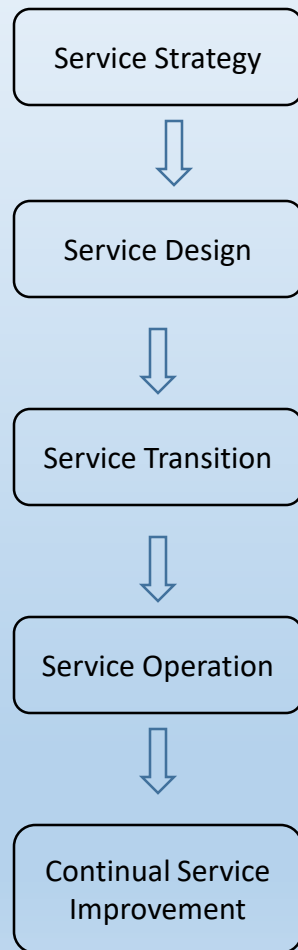


IT2768 IT Services & Management

- **L1 ITSM – Overview**



ITSM - Overview



Introduction to service management

- Benefits
- ITIL

Key Concepts :

- Service Value
- Service standards
- Process

Overview of service life-cycle

- Service Strategy
- Service Design
- Service Operation
- Service Transition
- Continual Service Improvement

Learning outcome:

Student will be able to :

- Describe what IT service management (ITSM) is
- Describe benefits of ITSM
- Describe what **ITIL** is
- Describe the concept of service & **service value**
- Describe the concept of service targets and process
- Describe the aims of five **phases** of service lifecycle :
 - Service strategy
 - Service design
 - Service operations
 - Service transition
 - Continual service improvement



Do you remember ?

Third service disruption on SMRT this week caused by signal fault

By [Nurul Azlia Aripin](#) | Yahoo Newsroom – Wed, Feb 26, 2014

[UPDATED 27 Feb, 1pm: Details of latest service disruption on Thursday]

A signal fault on SMRT's Circle Line on Thursday morning caused another service disruption – the third this week alone.

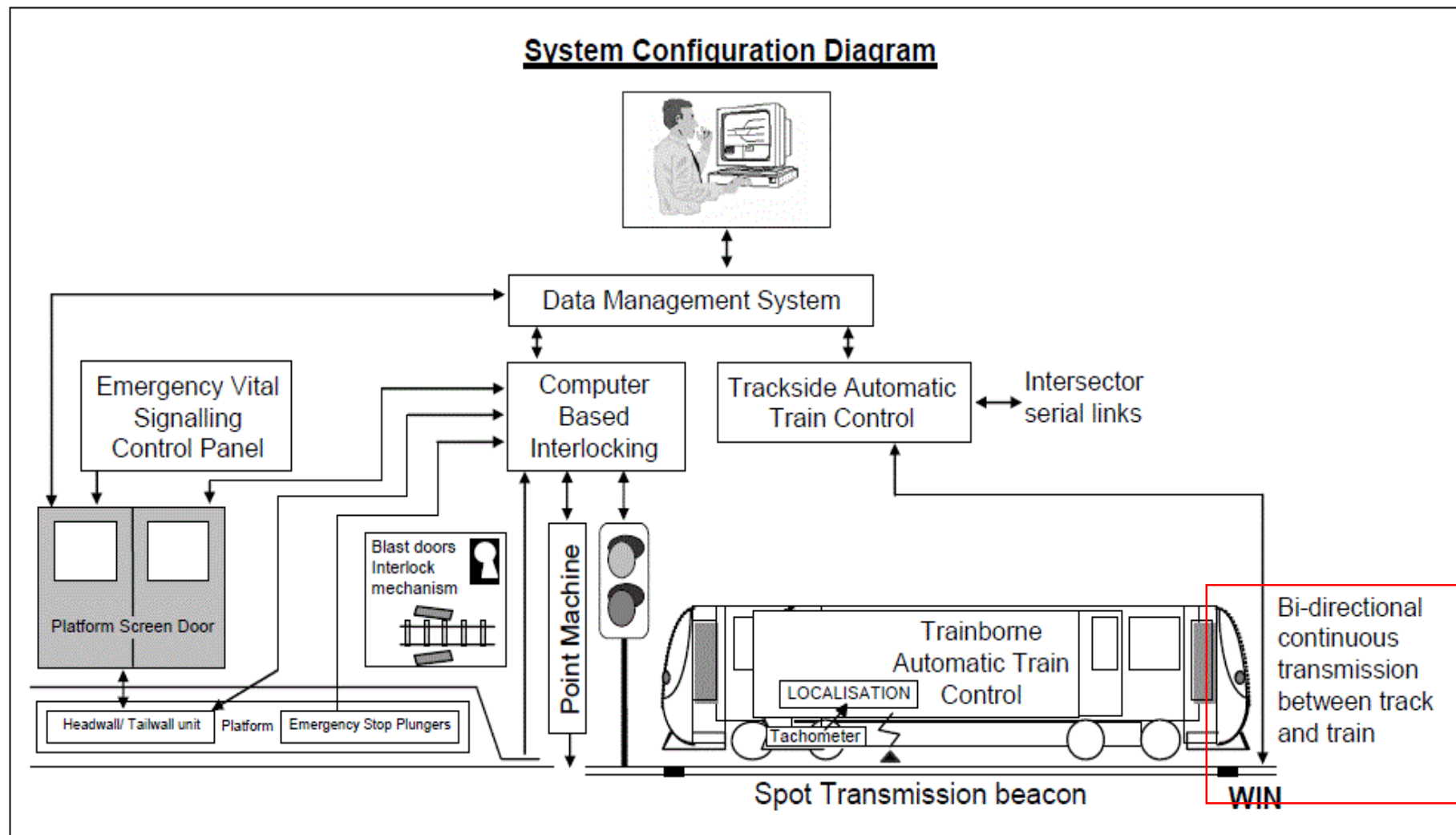
SMRT tweeted at 736am that a signal fault would cause an additional delay of 20 minutes travelling time from Paya Lebar to Dhoby Ghaut.

