users**
  - This term is used to refer to those individuals or groups that use the service on a day-to-day basis
  - They are distinct from customers, because they have no overall authority over the service, and customers may not use the service directly
  - A key challenge for service management is to ensure that the users are well informed about the items that concern them
  - An example is keeping users informed of the progress of incidents
- **Suppliers**
  - Suppliers are classed as third parties who have responsibility for the supply of goods or services that are required to deliver IT services
  - There are many examples of suppliers, such as hardware or software vendors, network providers etc.
  - The engagement of suppliers is now a critical part of most IT service providers organizations, making sure that they perform according to the specification of the contract.
  - This is managed through the supplier management process

IT Service Management

Service Management

IT

- In today's business environment, IT has become considered a "utility" for a successful organization; in much the same way as you expect water to flow from a tap, your users expect their IT services to "flow" from your screens and devices
- The technology has now improved to the point where this expectation is not only realistic but also achievable
- The management of the technology to deliver the service is crucial to the success of your organization's required business outcomes
- But the technology is not the sole element that makes up the services, which is why service management is more than technology management
- **Service management**: A set of specialized organizational capabilities for providing value to customers in the form of services → infrastructure →
- **Service provider**: An organization supplying services to one or more internal or external customers
- The organization of the resources and capabilities and their use in delivering valuable services is the core of service management. Resources and capabilities are important concepts in the way service management delivers value to customers

IT Service Management

- **IT service management (ITSM)**
  - The implementation and management of quality IT services that meet the needs of the business. IT service management is performed by IT service providers through an appropriate mix of people, process and information technology
  - ITSM recommends that this relationship and the service requirements of business need, cost, and performance are documented in a service level agreement (SLA)
- **IT service provider**
  - A service provider that provides IT services to internal or external customers
- Every IT department should consider itself an IT service provider and adopt the principles and practices of service management to deliver IT services
- ITSM should be carried out efficiently and effectively, managing IT provision by understanding the business perspective of the value that IT brings
- This requires a good relationship between the IT service provider and its customers, achievable by the customer receiving the services it requires at an affordable cost and acceptable level of quality and performance

IT Service Provider Types

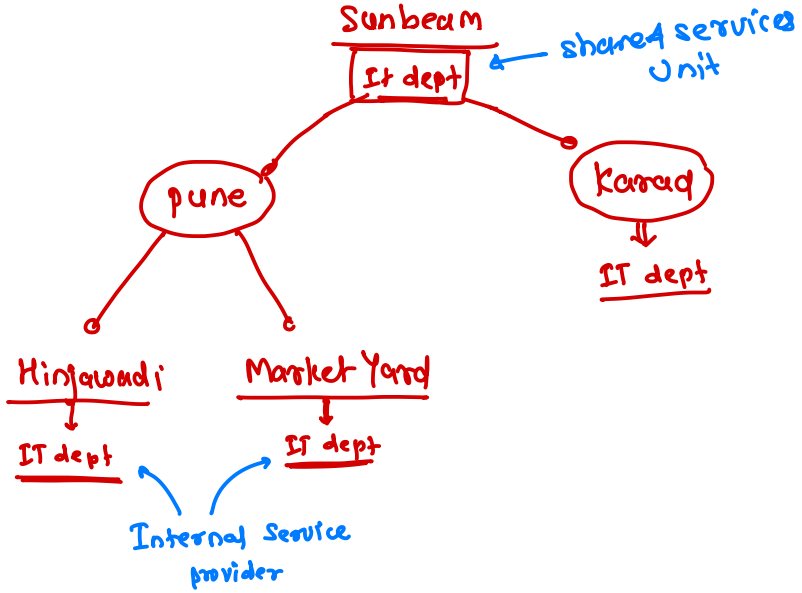
- ITIL suggests that there are three main types of service provider
- The different types will share most aspects of service management, but other aspects such as the contracts, revenue, and strategy, as well as the customer types, will vary and take on different meanings according to the service provider type. This is how ITIL defines the three provider types:

- **Type I: Internal Service Provider**
  - The internal service provider is located within the business unit it supports
  - There may be several Type I service providers within a single organization
  - An example of this is the support offered to the individual faculties of a university or within an organization with multiple sites with local support teams

- **Type II: Shared Services Unit**
  - This is an internal service provider that provides shared IT services to more than one business unit
  - An example of this is the centralized IT department for a large multidivisional organization

