The anatomy of an IT Service Management System

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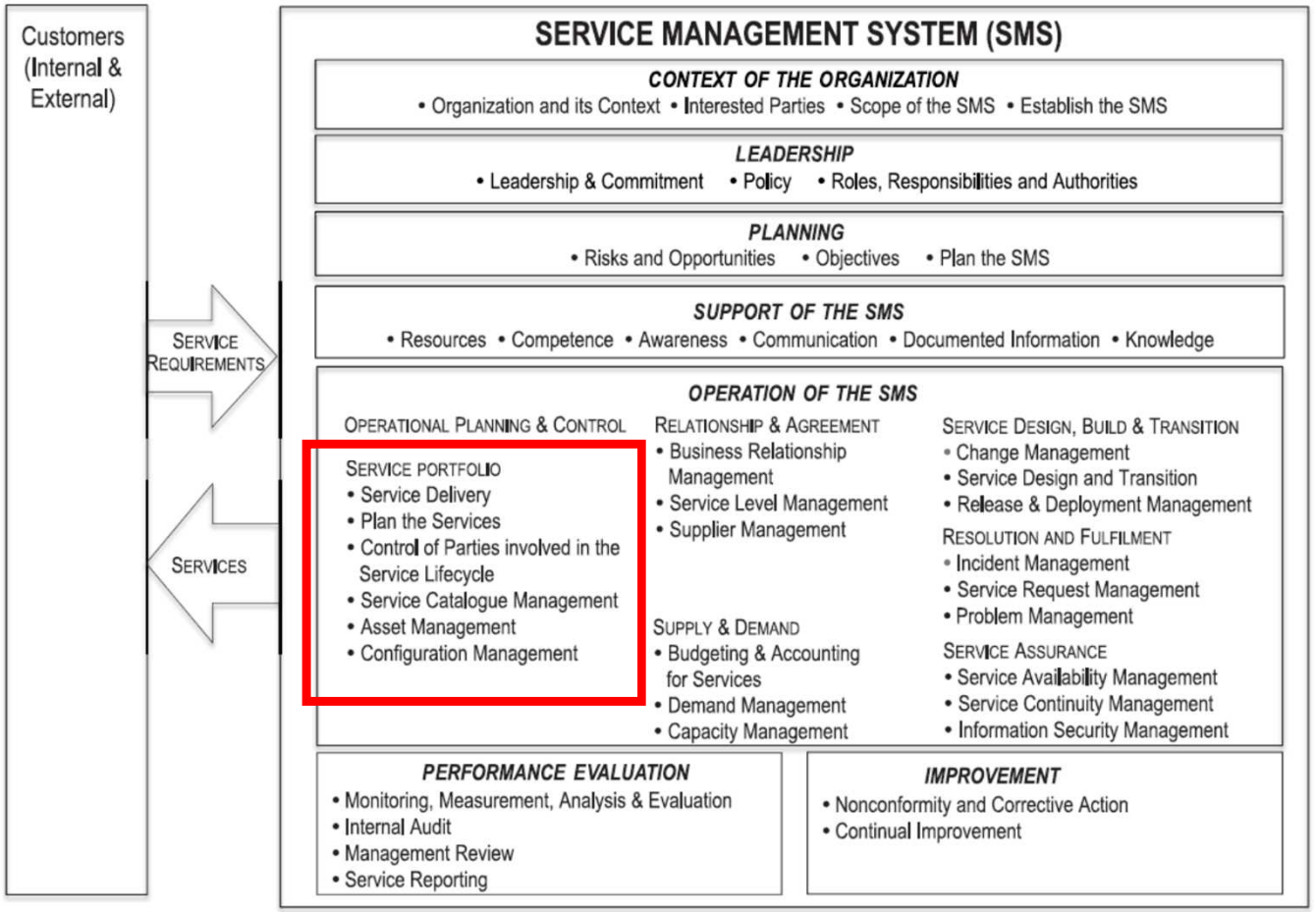
Service portfolio



Source: ISO/IEC 20000-1:2018

Plan the services to offer

Let's prepare for a big change!