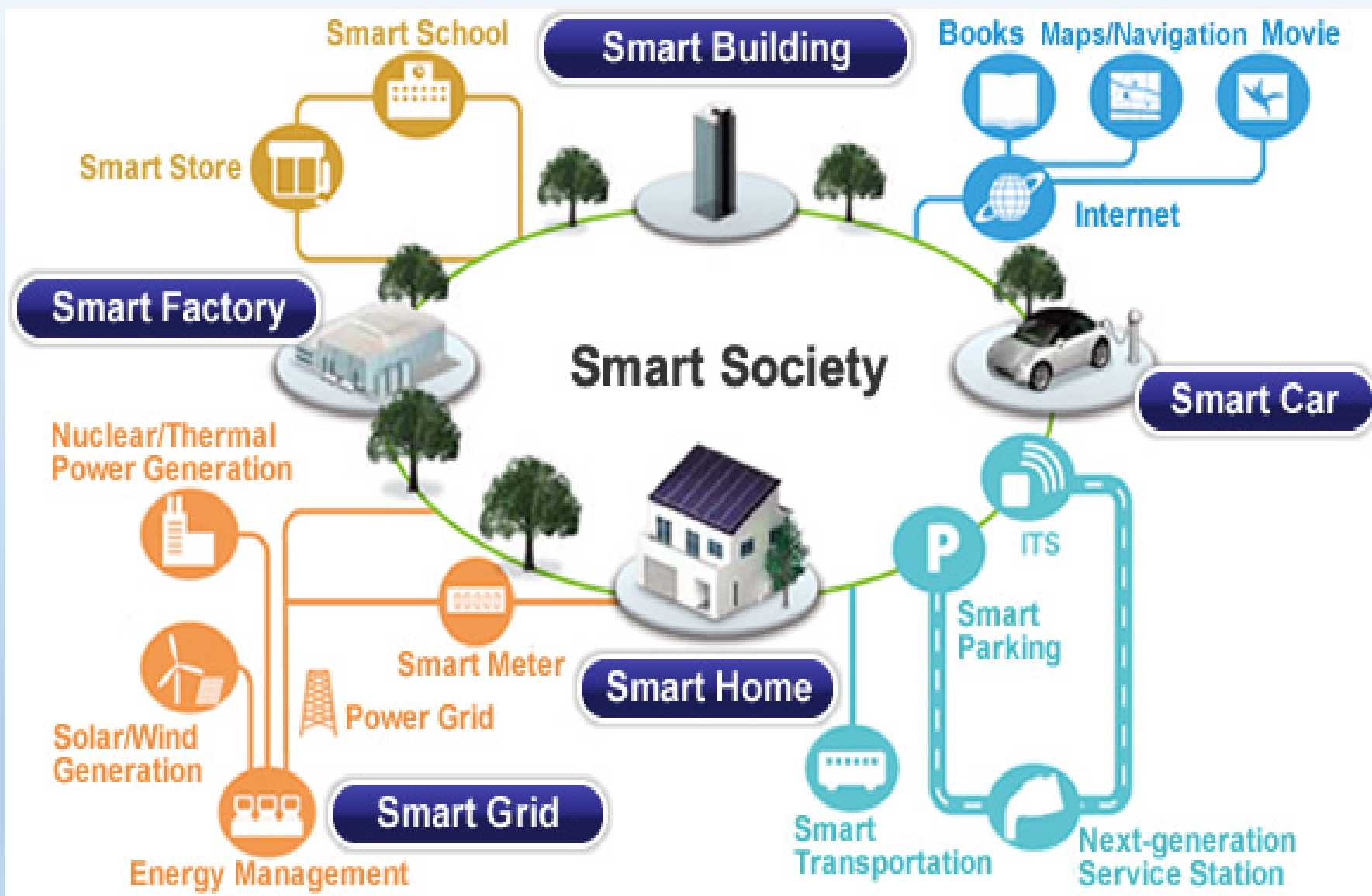
At 853am, it tweeted that train services between the two stations were operating normally again.

