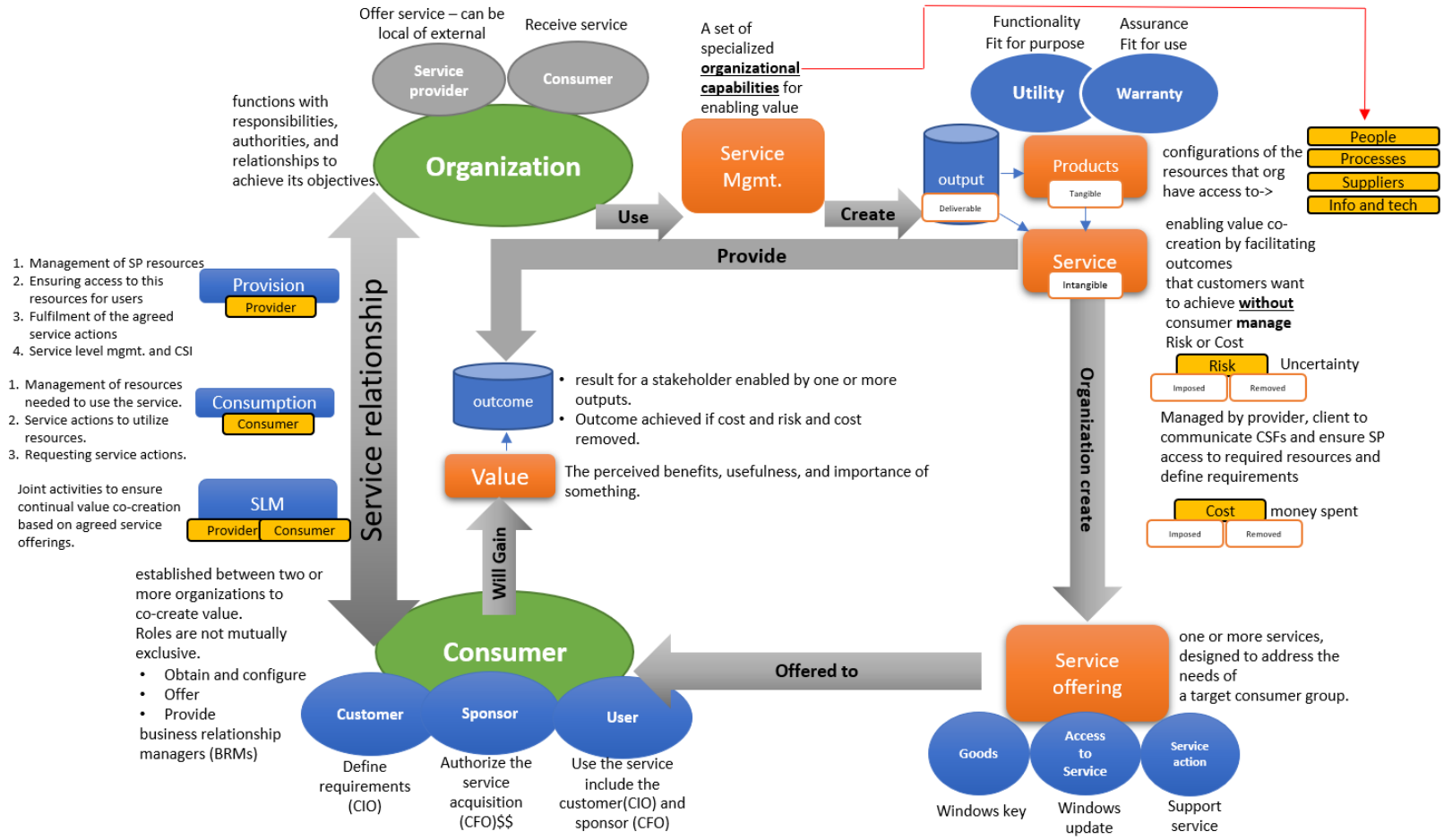
Service Management Key concepts

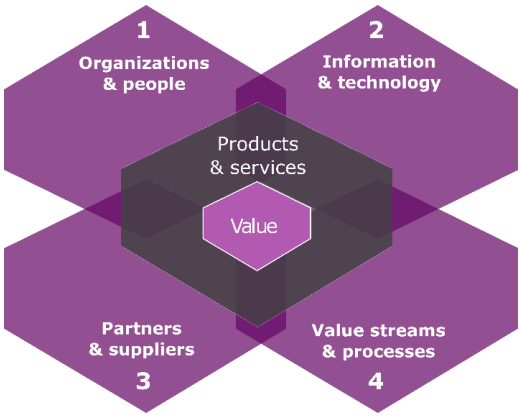
- This chapter explains some of the most important concepts of service management.
- A shared understanding of the key concepts of ITIL is critical to the effective use of this guidance.
- Key terms mind map:-



- It is important to understand that the risk of outsourcing any task or service is that an organization loses skills and capabilities, it may appear you spend too much to outsource, but by time you will be beneficial as you will be allowed to concentrate on our core business.
- Stakeholders often has different POV regarding value, benefits can be financial or image or growth on state-level “if the stakeholder was the government”.

Four Dimensions of Service Management

- The 4Ds support a holistic approach to service management, organizations should ensure that there is a balance of focus between each dimension.
- 4Ds should be considered for all services being managed, as well as to the SVS.
- The four dimensions are constrained or influenced by several external factors (PESTLE) (Political, Economic, Social, Technological, Legal, Environmental).
- Failing to address all four dimensions may result service becoming undeliverable or not meeting expectations of quality or efficiency.



- The Four dimensions are:-
    1. **People** are (Customers, Employees, Suppliers, SP employees, Stakeholder in the service relationship)
    - Attention should be paid not only to the team members skills, but also to management styles and keep it up to date.
    - People need to understand the interface between their specializations and roles and those of others in the organization, everyone should have a broad general knowledge, everyone should have a clear understanding of their contribution towards creating value which break down organizational silos.
    - For People dimension, Organization needs:-
        - Define Structure and system of authority and communications
        - Culture to supports its objectives by create shared values and attitudes, which over time are considered the organization culture.
        - Right level of capacity and competency among its workforce
        - Leaders advocate and promote values which motivate people

