Service operation

HP University Electives

Service Operation

Processes
- Event Management
- Incident Management
- Problem Management
- **Request Fulfillment**
- **Access Management**
- **Operations Management**

Functions
- **Service Desk**
- **Technical Management**
- **IT Operations Management**
- **Application Management**

ITIL — Service Strategy, Service Design, Service Transition, Service Operation

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Service Operation Processes and Functions
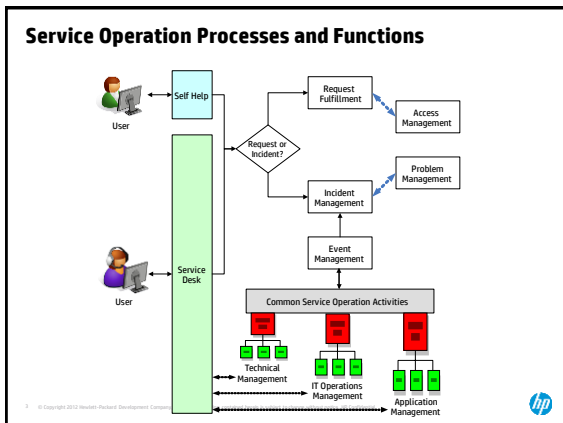
Access Management

Objectives
Basic concepts
Roles

Access Management — Objectives

- Granting authorized users the right to use a service
- Preventing access by non-authorized users

Access Management implements and enforces Security policy, but does not define it

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Scope

- Execution of both Availability and Information Security Management, in that it enables the organization to manage the confidentiality, availability and integrity of the organization's data and intellectual property.

- Ensures that users are given the right to use a service, but it does not ensure that this access is available at all agreed times

Access Management — Basic concepts

- **Access**
  - level and extent of a service's functionality or data that a user is entitled to use.

- **Identity**
  - refers to the information about them that distinguishes them as an individual and which verifies their status within the organization. By definition, the Identity of a user is unique to that user.

- **Rights/Privileges**
  - refer to the actual settings whereby a user is provided access to a service or group of services. Typical rights, or levels of access, include read, write, execute, change, delete

Access Management — Basic concepts

- **Service or Service Groups (profile)**
  - Most users do not use only one service, and users performing a similar set of activities will use a similar set of services. Instead of providing access to each service for each user separately, it is more efficient to be able to grant each user – or group of users – access to the whole set of services that they are entitled to use at the same time.

- **Directory Services**
  - refers to a specific type of tool that is used to manage access and rights.

Activities

- **Requesting access**

- **Verification**

- **Providing rights**

- **Monitoring identity status**

- **Logging and tracking access**

- **Removing or restricting rights**

Triggers, Input, Output

- **An RFC.** This is most frequently used for large-scale service introductions or upgrades where the rights of a significant number of users need to be updated as part of the project.

- **A Service Request.** This is usually initiated through the Service Desk, or directly into the Request Fulfillment system, and executed by the relevant Technical or Application Management teams.

- **From the authorized Human Resources Management personnel** (which should be channeled via the Service Desk). This is usually generated as part of the process for hiring, promoting, relocating and termination or retirement.

- **A request from the manager of a department,** who could be performing an HR role, or who could have made a decision to start using a service for the first time.

Interfaces with Other Processes

- **Human Resource Management**
  - to verify the user's identify as well as to ensure that they are entitled to the services being requested.

- **Information Security Management**
  - provide the security and data protection policies and tools needed to execute Access Management.

- **Change Management**
  - means to control the actual requests for access.
  - usually processed as a Standard Change or Service Request (possibly using a model) once the criteria for access have been agreed through SLM.

Interfaces with Other Processes

- **Service Level Management**
  - maintains the agreements for access to each service.
  - include the criteria for who is entitled to access each service, what the cost of that access will be, if appropriate and what level of access will be granted to different types of user (e.g. managers or staff).

- **Configuration Management**
  - The CMS can be used for data storage and interrogated to determine current access details.

