IT Service Management: Quick Summary

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Contents

1. Disclaimer

The course is interesting, but its contents are not clearly explained by the professor and having a condensed, easy-to-read file, I think it's very nice. There you go, fellas.

2. 02 - Information System Governance

- Services comprise the largest and most dynamic component of both developed and developing economies.
- Services are the main way that organizations create value for themselves and their customers.
- Almost all services today are IT-enabled, which means there is tremendous benefit for organizations in creating, expanding, and improving their IT service management capability.

Technology is advancing faster today than ever before.

- We are dealing with the 4th Industrial Revolution
  - Developments such as cloud computing, infrastructure as a service (IaaS), machine learning, and blockchain are source of innovation and competitive advantage

Business context is very dynamic and not definable a priori.

- New forms of business are born
- Not enough time to activate cycles of revision and modification
- Achievable via a paradigm shift allowing the company to easily adapt

A new paradigm makes organizations face a radical change

- Fewer indicators
- Obtain a reasonable consistency with information and costs

IS (Information System) Governance

- is a set of logics and tools aimed at creating a structural set-up and a governance context of the Company Information System that make it constantly consistent with the business needs in environments characterized by a high level of complexity

The Governance logic

- naturally tends to good performance
- tries to guide action towards practice
- it tries to balance the Information System towards an optimal setup able to pass the gap between company requirements and its capabilities

The Corporate Governance contains both IS Governance and IT Governance, allowing for governance and management to go in parallel.

- IT Governance takes IT Management (present) and goes into the future
- IS Governance has to work with different degrees and methods
  - According to the level of integration, homogeneity and degree of control

Maturity

- means dealing with problems in new/original ways while learning from mistakes

It can be defined with different reference models for the organization:

- Deming Cycle (Plan/Do/Check/Act)
- Gartner's scale to predict and avoid problems
- ISO 15504 (SPICE - Software Process Improvement and Capability Determination)
  - Different capability levels
  - Different process attributes
- COSO (Committee of Sponsoring Organizations of the Treadway Commission)
  - Classifies processes according to their level of management
- Kiviat Diagram
  - Allows to see things on different dimensions and make comparisons

There are different levels of it, according to different visions of the previous ones:

- Initial/Chaotic
- Managed/Reactive
- Defined
- Quantitatively managed/Proactive/Service
- Optimizing/Predictive/Value

We also need metrics able to compare maturity in a good way. Examples are:

- CSF – Critical Success Factor, which is required for ensuring the success of a company or an organization
- KPI – Key Performance Indicator, a quantifiable measure of performance over time for a specific objective

Maturity can be achieved through training:

- Efficiency and Effectiveness
- Work ethic
- Problem solving
- Communication skills
- Teamwork

3. 03 - ITIL and ITSM

Service Management

- Definition: “A set of specialized organizational capabilities for enabling value for customers in the form of services”
- It encompasses all activities that an enterprise performs, maintaining control of operations
- Allows products and services to bring value and has to react flexibility to change
- Organizational capabilities understand value, nature and scope of stakeholders, organizing capacity and ability the best way possible
- The provider delivers the service, and the consumer receives value; the consumer plays no role in creating value for themselves, given complex and interdependent relationships
- There are different methodologies and ITIL is one of them, which is process-centric
- Based on 4 P’s: Persons, Processes, Products, Partners

ITIL - (Information Technology Infrastructure Library)

- Definition: “Set of guidelines for IT infrastructures, helping business evaluate services for required improvement, making implementations easy for businesses and crafting strategies to take decisions”
- Born thanks to figures like Margaret Thatcher expressed the importance of getting value from the technology
- Need to standardize IT practices across different government functions
- 4 versions, basically incorporating wider practice standards, being more accessible and adopting a lifecycle approach
- We focus on ITIL 4

Service Management (ITSM) vs ITIL: what’s the difference?

- Service Management relates to how you manage the services you deliver to your business partners or customers
- ITIL is simply one of many items you may have in your toolbox to help you do this well

Between different versions:

- important to connect business with infrastructure management
- each part of the company has its own responsibility
- handling resources the best way requires a credible design, going smoothly and transitioning easily
- different processes overlap, giving value to each other

Has ITIL V4 dropped the ITIL V3 service lifecycle?