    2. **Information and Technology** includes the information (Created, Managed) and knowledge necessary for the management of services, as well as the

technologies required (workflow management systems, knowledge bases, inventory systems, communication systems).

- Information is the key output of majority of IT systems.
- When dealing with Information components, consider answering:-
  - What Information is managed by the services?
  - What supporting information and knowledge are needed to deliver and manage the services?
  - How will the information assets be protected, managed, archived, disposed?
- Information requires availability, reliability, accessibility, timeliness, accuracy.
- When dealing with Technology components, consider answering:-
  - Is this technology compatible with the current architecture?
  - Does the technology raise any regulatory or compliance issue?
  - Is this a technology will continue to be viable in the future?
  - Does this technology align with service provider's strategy?
  - Does this technology have enough automation capabilities?
  - Does this technology offer additional capabilities?
  - Does this technology introduce new risks or constraints?

3. **Partners and suppliers** focus on organization's relationships with other organizations that are involved in design, development, deployment, delivery, support, continual improvement.

- Factors that may influence an organization's selection for suppliers:-
  - Strategic focus (insource core, outsource other or self-sufficient as possible)
  - Corporate culture (historical approach, change is difficult without compelling reason)
  - Resource scarcity
  - Cost concerns
  - External constraints
  - Demand patterns

4. **Value streams and processes** focus on answering how the various parts of the organization work in an integrated way to enable value creation through products and services, it helps identify activities without outcome.

- Value stream is series of steps an organization undertakes to create and deliver products and services to consumers.
- Process is set of interacting activities that transform inputs into outputs.

- This dimension helps to answer the following:-
  - What is the generic delivery model for the service?
  - What are the value streams involved in delivering the agreed output?
  - Who/what performs the required service actions?

