Service Design
Lesson Objectives

- Purpose, objectives, scope and value to business of Service Design
- Four Ps
- Five Design Aspects
- Service Design Package
- Service Catalogue Management
  - Purpose, objective, scope and structure
- Service Level Management
  - Purpose, objective, scope
  - Basic concepts
- Operational Level Agreement
- Purpose, objective, scope and basic concepts of:
  - Capacity Management
  - Availability Management
  - IT Service Continuity Management
  - Information Security Management (ISM)
  - Supplier Management
- Design Coordination
  - Purpose, objectives and scope
Introduction

The Service Design stage takes business requirements and creates services, their supporting practices and management tools which meet business demands for quality, reliability and flexibility.

Purpose of service design
The purpose of the service design stage of the lifecycle is to design IT services, together with the governing IT practices, processes and policies, to realize the service provider’s strategy and to facilitate the introduction of these services into supportive environments ensuring quality service delivery, customer satisfaction and cost-effective service provision.

Objective of service design
The objective of service design is to design IT services so effectively that minimal improvement during their lifecycle will be required. However, continual improvement should be embedded in all service design activities to ensure that the solutions and designs becomes even more effective overtime, and to identify changing trends in the business that may offer improvement opportunities. Service design activities can be periodic or exception-based when they may be triggered by a specific business needs or event.
Scope of Service Design

- ITIL® (ITIL® is a registered trademark of AXELOS Limited) service design provides guidance for the design of appropriate and innovative IT services to meet current and future agreed business requirements.

- It describes the principles of service design and looks at identifying, defining and aligning the IT solution with the business requirement.

- It also introduces the concept of the service design package and looks at selecting the appropriate service design model.
Adopting and implementing standard and consistent approaches for service design will:

- Reduce total cost of ownership (TCO)
- Improved quality of service
- Improved consistency of service
- Ease the implementation of new or changed services
- Improved service alignment
- Improved service performance
Key Principles:
The four P’s of Service Design are:

- People (Stakeholders, employees)
- Processes
- Products (services, technology and tools)
- Partners (suppliers, manufacturers and vendors).

Service Design should focus on ensuring that the four P’s are taken into account throughout the Service Lifecycle while designing a new or changed service.
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The Five Design Aspects

The five major aspects of service provision for which the design activities must be carried out are:

- Service solutions
- Service Management systems and tools
- Technology architectures and management systems
- Processes
- Measurement methods and metrics
Service Design Package

Service Design Package (SDP)

It is the document defining 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.

The SDP is a significant product of the Service Design stage.
Process 1: Service Catalogue Management:

Purpose of Service Catalogue Management
The purpose of the service catalogue management process is to provide and maintain single source of consistent information on all operational services and those being prepared to be run operationally.

Objective of Service Catalogue Management
The objectives of Service Catalogue Management process are to:
• Manage the information contained within the Service Catalogue and to ensure that it is accurate and current.
• Ensure that the service catalogue is accurate.

Scope
• The scope of the Service Catalogue Management process is to provide and maintain accurate information on all services that are being transitioned or have been transitioned to the live environment.
Service Catalogue with two views

Service Catalogue structure
The structure and presentation of the service catalogue should support the uses to which it will be put, taking into consideration the different audiences.

Service Catalogue Presentations

Service catalogue with two views:

- The business/customer service catalogue view
- The technical/supporting service catalogue view
Service Catalogue with two views (Continued)

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Service Catalogue with three views

Service catalogue with three views:

- Wholesale customer view
- Retail customer view
- Supporting services view
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Process 2: Service Level Management:

SLM is a vital process for every IT service provider organization in that it is responsible for agreeing and documenting service level targets and responsibilities within SLAs and service level requirements (SLRs) for every service and related activity within IT.

Purpose of Service Level Management
The purpose of the SLM process is to ensure that all current and planned IT services are delivered to agreed achievable targets.

Objective of Service Level Management
The objectives of Service Level Management are to:
- Define, document, agree, monitor, measure, report and review the level of IT services provided.
- Provide and improve the relationship and communication with the business and customers.
- Ensure that IT and the customers have a clear and unambiguous expectation of the level of service to be delivered.
Scope of SLM

Scope
SLM should provide a point of regular contact and communication to the customers and business managers of an organization in relation to service levels.

