ITIL v3



ITIL

- Information Technology Infrastructure Library
- V3 2007, ITIL 2011
- Can be used to manage IT services both developed internally to an organization, or externally (outsourcing)

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Key concepts in ITIL

- Processes, services
- Roles
- Functions

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Process, service

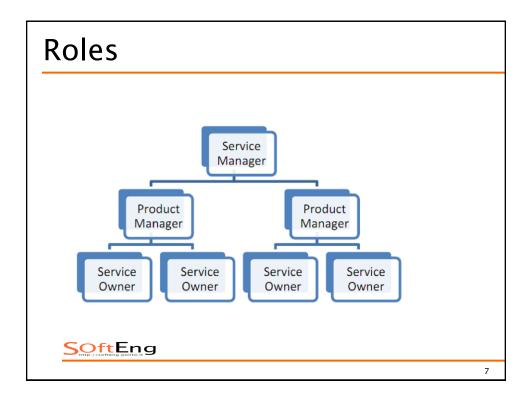
- Process
 - Set of activities with an objective
- Service
 - A means of delivering value to customers (without owning specific costs and risks)
- Service management
 - A set of organizational capabilities to deliver (value to customers through) services

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Service, business process Business process 2 Customer ii Customer

- SLA = Service Level Agreement
 - Quality kpi :
 - defectivity = #bank transfers with defect / #total bank transfers
 - ◆ SLA: defectivity < 1%
 - Service time ST: time to do a card check
 - ◆ SLA: ST < 1 msec

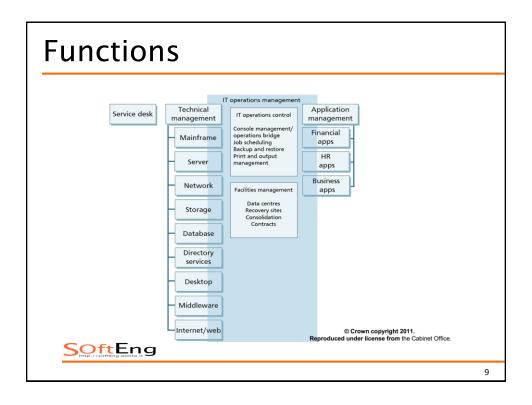
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Roles

- Service owner
 - Accountable for design, performance, improvement, management of a service
- Process owner
 - Accountable for design, performance, improvement, management of a process
- Service manager
 - Accountable of all services
- Product manager

Safa Eroantable for a set of services



Service desk

- Single point of contact between user and IT
 - Manages any communication to IT service provider(s)
- Manages
 - Incidents, service requests, change requests
- Owns incident management process



Technical management

- Must ensure that service provider has right set of skills and resources to deliver IT services
 - Procures, manages, develops skills required, resources required

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Application management

- Must manage applications, end to end
 - Procures manages develops required skills and resources

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IT operations management

- Must manage day by day infrastructure and facilities
 - Operations: deals with IT infrastructure (consoles, backups, ..)
 - ◆ Facilities: power, heating/ cooling, ...

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Resource, capability

- Resource
 - Tangible asset: capital, information, people, applications
- Capability
 - Intangible asset: knowledge, organization, processes

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ITIL processes

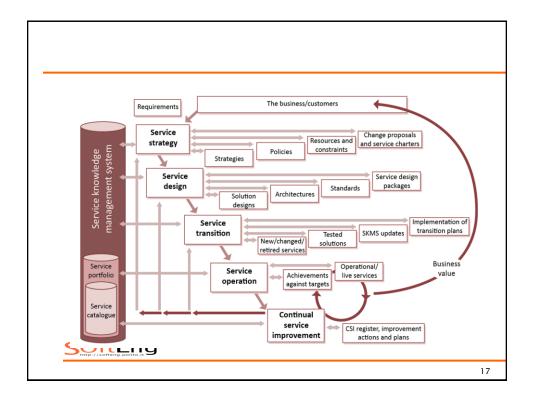
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ITIL processes

- 26 processes under 5 groups
- Service Strategy
- Service Design
- Service Transition
- Service Operation
- Continual Service Improvement

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Service strategy

- Strategy management
- Service portfolio management
 - Update portfolio of services, decide services to be produced / retired
- Financial management of IT services
 - Secure funding, balance cost and value, compute cost of services



Service strategy (2)

- Demand management
 - Understand future service demand, endure capability to satisfy demand (see service capacity management)
- Business relationship management
 - Establish relationship with customer, identify customer (service) needs

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Service design

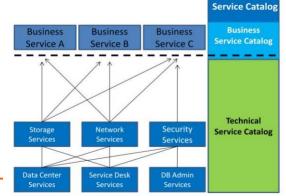
 Goal: design services and adequate supporting environment (tools, components, procedures)

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Service design

- Service catalogue management
 - Provide list of operational services, and make it available to approved users
 - Service catalogue is subset of service portfolio