- PESTLE is an acronym for the political, economic, social, technological, legal, and environmental factors that constrain or influence how a service provider operates.
  Example for each element of **PESTLE** grouped by relevant:-
  - Government and society and environmental (Social acceptance, partner with local supplier, climate change support)
  - Economic (Cost, country state)
  - Technological, legal (GDPR)

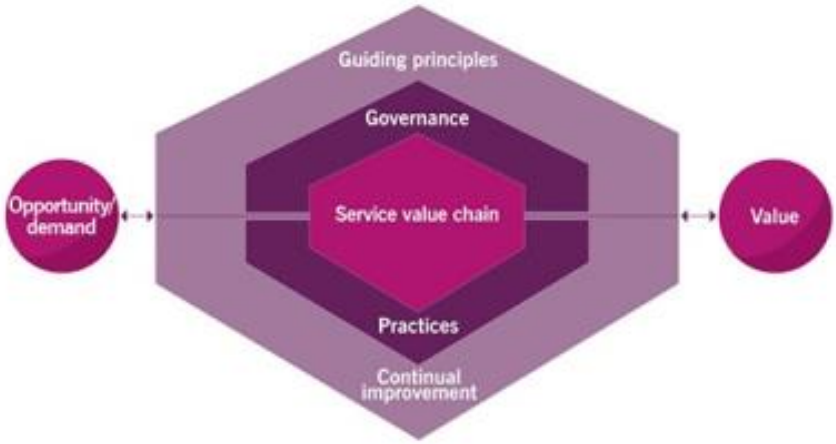
Service value system

- ITIL SVS goal is to ensure the org co-creates value with all stakeholders through the use and management of products and services.
- ITIL service value system (SVS) consist of:

Guiding principles	Guide organization in all circumstance's regardless goals, strategies or management structure
Governance	How organization is directed and controlled
Service Value chain	Set of interconnected activities that an org performs to deliver product or service
Practices	Sets of organizational resources designed for performing work or accomplishing objective
Continual Improvement	A recurring activity performed at all levels to ensure that organization's performance continually meets stakeholder's expectations.

- SVS help to avoid silos which is bad for any organization as it makes organization resist changes, prevent easy access to information, limited visibility and hidden agendas.
- SVS enables flexibility and discourage siloed working.
- SVS helps organization to be agile and resilience:-
  - Agility; which mean the ability to move and adapt quickly to support internal changes.
  - Resilience; when mean the ability to respond to changes and sudden disruptions from an external perspective.

- ITIL SVS components diagram



I. Opportunity/Demand

- Triger activities within the ITIL SVS, there is a difference between both
  - Opportunity:- Represents options to add value for stakeholders or improve the organization.
  - Demand:- represent need or desire for products and services from internal and external customers

II. Guiding principles

- reflected in many other frameworks and standards such as (Agile and DevOps)
  - Agile technique focuses on the delivery of incremental changes to software, agile software development includes
    1. Continually evolving requirement collected through feedback and observation
    2. Breaking development work into small increments and iterations that presented to “at least” stakeholders (Mini-viable product) and end of each.
    3. Establish product-based cross function teams.
    4. Visual presenting (Kanban) and (daily stands-up) meeting to discuss work progress.
  - Adopting Agile without ITIL leads to higher costs, ITIL without Agile can risk losing focus on value for customers and users and creating slow-moving and bureaucracies. Adopting both Agile and ITIL help organizations to continues co-create value with all its stakeholders and share a common terminology.
  - DevOps combines Agile (Fast feedback loops) and ITIL (deployment management and release management) and Lean (learning about and improving the way in which value is generated)
    - DevOps rely on automation to free up the time of skilled professionals so that they can focus on value added activities.

1. Focus on value

ALL ACTIVITIES SHOULD LINK BACK TO VALUE FOR STAKEHOLDERS

- You need to consider:-
  - Who is the service consumer? (Who use)
  - What the consumer's perspectives of value?– value is defined by consumer needs and change over time and in different circumstances.
  - What is the customer experience? CX or UX can be measured if objectively and cannot be measured if subjectively.

2. Start where you are

DO NOT START OVER WITHOUT CONSIDERING WHAT IS ALREADY AVAILABLE TO BE LEVERGED

- You need to consider:-
  - Assess where you are? Measure and observe directly and understand what can be re-used (apply risk management skills)
  - The role of measurement – when measure becomes a target, it ceases to be a good measure – people will find ways to meet the metrics– so that measures and metrics needs to be meaningful.

