ITIL v3 prep dumps

9.1 Basic Concepts

9.1.1 ITSM is the effective and efficient process driven management of quality IT Services. The added value to ITSM is that is business aligned and maintains a holistic Service Lifecycle approach.

9.1.2 Four Perspectives of ITSM (as found in Service Design Phase):

- People
- Partners
- Process
- Products

9.1.3 Process vs. Service

Process: a set of coordinated activities combining and implementing resources and capabilities in order to produce an outcome and ***provide value to customers or stakeholders***.

Characteristics of *every* process include:

- They are measurable,
- They deliver specific results
- They deliver outcomes to customers or stakeholders
- They respond to specific events (triggers)

Service: a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs or risks.

A ***process owner*** is responsible for improvements and ensuring that the process is fit for the desired purpose. They are accountable for the outputs of that process.

Example*: The owner for the Availability Management Process*

A ***service owner*** is accountable for the delivery of a specific IT Service and is responsible for continual improvement and management of change affecting Services under their care.

Example*: The owner of the Payroll Service.*

The ***process*** owner and ***service*** owner are ***accountable*** for the process or service under their care. However they may not be responsible for performing many of the actual activities required for the process or service.

A **Process Manager** is responsible for the *operational (daily) management* of a process. There may be several Managers for the one process.

9.1.4 RACI Model

The RACI model helps show how a process actually does work end to end across several functional groups by defining roles and responsibilities, as well as organizational structure.

R – Responsibility (actually does the work for that activity but is responsible to the function or position that has an “A” against it.) eg Process manager

A – Accountability (is made accountable for ensuring that the action takes place, even if they might not do it themselves). eg Process Owner

C – Consult (advice / guidance / information can be gained from this function or position prior to the action taking place).

I – Inform (the function or position that is told about the event after it has happened).

General Rules

•Only 1 “A” per Row (ensures accountability, more than one “A” would confuse this)

•At least 1 “R” per Row (shows that actions are taking place)

9.1.5 Service Provider Types

- Internal Service Provider
- Shared Service Provider
- External Service Provider

9.1.6 Roles: There are many roles associated with ITIL processes. Each process should have a Process Manager eg Incident Manager. It is also reasonable for each Phase to have a Manager, eg Service Design Manager.

IT Infrastructure: all the hardware, software, networks, facilities, services and support elements that are required to *develop, test, deliver, monitor, control* and *support* IT Services

ITSM: A set of specialized organizational capabilities for providing value to customers in the form of services.

Capabilities: The functions and processes utilized to manage services. Capabilities are intangible assets of an organization and cannot be purchased, but must be developed and matured over time.

Resources: A generic term that includes IT Infrastructure, people, money or anything else that might help to deliver an IT service. Resources are also considered to be tangible assets of an organization.

Good Practice: (also referred to as Best Practice) That which is successful in “**wide industry use**”

Functions: A team or group of ***people*** and the tools they use to carry

out one or more Processes or Activities. Functions provide units of organization responsible for specific outcomes.
Customer: refers to the person who “pays” for the service, or has the authority to request a service
User: An organization’s staff member/employee who “uses” the IT service
System: refers to a range of repositories for storing and accessing information – can include databases, Filing cabinets, storage cupboards etc

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10 ITIL ® v3 Service Lifecycle

Version 3 maintains a holistic view covering the entire lifecycle of a service, no longer does ITIL just answer the how questions, but also ***why?***
•Why does a customer need this service?
•Why should the customer purchase services from us?
•Why should we provide (x) levels of availability, capacity and continuity?
By first asking these questions it enables a service provider to provide overall ***strategic objectives*** for the IT organization, which will then be used to direct *how* services are ***designed, transitioned, supported and improved*** in order to deliver maximum value to customers and stakeholders.

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11 Service Strategy

Objective:
o Design, develop and implement **service management** as a strategic asset and assisting growth of the organization
o Define the strategic objectives of the IT organization

Analogy
If suddenly, as a Chef, you woke up one day and decided to start your own business in your neighbourhood. The first thing you would do is identify what it is you do best (your style of cooking - Indian) and whether it is a financially viable idea. You would then identify if there is a need in your neighbourhood for such a restaurant. To do this you might identify if are there already too many Indian restaurants, who your clientele are (would an Indian restaurant be successful in a predominantly Chinese neighbourhood?) and so on. All before you begin to find location, decide menu etc. Service Strategy is just this –

identifying your strengths and capabilities as well as understanding your clientele's needs, and ensuring there is alignment between the 2. As the old adage goes – no point selling ice to Eskimos….