Value to business

- **Controlled access to services**
  - ensures that the organization is able to maintain more effectively the confidentiality of its information
- **Employees have the right level of access to execute their jobs effectively**
- **Less likelihood of errors being made in critical services**
- **Audit use of services and to trace the abuse of services**
- **Easily to revoke access rights when needed – an important security consideration**
- **May be needed for regulatory compliance (e.g. SOX, HIPAA, COBIT).**

Access Management — Roles

- Not usually dedicated staff
- Access management is an execution of Availability Management and Information Security Management
- Service Desk staff
- Technical Management staff
- Application Management staff
- IT Operations staff

Request Fulfillment

Request Fulfillment

The term 'Service Request' is used as a generic description for many varying types of demands that are placed upon the IT Department by the users.

Many of these are actually small changes – low risk, frequently occurring, low cost, etc.
- a request to change a password
- a request to install an additional software application onto a particular workstation
- a request to relocate some items of desktop equipment
- a question requesting information

Purpose/Goals/Objectives

Request Fulfillment is the processes of dealing with Service Requests from the users.

The objectives of the Request Fulfillment process include:
- To provide a channel for users to request and receive standard services for which a pre-defined approval and qualification process exists

- To provide information to users and customers about the availability of services and the procedure for obtaining them

- To source and deliver the components of requested standard services (e.g. licenses and software media)

- To assist with general information, complaints or comments.

Scope

The process needed to fulfill a request will vary depending upon exactly what is being requested – but can usually be broken down into a set of activities that have to be performed.

Some organizations will be comfortable to let the Service Requests be handled through their Incident Management processes (and tools) – with Service Requests being handled as a particular type of 'incident' (using a high-level categorization system to identify those 'incidents' that are in fact Service Requests).

Policies, principles and basic concepts

- **Service Request**
  - A request from a User for information or advice, or for a Standard Change, For example
    - To reset a password, or to provide standard IT Services for a new User.

- **Request Model**
  - Some Service Requests will occur frequently and will require handling in a consistent manner in order to meet agreed service levels.
  - Typically include some form of pre-approval by Change Management

- **Self-Help**
  - Where users can seek and obtain assistance which will enable them to resolve their own difficulties.
  - Should include the capability for users to log incidents themselves
  - Can include FAQs, How-tos, Password Changes, Software fix downloads, Software repairs

Interface to other processes

- **Service Desk/Incident Management**:
  - may be initially handled through the Incident Management process.
  - Some organizations may choose that all requests are handled via this route – but others may choose to have a separate process

- **Release, Asset and Configuration Management**
  - some requests will be for the deployment of new or upgraded components that can be automatically deployed. In such cases the 'release' can be pre-defined, built and tested but only deployed upon request by those who want the 'release'.
  - Upon deployment, the CMS will have to be updated to reflect the change. Where appropriate, software license checks/updates will also be necessary

Value to business

- **Provide quick and effective access to standard services**
- **Effectively reduces the bureaucracy involved in requesting and receiving access to existing or new services, thus also reducing the cost of providing these services.**
- **Increases the level of control over these services.**

Request Fulfillment – Roles

- **Not usually dedicated staff**
- **Service Desk staff**
- **Incident Management staff**
- **Service Operations teams**

Operations Management

Operational Activities – Other Processes

There are operational activities in other processes, as follows:
- Change Management
- Configuration Management
- Release Management
- Capacity Management
- Availability Management
- Knowledge Management
- Financial Management
- IT Service Continuity Management

Service Operation Functions

Service Operation functions

Service Desk	**IT Operations Management**	

Operations Control
- Console Mgmt
- Job Scheduling
- Backup & Restore
- Print & Output

Technical Management

Application Management

Facilities Management
- Data Centers
- Recovery Sites
- Consolidation
- Contracts

- Mainframe
- Server
- Network
- Storage
- Database
- Directory Services
- Desktop
- Middleware
- Internet/Web

