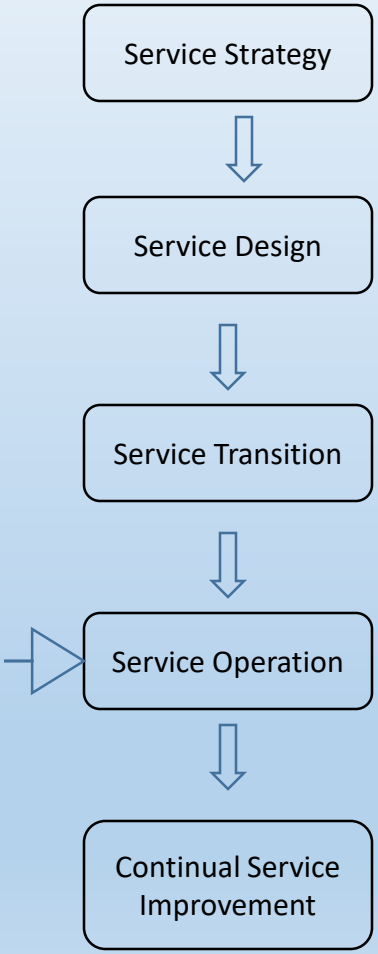
L8 & 9 F&P of Service Operation



- Event & Incident Management
  - Objectives
  - Processes involved
- Request Fulfillment
  - Steps involved
- Problem Management
  - Processes involved
  - Interactions with others
- Access Management
  - Activities involved
- IT Operations & Service Desk
  - Purposes
  - Activities

- Learning outcome:

Student will be able to :

- Describe the 5 key activities within service operations processes:
  - Event management
  - Incident management
  - Problem management
  - Request fulfilment
  - Access management
- Describe different types of service desks

*Objectives :

- Service Operation is about fulfilling all activities required to provide and support services at the agreed service levels. These include:
  - The services
  - The service management processes
  - The technology
  - The people

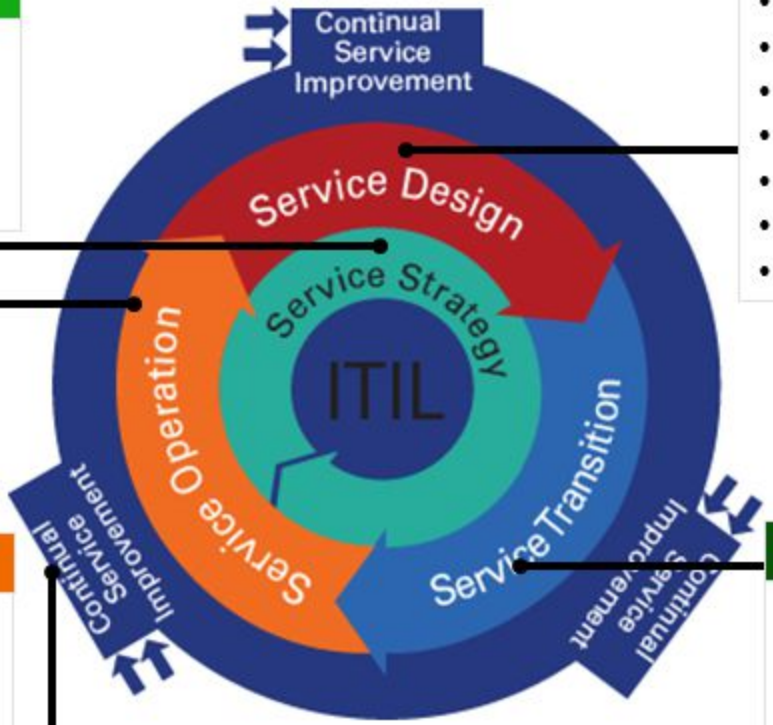
ITIL processes

SERVICE STRATEGY

- Financial Management
- Return on Investment
- Service Portfolio Mgmnt
- Demand Management