11.1.1 Creating Service Value

Analogy

The official definition of a Service is *"a means of delivering value to Customers by facilitating outcomes customers want to achieve without the ownership of specific costs or risks".* Well what does this actually mean? To explain some of the key concepts I will use an analogy that most (food lovers) will understand.

While I do enjoy cooking, there are often times where I wish to enjoy quality food without the time and effort required to prepare a meal. If I was to cook, I would need to; go to a grocery store, buy the ingredients, take these ingredients home, prepare and cook the meal, set the table and of course clean up the kitchen afterwards. The

alternative of course, I can go to a restaurant that delivers a *service* that provides me with the same outcome (a nice meal) without the time, effort and general fuss if I was to cook it myself.

Now consider how I would identify the quality and value of that service being provided. It isn't just the quality of the food itself that will influence my perceptions but also:

- The cleanliness of the restaurant
- The friendliness and customer service skills of the waiters and other staff
- The ambience of the restaurant (lighting, music, decorations etc.)
- The time taken to receive my meal (and was it what I asked for?)
- Did they offer water on top of normal drinks and beverages?

If just one of these factors don't meet my expectations than ultimately the perceived quality and value being delivered to me as a customer are negatively impacted.

Utility + Warranty = Value

- Utility (fit for purpose) features and support of service
- Warranty (fit for use) – defines levels of availability, capacity, security, continuity

Service Packages

- Core Service Package
- Supporting Service Package
- Service Level Packages

11.1.2 Business Case

A decision support and planning tool that projects the likely

consequences of a business action. A business case is a justification for a significant item of expenditure. Includes information about costs, benefits, options, issues, risks and possible problems.

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12 Financial Management

As yet, we have not seen a question on Financial Management in any of the Mock exams, and students support this through feedback on the actual exams.
Please note that they do try and confuse you by making reference to costs etc in questions. When you see the word “costs”, first think Financial Mgt and see if that applies to the question.
However – just in case….
Goal: To provide cost effective stewardship of the IT assets and the financial resources used in providing IT services.

12.1.1 Activities:
Budgeting
IT Accounting
Charging
12.1.2 Benefits of Financial Management
- Enhanced decision making
- Increased speed of change
- Improved Service Portfolio Management
- Financial compliance and control
- Operational Control
- Value capture and creation
- Increased visibility
- Increased perception of IT

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13 Service Portfolio Management

Goal: To assist the IT organization in managing investments in service management across the enterprise and maximizing them for value.

13.1.1 A Service Portfolio describes provider’s services in terms of business value. They include the complete set of services managed by a Service Provider.
These portfolios are used to articulate business needs and the provider’s response to those needs, as well as prioritizing strengths, weaknesses and risks of you, the provider
13.1.2 Service Portfolio contains:

o Service Pipeline
o Service Catalogue
o Retired Services

13.1.3 Investment Categories

o Run the Business
o Grow the Business
o Transform the Business

Service Pipeline: Proposed or in development
Service Catalog – live/operational or ready for deployment services
Retired Services – decommissioned services

14 Demand Management

Goal*:* To assist the IT Service Provider in understanding and influencing *Customer demand* for Services and the provision of *Capacity* to meet these demands in order to reduce excess capacity needs

14.1.1 Demand Management is responsible for understanding and strategically responding to business demands for services by:

o Analyzing patterns of business activity and user profiles.
o Influence demand in line with the strategic objectives

14.1.2 Two ways to influence or manage demand:

o Physical/Technical constraints
o Financial constraints

(Specific for Demand Management that you might see on exam!!!!!)
PBA: Patterns of Business Activity
Influence user behaviour

15 Service Design

Objective: Convert strategic objectives into portfolios of services and service assets.

15.1.1 Service Design's ultimate concern is the design of new or modified services for introduction into a production (live) environment.
Service Design is also concerned with the design of new and modified processes required to deliver and support these services.