3. Progress iteratively with feedback

BY ORGANIZING WORK INTO SMALLER SECTIONS THAT CAN BE EXECUTING IN TIMELY MANNER, THE FOCUS ON EACH WILL BE SHARPER AND EASIER.

- You need to consider:-
  - Iterative progress and open feedback channels comprehend the whole but do something.
  - Any iteration must be produced in line with the concept of the minimum viable product (version of the final product which allow maximum amount of validated learning with the least effort).

4. Collaborate and promote visibility

INVOLVE THE RIGHT PEOPLE IN THE CORRECT ROLES,

- You need to consider:-
  - Who to collaborate with? (Making everyone is happy is not possible)
  - Communication for improvement (selecting the right method and message for each audience)
  - Increasing urgency through visibility (Decisions can only be made on visible data, there may be a cost to collecting data)

5. Think and work holistically

WORK IN AN INTEGRATED WAY TO HANDLE ACTIVITIES AS A WHOLE, RATHER THAN AS SEPARATE PARTS.

- You need to consider:-
  - Recognize the complexity of the systems different levels.
  - Look for patterns in the needs of and interactions between system elements and understand relationships.
  - Automation can facilitate working holistically and can support end-to-end visibility.

6. Keep it simple and practical

USE MINIMUM NUMBER OF STEPS TO ACCOMPLISH AN OBJECTIVE WITH FOCUS ON WHAT BRINGS OUTCOME.

PRIORITIZE OUR WORK BASED ON THE EXPECTED VALUE

- You need to consider:-
  - Ensure value every activity should contribute to the creation of value.
  - Simplicity is the ultimate sophistication and the best route to achieving quick win.
  - Respect the time of the people involved.

7. Optimize and Automate

TECHNOLOGY CAN BE USED TO TAKE ON FREQUENT TASKS, ALLOWING HUMAN TO BE USED FOR MORE COMPLEX DECISION-MAKING

- You need to consider:-
  - Simplify and optimize before automating, automate imply costs and make org los robustness and resilience.
  - Automating guidance is the same regardless the technique – define metrics that intended and actual result of the optimization should be evaluated using appropriate set of metrics.
  - Use other principles when automate such as (iterative progress, focus on value, keep it simple and start where you are)

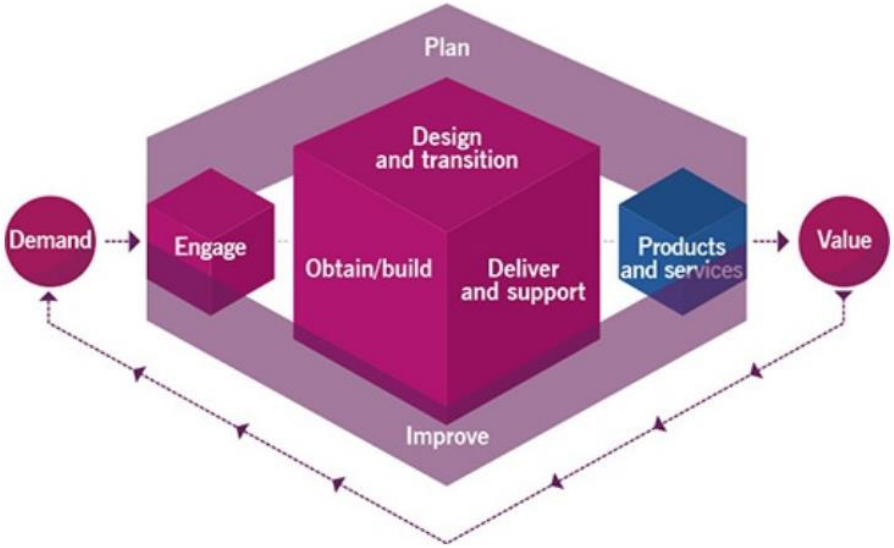
- Guiding principals are interconnected and should work together, you cannot use one or two only.