- A key innovation of ITIL V3 was the introduction of the service lifecycle

- consisting of five service lifecycle stages
- the ITIL V3 processes are distributed across this service lifecycle; for instance, the incident management process is part of the service operation stage
- ITIL V4 has dropped most references to the service lifecycle, but continual improvement has remained a key concept

4. 04 - Service Management

ITIL v4 expanded scope compared to previous versions:

- approaching with the correct logic problems in a different way
- acting directly on the organizational culture and operational practices
- overtime, the ITIL scope became wider and wider
- creating a chain between services and users, determining how to control CI

It became wider and wider:

- Based on practices (34) grouped into 3 areas
- Beyond the IT and close to corporate governance
- Principle-centric
- It helps to create the expected value and deliver it
- Preventing risks and measuring/reporting

Process

- series of actions which are carried out in order to achieve a particular result
  - input well-defined
  - through following standard procedures
  - output is granted
- objectives are clearly described
- an organization can use multiple processes
- people have to become responsible in using and controlling them
  - to be more efficient/effective
  - to avoid conflicts of interest

Processes vs Procedures:

- Processes
  - they are about what needs to be done
  - structured workflows designed to achieve objectives
  - activities at the highest level and often represent a standard for the entire organization
  - can be divided into series of tasks
  - each one has a process owner

- Procedures
  - they are about how to do it
  - step-by-step instructions on how to perform specific tasks within processes
  - contain a greater level of detail and describe who performs certain activities within a process
  - may change between various departments or activities

In both cases, *policies* are high-level statements that set the direction, intent, and rules governing an organization's actions and decision-making.

- Quality here helps making continuous improvement according to standards
- One of the main problems for many organizations is that roles and responsibilities are not clearly defined
- Many tasks and risks of confusion

IT Service Management (ITSM)

- Discipline that deals with planning, designing and managing the Information Technology (IT) systems of an organization
- IT service providers must consider the quality of services they provide and focus on the relationship with the customer

Organization

- Definition: "A person or a group of people that has its own functions, responsibilities, and relationships to achieve its objectives"
- The purpose of an organization is to create value for stakeholders
- Vary in size and complexity and hold different roles

Value

- Definition: "The perceived benefits, usefulness, and importance of something"
- Based on the recipient's perception, which determines the final value
- There is *value co-creation*: made through collaboration between service provider and consumer, providing active consumer engagement
- Organizations provide different roles, depending on perspective and discussion

Service Provider

- Definition: "A role performed by an organization in a service relationship to provide services to consumers"
- Clear understanding on who the customers are and understand their role and relationships

Service Consumer

- Definition: “A role performed by an organization in a relationship that uses (or consumes) those services”

Service relationships are different and complicated: one can be both a supplier and a consumer at the same time. There are infact different roles involved in *service consumption*:

- Customer: A person who defines the requirements for a service and takes responsibility for the outcomes of service consumption.
- User: A person who uses services.
- Sponsor: A person who authorizes budget for service consumption

Beyond the consumer and provider roles, there are usually many other stakeholders that are important to value creation.

- Examples include individual employees of the provider organization, partners and suppliers, investors and shareholders, government organizations such as regulators, and social groups

Organizations own or have access to a variety of resources, including people, information and technology, value streams and processes, and suppliers and partners.

Service

- Definition: “A means of enabling value co-creation by facilitating outcomes that customers want to achieve without the customer having to manage specific costs and risks”
- it may be based on a product

Product

- Definition: “A configuration of an organization’s resources designed to offer value for a consumer”
- it combines and simplifies organization’s services
- created with several target consumer groups in mind (not exclusive to one)
- typically complex and not fully visible to the consumer

Service providers present their services to consumers in the form of service offerings, which describe one or more services based on one or more products.

Service offering

- Definition: “A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions.”
- these may include goods to be supplied to a consumer, access to resources granted to a consumer and service actions performed to address a consumer’s needs

Service relationship

- Definition: “A corporation between a service provider and service consumer, including service provision, service relationship management”
- They are established between two or more organizations to co-create value

- In a service relationship, organizations will take on the roles of service providers or service consumers (not mutually exclusive)
- Joint activities to ensure continual value co-creation

When services are delivered by the provider, they create new resources for service consumers, or modify their existing ones.