15.1.2 Aspects of Service Design

o Service Solutions
o Service Management systems & tools
o Technology Architectures
o Processes
o Measurement Systems and Metrics

All to ensure that standards and conventions are followed

15.1.3 Service Design Packages

Defines all aspects of an IT Service and its requirements through each stage of its Lifecycle. A Service Design Package is produced for each new IT Service, major Change, or IT Service Retirement.

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15.1.4 Typical Service Design Package contents:

•Business Requirements
•Service Applicability
•Service Contacts
•Service Functional Requirements
•Service Level Requirements
•Service Program
•Service Transition Plan
•Service Operational Plan
•Service Acceptance Criteria
•Service Design & Topology
•Organizational Readiness Assessment.

Service Solution: includes all of the functional requirements, resources and capabilities needed and agreed

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16 Service Level Management

Goal*:* To ensure that the levels of IT service delivery are achieved, both for existing services and new services in accordance with the agreed targets.

NOTE - AT **FOUNDATION** LEVEL, THE SLM IS THE PRIMARY CONTACT FOR CUSTOMERS.

16.1.1 Service Level Management is concerned with:

o Designing and planning the SLM process and Service Level Agreement (SLA) Structure.
o Determining the requirements of customers groups to produce Service Level Requirements (SLRs)
o Negotiating and Agreeing upon the relevant Service Level targets with customers to produce Service Level Agreements

o Negotiating and Agreeing upon the support elements required by the internal IT groups to produce Operational Level Agreements (internal) and with Supplier Mgt for External Suppliers and Underpinning Contracts (external).
o **Guarding** Agreements with customer
o Monitoring Service Levels
o Reporting to Customer
NOTE- All reports from all other processes should go to SLM who will report back to customer

16.1.2 SLA Structures:

o Service Based SLA
o Customer Based SLA
o Multi-level Based SLA
o Corporate level
o Customer level
o Service level

16.1.3 Points to note:

o Agreements are INTERNAL
o Contracts are EXTERNAL
o You cannot have a “legal” contract/agreement with an internal department of you organization
o If they try and mix the terms up (and they will) – use the INTERNAL/EXTERNAL as key word.

SLA: Service Level Agreement
OLA: Operational Level Agreement
UC: Underpinning Contract
SC: Service Catalog
SLR: Service Level Requirements
Service Improvement Plans (SIP): formal plans to implement improvements to a process or service.
Service Level Management works closely with Service Catalog Management and Supplier Management

17 Supplier Management

Goal*:* To manage suppliers and the services they supply, to provide seamless quality of IT service to the business and ensure that value for money is obtained.

17.1.1 Types of Outsourcing Arrangements:

- **Outsourcing:** Using one or more external suppliers to manage or assist in managing IT Services.
- **Co-sourcing:** An informal combination of insourcing and outsourcing, using a number of outsourcing organizations working together to co-source key elements within the lifecycle.
- **Partnership or multi-sourcing:** Formal arrangements between two or more organizations to work together to design, develop, transition, maintain, operate, and/or support IT service(s). The focus here tends to be on strategic partnerships that leverage critical expertise or market opportunities.
- **Business Process Outsourcing:** Formal arrangements where an external organization provides and manages the other organization's entire business process(es) or functions(s) in a low cost location. Common examples are accounting, payroll and call centre operations.
- **Knowledge Process Outsourcing:** This is a **new enhancement** of Business Process Outsourcing, where external organizations provide domain based processes and business expertise rather than just process expertise and requires advanced analytical and specialized skills from the outsourcing organization.
- **Application Service Provision:** Where external organizations provide shared computer based services to customer organizations over a network. The complexities and costs of such shared software can be reduced and provided to organizations that could otherwise not justify the investment.

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Supplier Management manages all aspects of External Suppliers involved in provision of IT Services from tender, to monitoring and reviewing performance and renewal/termination of contracts.

SCD: Supplier Contract Database
SSIP: Supplier Service Improvement Plan
UC: Underpinning Contract

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18 Service Catalog Management

Goal*:* To ensure that a Service Catalogue is produced, maintained and contains accurate information on all ***operational*** services and those ready for deployment.

18.1.1 Creation and maintenance of Service Catalogue –which

contains 2 parts:
o Business Service Catalogue
o Plain English using clear and concise language
o Customer facing document
o Technical Service Catalogue
o Technical Language
o Non Customer facing (designed for IT department use)

18.1.2 Works closely with Service Level Manager

18.1.3 Forms part of Service Portfolio

19 Capacity Management

Goal: The goal of the Capacity Management process is to ensure that cost-justifiable IT capacity in all areas of IT always exists and is matched to the current and future needs of the business, in a timely manner.