SERVICE DESIGN

- Service Catalogue Management
- Service Level Management
- Capacity Management
- Availability Management
- IT Service Continuity Management
- Information Security Management
- Supplier Management



SERVICE OPERATION

- Event Management
- Incident Management
- Request Fulfilment
- Problem Management
- Access Management

CONTINUAL SERVICE IMPROVEMENT

- 7-Step Improvement Process

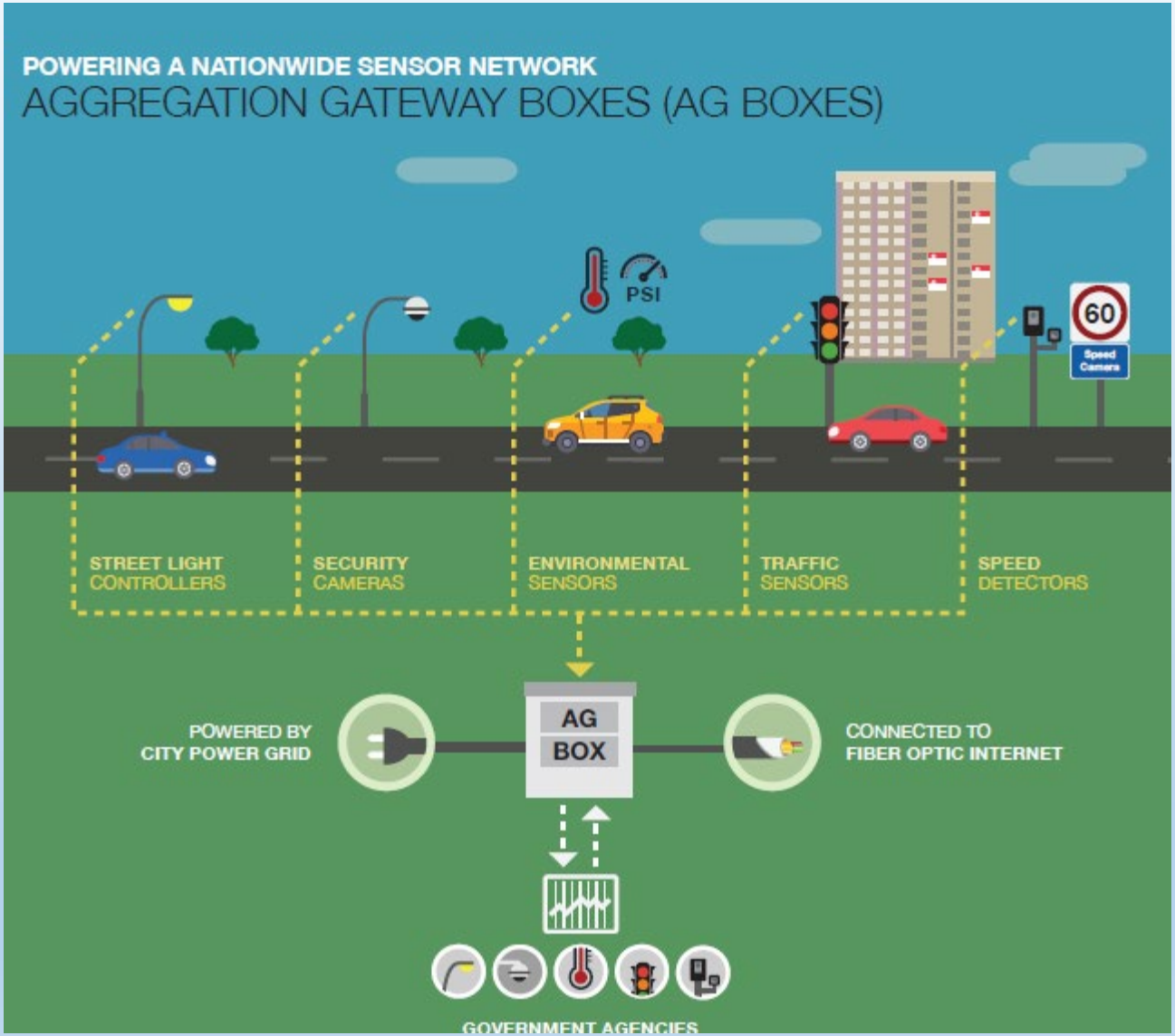
SERVICE TRANSITION

- Transition Planning and Support
- Change Management
- Service Asset & Configuration Management
- Release & Deployment Management
- Service Validation
- Evaluation
- Knowledge Management