The service consumer can use is new or modified resources to create its products to address the needs of another target consumer group, thus becoming a service provider.

Service provision

- Definition: "The activities performed by an organization to provide the services"
- It includes provider resources management, access to those ones, fulfillment of actions and continual improvement

Service consumption

- Definition: "The activities performed by an organization to consume the services"
- It includes management of consumer's resources and service actions performed by users

Achieving desired outcomes requires resources (and therefore costs) and is often associated with risks. Service providers help their consumers to achieve outcomes, and in doing so, take on some of the associated risks and costs.

Acting as a service provider, an organization produces outputs that help its consumers to achieve certain outcomes.

Output

- Definition: "A tangible or intangible deliverable of an activity"

Outcome

- Definition: "A result for a stakeholder enabled by one or more outputs"
- Services facilitate outcomes through one or more outputs
- One should care more about the outcome for this reason, creating metrics measuring those
- These allow for balancing between value achievement, enabling cost reduction if there is value co-creation
    - This allows for changing in value proposition, allowing to fully understand the outcomes a consumer wants to achieve

Cost

- Definition: "The amount of money spent on a specific activity or resource"
- There are costs removed or imposed from the consumer by the service

Risk

- Definition: “A possible event that could cause harm or loss or make it more difficult to achieve objectives. Can also be defined as uncertainty of outcome and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes”
- It should be avoided (removed from service) but also accepted (when cost is considered low), transferring it but also mitigating it

To evaluate whether a service or service offering will facilitate the outcomes desired by the consumers and therefore create value for them, the overall utility and warranty of the service should be assessed.

Utility

- Definition: “The functionality offered by a product or service to meet a particular need”
- Utility can be summarized as ‘what the service does’ and can be used to determine whether a service is ‘fit for purpose’
- To have utility, a service must either support the performance of the consumer or remove constraints from the consumer. Many services do both.

Warranty

- Definition: “Assurance that a product or service will meet agreed requirements”
- Warranty can be summarized as ‘how the service performs’ and can be used to determine whether a service is ‘fit for use’
- Warranty often relates to service levels aligned with the needs of service consumers. This may be based on a formal agreement, or it may be a marketing message or brand image
- Warranty typically addresses such areas as the availability of the service, its capacity, levels of security and continuity
  - A service may be said to provide acceptable assurance, or ‘warranty’, if all defined and agreed conditions are met

5. 05 - Dimensions of Service Management

To achieve their desired outcomes and work as effectively as possible, organizations should consider all aspects of their behaviour. In practice, however, organizations often become too focused on one area of their initiatives and neglect the others.

To support a *holistic approach* to service management, ITIL defines four dimensions that collectively are critical to customers and stakeholders value:

1. organizations and people
2. information and technology
3. partners and suppliers
4. value streams and processes

These are perspectives and constraints influenced by several factors. If one fails to address them all, it may result in services becoming undeliverable and not meeting expectations. These apply to both service management and services being managed.

1° Dimension - Organizations and People

- Key message: "The complexity of organizations is growing, and it is important to ensure that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model"
- There needs to be a culture of shared values supporting the organization's objectives, starting at the top then funneling down throughout the company
- Every person should have a clear understanding of their contribution
- Focus on value is a key for an organization, covering all roles, responsibilities, culture and competencies as a whole

2° Dimension - Information and Technology

- Key message: "When applied to the Service Value System - SVS, the information and technology dimension includes the information and knowledge necessary for the management of services, as well as the technologies required. It also incorporates the relationships between different components of the SVS, such as the inputs and outputs of activities and practices."
- For many services, Information Management is the primary means of enabling customer value
- Requires different tools and knowledge bases, collaborating across different platforms
- Information role changes, depending on the nature of IT services and considering emerging technologies
- Technology has to incorporate inputs and outputs precisely, ensuring all inside of a business can function properly

3° Dimension - Partners and Suppliers

- Key message: "The partners and suppliers dimension encompasses an organization's relationships with other organizations that are involved in the design, development, deployment, delivery, sup-

port, and/or continual improvement of services. It also incorporates contracts and other agreements between the organization and its partners or suppliers"