19.1.1 The scope of Capacity Management encompasses operational and development environments including ALL:
- Hardware
- Software
- Peripherals
- Scheduling of HR, Staffing level, skill levels and capability levels are included in scope of Capacity Management.

19.1.2 Capacity Management is about finding the right balance between resources and capabilities, and demand.

19.1.3 Sub Processes of Capacity Management

o **Business Capacity Management:**
o Manage Capacity to meet ***future business requirements*** for IT services
o **Service Capacity Management**
o Focus on managing ***ongoing service performance*** as detailed in SLA or SLR
o **Component Capacity Management**
o Identify and manage each of the ***components of the IT Infrastructure***

19.1.4 Activities:

1.**Performance Monitoring -** Measuring, monitoring, and tuning the performance of *IT Infrastructure components.*

2. **Demand Management -** Aims to influence the demand on capacity. This is the application of the policy laid out in the Service Strategy

phase.
3. **Application Sizing -** Determining the hardware or network capacity to support new or modified applications and the predicted workload
4. **Modeling** - Used to forecast the behavior of the infrastructure under certain conditions
5. **Tuning** – Modifications made for better utilizations of current infrastructure
6. **Storage of Capacity Management Data**
7. **Capacity Planning**
8. **Reporting**

CMIS: Capacity Management Information System

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20 Availability Management

Goal*:* To ensure that the level of service availability delivered in all services is matched to or exceeds the current and future agreed needs of the business in a cost-effective manner.

20.1.1 Concerned with availability of services and components – NOT PEOPLE.
20.1.2 Proactive and Reactive elements to Availability Management

Availability: The ability of an IT Service or component to perform its ***required function*** at a stated instant or over a ***stated period*** of time.
AMIS: Availability Management Information System
Reliability: ***Freedom*** from operational failure.
Resilience: The ability to **withstand failure.**
Maintainability (internal): The ability of an IT component to be ***retained in or restored to***, an operational state.
- based on skills, knowledge, technology, backups, availability of staff.

Serviceability (external): The ***contractual obligation*** / arrangements made with ***3rd party external suppliers.*** Measured by Availability, Reliability and Maintainability of IT Service and components *under control of the external suppliers.*
- managed by Supplier Management in Service Design

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Vital Business Function (VBF): The **business critical elements** of the business process supported by an IT Service.
MTRS: mean time to restore service – **Downtime**
MTBF: Mean time between failures – **Uptime**

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21 IT Service Continuity Management

Goal: To support the overall *Business Continuity Management* by ensuring that the required IT infrastructure and the IT service provision can be recovered within required and agreed business time scales.

21.1.1 Focuses on major disruptions
21.1.2 Recovery Options:
- Do nothing!
- Manual back-up
- Reciprocal agreement
- Gradual recovery (cold standby, $)
- Intermediate recovery (warm standby, $$)
- Fast recovery (hot standby, $$$)
- Immediate recovery (hot standby, $$$)

Disaster: NOT part of ***daily operational activities*** and requires a ***separate system***.
BCM: Business Continuity Management; Strategies and actions to take place to continue Business Processes in the case of a disaster.
BIA: Business Impact Analysis- quantifies the impact loss of IT service would have on the business.
Risk Assessment: Evaluate ***Assets***, ***Threats*** and ***Vulnerabilities***.
Scope: The scope of IT Service Continuity Management considers all identified critical business processes and IT service(s) that underpin them.
Countermeasure: This term can be used to refer to any type of control and is most often used when referring to measures that increase resilience, fault tolerance or reliability of an IT Service.

22 Information Security Management

Goal*:* To align IT security with business security and ensure that information security is effectively managed in all service and IT Service Management activities.

