IT Service Management

Standard ISO-IEC 20000
Part 1: Specification

The standard ISO-IEC 20000

◆ ISO/IEC 20000 is the first international standard for IT service management.
  • Developed in 2005 and revised in 2011
  • It is based on and intended to supersede the earlier BS 15000 that was developed by British Standard Institution (BSI)
◆ ISO/IEC 20000 consists of the following parts
  • Part 1: Specification (ISO-IEC 20000-1)
  • Part 2: Code of practice
◆ This lecture: ISO-IEC 20000-1
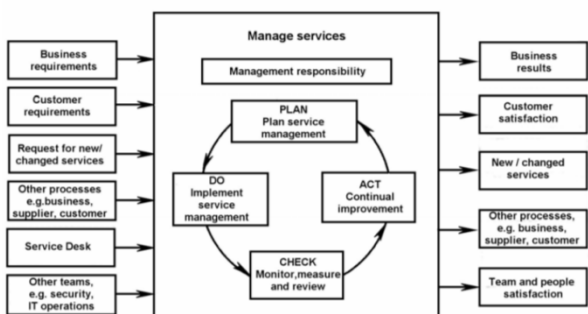 • Service management processes

---

Service management processes
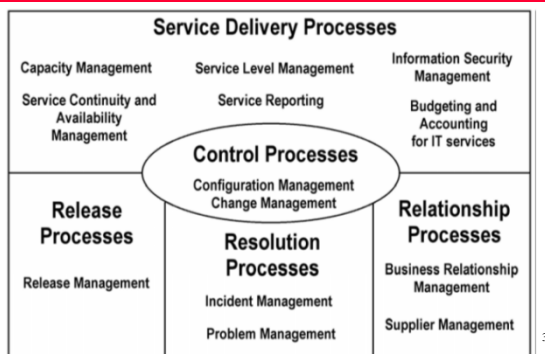
Planning and implementing service management

◆ The methodology known as "Plan-Do-Check-Act" (PDCA) can be applied to all processes:
  • Plan: establish the objectives and processes necessary to deliver results in accordance with customer requirements and the organization's policies
  • Do: implement the processes
  • Check: monitor and measure processes and services against policies, objectives and requirements and report the results
  • Act: take actions to continually improve process performance

---

PDCA methodology for service management processes

Plan service management (Plan)

◆ Objective: To plan the implementation and delivery of service management
  • Service management shall be planned
  • There shall be clear management direction and documented responsibilities for reviewing, authorising, communicating, implementing and maintaining the plans
  • Any process specific plans produced shall be compatible with this service management plan

Implement service management and provide the services (Do)

◆ Objective: To implement the service management objectives and plan
  • The service provider shall implement the service management plan to manage and deliver the services, including:
    » allocation of funds and budgets
    » allocation of roles and responsibilities
    » documenting and maintaining the policies, plans, procedures and definitions for each process or set of processes
    » identification and management of risks to the service
    » managing teams
    » managing facilities and budget
    » reporting progress against the plans
    » co-ordination of service management processes

7

Monitoring, measuring and reviewing (Check)

◆ Objective: To monitor, measure and review that the service management objectives and plan are being achieved
  • The service provider shall apply suitable methods for monitoring and, where applicable, measurement of the service management processes.
  • These methods shall demonstrate the ability of the processes to achieve planned results
  • Management shall conduct reviews at planned intervals to determine whether the service management requirements:
    » conform with the service management plan and to the requirements of this standard
    » are effectively implemented and maintained

8

Continual improvement (Act)

◆ Objective: To improve the effectiveness and efficiency of service delivery and management
  • There shall be a published **policy** on service improvement
  • All suggested service improvements shall be assessed, recorded, prioritized and authorized (**management**)
  • The service provider shall perform **activities** to:
    » collect and analyse data to baseline and benchmark the service provider's capability to manage and deliver service and service management processes
    » identify, plan and implement improvements
    » set targets for improvements in quality, costs and resource utilization
    » measure, report and communicate the service improvements
    » revise the service management policies, processes, procedures and plans where necessary

9

Planning and implementing new or changed services (1)

◆ Objective: To ensure that new services and changes to services will be deliverable and manageable at the agreed cost and service quality
  • The implementation of new or changed services, including closure of a service, shall be planned and approved through formal change management
  • The planning and implementation shall include adequate funding and resources
  • New or changed services shall be accepted by the service provider before being implemented into the live environment
  • A post implementation review comparing actual outcomes against those planned shall be performed through the change management process