The SLM process should include:
- Cooperation with the Business Relationship Management process.
- Negotiation and agreement of the future service level requirements and targets.
- Development and management of the appropriate OLAs.
- Review of all supplier agreements and underpinning contracts.
Basic Concepts:

Service Level Requirements
Once the Service Catalogue has been produced and the SLA structure has been agreed, the first SLRs must be drafted. An SLR is a customer requirement for an aspect of an IT service.
Service Level Agreement & SLAM Chart

Service Level Agreement
A Service Level Agreement (SLA) is an agreement between an IT service provider and a customer. The SLA describes the IT service, records service level targets, and specifies the responsibilities of the IT service provider and the customer.

Service Level Agreement Monitoring Chart
A useful technique is to include an SLA monitoring (SLAM) chart at the front of a service report to give an ‘at-a-glance’ overview of how achievements have measured up against targets. These are the most effective if colour coded to show whether each agreed service level target has been met, missed or nearly missed during each of previous months.
Service Level Agreement Frameworks
When designing SLA frameworks, options available include:

**Service-based SLAs:** The SLA describes a *specific IT service* to be delivered – for example, an SLA may be established for an organization’s email service, covering all the customers of that service.

**Multi-level SLAs:** Three-layered structure might look as follows:
- Corporate level
- Customer level
- Service level
SLA Frameworks (Continued)

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Operational Level Agreement (OLA)
An OLA is an agreement between an IT service provider and another part of the same organization that assists with the provision of services.

Underpinning contract
Underpinning contract is a contract between an IT service provider and a third party. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in one or more SLAs.
Service Review & Service Improvement Plan

Service Review

Review meetings must be held on a regular basis with customers to review the service achievement in the last period and to preview any issues for the coming period.

Service Improvement Plan

It is an overall program or plan of prioritized improvement actions, encompassing appropriate services and processes, together with associated impacts and risks.
Key Activities of Service Design

The key activities within the SLM include:
• Determining, negotiating, documenting and agreeing services in SLRs.
• Monitoring and measuring service performance achievements of all operational services.
• Producing service reports.

The other activities within SLM include:
• Designing SLA frameworks.
• Developing, maintaining and operating SLM procedures.
• Making available and maintaining up-to-date SLM document templates and standards.
• Assisting with the design and maintenance of the service catalogue.
The Relationship Between SLM & BRM

While the SLM process exists to ensure that the agreed achievable levels of service are provided to the customers and users, BRM is focused on a **more strategic prospective**.
Process 3: Capacity Management:

Purpose of Capacity Management
The purpose of the capacity management process is to ensure that the capacity and IT services, and the IT infrastructure meets the agreed capacity and performance related requirements in a cost effective and timely manner.

Objectives of Capacity Management
• Produce and maintain an appropriate and up-to-date capacity plan.
• Provide advice and guidance to all other areas of the business and IT on all capacity and performance related issues.
Scope of Capacity Management

Capacity management considers all resources required to deliver the IT service, and plans for short-, medium- and long-term business requirements.

The capacity management process should include:
- Monitoring patterns of business activity through performance, utilization and throughput of IT services.
- Undertaking tuning activities to make the most efficient use of existing IT resources.
- Influencing demand in conjunction with the financial management for IT services and demand management processes.
Basic Concepts of Capacity Management

Basic Concepts:

Capacity Plan
This is used by all areas of the business and IT management, and is acted on by the IT service provider and senior management of the organization to plan the capacity of the IT infrastructure.

Capacity Management is a complex and demanding process. To deliver results it relies on three sub-processes:

Business Capacity Management
Service Capacity Management
Component capacity management
Process 4: Availability Management:

Availability is the ability of a Configuration Item or IT service to perform its agreed function when required. Availability is usually calculated as a **percentage**. This calculation is often based on **agreed service time and downtime**.

**Purpose of the Availability Management**

The purpose of the Availability Management is to ensure that the level of availability delivered in all IT services meets the agreed availability needs and/or service level targets in a cost-effective and timely manner.
Objective & Scope of Availability Management

Objectives of the Availability Management

- Produce and maintain an appropriate and up-to-date availability plan that reflects the current and future needs of the business.
- Ensure that service availability achievements meet all their agreed targets by managing services and resources-related availability performance.

Scope

The scope of the availability management covers the design, implementation, measurement, management and improvement of IT service and component availability.

The availability management includes two key elements:

- Reactive activities
- Proactive activities
Basic Concepts of Availability Management

Availability Management is completed at two interconnected levels:
Component Availability
Service Availability

Key aspects:
Availability
Reliability
Maintainability
Serviceability

Vital Business Function
The term Vital Business Function (VBF) is used to reflect the critical elements of the business process supported by an IT service.
Purpose & Objectives of ITSCM

Process 5: IT Service Continuity Management (ITSCM):

Purpose of IT Service Continuity Management
To support the overall business continuity management process by ensuring that, by managing the risks that could seriously affect IT services; the IT service provider can always provide minimum agreed business continuity-related service levels.