III. Governance

- a system which an organization is directed and controlled.
- organizational governance evaluate, directs, and monitors all the organization's activities, including those of service management.
- Regardless the scope of SVS, it is crucial to make sure that:-
  - SVC and practices work in line with the direction given by the governing body.
  - Governing body maintains oversight of the SVS.
  - Both governing body and management at all levels maintain alignment through a clear set of shared principles and objectives and continually improved.

IV. Service value chain

- The central element of the SVS is the SVC, SVC includes six value chain activities which lead to the creation of products and services and, in turn, value.



- To convert input to output, value chain activities use different combinations of ITIL practices.
- Regardless of which practices are deployed, common rules when using SVC are:
  - All incoming and outgoing interactions with performed via engage
  - All new resources are obtained through obtain/build
  - Planning at all levels is performed via plan
  - Improvement at all levels are initiated/managed via improve

- **Value Chain activities ->** Inputs are not totally complete, what is important is the output of each VCA

1. Plan

ENSURE SHARED UNDERSTANDING OF THE VISION, CURRENT STATUS AND IMPROVEMENT DIRECTION FOR ALL FOUR DIMENSIONS ACROSS THE ORGANIZATION

Output	Presented To
Strategic, tactical, operational plan	All VCA(Value chain activities)
Portfolio decisions	Design and transition
Improvement opportunity	Improve
Architecture and policies	Design and transition
Product Service portfolio, and contract requirements	Engage

2. Improve

ENSURE CONTINUAL IMPROVEMENT OF PRODCUTS, SERVICES AND PRACTICES ACROSS ALL VALUE CHAIN ACTIVITEIS AND THE FOUR DIMENSIONS OF SERVICE MANAGEMENT.

Output	Presented To
Value chain performance information	Plan + governing body
Service performance information	Design and Transition
Improvement initiatives and improvement status report	All VCAs
Contract and agreement requirements	Engage

3. Engage

PROVIDE A GOOD UNDERSTANDING OF STAKEHOLDER NEEDS, TRANSPARENCY AND CONTINUAL ENGAGEMENT AND GOOD RELATIONSHIP WITH ALL STAKEHOLDERS.

Output	Presented To
Consolidate demands and opportunities	Plan
Product and service requirements	Design and transition
Stakeholder's feedback and improvement initiative	Improve
Project initiation request + Contracts or agreements	Obtain/Build

4. Design and Transition

ENSURE THAT PRODUCTS AND SERVICES CONTINUALLY MEET STAKEHOLDER EXPECTATIONS FOR QUALITY COSTS, AND TIME TO MARKET.

Output	Presented To
Requirements and specifications	Obtain and build
Contract and agreement requirements	Engage

5. OBTAIN AND BUILD

ENSURE THAT SERVICE COMPONENTS ARE AVAILABLE WHEN AND WHEN THEY ARE NEEDED AND MEET AGREED SPECIFICATIONS.

Output	Presented To
Service components	Deliver and support + design and transition
Contract and agreement requirements	Engage
Performance information	Improve