ca technologies

*Event Management

- An **event** can be defined as any detectable or discernible occurrence that has significance for the management of the IT infrastructure or the delivery of IT service.


POWERING A NATIONWIDE SENSOR NETWORK
AGGREGATION GATEWAY BOXES (AG BOXES)
PSI
60
Speed Camera
STREET LIGHT CONTROLLERS
SECURITY CAMERAS
ENVIRONMENTAL SENSORS
TRAFFIC SENSORS
SPEED DETECTORS
POWERED BY CITY POWER GRID
AG BOX
CONNECTED TO FIBER OPTIC INTERNET
GOVERNMENT AGENCIES

*Objective

- The **objective** of event management is to detect events, analyze them and determine the right management action
- It provides the entry point for the execution of many service Operation processes and activities

*Basic concept

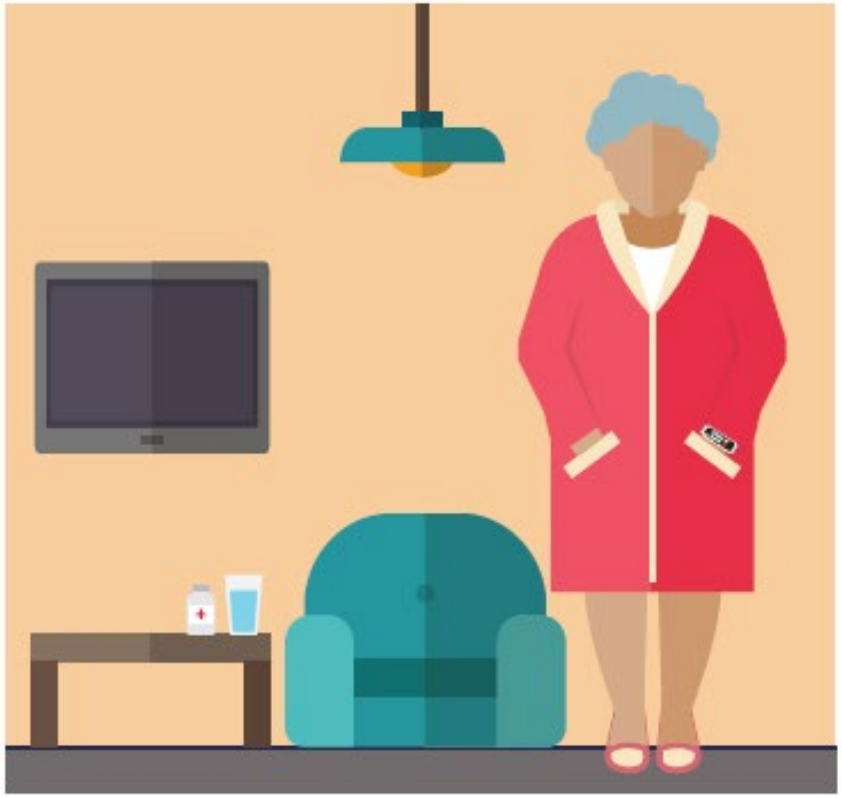
- There are many different event types such as:
  - Events that indicate a normal operation, such as user logging on to use an application
  - Events that indicate and exception, such as a user who is trying to log on to an application with an incorrect password or a PC scan that reveals the installation of unauthorized software
  - Events that signify an unusual but not exceptional operation; it may provide an indication that the situation requires a little more supervision