- This may involve several relationships with contracts and partnerships
- An organization can both act as a service provider and a service consumer
- When using those ones, an organization's strategy should be based on its goals, culture and business environment
- Service integration allows for coordination of service relationships, which may be kept inside of an organization but also delegated to trusted partners

Different factors may influence an organization's strategy:

- *Strategic focus* (on organization's core competencies)
- *Corporate culture* (cultural/historical bias)
- *Resource scarcity* (without having suppliers)
- *Cost concerns* (by decisions of service provider)
- *Subject matter expertise* (less risky to use experts)
- *External constraints* (e.g., policies)
- *Demand patterns* (seasonal or high degrees of availability)

4° Dimension - Value Streams and Processes

- Key message: "Applied to the organization and its SVS, the value streams and processes dimension is concerned with the various parts of the organization work in an integrated and coordinated way to enable value creation through products and services. The dimension focuses on what activities the organization undertakes and how they are organized, as well as how the organization ensures that it is enabling value creation for all stakeholders efficiently and effectively"
- A *value stream* is a series of steps taken to create and deliver products and services to consumers
- A *process* is a set of interrelated or interacting activities that transforms inputs into outputs
- A *well-defined process* can improve productivity, be optimized and automated

Service providers do not operate in isolation. They are affected by many external factors, and work in dynamic and complex environments that can exhibit high degrees of volatility and uncertainty and impose constraints on how the service provider can work.

To analyze these external factors, frameworks such as the PESTLE (or PESTEL) model are used.

- PESTLE is an acronym for the Political, Economic, Social, Technological, Legal, and Environmental factors that constrain or influence how a service provider operates

Some examples:

- Environmental concerns may lead to investing in green technologies, partnering with eco-friendly providers

- Economic and social factors may drive creating different product/service tiers for different consumer segments (e.g. free vs premium streaming services)
- Data protection laws/regulations like GDPR impact how customer data is collected, processed, accessed, stored and how companies work with partners/suppliers
- Political factors, social attitudes can shape organizational policies and practices

6. 06 - Service Value System

For Service Management to function properly, it needs to work as a system.

- Key message: “The ITIL SVS describes how all the components and activities of the organization work together as a system to enable value creation. Each organization’s SVS has interfaces with other organizations, forming an ecosystem that can in turn facilitate value for those organizations, their customers, and other stakeholders”.
- To avoid the presence of organizational silos (fragmentation in precise parts of organization which may reduce efficiency), requiring integration between teams and activities
- Has to ensure the organization continuously co-creates value with all stakeholders through use of products and services
- Supports various work approaches which regards the whole organization

The key inputs to the SVS are:

- *Opportunities* represent options or possibilities to add value for stakeholders or otherwise improve the organization
- *Demand* is the need or desire for products and services among internal and external consumers

Opportunity and demand trigger activities within the ITIL SVS, and these activities lead to the creation of value. Opportunity and demand are always entering into the system, but the organization does not automatically accept all opportunities or satisfy all demand.

The outcome of the SVS is *value*, that is, the perceived benefits, usefulness, and importance of something. The ITIL SVS can enable the creation of many different types of value for a wide group of stakeholders.

The ITIL SVS includes the following components:

- *Guiding principles*: Recommendations that can guide an organization in all circumstances
- *Governance*: The means by which an organization is directed and controlled
- *Service value chain*: A set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to facilitate value realization
- *Practices*: Sets of organizational resources designed for performing work or accomplishing an objective
- *Continual improvement*: A recurring organizational activity performed at all levels to ensure that an organization’s performance continually meets stakeholders’ expectations

7. 07 - Guiding Principles

A guiding principle:

- "is a recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. It's universal and enduring"

The *guiding principles* embody the core messages of ITIL and service management in general, supporting successful actions and good decisions of all types and at all levels:

- These are incorporated in many frameworks
- Organization should apply them considering how they are relevant and how they apply together
- They apply to any initiative and to all relationships/groups

1° Principle - Focus on value

- All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders
- Understand who the consumer is, his perspectives of value, his experience and how to bring operational activity at best during initiatives

2° Principle - Start where you are

- Don't remove what was done in the past, instead use what's already available to be leveraged
- Assess where you are now and measure precisely how to be accurate with what you have, applying skills and re-use