22.1.1 Defines policies, standards and measures
22.1.2 Scope: - To ensure that the ***confidentiality***, ***integrity*** and ***availability*** (CIA) of an organization's assets, information, data and IT services is maintained.
22.1.3 Information Security Management must consider the following four perspectives to ensure that a balanced approach to security:

- Organizational
- Procedural
- Physical
- Technical

22.1.4 Security Measures:

- Prevention/Reduction
- Detection/Repression
- Correction/Recovery
- Evaluation

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Confidentiality: Protecting information against unauthorized access and use.
Integrity: Accuracy, completeness and timeliness of the information.
Availability: The information should be accessible at any agreed time. This depends on the continuity provided by the information processing systems.
Security Baseline: The security level adopted by the IT organization for its own security and from the point of view of good ‘due diligence’.
Security Incident: Any incident that may interfere with achieving the SLA security requirements; materialization of a threat

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23 Service Transition

Objective: The development and improvement of **capabilities** for transitioning new and changed services into operation.

23.1.1 The focus here is developing the ability/capability for the IT Department to transition (build, test and release) ANY service in a consistent and repeatable way. This will enable IT department to effectively manage MANY changes/transitions. The **processes** contained within Service Transition have this responsibility.
23.1.2 The Service Design Manager would hand over the Service Design Package to the Service Transition Manager.
23.1.3 Service Transition should be involved early in the design of services

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24 Knowledge Management

Goal: To enable organizations to improve the quality of management

decision making by ensuring that reliable and secure information and data is available throughout the service lifecycle.

24.1.1 The primary purpose is to improve efficiency by reducing the need to rediscover knowledge. This requires accessible, quality and relevant data and information to be available to staff.

24.1.2 Data to Wisdom Graph:

Data – Information – Knowledge – Wisdom

24.1.3 Development of Service Knowledge Management System (SKMS)

- SKMS – contains:
- CMS (Configuration Mgt System), which contains:
- CMDB (Configuration Management Database)

25 Service Asset and Configuration Management

Goal: To support the agreed IT service provision by managing, controlling, storing and providing information about Configuration Items (CI's) and Service Assets throughout their life cycle.

EXAM HINT - LOOK FOR KEY WORDS SUCH AS "**LOGICAL MODEL**" AND "**MAINTAINING ACCURATE RECORDS**"

Analogy

When talking about Service Asset and Configuration Management, I often describe this role as a Librarian (Ethel) whose responsibility is to ensure that only authorized CIs are registered in the CMDB. Ethel does not care if it's a good idea or bad idea to have it in there, nor does she do any of the building of it. She will crawl under desks to make sure the CIs are still there and accurately recorded! SSHHHHH!!!!!

25.1.1 Scope: The scope covers interfaces to internal and external service providers where there are assets and configuration items that need to be controlled e.g. shared assets.

25.1.2 Key activities:

- Management and Planning
- Identification
- Status Accounting
- Reporting
- Verification and Audit
- Control

Configuration Item (CI): ***ANY*** component that supports an IT service

Attribute: ***Specific*** information about CI's.
CI Level: Recording and reporting of CI's at the level that the ***business requires****.*
Status Accounting: Reporting of all ***current and historical*** data about each CI throughout its lifecycle.
Configuration Baseline: Configuration established at a specific point in time, captures both the structure and details of a configuration. Used as a reference point for later comparison.

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26 Change Management

Goal: To ensure that **standardized methods and procedures** are used for efficient and prompt handling of all Changes, in order to **minimize the impact** of Change-related Incidents upon service quality, and consequently to improve the day-to-day operations of the organization.

26.1.1 Change Management is a "BIG OVERSEER" of all changes that may affect the quality of IT Services
26.1.2 Change Models:
- **NORMAL Change:** A change that follows all of the steps of the change process. It is assessed by either a Change Manager or Change Advisory Board.
- **STANDARD Change:** A pre-approved Change that is low risk, relatively common and follows a procedure or work instruction. E.g. password reset or provision of standard equipment to a new employee. RFC's are not required to implement a Standard Change, and they are logged and tracked using a different mechanism, such as a ***service request.***
- **EMERGENCY Change:** A change that must be introduced as soon as possible. E.g. to resolve a major incident or implement a security patch. The change management process will normally have a specific procedure for handling Emergency Changes.

26.1.3 Change Mgr chairs CAB, and other members, including **External Suppliers** when relevant and **advise** the Change Manager**. Change Mgr makes the final decision.**
26.1.4 Assessing and Evaluating – "The 7 'R's" of Change Mgt are questions that must be answered to correctly assess the impact of the change and to assist in making informed decisions.