*Activities, method and techniques

- The main activities of the event management process are:
  - An event occurs
  - Event reporting
  - Event detection
  - Event filtering
  - The significance of events
  - Event correlation
  - Trigger
  - Response options
  - Reviewing actions
  - Closing the event

DELIVERING SENSOR-ENABLED HEALTHCARE

SMART HEALTH-ASSIST



WEARABLE SENSORS

Wearable devices with sensors monitor important vitals such as:

- Heart rate
- Blood pressure
- Body mass content
- Blood-oxygen level
- Glucose level

INTELLIGENT MEDICATION

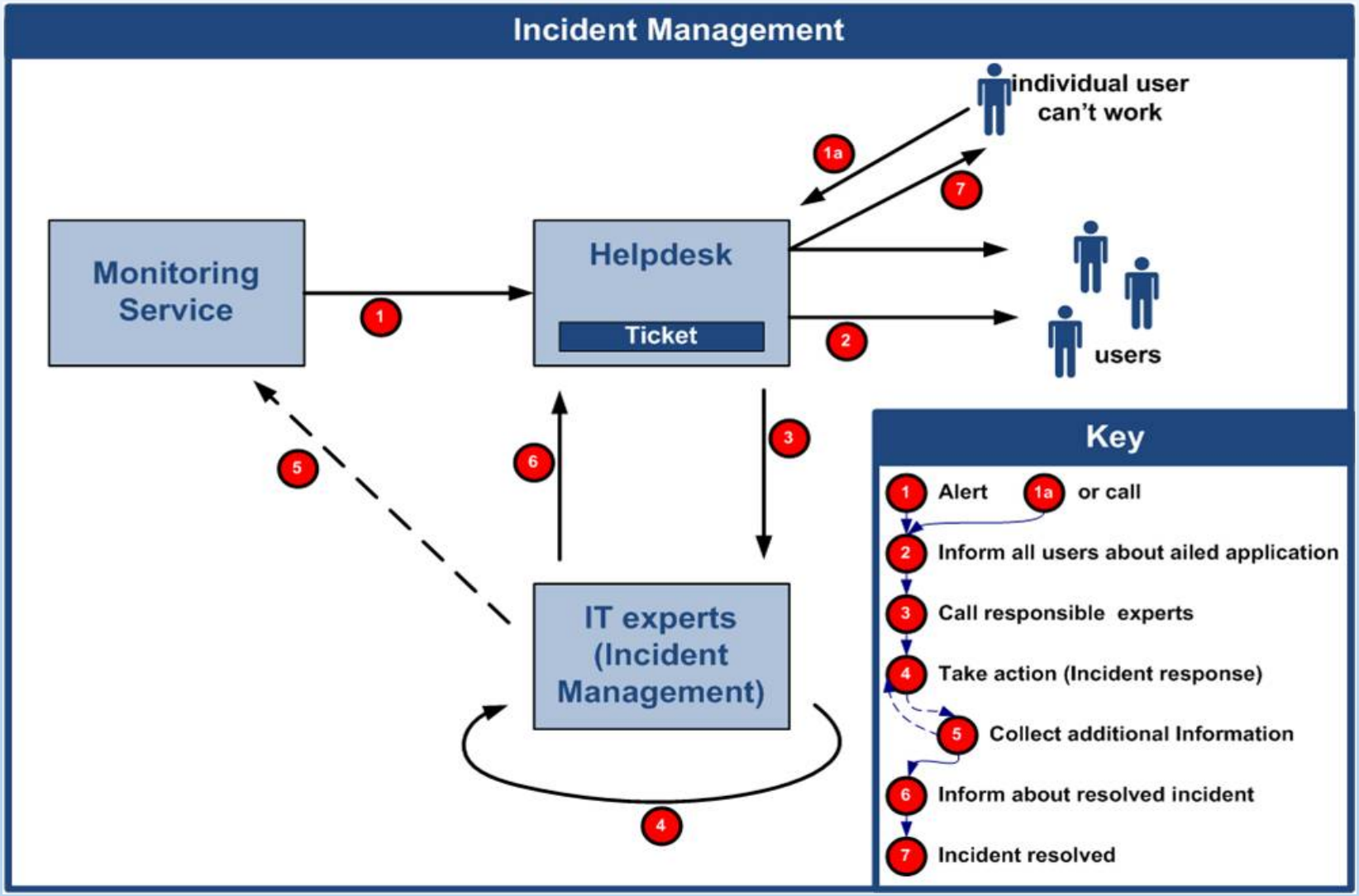
Nano-sized sensors in pills can remind patients to take their medication, or keep their caregivers up-to-date on their patient's treatment progress.