IT Service Provider Types

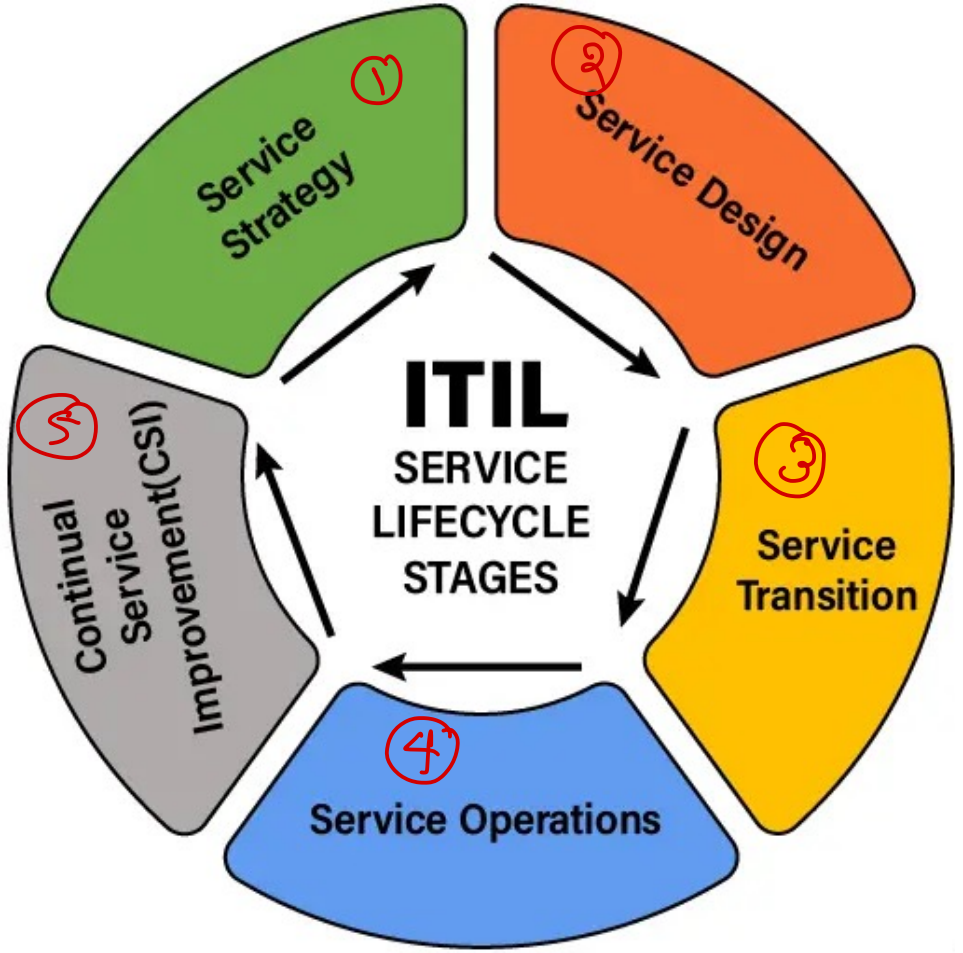
- **Type III: External Service Provider**
  - This type of provider provides IT services to external customers
  - An example of this is an outsourcing partner, who would deliver their services to customers outside of the provider organization
- You will often find that ITSM concepts are described according to only one of these service provider types, and there may be an inference that only one service provider type exists in an organization



Service Lifecycle

Service Lifecycle

- The ITIL publications explore the processes and concepts for each lifecycle stage and how they interact with each other
- Each lifecycle stage feeds into the others, with the stage of continual service improvement interacting with all of the others
- Each of the publications provides guidance on a particular aspect of service management and builds to form an integrated approach



Service Lifecycle

- The following are the five ITIL publications:
- **Service Strategy**
  - This covers the core of the lifecycle, setting the strategic approach for service management activities
- **Service Design**
  - This provides guidance on the design and development of services according to the requirements of the customer and the strategic approach
- **Service Transition**
  - This provides guidance on the transition of new or changed services into the live environment, including the development and improvement of capabilities
- **Service Operation**
  - Covers management of the day-to-day delivery of services, including optimizing effectiveness and efficiency
- **Continual Service Improvement**
  - Provides guidance on maintenance of value creation and continual alignment to changing business needs