Objectives of IT Service Continuity Management
• Produce and maintain a set of IT service continuity plans that support the overall business continuity plans.
• Complete regular BIA exercises to ensure that all continuity plans are maintained in line with changing business impacts.
• Conduct regular risk assessment and management exercises to manage IT services within an agreed level of business risk in conjunction with the business and the availability management.
Business Impact Analysis

Scope
ITSCM focuses on those events that the business considers significant enough to be treated as a ‘disaster’.

Purpose of business impact analysis (BIA)
The purpose of a BIA is to quantify the impact to the business that loss of service would have. The BIA will identify the most important services to the organization and will therefore be a key input to the strategy.
Risk assessment

This is an assessment of the level of threat and the extent to which an organization is vulnerable to that threat. Risk assessment can also be used in assessing and reducing the chance of normal operational incidents.
Process 6: Information Security Management:

Information Security Management (ISM)
The purpose of the information security management process is to **align IT security** with business security and ensure that the confidentiality, integrity and availability of the organization’s assets, information, data and IT services always matches the agreed needs of the business.

Objectives of Information Security Management (ISM)
- Availability
- Confidentiality
- Integrity
- Authenticity and non-repudiation
Scope of ISM

Scope

The information security management process should be the focal point for all IT security issues, and must ensure that an information and security policy is produced and maintained and enforce that covers the use and misuse of all IT systems and services.

The information security management process should include:
- Business security policy and plans
- Current business operation and its security requirements
- Future business plans and requirements
- Legislative and regulatory requirements
Information Security Policy

Information security management activities should be focused on and driven by an overall information security policy and a set of underpinning specific policies.

The policies should be authorized by top executive management within the business and IT.
Process 7: Supplier Management:

Supplier is a third party responsible for supplying goods or services that are required to deliver IT service, for example, commodity hardware and software vendors, network and telecom providers, and outsourcing organizations.

Purpose of Supplier Management
The purpose of the supplier management process is to obtain value for money from suppliers and to provide seamless quality of IT service to the business by ensuring that all contracts and agreements with suppliers support the needs of the business and that all suppliers meet their contractual commitments.
Objectives of Supplier Management

- Ensure that underpinning contracts and agreements with suppliers are aligned with business needs, and support and align with agreed targets.

- Obtain value for money from all suppliers and contracts by:
  - Negotiating and agreeing contracts with suppliers and managing throughout their lifecycle.
  - Managing a supplier policy and a supporting Supplier and Contract management information system (SCMIS).
Supplier Categories

Suppliers can be categorized in many ways, but one of the best methods in categorizing suppliers is based on assessing the risk and impact associated with using the supplier, and the value and importance of the supplier and its services to the business.

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Basic Concepts of Supplier Management

Basic Concepts:

Contract
A contract is a legally binding agreement between two or more parties.

Underpinning Contract
Typically, suppliers are involved in some stage of the delivery of an end-to-end service. Where an external business partner or supplier is used, the SLA is supported by an underpinning contract (UC/UPC).

Supplier and Contracts Database (SCD)
To achieve consistency and effectiveness in the implementation of the policy, a Supplier and Contracts Database needs to be established and maintained. Ideally, SCD should form an integrated part of the Service Knowledge Management System (SKMS).
Purpose & Objectives of Design Coordination

Process 8: Design Coordination:

Purpose of Design Coordination
The purpose of the design coordination process is to ensure the goals and objectives of the service design stage are met by providing and maintaining a single point of coordination and control for all activities and processes within this stage of service lifecycle.

Objectives of Design Coordination
The objectives of design coordination process are to:

- Ensure the consistent design of appropriate services, service management information systems, architectures, technology and evolving business outcomes and requirements.
- Plan and coordinate the resources and capabilities required to design new or changed services.
Scope of Design Coordination

Scope

The scope of the design coordination includes all design activity, particularly all new or changed service solutions that are being designed or transitioned into the live environment.

The design coordination process includes:

- Assisting and supporting each project or other change through all the service design activities and processes.
- Maintaining policies, guidelines, standards, budgets, models for service design activities and processes.
- Planning and forecasting the resources needed for the future demand for service design activities.
Service Automation

Automation can have particularly significant impact on the performance of service assets such as management, organization, people, process, knowledge and information.

Automation is considered to improve the utility and warranty of services.
Overview

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