- Financial Apps
- HR Apps
- Business Apps
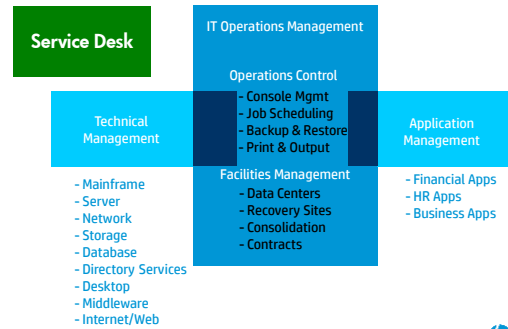
Service Desk

- Primary point of contact
- Deals with all user issues (incidents, requests, standard changes)
- Coordinates actions across the IT organization to meet user requirements
- Different options (Local, Centralized, Virtual, Follow-the-Sun, specialized groups)
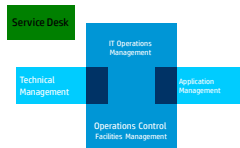
Service Desk

IT Operations Management

Technical Management

Application Management

Operations Control
Facilities Management

Local Service Desk

User — User — User — User

Service Desk

Technical Management | Application Management | IT Operations Management | 3rd Party Support | Request Fulfilment

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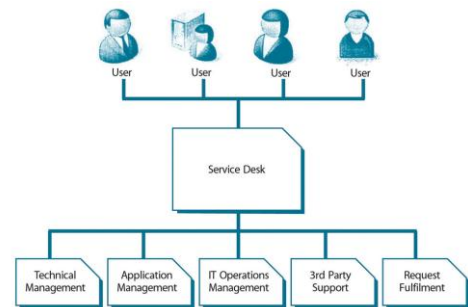
Centralized Service Desk
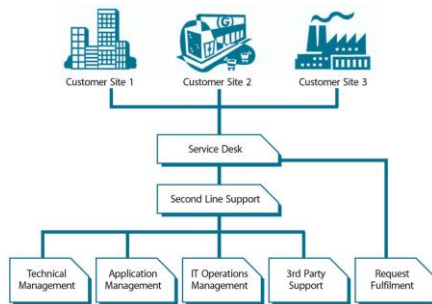
Customer Site 1 | Customer Site 2 | Customer Site 3

Service Desk

Second Line Support

Technical Management | Application Management | IT Operations Management | 3rd Party Support | Request Fulfilment

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Virtual Service Desk

Virtual Service Desk

Paris Service Desk
San Francisco Service Desk
Rio de Janeiro Service Desk
Beijing Service Desk
London Service Desk
Sydney Service Desk
Service Knowledge Management System
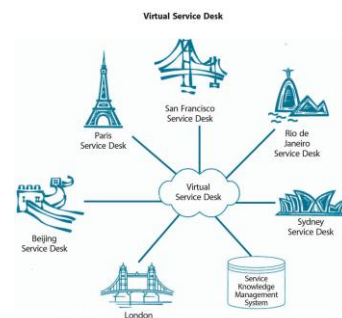
Virtual Service Desk

Service Desk Structures

Selecting the correct structure:
- Local Service Desk
- Central Service Desk
- Virtual Service Desk
  - Follow The Sun

Common Tools of a Service Desk

- A central log of all incidents, numbered and time stamped
- Known Error Database
- Configuration Management tools
- Diagnostic scripts and Incident Models
- An impact coding system
- Automatic and well defined escalation procedures
- Change schedule
- Access to SLAs and OLAs

Service Desk — Objectives

- Logging and categorizing Incidents, Service Requests and some categories of change
- First line investigation and diagnosis
- Escalation
- Communication with Users and IT Staff
- Closing incidents, service requests etc
- Customer satisfaction
- Update the CMS if so agreed

Service Desk — Staffing

- **Correct number and qualifications at any given time, considering:**
  - Customer expectations and business requirements
  - Number of users to support, their language and skills
  - Coverage period, out-of-hours, time zones/locations, travel time
  - Processes and procedures in place

- **Minimum qualifications**
  - Interpersonal skills
  - Business understanding
  - IT understanding
  - Skill sets
    - Customer and technical emphasis

Service Desk — Metrics

- Periodic evaluations of health, maturity, efficiency, effectiveness and any opportunity to improve
- Realistic and carefully chosen – total number of incidents is not itself good or bad
- Some examples:
  - First-line resolution rate
  - Percentage of incidents handled within agreed response time
  - Average cost per incident
 - Percentage of incidents resolved remotely