3° Principle - Progress iteratively with feedback

- Resist the temptation to do everything at once. Even huge initiatives must be accomplished iteratively
- By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, the focus on each effort will be sharper and easier to maintain
- Working in a time-boxed and embedded feedback loops allows for greater flexibility, faster responses to needs, the ability to respond to failure earlier, and an overall improvement in quality
- *Feedback loop* occurs when part of the output of an activity is used as a new input
  - Feedback is essential, comprehending the whole but doing things precisely and completely
  - This has to be done flexibly and together

4° Principle - Collaborate and promote visibility

- When initiatives involve the right people in the correct roles, efforts benefit from better buy-in, more relevance (because better information is available for decision-making) and increased likelihood of long-term success
- Collaboration is about working together and increasing visibility and does not mean consensus

- Improvement may take a lower priority, but requires collaborative and holistic work
- Communication should be done the right way and decisions only made on visible data, communicating in a way audience can hear
- Data should be clearly understandable (e.g., kanban boards, information radiators)

5° Principle - Think and work holistically

- No service, practice, process, department, or supplier stands alone. The outputs that the organization delivers to itself, its customers, and other stakeholders will suffer unless it works in an integrated way to handle its activities as a whole, rather than as separate parts
- All the organization's activities should be focused on the delivery of value
- Recognize the system complexity, work through collaboration and look for patterns between elements, facilitating work

6° Principle - Keep it simple and practical

- Always use the minimum number of steps to accomplish an objective. Outcome-based thinking should be used to produce practical solutions that deliver valuable outcomes
- If a process, service, action, or metric fails to provide value or produce a useful outcome, then eliminate it. Although this principle may seem obvious, it is frequently ignored, resulting in overly complex methods of work that rarely maximize outcomes or minimize cost
- Judge what to keep, find conflicting objectives and ensure better value at all levels, with the right people and with the right number of things, achieving goals simply

7° Principle - Optimize and automate

- Organizations must maximize the value of the work carried out by their human and technical resources
- *Optimize* means taking something to make it as effective and useful as it can be
- *Automate* means using technology to perform a step or series of steps correctly and consistently, automating frequent and repetitive tasks
- Technology can help with limited or no human intervention organizations to scale up and take on frequent and repetitive tasks, allowing human resources to be used for more complex decision-making
- However, technology should not always be relied upon without the capability of human intervention, as automation for automation's sake can increase costs and reduce organizational robustness and resilience
- When applying this principle, follow the previous ones wisely

7.1. 07.a - Other philosophies

ITIL Guiding Principles are reflected in many other frameworks, methods, standards, philosophies, and/or bodies of knowledge, such as Lean, Agile, DevOps, and COBIT. This allows organizations to effectively integrate multiple methods into an overall approach to service management.

Lean approach

- Value is defined from the customer's perspective
- Only what the customer is willing to pay for adds value
- Everything else is considered waste (called *muda*)
- It applies to all fields of business and identifies several types of waste in all production levels and applies in IT to products and services as well
- Ensures information flows smoothly and eliminates bottlenecks
- Linkages between elements sometimes create a cascade of waste (the so-called domino effect)

Agile approach

- Instead of having one big project approached together (big bang), an agile team delivers work in small, consumable increments
- Requirements, plans, and results are evaluated continuously so teams have a natural mechanism for responding to change quickly
- Based on 12 principles of the Agile manifesto
- Key concepts include cross-functional teams, prioritizing user stories by business value, timeboxed sprints or iterations, daily standups, and continuous customer feedback

Scrum approach

- One of the most popular implementations of the Agile process. In Scrum, cross-functional teams work in short, timeboxed sprints (usually 2-4 weeks) to achieve specific goals
- It uses some form of kanban system to visualize and limit work in progress, and follows the PDCA cycle with continuous improvements, which is the base of Lean
- Has different roles and planning reviews to accompany the organization work

DevOps approach

- A set of practices that combines software development (Dev) and IT operations (Ops) to shorten the life cycle from developing a plan to releasing and operating software products and services. The goal is to rapidly deliver applications and services iteratively through automation
- Basically, DevOps is when dev teams that make stuff are also the ones responsible for the support of their own software in production - end-to-end ownership