HOME-INTEGRATED SENSORS

Wirelessly connected sensors built into rugs or the floor can measure weight and gait of the patient as she moves around the house.

*Incident management

- An **Incident** is an unplanned interruption to an IT service or reduction in the quality of an IT service. Failure of a CI that has not yet affected service is also an incident
- The main objective of the incident management process is to resume the regular state of affairs as quickly as possible and minimize the impact on business processes


Incident Management
individual user
can't work
1a
7
Monitoring
Service
1
Helpdesk
Ticket
2
users
5
6
3
IT experts
(Incident
Management)
4
Key
1 Alert
1a or call
2 Inform all users about ailed application
3 Call responsible experts
4 Take action (Incident response)
5 Collect additional Information
6 Inform about resolved incident
7 Incident resolved

*Basic concept

- The following elements should be taken into account in incident management:
  - **Time Limits** – agree on time limits for all phases and use them as targets in operational level Agreements (OLAs) and underpinning Contracts (UCs)
  - **Incident models** – an incident model is a way to determine the steps that are necessary to execute a process correctly (in the case, the processing of certain incident types); it means that standard incident will be handled correctly and within the agreed time frame
  - **Major incident** – a separate procedure is required for major incident, with shorter timeframes and higher urgency; agree what a major incident is and map the entire incident priority system

*Activities, methods and techniques

- The incident management process consist of the following steps:
  - Identification
  - Registration
  - Classification
  - Prioritization
  - Diagnosis
  - Escalation
  - Investigation and diagnosis
  - Resolution and recovery
  - Closing

*Request Fulfillment

- A **service request** is a request from user for information, advice, a standard change, or access to a service

*Objectives

- To offer user a channel through which they can request and receive service;
- To provide users and customers with information about the availability of services and the procedure for obtaining these services
- To supply the components of standard services (for instance, licenses and software media)
- To assist with general information, complaints or comments