10

Planning and implementing new or changed services (2)

◆ The plans shall include:
  • roles and responsibilities;
  • changes to the existing service management services;
  • communication to the relevant parties;
  • new or changed contracts and agreements;
  • manpower and recruitment requirements;
  • skills and training requirements, e.g. users, technical support;
  • processes, measures, methods and tools to be used in connection with the new or changed service;
  • budgets and time-scales;
  • service acceptance criteria;
  • expected measurable outcomes from operating the new service.

11

Service delivery process (1)

◆ Service level management
  • To define, agree, record and manage levels of service
    » Each service provided shall be defined, agreed and documented in one or more SLAs
    » The SLAs shall be under the control of the change management process
    » Service levels shall be monitored and reported against targets, showing both current and trend information
◆ Service reporting
  • To produce agreed, timely, reliable, accurate reports for informed decision making and effective communication
    » Service reporting shall include: performance against service level targets, non-compliance and issues, workload characteristics, performance reporting following major events, trend information, satisfaction analysis

12

Service delivery process (2)

◆ Service continuity and availability management
  • To ensure that agreed service continuity and availability commitments to customers can be met in all circumstances
    » Availability and service continuity requirements shall be identified on the basis of business plans, SLAs and risk assessments
    » The change management process shall assess the impact of any change on the availability and service continuity plan
◆ Budgeting and accounting for IT services
  • To budget and account for the cost of service provision
    » There shall be clear policies and processes for budgeting and accounting for all components and for effective financial control and authorization
    » Costs shall be monitored and reported against the budget
    » Changes to services shall be costed and approved through the change management process

13

Service delivery process (3)

◆ Capacity management
  • To ensure that the service provider has, at all times, sufficient capacity to meet the current and future agreed demands of the customer's business needs
    » Capacity management shall include current and predicted capacity and performance requirements, evaluation of effects of anticipated on capacity, predicted impact of external changes
◆ Information security management
  • To manage information security effectively within all service activities
    » ISO/IEC 17799, IT — Security techniques …
    » Approval and communication of information security policy
    » Operating appropriate security controls

14

Relationship processes

◆ Business relationship management.
  • Objective: To establish and maintain a good relationship between the service provider and the customer based on understanding the customer and their business drivers
    » The service provider shall remain aware of business needs and major changes in order to prepare to respond to these needs
    » There shall be a complaints process
◆ Supplier management
  • Objective: To manage suppliers to ensure the provision of seamless, quality services
    » SLAs with suppliers shall be aligned with the SLAs with the business
    » Any changes to the contract(s) and SLA(s) shall be subject to the change management process
    » A process shall exist to deal with contractual disputes

15

Resolution processes

◆ Incident management.
  • Objective: To restore agreed service to the business as soon as possible or to respond to service requests
  • Procedures shall define the recording, prioritization, business impact, classification, updating, escalation, resolution and formal closure of all incidents
◆ Problem management
  • Objective: To minimize disruption to the business by proactive identification and analysis of the cause of incidents and by managing problems to closure
  • Procedures shall be adopted to identify, minimize or avoid the impact of incidents and problems
  • Preventive action shall be taken to reduce potential problems

16

Control processes

◆ Configuration management.
  • Objective: To define and control the components of the service and infrastructure and maintain accurate configuration information
  • Configuration management shall provide information to the change management process on the impact of a requested change on the service and infrastructure configurations
◆ Problem management
  • Objective: To ensure all changes are assessed, approved, implemented and reviewed in a controlled manner
  • Changes shall be approved and then checked, and shall be implemented in a controlled manner
  • There shall be policies and procedures to control the authorization and implementation of emergency changes

17

Release process

◆ Release management process
  • Objective: To deliver, distribute and track one or more changes in a release into the live environment
  • The release management process should be integrated with the configuration and change management processes
  • The release policy stating the frequency and type of releases shall be documented and agreed
  • Requests for change shall be assessed for their impact on release plans
  • A controlled acceptance test environment shall be established to build and test all releases prior to distribution
  • Success and failure of releases shall be measured
    » Measurements shall include incidents related to a release in the period following a release

18