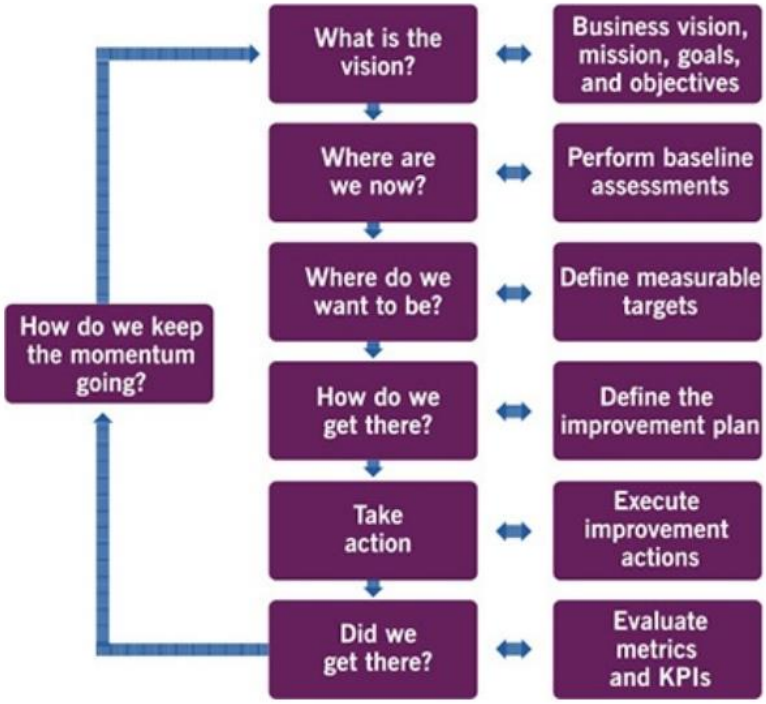
6. DELIVER AND SUPPORT

ENSURE THAT SERVICE ARE DELIVERED AND SUPPORTED ACCORDING TO AGREED SPECIFICATIONS AND STAKEHOLDER'S EXPECTATIONS

Output	Presented To
Service	Delivered to customers
Information on the completion of user support task	Engage + Improve
Change requests	Obtain and build
Improvement opportunities	Improve

V. Continual Improvement

- Takes place in all areas of the organization and at all levels from strategic to operational.
- Continual improvement practice support day-to-day improvement efforts.
- Continual improvement model is very relevant to ITIL guiding principles.
- Employees should put continual improvement always in mind.



- **Critical Success factor**:- an element that is necessary for a project to achieve its mission.
- **Gap analysis**:- assess the difference in performance between business and information system to determine if business requirements met or not.
- **Key Performance indicator**:- used to determine the achieve of critical success factors, it used to help manage IT services, KPIs need to SMART (Specific , measurable, attainable, Relevant, Time-based)

ITIL 4 Practices

- Is set of organizational resources designed for performing work or accomplishing an objective.
- Practices are divided to three categories –
  - General management:- adopted from general business management domains.
  - Service management:- developed in service management and ITSM industries.
  - Technical management:- adapted from technology management domains.
- ITIL 4 has 34 practices, only 15 are in course scope and 7 are illustrated in depth.

1. Continual Improvement (General)

Purpose

Align with organization's practices and services with changing needs through ongoing improvement of services/product or any element involved in service management

Techniques

1. Balanced Scorecard
2. Lean method and reduce waste and agile
3. Multi-Phase project (Iterative) and DevOps
4. Continual Improvement model and Maturity assessments
5. SWOT analysis (Strength, Weakness, Opportunity, Threat) -> to assess current status

Key Activities

1. Encourage continual improvement by Secure time and budget for improvement
2. Identify and log the possible improvement and prioritize it and coordinate it
3. Making business cases for improvement action
4. Planning and implementing improvement and evaluate results

- everyone activities, top management commitment, a dedicated team for improvement is to lead, a contractual agreement to support improvement must be in place.
- Adapt local CIR (Continual improvement register) dangerous if each team has its own CIR

2. Change Management (Service)

Purpose

Maximize the number of successful IT changes (add/remove/modify) by measuring risk, authorize to proceed (by change authority -> people who authorize), and managing change schedule.

Type of Changes

1. Standard -> Pre-authorized (normal activities)
2. Normal -> Require-authorize (can be high risk and low risk)
3. Emergency -> must be implement asap, require senior management (high risk)

Communication changes

1. Help to plan changes, assists in communication.
2. Avoid conflict and Help to assign better resources.

3. Incident Management (Service)

Incident is unplanned interruption or reduction in the quality of a service.

Purpose

Minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

Key activities

1. Log and manage incidents
2. Agree, document and communicate the target resolution time
3. Prioritize the incidents

Design Incident Management practice

1. Design the incident management practice for appropriate management (minor incident should not take much resource), dedicated team to major ones.
2. Suitable tool to store incident information, link to configuration item.
3. Provide good quality updates on incidents (Symptom, impact, CI, actions "performed/planned".

Who solves incidents?

1. Users self-help (FAQ)
2. Service desk (L1), Support team (L2), Partners and suppliers (L3)
3. Temporary cross functional teams (Swarming -> many working together then the most relevant team complete)
4. Disaster recovery (DRP)

4. Problem Management (Service)

Problem is cause or potential cause of one of more incidents

Purpose

Reduce the likelihood of incidents by identify the actual cause, manage workarounds and known problems.