Technical Management

The groups, departments or teams that provide technical expertise and overall management of the IT Infrastructure
- Custodians of technical knowledge and expertise related to managing the IT Infrastructure
- Provide the actual resources to support the IT Service Management Lifecycle
- Perform many system management activities
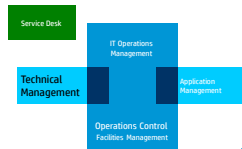- Execute most ITSM processes
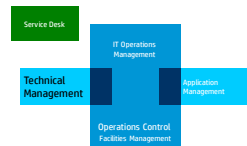
Technical Management organization

Technical teams are usually aligned to the technology they manage
Can include operational activities
Examples
• Mainframe management
• Server Management
• Internet/Web Management
• Network Management
• Database Administration

Technical Management — Objectives

Design of resilient, cost-effective infrastructure configuration
Maintenance of the infrastructure
Support during technical failures

Technical Management — Roles

Technical Managers
Team Leaders
Technical Analysts/Architects
Technical Operator

IT Operations Management

The department, group or team of people responsible for performing the organization's day-to-day operational activities, such as:
• Console Management
• Job Scheduling
• Backup and Restore
• Print and Output management
• Performance of maintenance activities
• Facilities Management
• Operations Bridge
• Network Operations Center
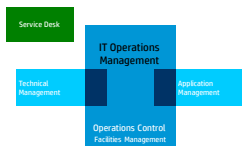• Monitoring the infrastructure, applications and services
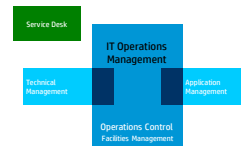
IT Operations Management — Objectives

• Maintaining the "status quo" to achieve infrastructure stability
• Identify opportunities to improve operational performance and save costs
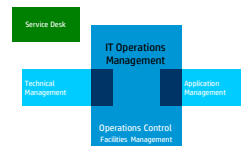• Initial diagnosis and resolution of operational Incidents

IT Operations Management — Roles

• IT Operations Manager
• Shift Leaders
• IT Operations Analysts
• IT Operators
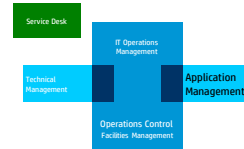
Application Management

- Manages Applications throughout their Lifecycle
- Performed by any department, group or team managing and supporting operational Applications
- Role in the design, testing and improvement of Applications that form part of IT Services
- Involved in development projects, but not usually the same as the Application Development teams
- Custodian of expertise for Applications
- Provides resources throughout the lifecycle
- Guidance to IT Operations Management

Application Management — Objectives

- Well designed, resilient, cost effective applications
- Ensuring availability of functionality
- Maintain operational applications
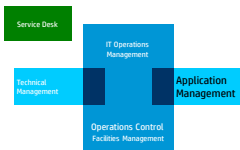- Support during application failures

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Application Management — Roles

- Application Manager/Team leaders
- Application Analyst/Architect

   Note: Application Management teams are usually aligned to the applications they manage

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Service Desk Responsibilities

Which of the following activities is a responsibility of the Service Desk?
   a. Assessing the impact of changes
   b. Tracing the underlying causes of incidents
   c. Recording solutions to the problems which cause incidents
   d. Restoring the service to Users as quickly as possible

Incident Management

Which of the following roles does not form part of the Incident Management process?
   a. Incident Manager
   b. Super User
   c. Request Fulfillment
   d. Third-party suppliers

Incident Management

Incident Management has a value to business by?
   a. Helping to control infrastructure cost of adding new technology
   b. Enabling users to resolve problems
   c. Helping to align people and process for the delivery of service
   d. Contributing to reduction of impact

Service Desk

Which of the following BEST describes a Local Service Desk structure?

a. Service Desk that also provides onsite technical support to its users
b. A Service Desk where analysts only speak one language
c. A Service Desk that is situated in the same location as the users it serves
d. A Service Desk that could be in any physical location but uses telecommunications and IT systems to make it appear that they are in the same location