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RFC: Request For Change:
Standard form to capture and process ALL Changes to any CI
Change Schedule:
Schedule of Approved Changes and the planned implementation dates.
PSO = Projected Service Outage:
A document that identifies the effect of planned changes, maintenance activities and test plans on agreed service levels.
CAB = Change Advisory Board:
Provide expert advice to Change Management, with representatives from Financial, IT background and customers
ECAB = Emergency CAB: Subgroup of CAB with authority to make urgent change decisions.
PIR: Post Implementation Review

27 Release and Deployment Management

Goal: To deploy releases into production and establish effective use of the service in order to deliver value to the customer and be able to handover to Service Operation.

27.1.1 Responsible for Definitive Spares (DS) and Definitive Media Library (DML)
27.1.2 Responsible for building, testing and releasing new/changed service
27.1.3 Works closely with Change Management and Service Asset and Configuration Management
27.1.4 Accountable to ensure that training of new service to Service Desk and users occur.
27.1.5 Release Identification examples:
- Major Release
- Minor Release
- Emergency Fix

27.1.6 Types of Releases:
- Big Bang vs. Phased
- Push vs. Pull
- Manual vs. Automatic

Release: A collection of **authorized** Changes to an IT Service. Also known as a Release Package
Release Unit: A Release Unit describes the portion of a service of IT

infrastructure that is normally released together according to the organizations release policy. The unit may vary depending on type(s) or item(s) of service asset or service component such as hardware or software.

Definitive Media Library (DML): The secure library in which the definitive authorized versions of all media CIs are stored and protected. The DML should include definitive copies of purchased software (along with license documents or information) as well as software developed on site.

Definitive Spares: Physical storage of all ***spare IT components and assemblies maintained at the same level as those within the live environment***. These can then be used when needed for additional systems or in the recovery from Incidents.

Details recorded in the CMDB, controlled by Release Management.

Early Life Support: engaging the Development teams in the “early life” of a newly transitioned service to assist with initial support, incident management and rapid knowledge development.

28 Service Validation and Testing

Goal: To ensure that new or changed IT Services match the design specification and will meet the needs of the business.

28.1.1 Service V Model

- ***The Service V Model*** is used to provide a framework for organizing the levels of testing and validation required for new or changed services in order to ***justify release to the customer for trial and assessment.***
- The **left hand side** represents the specification of the service acceptance/review criteria, from high level functional requirements down to the detailed release and component criteria. Primarily developed in **Service Design Phase.**
- The **right hand side** focuses on the validation and test activities that are performed against the specifications defined on the left hand side, with direct involvement by the equivalent party on the right hand side (**Service Transition Phase**).
- It shows that validation and test planning should begin early in the life of a Service, initially with the definition of the service requirements. Each stage of the development is then correlated with associated testing and validation activities according to the defined test model to be used.

29 Service Operation

Objective:
To enable effectiveness and efficiency in delivery and support of IT services.

29.1.1 Service Operation is where value is seen from the customer perspective
29.1.2 Achieving The Balance – "**balance**" is the key word here… look for that!!!
- Internal IT view vs. External Business View
- Stability vs. Responsiveness
- Quality of Service vs. Cost of Service
- Reactive vs. Proactive

30 Service Desk Function

Goal: To support the agreed IT service provision by ensuring the accessibility and availability of the IT-organization and by performing various supporting activities.

30.1.1 The Service Desk is meant to the **SINGLE POINT OF CONTACT** for users.
Remember – users call Service Desk… (if a question says "a customer calls a service desk" – think of them as a user)
Service Desk is 1st line of support
30.1.2 Service Desk Organizational Structures
- Local Service Desk
- Centralized Service Desk
- Virtual Service Desk
- Follow the sun

NOTE - a Help Desk is **NOT** a structure of a service desk!
30.1.3 Self Help – refers to any means where the user may assist themselves to seek support – eg:
- FAQ
- Intranet forms/requests
- Web based support
- Back end process handling software

"Calling Service Desk is **NOT** an example of Self Help!
30.1.4 Service Desk is a good opportunity for staff to develop skills and move into more technical roles.