On Wednesday, an SMRT spokesman said that the upgrading programme to update the signalling system across the entire SMRT network would take up to two years, and warned commuters that delays would continue in the meantime. She said it would eventually "address many of the signalling-related incidents we are facing today"

Complex System Configuration

System Configuration Diagram







Weaving factory



Apparel distribution center



Retailer



Reference:
Product code
Color
Size etc.

Reading via RFID tag reader



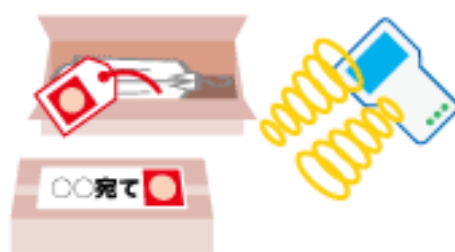
RFID tags

Shipping inspection



Reference:
Product code
Color
Size etc.

Reading via RFID tag reader



Inspections of incoming/
outgoing shipments, stocktaking



Reference:
Product code
Color
Size
Cloth
Materials etc.

Reading via RFID tag reader



Inspections of incoming
shipments, stocktaking



*What is IT Service Management?

IT Service Management (ITSM) is a set of **specialized organizational capabilities** used by a Service Provider.

It includes:

- Best Practices in terms of **processes**
- Roles and responsibilities** of stakeholders
- Connections between **business values** and IT support activities
- Techniques used to support IT processes



Benefits of ITSM

- Benefits to the customer/user
 - Improved management of service quality and costing
 - Better communication between stakeholders
 - Better alignment of services with corporate objectives
 - Better control of service provision to support changes
 - Better process structure to support outsourcing of IT service elements
 - Many challenging job opportunities would need the skills of ITSM under the Smart Nation vision.
 - See <https://www.smartnation.sg/about-smart-nation/enablers> for details

Service Lifecycle





*What is ITIL?

- ITIL is a public framework that describes Best Practices in IT service management
- It is a **framework** for
 - the IT governance
 - the continual service improvement
 - the improvement of IT service quality
 - the creation of service values.

ITIL processes

SERVICE OPERATION

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

SERVICE STRATEGY

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

SERVICE TRANSITION

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

SERVICE DESIGN

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



*Basic Concepts

- **Services** is to deliver **values** to customer by facilitating outcomes customers want without the ownership of specific costs and risks.

Eg internet access service.

I want to access the internet but I do not want to own a telephone network and do not want to take the risk of running a telephone network

Service Targets are the measures used to assessment the performances of a service . (Important to customers)

Possible Service Targets for **internet access service** could be :

- The **Down time** of the internet service must be less than 10 minutes/day

The **Availability** of the internet service must be higher than 99.5 percent of the time.



*Basic Concept

- To achieve **the service targets** committed to customer, a set of processes are needed by service provider
- **Process** is a **structured set of activities** designed to accomplish a defined **objective**.

Eg : A process for handling service requests by IT helpdesk staff.

Handling of user requests may include activities:

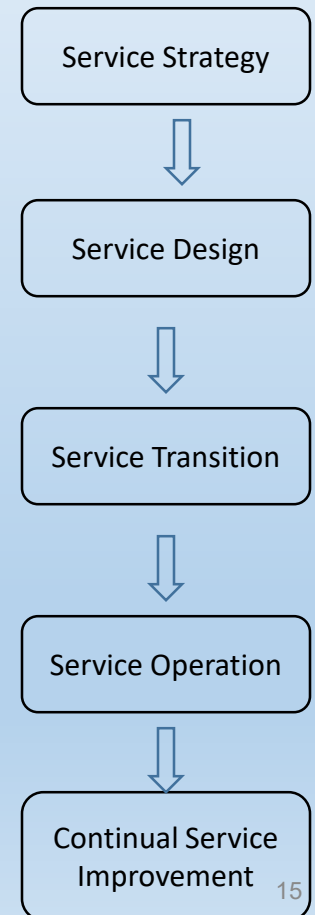
- 1) Duty staff will record details of requests and user contact information in the incident management system (IMS)
- 2) Duty staff will route service request to relevant staff
- 3) Duty staff will inform user of status of request
- 4) Relevant staff will update status of service request in IMS when request is completed.
- 5) Duty staff will inform user when request is closed.