- Workaround is solution to reduce or eliminate the impact of an incident which a full resolution is not yet available.
- Problem is cause of incident, incident impact the business and need fix to continue, problem fix is long term solution while incident might be short term.

Problem management phases

1. Problem identification (Trend Analysis, Identify risk, Information analysis)
2. Problem control (Analyze problem and document workarounds)
3. Error control (Manage known errors, reassess the status of known errors, improve workarounds)

Problem management interact with other practices

- Support Continual improvement
- Lower incident counts and help incident management to be efficient
- Can be a specific case for Risk management
- Initiate resolution through change control.
- Utilize information in the knowledge management system
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5. Service Request Management (Service)

SR is a request from a user that initiates a service action which has been agreed as a normal part in service delivery.

Purpose

Provide the promised quality by handling all pre-defined user's SRs

Procedures of Service delivery

Initiation -> Approval -> Fulfillment -> Management

Service request management guidelines

1. Standardize request form and automate
2. Set policies for what to be approved and who approve
3. Set clear timing for fulfillment to make expectations clear
4. Evaluate opportunities of improvement to minimize the fulfillment time
5. Policies and workflow should be included.

6. Service Desk Management (Service)

Purpose

Act as point of contact, provide clear path for users to report issues, queries and requests, fix incidents and fulfill SRs, company image.

Key aspects of Service Desk

1. Support People and Business rather than technical matters
2. Understand organization and Business process
3. Arrange, explains, coordinate various matters other that tech
4. Vital part of any service operation and service delivery
5. Work in close collaboration with the support and development teams
6. Must have high personal skills such as (Communication, Social intelligence)

7. Service level management (Service)

Purpose

Set clear business-based targets for service performance, so that the delivery can be assessed and monitored and managed.

Key Activities

1. Involves the definition, documentation, and active management of service levels.
2. Provide end to end visibility of the organization's services.

SLA is a documented agreement between SP and customer, SLA should focus and effort to engage and listen to the requirements, issues, concerns of the customer. SLA should define outcomes and be written in simple format – **Watermelon SLA effect** is the SLA that focus on single-system-based metric (like SLA on uptime – what about performance?)

Sources of collating information

SLM requires collating and analyzing information from various sources which includes:-

1. Customer engagement (Listen, meeting, asking)
2. Customer feedback (Surveys)
3. Operational metrics (system availability, response time, fix times)
4. Business metrics (system availability during business hours or completion of business activity)

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8. Information Security Management (General)

Protect information, ensure CIA, maintain infosec by ensure authentication and non-repudiation. (warranty)
Maintain balance between prevention, detection, correction.

9. Relationship Management (General)

Establish link between organization and stakeholders, and continually improve it, to ensure their needs are understood and prioritized, and manage complaints and facilitate value creation for them.

10. **Supplier Management (General)**

    Ensure supplier and their performance are managed appropriately to support the seamless provision of quality product and services, and to create more collaborative relationships with key suppliers to uncover new value and reduce risk of failure.

11. **IT Asset Management (Service)**

    Plan and managed lifecycle of all IT assets (valuable components that can contribute delivery of an IT product or service)

12. **Monitoring and Event Management (Service)**

    Analyze service components, record and report change in status, establish the appropriate response to those events.
    monitoring focus on observation, event management focus on recording and managing monitored changes that are defined as event, event is any change of state that has significance on the CI or IT service.

13. **Release Management (Service)**

    Make new features available for use – **release** mean version of CI or service made available for use. -> in this practice we create packages.

14. **Service Configuration Management (Service)**

    Accurate information about configuring the service is available when and where it is needed, this include how the CIs is configured and the relation between them.

    "configuration item" is any components that needs to be managed in order to deliver an IT service. – can be hardware or software

15. **Deployment Management (Technical)**

    Move new or changed hardware/software/process to live environment, it may also involve in deploying components to other environment for testing or staging.

    In IT Infrastructure term provision is used, in software term deploy used, ITIL use term deployment for both fields.