Incident: Any event which is not part of the standard operation of a service and which causes, or may cause an interruption to, or a reduction in the quality of that service. A failure of a CI that has not yet affected service is also classified as an incident.
Service Request: *Request for information* or *status of a service* (not related to loss of service) *Includes Standard Changes*. E.g. Contact details, Service availability, request for common software.
Request for Change: Request to Move, Add, Change (MAC)
E.g. Asking for changes to functionality of applications or supporting infrastructure – not a pre-approved change.
Access Rights: Providing User or user groups rights to use a service, and the prevention of access to non-authorized users. Effectively the execution of both Availability and Information Security management, in that it enables the organization to manage ***CIA*** of the organization's data and intellectual property.

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31 Technical Management Function

Goal: Technical Management will provide guidance to IT Operations about how best to carry out the ongoing operational management of technology. This will partly be carried out during the Service Design phase but will be an everyday communication with IT Operations as they seek to achieve stability and optimum performance.

31.1.1 Technical Management simply refers to the teams/departments of IT support and design staff that manage/support/build/test the Hardware side of IT:
o Custodian of technical knowledge and expertise related to managing the IT Infrastructure.
o Provides detailed technical skills and resources needed to support the ongoing operation of the IT Infrastructure
o Plays an important role in providing the actual resources to support the IT Service Management lifecycle.
o Ensures resources are effectively trained and deployed to design, build, transition, operate and improve the technology to deliver and support IT Services.

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32 IT Operations Management Function

o **Goal:** To perform the daily operational activities needed to manage the IT Infrastructure. This is done according to the

performance standards defined during Service Design.

32.1.1 These are the teams that “watch over” the network on a daily basis to ensure that all is “running well” and doing the daily activities required to maintain the delivery and support of services.
Analogy
It’s like Spock on Star Trek on the “Bridge” monitoring the “Dashboard” and alerting any inconsistencies to Kirk….
32.1.2 2 **Sub Functions**:
o **IT operations Control**
o Doing the “Spock”
o Think IT operations **Bridge** or Networks Operation Centre (NOC)
o **Facilities Management**
o Management of the physical IT environment, usually data centers or computer rooms

33 Application Management Function

Goal: Support Business processes by designing and supporting Application software to assist with service delivery

33.1.1
o Application Management is usually divided into departments based on the application portfolio of the organization allowing easier specialization and more focused support.
o Managing Applications throughout their lifecycle.
o Supports and maintains operational applications, and plays an important role in design, testing and improvement of applications that form part of IT Services.
o Support the organization’s business processes by helping to identify functional and manageability requirements for application software.
o Assist in the design and deployment of those applications.
o Provide ongoing support and improvement of those applications.
o Identify skills required to support the applications
o Deciding whether to build or buy

34 Event Management

Goal: To enable stability in IT Services Delivery and Support by monitoring all events that occur throughout the IT infrastructure to allow for normal service operation and to detect and escalate exceptions.

34.1.1 Event Management is about monitoring and escalating events which MAY HAVE SIGNIFICANCE FOR THE MANAGEMENT OF THE IT INFRASTRUCTURE.
34.1.2 NOT just exception events!
34.1.3 Examples:
- Disk reaching capacity
- Successful backup
- Backups failed
- Print Outputs

Event: a change of state that has **significance for the management of a Configuration Item** (including IT Services). This can be detected by technical staff or be automated alerts or notifications created by CI monitoring tools.
Alert: A warning that a threshold has been reached or something has been changed. (An event has occurred)
Trigger: An indication that some action or response to an Event may be needed.

35 Incident Management

Goal: To restore normal service operation ***as quickly as possible*** and minimize the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained.

35.1.1 Focus is on reducing business impact
35.1.2 Priority – Impact + Urgency
35.1.3 Escalation
- Functional (based on knowledge or expertise)
- Hierarchical (passing up due to timeliness or “VIP”)

35.1.4 Responsible for 1st, 2nd and 3rd line support groups
35.1.5 Incident Mgt Activities order:
Identification, Logging, Categorisation, prioritisation, Initial Diagnosis, Functional Escalation, Investigation, Diagnosis, Resolution, Recovery, Closure
35.1.6 Major Incident:
- Shorter timescales
- Separate **Procedure**

o High Impact and Urgency
o Defined by business

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Incident: An unplanned interruption to an IT service **or** reduction in the quality of an IT service. Failure of a CI that has not yet affected service is also an incident.
Service Request: A request by a user for information, advice or for a standard change or for access to an IT service (NOT AN INCIDENT).
Incident Model: **pre-defined steps** for handling a particular type of incident that has been seen before.