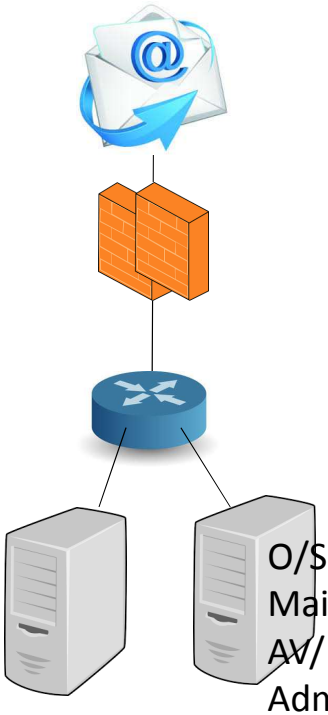
- Origin of the need: customer, organisation, internal groups, suppliers
- Purpose: either to satisfy business needs or improve the effectiveness of the service
- Key considerations: Potential financial, organisational and technical impact, as well as the impact on the SMS, of delivering the new or changed service

Catalogue of services

- Describes the services provided to the customer using business terminology
- May include:
  - Description of the service
  - Service targets
  - Service hours, support hours and exceptions
  - Security requirements
  - Contact persons

Describes dependencies and responsibilities outside the direct control of the service provider

Configuration management



O/S
Mail server SW
AV/ Anti-spam
Admin SW
…

Management and control of the –evolving– service assets and configurations, as well as their relationships

Info about CIs

- Description
- Type
- Relationship(s) between the CI and other CIs
- Relationship(s) between the CI and service components
- Status
- Version
- Location
- Associated requests for change
- Associated problems and known errors

Unique ID for each CI in the CMDB

???