8. 08 - Service Value Chain

The central element of the SVS is the service value chain, which is:

- "an operating model which outlines the key activities required to respond to demand and facilitate value realization through the creation and management of products and services"

Other features we can list:

- They are not a linear sequence of actions, runnable in a flexible way having strong interrelationships
- Instead, a service value stream can be seen as "specific combinations of activities and practices and each one is designed for a particular scenario"
- They allow to carry out specific tasks or to respond to particular situations, combining activities and practices for many scenarios
- Once designed, value streams should be subject to continual improvement
- These activities represent the steps an organization takes in the creation of value
  - each activity transforms inputs into outputs
  - all activities are interconnected, each receiving and providing triggers for further actions
- To convert inputs into outputs, the value chain activities use different combinations of ITIL practices
  - drawing on internal or third-party resources, processes, skills, and competencies as required
- Understanding the activities and the service value chain, and how they interconnect, describes the interconnected nature of the service value chain, adapting to each context

Regardless of which practices are deployed, there are some common rules when using the service value chain:

- All incoming/outgoing interactions with parties external to the value chain are performed via engage
- All new resources are obtained through *obtain/build*
- Planning at all levels is performed via *plan*
- Improvements at all levels are initiated and managed via *improve*

Let's go into the detail of each value chain activity.

Plan

- Ensure a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization

Inputs:

- Governance policies and constraints
- Demands and opportunities from stakeholders
- Performance data and improvement plans

- Information on new or changed products/services

Outputs:

- Strategic, tactical, and operational plans
- Decisions and policies for design & transition
- Feedback for improvement initiatives
- Portfolio and contract requirements for engagement

Improve

- Ensure continual improvement of products, services and practices across all value chain activities and the four dimensions of service management

Inputs:

- Performance data from deliver & support
- Stakeholder feedback, info about third-party components from engage
- Knowledge about new/changed products/services from design & transition and obtain/build
- Performance metrics and improvement opportunities from all value chain activities

Outputs:

- Improvement initiatives and plans for all value chain activities
- Performance information from plan and governance body
- Status reports on improvement initiatives
- Contract and agreement requirements for engage
- Service performance data for design & transition

Engage

- Provides a good understanding of stakeholder needs, continual engagement, and transparency, and maintains good relationships with all stakeholders

Inputs:

- Product and service portfolio
- Demand from customers and detailed requirements
- Feedback, incidents, and requests from users
- Completion data of user support tasks
- Marketing opportunities
- Cooperation and feedback from partners/suppliers

- Contract requirements from all activities
- Knowledge about products/services and third-party components
- Performance data
- Improvement initiatives and status reports

Outputs:

- Consolidated demands/opportunities
- Product/service requirements
- User support tasks
- Improvement opportunities and feedback
- Change/project initiation requests
- Contracts/agreements with suppliers/partners
- Knowledge about third-party components
- Service performance reports

Design and Transition

- Ensure that products and services continually meet stakeholder expectations for quality, cost, and time to market

Inputs:

- Portfolio decisions, architectures, and policies from plan
- Product and service requirements and knowledge about third-party service components from engage
- Improvement initiatives, plans, status reports and performance information from improve
- Service components and knowledge about new and changed products from obtain/build

Outputs:

- Requirements and specifications for obtain/build
- Contract and agreement requirements for engage
- New and changed products and services for deliver and support
- Knowledge about new and changed products and services for all value chain activities
- Performance information and improvement opportunities for improve

Obtain/Build

- To ensure that service components are available when and where they are needed, and that they meet agreed specifications

Inputs:

- Architectures and policies from plan
- Contracts and agreements with suppliers/partners, knowledge about third-party service components and change/project initiation requests from engage
- Goods and services from suppliers/partners
- Requirements and specifications from design & transition
- Improvement initiatives, plans and status reports from improve
- Change requests from deliver & support
- Knowledge about new/changed products/services from design & transition

Outputs:

- Service components for deliver & support
- Service components for design & transition
- Knowledge about new/changed service components for all value chain activities
- Contract and agreement requirements for engage
- Performance information and improvement opportunities for improve

Deliver and support

- To ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations

Inputs:

- New and changed products and services from design & transition
- Contracts and agreements with suppliers/partners, user support tasks and knowledge about third-party service components from engage
- Service components from obtain/build
- Improvement initiatives and plans and improvement status reports from improve
- Knowledge about new/changed service components and services from design & transition and obtain/build

Outputs:

- Services delivered to customers and users
- Information on the completion of user support tasks, contract and agreement requirement for engage
- Product and service performance information for engage and improve
- Improvement opportunities for improve

- Change requests for obtain/build
- Service performance information for design & transition

9. 09 - Continual Improvement

Continual improvement allows:

- aligning an organization's practices and services with changing business needs, through the ongoing assessment and improvement of each element involved in the management of products and services
- has a series of principles applicable at every step, not being integral part of a specific framework, but allowing guidance towards success

Other features:

- It takes place in all areas of the organization and at all levels, from strategic to operational
- To maximize the effectiveness of services, each person who contributes to the provision of a service should keep continual improvement in mind, and should always be looking for opportunities to improve
- It applies to the SVS in its entirety, as well as to all of the organization's products, services, service components, and relationships
- It increases the likelihood that ITSM initiatives will be successful, putting focus on the customers and ensuring improvements efforts can be linked back to the organization's vision, dividing work in small/manageable pieces

To support continual improvement at all levels, the ITIL SVS includes:

- the ITIL continual improvement model, which provides organizations with a structured approach to implementing improvements as a high-level guide to support all activities
- the improve service value chain activity, which embeds continual improvement into the value chain
- the continual improvement practice, supporting organizations in their day-to-day improvement efforts, in a cohesive and coherent way

It supports multiple steps:

Step 1: What is the vision?

Key Message:

- Each improvement initiative should support the organization's goals and objectives

  1. Translating the vision and objectives so that the context is understood
  2. Create a high-level vision for the planned improvement

Focuses on two key areas:

- The organization's vision and objectives need to be translated for the specific business unit, department, team, and/or individual, so that the context, objectives, and boundaries for any improvement initiative are understood.
- A high-level vision for the planned improvement needs to be created

The work within this step should ensure that:

- the high-level direction has been understood
- the planned improvement initiative is described and understood in that context
- the stakeholders and their roles have been understood
- the expected value to be realized is understood and agreed
- the role of the person or team responsible for carrying out the improvement is clear in relation to achieving the organization's vision

Step 2: Where are we now?

Key Message:

- The success of an improvement initiative depends on a clear and accurate understanding of the starting point and the impact of the initiative
- An improvement can be thought of as a journey from Point A to Point B, and this step clearly defines what Point A looks like
- A journey cannot be mapped out if the starting point is not known

Some observations:

- You need to know your starting point to properly plan out your journey
- Conduct current-state assessment of the existing services
- Fix a baseline: report or metric that serves as a starting point against which progress, or change can be assessed

Step 3: Where do we want to be?

Key Message:

- Just as the previous step (Step 2) describes Point A on the improvement journey, Step 3 outlines what Point B, the target state for the next step of the journey, should look like
- A journey cannot be mapped out if the destination is not clear

Some observations:

- Based on the results of the previous, a gap analysis can be performed, which evaluates the scope and nature of the distance to be travelled from the starting point to the achievement of the initiative's vision
- Some metrics are present such as the Key Performance Indicators (KPIs) and Critical Success Factors (CSFs), allowing to reach destination and going towards the vision
- This allows to clearly fix goals and be useful even for stakeholders

Step 4: How do we get there?

Key Message:

- The plan for Step 4 can be a straightforward and direct route to completing a single simple improvement, or it may be more involved
- The most effective approach to executing the improvement may not be clear, and it will sometimes be necessary to design experiments that will test which options have the most potential

Some observations:

- Even if the path to follow is clear, it may be most effective to carry out the work in a series of iterations, each of which will move the improvement forward part of the way
- With each iteration, there is an opportunity to check progress, re-evaluate the approach, and change direction if appropriate
- Create your plan
- Check progress after each iterative of your plan
- If you fail to plan, then you plan to fail

Step 5: Take action

Key Message:

- In Step 5 the plan for the improvement is acted upon. This could involve a traditional waterfall-style approach, but it could be more appropriate to follow an Agile approach by experimenting, iterating, changing directions, or even going back to previous steps

Some observations:

- Measuring progress towards the vision
- Managing the risk during these changes
- Ensuring the visibility of the initiative is spread throughout the organization

Step 6: Did we get there?