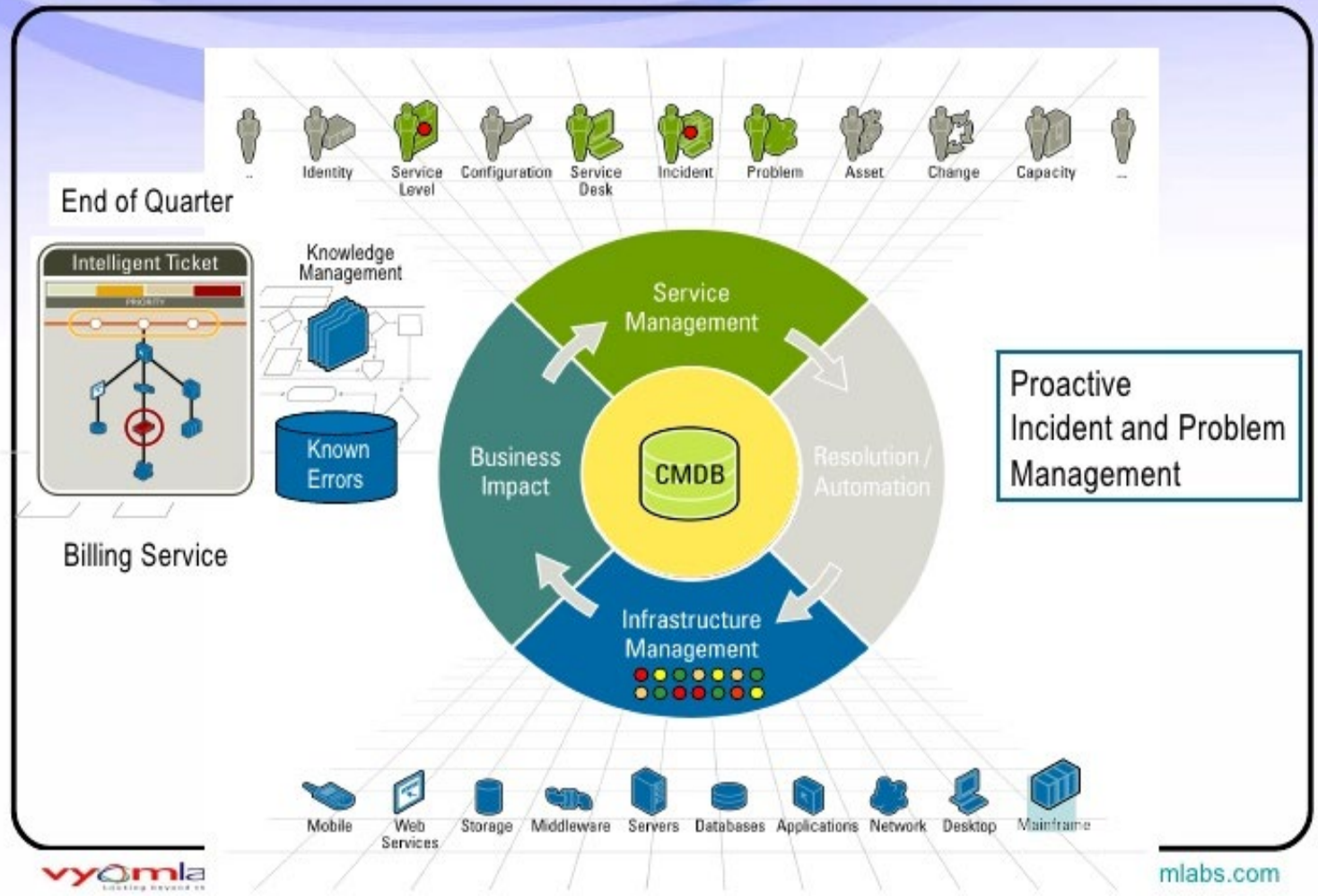
*Activities

- Request fulfillment consist of the following activities :
  - **Menu selection**
    - By means of request fulfillment, users can submit their own service request via a link to service management tools; in the ideal situation the user will be offered a menu via a web interface, so that they can select and enter the details of a service request

Activities

- **Financial approval**
  - Most service requests have financial implications; the cost for handling a request must first be determined; it is possible to agree fixed prices for standard requests and give instant authorization for these requests; in all other cases the cost must first be estimated, after which the user must give permission

Proactive Incident and Problem Management



*Problem management

- A **problem** is the cause of one or more incident
- The primary objective of problem management is to prevent problems and incidents, eliminate repeating incidents and minimize the impact of incidents that cannot be prevent

*Basic concept

- A **known error** is a problem that has a documented root cause and a workaround

- **Workaround**: reducing or eliminating the impact of an incident or problem for which a full resolution is not yet available

*Reactive Problem management

- Reactive problem management consist of the following activities:
  - Identification
  - Registration
  - Classification
  - Prioritization
  - Investigation and diagnosis
  - Decide on workarounds

Reactive Problem management

- Reactive problem management consist of the following activities:
  - Identification of known errors
  - Resolution
  - Conclusion
  - Review
  - Correction of errors found

*Access Management

- Access management grants authorized users the right to use a service, but denies unauthorized user access. Some Organizations also call it “rights management “ or “identity management”

*Activities

- It consists of the following activities:
  - **Verification**
    - access management must verify every access request for an IT service from two perspectives:
      - Is the user requesting access truly the person he says he is?
      - Does the user have a legitimate reason to use the service?