A service is also a CI

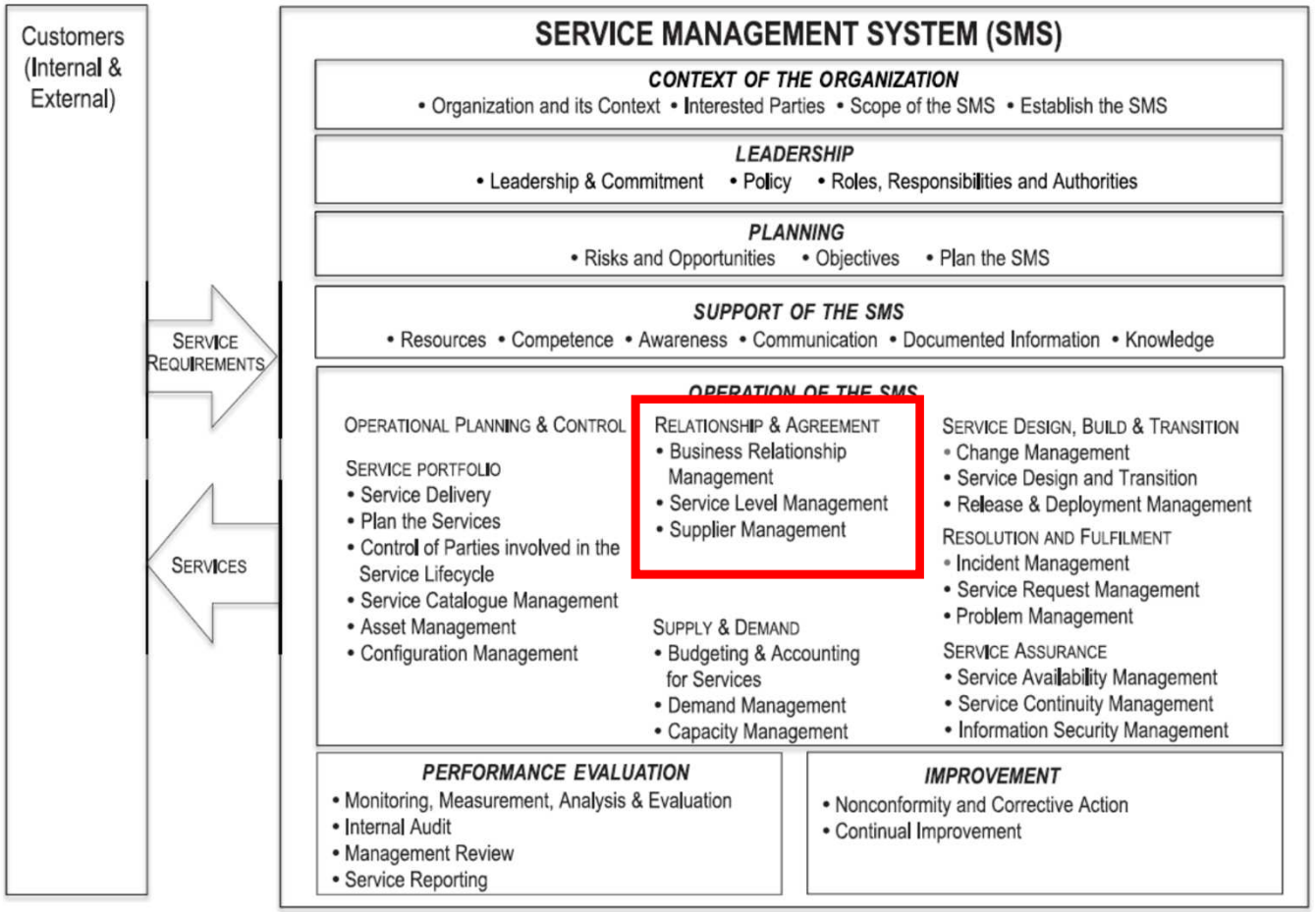
Types of CIs

- Services and related information
- Service components
- All issues and releases of services, systems and SW configuration baselines
- Master copies of CIs stored in physical and/or electronic libraries, the CMDB and other tools used
- Information security assets
- SMS documentation

Maintenance of CIs

- Updates on CI information are allowed only in a very controlled manner, e.g. after an approved request for change
- Configuration baselines to be documented (regularly or under specific conditions)
- Configuration audits to be conducted (regularly or in response to specific events)

Relationship & Agreement



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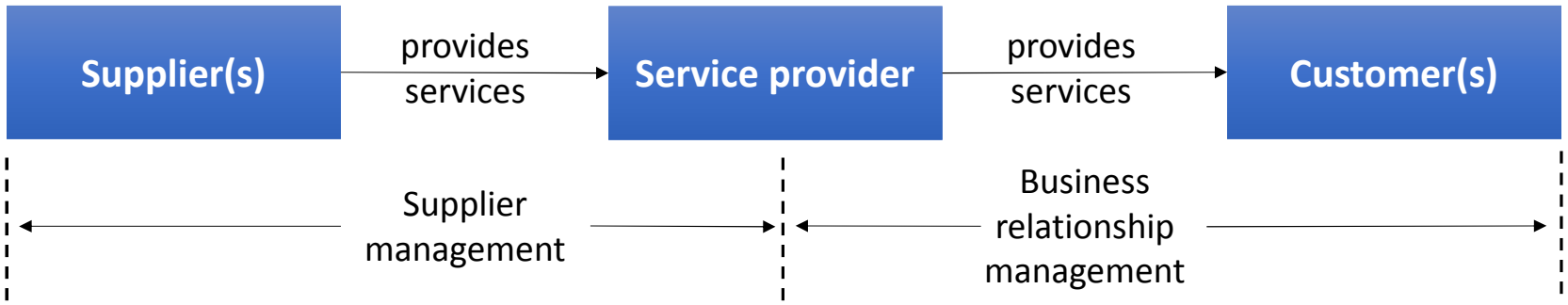
Understanding the end-to-end supply chain



Business relationship management

- Develop and maintain a good working relationship with the customer
- Enable strategic alignment between the service provider and the customer
- Understand customer expectations
- Use same –business– language

Make the customer feel he is valuable to you!

Supplier management

- In the context of ISO20K, starts after the establishment of a contract with a supplier delivering services to the service provider
- Contact persons responsible for the relationship with suppliers
- Regular contract reviews for:
  - Assessing that the needs for supplier services are still valid
  - Reviewing performance against service targets defined in the contract
- Disputes management, including escalation procedures
- Contract termination (expected or premature), including provisions for closing/ transferring:
  - services, costs, hardware, software licences, data, …

Service level management

Customer:
“I want to be able to send mass SMS to more than 1.000 recipients at a time, worldwide, with guaranteed delivery less than 30 minutes”

Provider:
“Don’t worry, I will give you SMPP package R1 from our HA infrastructure in Azure.”