Question : what will be a suitable **objective** for the above?

Ans : To make sure the mean response time of the service request should be less than 30 minutes.

Service Lifecycle

- A set of **processes** are needed for IT support staff to follow in order to meet service standards.
- ITIL consists of 5 books can help to identify processes needed in the following phases of service lifecycle:
 - Service Strategy
 - Service Design
 - Service Transition
 - Service Operation
 - Continual Service Improvement



*Service Strategies

Aims to **identify competitive advantages** of IT service offering by **senior management** of a service provider.

It covers :

- understanding **market demands** and translating business into IT strategy
- identify the best practices based on industry, regulatory environment, firm size, etc.

*Service Design

Aims to **develop IT services** including architecture, processes, policies and documents by **middle management**

It covers :

- Identify the **current and future** business needs
- Decide **IT service and architecture design models**, including outsourcing, in sourcing, co-sourcing, etc.
- For mid level managers to form detail plans in accordance with directions stated in service strategy phase. All key IT services information will be kept in the service portfolio.

*Service Transition

Aims to develop capabilities for handling changes needed for new and modified services into production.

It covers :

- change and release management, service models, and checklists for taking designs into production (analogous to a software development lifecycle but for IT services).
- For operations staff to implement plans identified from service design phase

*Service Operations

Aims to achieve service targets of the IT services in the live environment

It includes :

- day-to-day management issues
- how to react to failures
- how to develop and monitor metrics of quality
- how to manage the processes.
- For operational staff to maintain agreed service standards.

*Continual Service Improvement

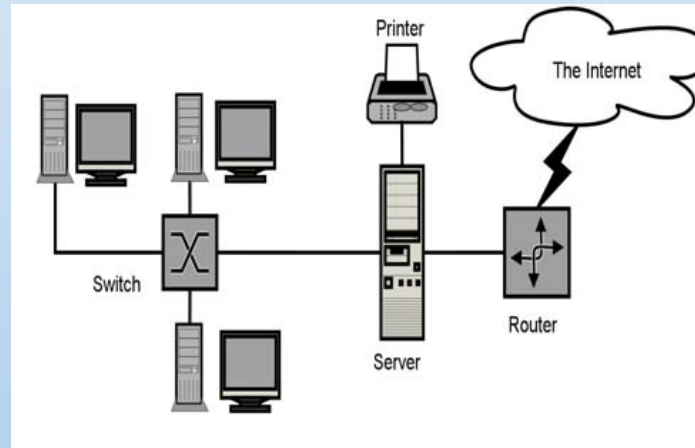
Aims to create and maintain service values for customer by improving design, services and operations.

It covers :

- All activities for operational staff to stay competitive and constantly provide values to customers.
- Without this, the ITIL framework would become useless in a short period. (**Why ?**)

ITSM - Overview (Review Questions)

- Q1 What is IT Service Management? What does it include?
- Q2 Give an example of IT service within NYP and outside NYP.
- Q3 With reference to the following, draw an IT infrastructure diagram used to support the IT services for our Library. Describe the purpose of each component.



- Q4 What is ITIL?
- Q5 Name and describe one IT service in the Smart Nation initiative.

Revision MCQ

1 Which is the correct combination of Service Management terms across the lifecycle?

- | | |
|--------------------------------------|----------------------------------|
| 1. Develop IT service | A. Service Transition |
| 2. Identify competitive advantages | B. Service Strategy |
| 3. Managing changes | C. Service Design |
| 4. Create and maintain service value | D. Continual Service Improvement |

- A. 1A,2B,3C,4D
- B. 1C,2D,3A,4B
- C. 1B,2C,3D,4A
- D. 1C,2B,3A,4D

2 Which of the following does NOT apply to service lifecycle within ITIL V3?

- A. It contains a set of best practices.
- B. It is used to support IT governance.
- C. It focuses in creation of service values to customers.
- D. It is a set of rules for managing service help desk.

Revision MCQ

- 3 ITSM is best describe as _____
- A. a set of specialized organizational capabilities used by a Service Provider
 - B. information technology systems management
 - C. application of information technology systems
 - D. a group of IT support staff
- 4 Which of the following is a suitable service quality target for the SMRT train service?
- A. all train services must be on time
 - B. no train will be found faulty during busy period
 - C. the availability of train service should be equal to 98%
 - D. the average daily service downtime of train services should be below 30 minutes