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36 Problem Management

Goal: To **minimize the adverse impact** of Incidents and Problems on the business that are **caused by errors** within the IT infrastructure, and to prevent the recurrence of Incidents related to these errors.

36.1.1 Activities
o Reactive Problem Management
o Detection/logging/investigation etc
o Proactive Problem Management
o Trend analysis
o Major Problem Reviews
o Targeting Preventive action
36.1.2 One or more incidents with the same characteristics can become a problem.

Problem: Unknown underlying cause of one or more Incidents (The investigation)
Known Error: Known underlying cause. Successful **diagnosis** of the root cause of a Problem, **and a workaround** or permanent solution has been identified
KEDB: Known Error Database
Workaround: A set of predefined steps to take as a means of reducing or eliminating the impact of an Incident or a Problem (e.g. restarting failed Configuration Item). Workarounds for Problems are documented with the Known Error records in the KEDB.

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37 Request Fulfilment

Goal: To provide an effective and efficient channel for users to make requests, gain information and obtain standard Services.

37.1.1 Carried out by the Service Desk Function, desktop support or other groups as required

A Service Request is:
- A request for information or advice
- A request for a ***standard*** change
- A request for access to an IT Service
- **NOT** related to a loss of service (ie incident)
- **NOT a normal change**

38 Access Management

Goal: To **grant** authorized users the right to use a Service while **preventing** access to non-authorized users in order to protect the confidentiality, integrity and availability (CIA) of information and infrastructure.

38.1.1 Relationship with other Processes:
Access Management is the execution of policies and actions defined in Information Security and Availability Management.
38.1.2 Activities:
Verification, providing rights, Monitoring identity status
Logging and Tracking access, Removing or restricting rights

39 Continual Service Improvement

Objective: To ensure continual improvements to IT Service Management Processes and IT Services.

39.1.1 CSI provides guidance in creating and maintaining value for your customers through better design implementation and support of services.
NOTE – there are 3 models that you need to be able to memorize and discern in CSI – and they will test you on these. To help you – I will share my techniques I use with my students.
39.1.2 CSI Model:
- 6 steps (ok – this is corny – but think “six” **model**… “sexy” **model**… - to discern from “7 step improvement **process”**)
- What is the vision? – business objectives

o Where are we now? – baseline assessments
o Where do we want to be? – Targets
o How do we get there? – Process Improvement
o Did we get there? – Measurements and metrics
o How do we keep the momentum going (last step!!!!)

39.1.3 Deming Cycle (**remember** Deming….DO – "DD")

o **Plan** - Scope, requirements, objectives, Roles and Responsibilities
o **Do** - Funds, Policies, reports, managing, changing
o **Check** - Monitor against plans, survey, report
o **Act** Policy on improvement, assess, implement
o Never stops – cyclic as many times as required

40 Service Measurement and Reporting

Goal: To coordinate the design of metrics, data collection and reporting activities from the other processes and functions.

40.1.1 There are four reasons why it is important to measure and report:

o To **validate** that we are supporting the strategy and vision.
o To **justify** actions/expenses/measures taken or applied.
o To **direct** resources (time & money) in the most appropriate way.
o To **intervene** when necessary. (e.g. to avoid breaching SLAs)

40.1.2 Types of Metrics:

o Technology Metrics
o Process Metrics
o Service Metrics

Baseline: A benchmark used as a reference point for later comparison.
Technology Metrics: Often associated with component and application-based metrics such as performance, availability etc – System architects/designers
Process Metrics: Captured in the form of KPIs and activity metrics for the service management processes. They help to determine the overall health of a process. Four key questions KPIs can help answer are centered around quality, performance, value and compliance. CSI uses these metrics to identify improvement opportunities for each process. – Process Owner
Service Metrics: The results of the end-to-end service. Component metrics are use to calculate the service metrics. - SLM

41 Continual Service Improvement Process

(aka 7 Step Improvement Process)
Goal: To coordinate a structured approach for improvements to IT services and ITSM processes

41.1.1 7 Step Improvement Process

- Define what we should measure
- Define what we can measure
- Gather data
- Process data
- Analyse data
- Present information
- Implement corrective action