- Agree the services with the customer and ensure their delivery meets the service targets
- Ensure common language with the customer

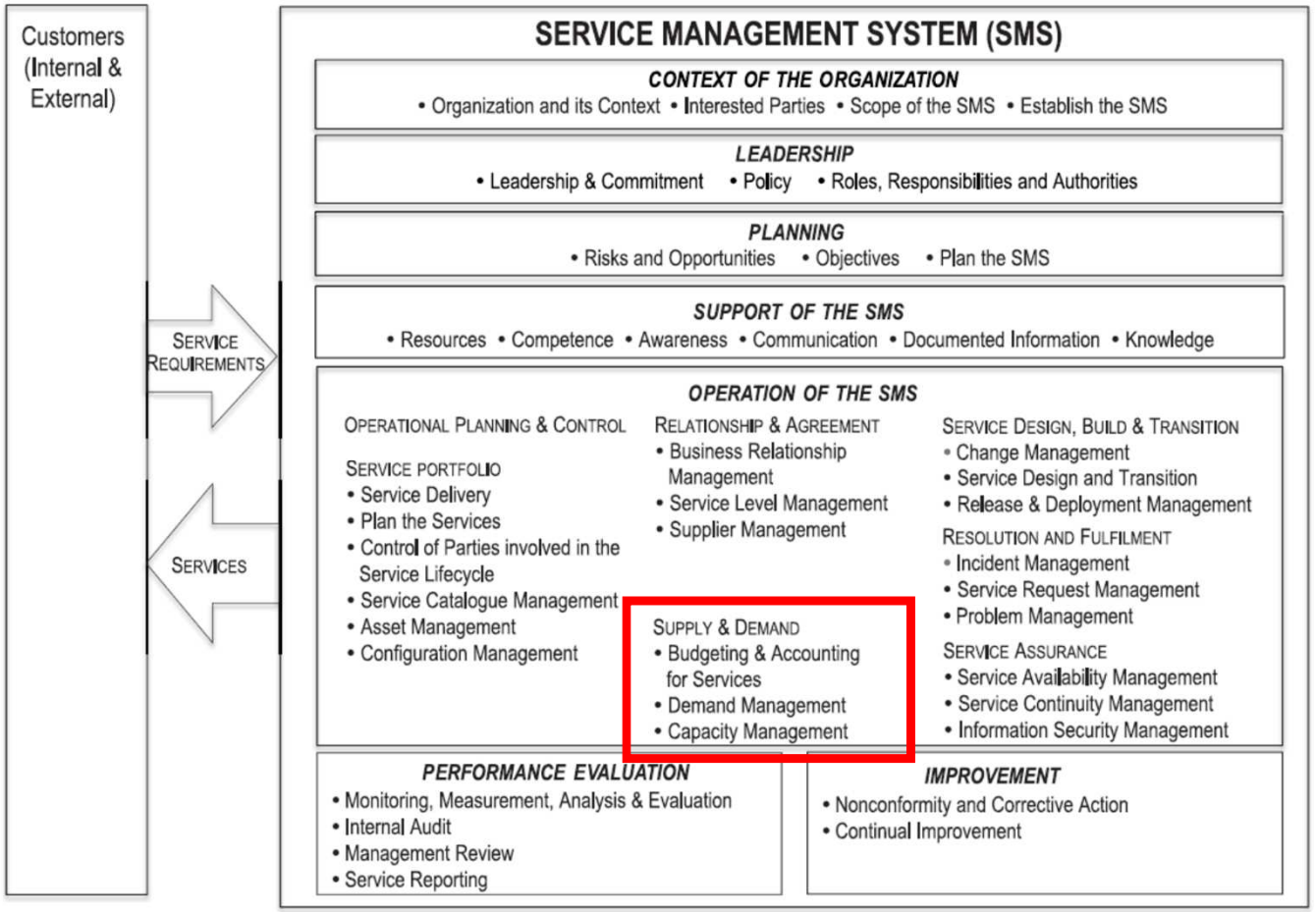
Documentation of service commitments

- Establishment of agreements with suppliers **prior** to committing to an SLA with the customer:
  - Formal contracts with suppliers
  - Operational level agreements (OLAs) with internal groups
- Monitoring of the performance of (external and internal) suppliers against agreed targets, and also against related targets in SLAs with the customers
- Service reporting
- Handling of changes to underpinning contracts, where required