*Activities

- It consists of the following activities:
  - **Granting rights**
    - access management does not decide who get access to what IT service; it only executes the policy and rules defined by the service strategy and service design
  - **Monitoring identity status**
    - User roles may vary over time, with an impact on their service needs; examples of what may change a role are: job changes, promotion, dismissal, retirement or death

Activities

- It consists of the following activities:
  - **Registering and monitoring access**
    - Access management does not only respond to requests; it must also ensure that the rights it has granted are used correctly
  - **Revoking or limiting rights**
    - In addition to granting rights to use a service, access management is also responsible for withdrawing those rights; but it cannot make the actual decision

*IT Operations

- To deliver the services as agreed with the customer, the service provider will first have to manage the technical infrastructure that is used to deliver the services

*Operations bridge

- The operations bridge is a central point of coordination that manages various events and routine operational activities , and reports on the status or performance of technological components

Job scheduling

- IT operations executes standard routines, queries or reports that technical and application management teams have handed over as part of the service or of routine daily maintenance task

Backup and Restore

- An organization must protect its data, which includes **backup** and storage of data in reserved locations where it is protected and if necessary, accessible
- A restore may be necessary in case of:
  - Corrupt data
  - Lost data
  - A calamity plan/ IT service continuity situation
  - Historical data required for forensic investigation

Print and output

- Many service provide their information in **print** or electronic form (**output**). The service provider must ensure that the information ends up in the right places, correctly and in the right form
- Laws and regulations may play an important part in print and output. Archiving important or sensitive data is particularly

*Service desk

- Service desk is **functional** unit with associates involved in differing service events. These service events come in by phone, internet or infrastructure, events which are reported automatically

*Service desk Objective

- The primary purpose of the service desk is to resume “ normal service” to the user as soon as possible
- This may be resolving a technical error, but also filling a service request or answering a question

*Organization structure

- There are many ways to organize a service desk. The most important options are:
  - Local service desk
  - Centralized service desk
  - Virtual service desk
  - 24-hour service
  - Specialized service desk group

*Local service desk

- Local service desk is located at or physically close to the users it is supporting
- Communication are often much smoother and the visible presence is attractive for some user
- Local service desk is expensive and may be inefficient if the amount of service events does not really justify a service desk

*Centralized service desk

- The number of service desks can be reduced by installing them at one single location
- Less expensive and more efficient, because fewer associates can deal with the service events (call), while the level of knowledge of the service desk is bound to increase

*Virtual service desk

- By using technology ,specifically the internet, and the use of support tools, it is possible to create the impression of a centralized service desk
- Whereas the associates are in fact spread out over a number of geographic or structural location

*24/7 services :

- Some international organization like to combine two or more geographically spread out service desks in order to offer a 24/7 service

Specialized Service desk group :

- Incident relating to a specific IT service are routed straight to the specialized group
- In this way ,incident can be resolved more promptly

Functions and processes of Service Operations
(Review Questions)

Q1 What is an event? Give an example.

Q2 What is the scope of service operations?

Q3 What is the main objective of incident management process?

Q4 What does a service request normally consist of?

Q5 What is a workaround?

Q6 What are the 5 objectives of the request fulfillment function?

Revision MCQ

1 The purpose of an incident model is to _____.

a) classify incidents

b) describe the key steps of handling incidents

c) assess the importance of incidents

d) define the functions of IT support staff

2 Incidents can be assessed according to the following factors :

1) number of users affected
2) urgency of the IT services
3) impacts on service standards committed to customers
4) values of the IT infrastructure

a) all of the above

b) 1 only

c) 1& 2

d) 1,2, & 3