Key Message:

- Too often, once an improvement plan is set in motion, it is assumed that the expected benefits have been achieved, and that attention can be redirected to the next initiative
- In reality, the path to improvement is filled with various obstacles, so success must be validated

Some observations:

- Success is not guaranteed
- Conduct the current state assessment again

Step 7: Keep the momentum going

Key Message:

- If the improvement has delivered the expected value, the focus of the initiative should shift to marketing these successes and reinforcing any new methods introduced

- This is to ensure that the progress made will not be lost and to build support and momentum for the next improvements

Some observations:

- Attempt to continue the improvement again across the organization
- If this step is skipped, then it is likely that improvements will remain isolated and independent initiatives
- It may also be difficult to get support for future improvements

10. 10 - ITIL Practices

- The ITIL SVS includes 14 general management practices, 17 service management practices, and 3 technical management practices
  - all of which are subject to the four dimensions of service management

A practice:

- a set of organized resources designed for performing work or accomplishing an objective

The origins of the practices are as follows:

- General Management practices
  - have been adopted and adapted for service management from general business management domains
- Service Management practices
  - have been developed in service management and ITSM industries
- Technical Management practices
  - have been adapted from technology management domains for service management purposes by expanding or shifting their focus from technology solutions to IT services

Each practice:

- supports multiple service value chain activities
- includes resources based on the 4 dimensions of service management

11. 11 - General Management Practices

Architecture management:

- has to provide an understanding of all the different elements that make up an organization and how those elements interrelate, enabling the organization to effectively achieve its current and future objectives
- it provides the principles, standards, and tools that enable an organization to manage complex change in a structured and Agile way
- given the environment to work with is generally complex, we want a way to have better management of processes, resources and contracts, making changes easy to implement

There are several types of architecture:

- *Business* architecture
  - The business architecture allows the organization to look at its capabilities in terms of how they align with all the detailed activities required to create value for the organization and its customers
  - These are then compared with the organization's strategy and a gap analysis of the target state against current capabilities is performed
  - Identified gaps between the baseline and target state are prioritized and these capability gaps are addressed incrementally
  - A "roadmap" describes the transformation from current to future state to achieve the organization's strategy
- *Service* architecture
  - Service architecture gives the organization a view of all the services it provides, including interactions between the services and service models that describe the structure (how the service components fit together) and the dynamics (activities, flow of resources, and interactions) of each service
  - A service model can be used as a template or blueprint for multiple services
- *Information systems* architecture, including data and applications architectures
  - The information architecture describes the logical and physical data assets of the organization, and the data management resources
  - It shows how the information resources are managed and shared for the benefit of the organization.
  - Information is a valuable asset for the organization, with actual and measurable value
  - Information is the basis for decision-making, so it must always be complete, accurate, and accessible to those who are authorized to access it
  - Information systems must therefore be designed and managed with these concepts in mind
- *Technology* architecture

    - The technology architecture defines the software and hardware infrastructure needed to support the portfolio of products and services
- *Environmental* architecture
    - The environmental architecture describes the external factors impacting the organization and the drivers for change, as well as all aspects, types, and levels of environmental control and their management
    - The environment includes developmental, technological, business, operational, organizational, political, economic, legal, regulatory, ecological, and social influences

Continual improvement:

- allows to align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services
- commitment and practice of continual improvement should be engrained into everything an organization does, aligning with its culture and strategy

Key activities that are part of continual improvement practices include:

- encouraging continual improvement across the organization
- securing time and budget for continual improvement
- identifying and logging improvement opportunities
- assessing and prioritizing improvement opportunities
- making business cases for improvement action
- planning and implementing improvements
- measuring and evaluating improvement results
- coordinating improvement activities across the organization

The ITIL SVS includes the continual improvement model, which can be applied to any type of improvement, from high-level organizational changes to individual services and configuration items (CIs).

- There can be different techniques employed to do just that, eliminating waste, working holistically and ensuring improvements work at all levels of the organization

12. 12 - Service Management Practices

13. Software Asset Management (SAM)

14. FinOps (SAM on Cloud)