Service level agreements - SLAs

- Formal document agreed between the service provider and the customer
- Describes the service and service targets, and the responsibilities of the counterparts
- A single SLA may cover just one service for one customer, or multiple services for multiple customers
- Customer requirements and service provider capabilities guide the content and targets of the SLA

Supply & Demand



Source: ISO/IEC 20000-1:2018

Capacity management

Aims to ensure agreed capacity and performance requirements are met through:

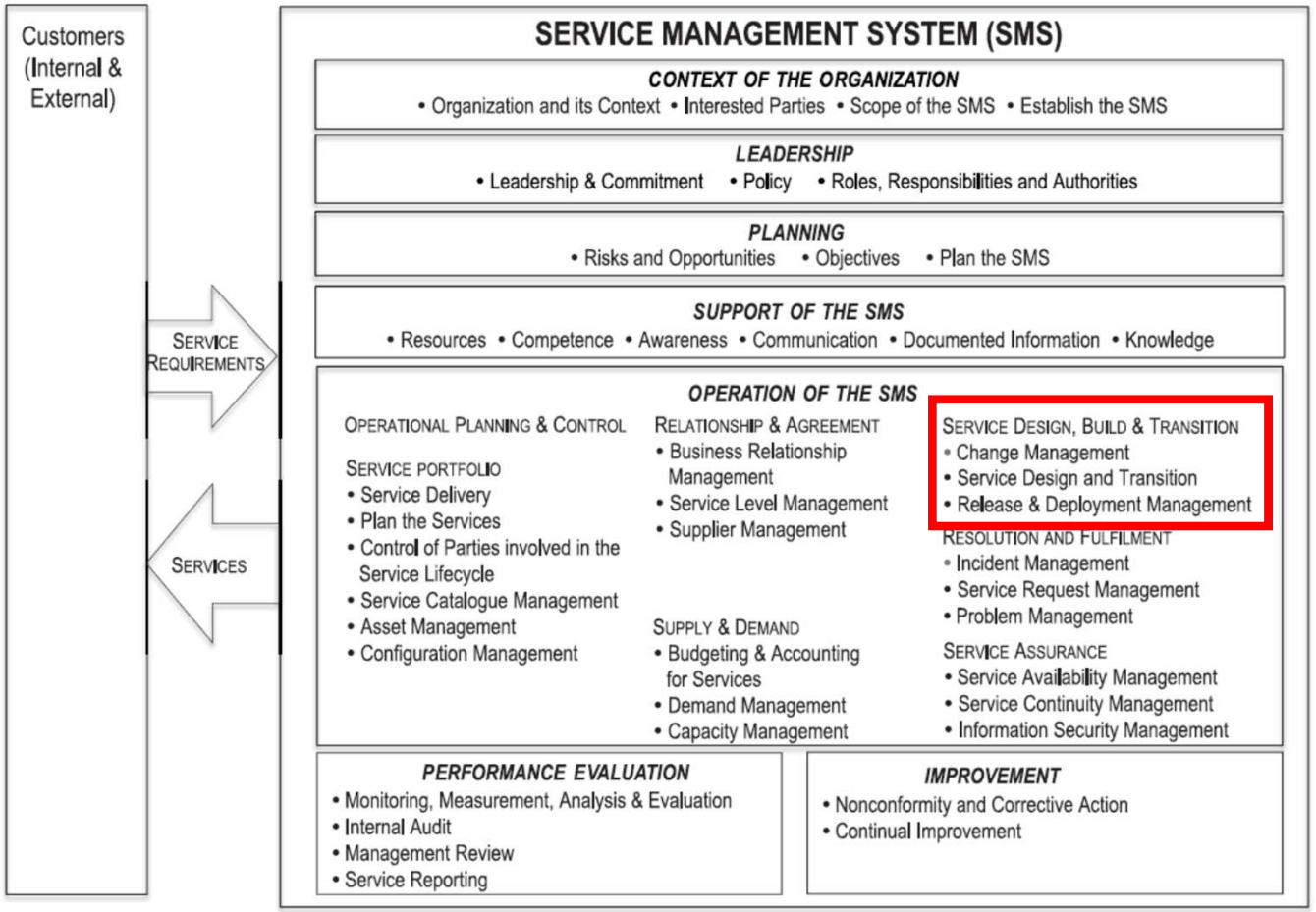
1) Monitoring capacity usage, 2) Analysing of capacity data,