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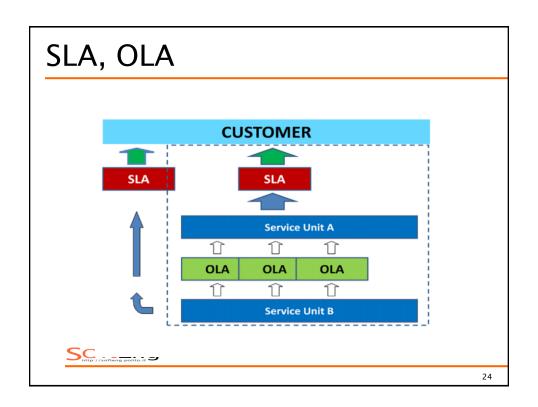
- Service catalogue, for each service, should provide (ex via internal web site)
 - Features
 - Way of accessing it
 - Pricing
 - SLAs
 - Contact point

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Service design (2)

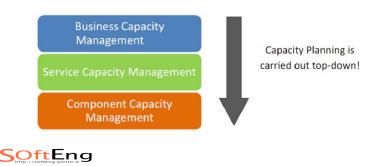
- SLA management
 - Create, monitor, review SLAs
 - SLA may depend on OLA (operational level agreement) when a service integrates lower level services from different units

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Service design (3)

- Capacity management
 - Ensure services are delivered within defined response times with defined loads



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Service design (4)

- Availability management
 - Define and monitor availability (MTTF, MTTR, etc)
- IT Security management
 - Confidentiality, integrity, autheticity, non-repudiation..
- Supplier Management
 - Negotiate cost/delivery with suppliers, ensure that suppliers satisfy agreements

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Service design (5)

- IT service continuity management
 - Perform risk analysis and Business Impact Analysis
 - Plan recovery of IT services in case of disasters
 - Define Business Continuity Plan (BCP)
 - See ISO 22301, 22313, 22317 standards

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Service Transition

- Goal:
 - Implement changes to existing services
 - Deploy new services and changes to existing services

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Service Transition (1)

- Change: addition, removal, modification to service
 - Severity, priority
- Change request (or RFC request for change)
 - formal request of change
 - Issued by customer, internal user, IT staff
 - Received by service desk and handled via change management process
- Release: set of changes implemented/released together

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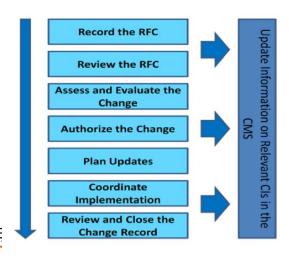
Service Transition (2)

- Change authority
 - Change manager: for normal changes
 - Emergency Change advisory board: for emergency changes (high priority high severity)
 - Change advisory board: for large, higher impact changes
- Configuration management system
- Configuration item

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Service transition (3)

Change management process



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Service Transition (4)

- Service asset and configuration management process
 - Manage configuration items and configurations, baselines
 - Identification
 - Control
 - audit

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Service Transition (5)

- Release and deployment management
 - Planning of releases
 - Support and procedures for deployment
- Service validation and test
 - Support and procedures for test and validation of service prior to release
 - Ex management of test environment
- Evaluation
 - Of service and its acceptance by users

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Service operation

- Goal:
 - Provide services within planned parameters
 - * Restore services when needed

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Service Operation

事件

- Incident: interruption or degradation of a service
- Problem: cause of incident(s)
- Event: change of state in infrastructure or else that has impact on delivery of service

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Service operation

- Incident management process
 - Detect incident
 - Log incident
 - Classification
 - Prioritization
 - Initial diagnosis
 - Escalation
 - Resolution and recovery
 - Closure

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Service operation

- Problem management process
 - Systematically analyze incidents and related causes, to prevent new incidents
 - Reactive problem management
 - fix problems as reaction to incident
 - Proactive problem management
 - anticipate future incidents
 - Apply techniques: ishikawa diagrams, fault tree analysis, root cause analysis

Soft Eng. - Develop and maintain: Known error database

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Service operation

- Event management process
 - Monitor events (as raised by tools or configuration items)
 - Handle events
 - No action (log event)
 - Warning
 - Exception: perform corrective action

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Service operation

- Service request fulfillment
 - Support users in non-incident situations
 - Help to use services
 - Requests for new equipment, training, ..

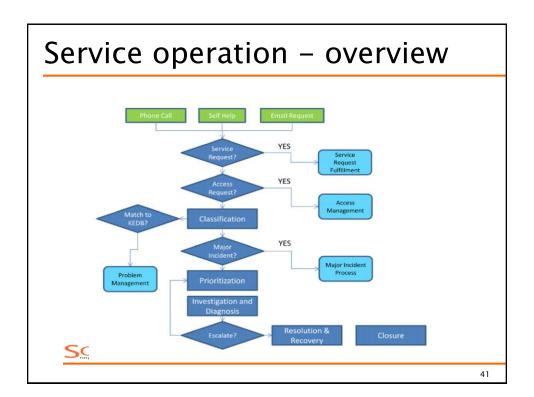
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Service operation

- Access management
 - Provide access to services implementing a given policy
 - Create update credentials
 - Provide account / passwords
 - Modify privileges
 - (access policy is NOT defined here)

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Continual service improvement

- Goal: alignment and improvement (functionality, SLAs) of services
- Define and collect KPIs, CSF, measures

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