3) Managing performance against service targets, and 4) Planning for future capacity requirements

Capacity plan

- Includes:
  - Current and forecast capacity based on demand for services
  - Expected impact of agreed requirements for availability, service continuity and service levels
  - Time-scales, thresholds, and costs for upgrades to service capacity
  - Potential impact of statutory, regulatory, contractual or organisational changes
  - Potential impact of new technologies and new techniques
  - Procedures to enable predictive analysis

Service design, build and transition



Source: ISO/IEC 20000-1:2018

Design of services

- Elaborate on the way to do the work – Service design:
  - Activities to be performed
  - Resources (human, hardware/software, locations, etc.)
  - Communications among roles, projects teams, suppliers, partners, customer representatives, etc.
  - Risk analysis and management
  - Schedule (stages, milestones, dependencies, …)
  - Statutory and regulatory requirements
  - Tools and techniques
  - Software control methods

Development of services

Plans are fine, but let's get to work!

- Development of the new or changed service according to plans and designs
- Testing of the new or changed service against the acceptance criteria
- Changes to plans and designs, in case problems are identified

Successful testing -> Ready for transition

Transition of services

Let the others see what we have done!

- Includes Build, Test and Acceptance of the new or changed services
- Review of the transition with the customer and interested parties
- Report to interested parties on the outcomes achieved against the expected ones

Tightly connected with several other SMS processes:

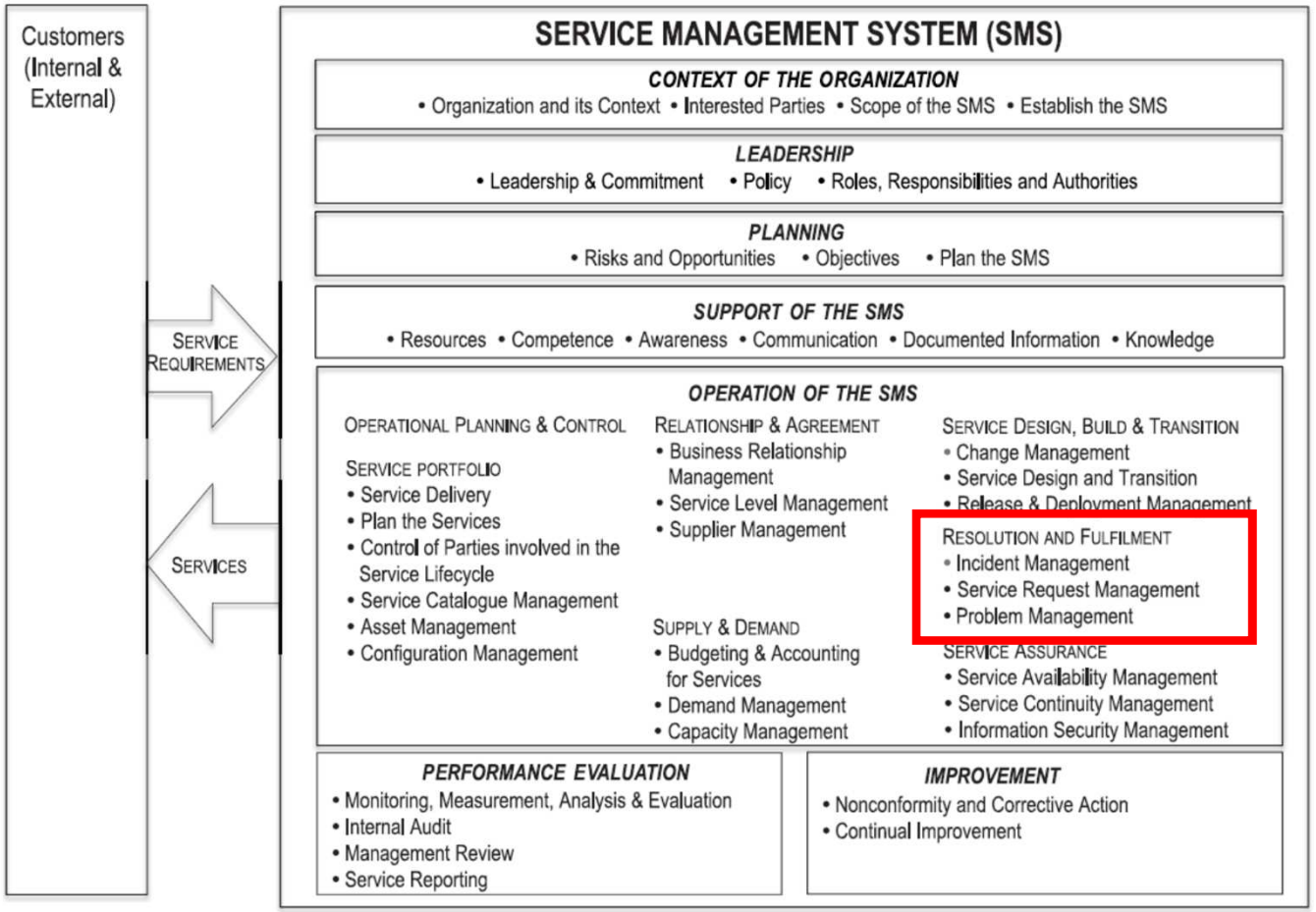
- Assessment, approval, scheduling and reviewing of new or changed services is controlled by the **change management process**
- CIs developed or changed are controlled by the **configuration management process**
- New or changed service is deployed through the **release and deployment management process**

Change management

Aims to:

- Ensure changes are assessed, approved, implemented and reviewed in a controlled manner
- Minimise risks caused by inadequately managed changes

Resolution & Fulfilment



Source: ISO/IEC 20000-1:2018

Why do we need resolution processes?

Because unexpected events always occur

Incident vs. Problem

Incident mgmt.

Problem mgmt.

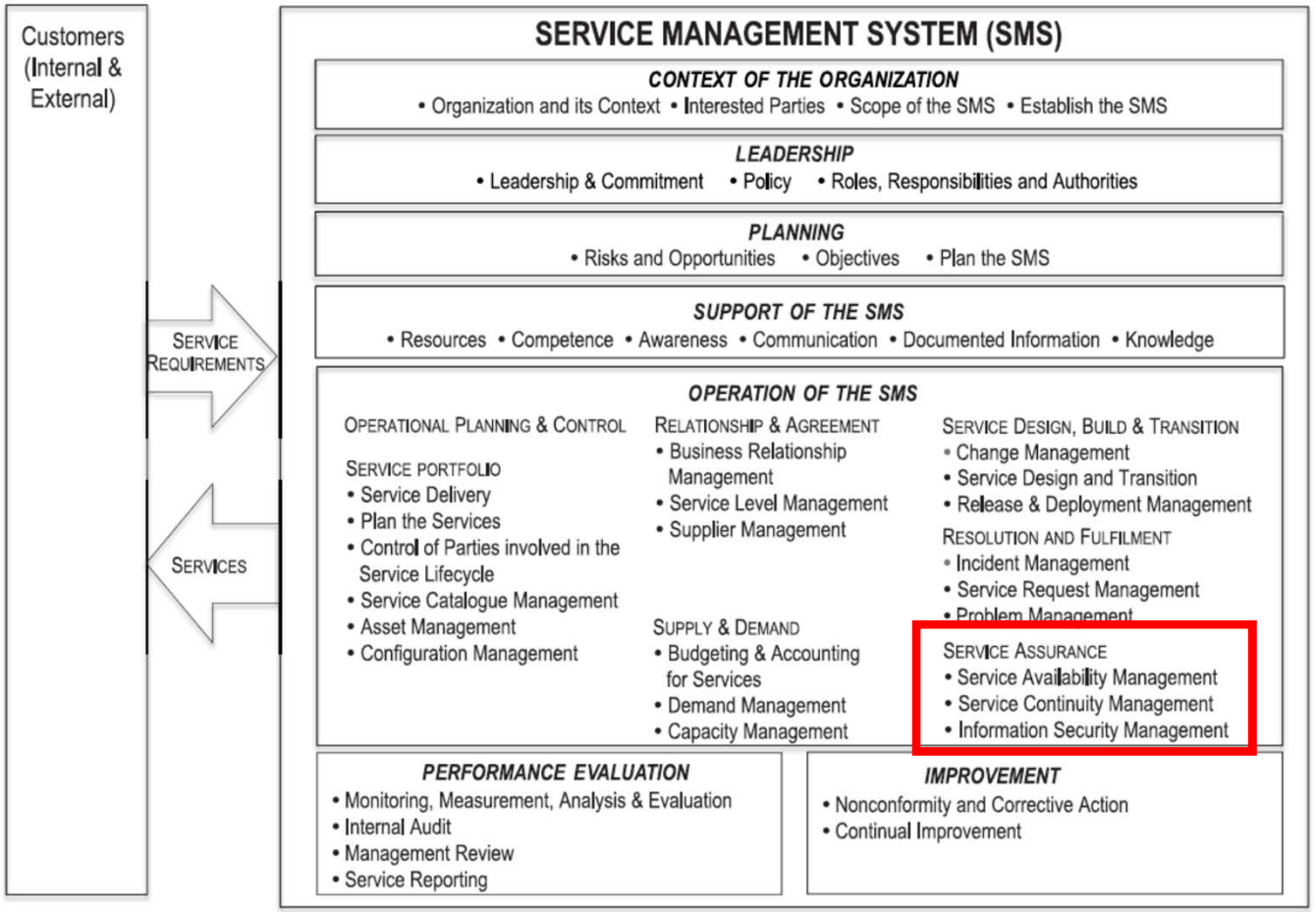
Incident and service request management

Ensure that incident resolution and service request fulfilment is achieved within agreed service targets and time frames

Main activities:

- Recording
- Prioritisation – Classification
- Investigation
- (Escalation)
- Resolution
- Closure

Service assurance



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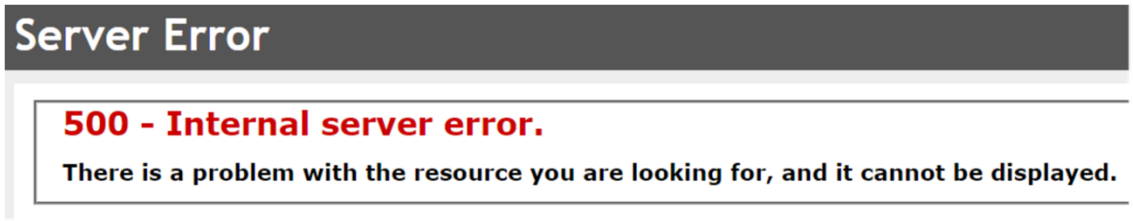
Service availability management

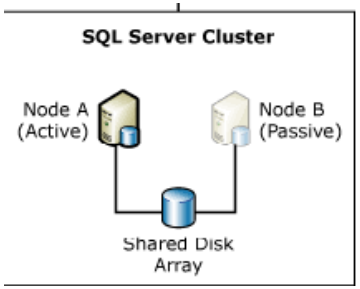


What was the availability target for this service?

Availability management aims to ensure that agreed service availability commitments can be met, within agreed targets, through:

The definition of service **availability requirements**, which are included into service **availability plans**, which in turn are **monitored and tested**

Service continuity management



Continuity management aims to ensure that agreed service continuity commitments can be met, within agreed targets, through:

The definition of service **continuity requirements**, which are included into service **continuity plans**, which in turn are **monitored and tested**

Service continuity and availability plans

- Shall include at least:
  - Procedures to be followed in the event of a major loss of service
  - Availability targets when the plan is invoked
  - Recovery requirements
  - Approach for the return to normal working procedures
- Should include (indicatively):
  - Responsibilities for invoking and executing each step
  - References to supporting documentation and information, e.g. contact lists, CMDB, data backups, equipment to be used during recovery, suppliers' contracts
- Should be assessed for impact prior to the approval of service changes, and prior to the commitment to significant new/ amended customer requirements

Information security management

The world of ISO27K comes into the play!!!

Aims to ensure that:

- security controls are in place to protect information assets
- information security requirements are incorporated into the design and transition of new or changed services

Information security policy

- All requirements (service, statutory/ regulatory) and contractual obligations shall be taken into consideration for its elaboration
- Approved by Top Management
- Strong management commitment and support required for its effective application
- Communicated to all stakeholders within and outside the organisation (directly or through obligations included in contracts)
- Not a single document; usually a significant number of documents with policies and procedures in specific areas

Thank You!

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