ITIL applied to Network Operations
ITIL: Information Technology Infrastructure Library

- A set of specifications to help IT manager and FTE achieve good services delivery to their users
  - ITIL provides a comprehensive and consistent set of best practices for IT service management, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems.
  - ITIL is based on the collective experience of commercial and governmental practitioners worldwide. This has been distilled into one reliable, coherent approach, which is fast becoming a de facto standard used by some of the world's leading businesses.

- Initiated in UK in 1990’s
- Used by more and more companies
Network Operations key objectives

- **Availability (Service Level guarantee)**
- **Control**
- **Cost effectiveness**
**ITIL Domains**

- **Service Support**
  - Service Desk
  - Incident Management
  - Problem Management
  - Configuration Management
  - Change Management
  - Release Management

- **Service Delivery**
  - Availability Management
  - Service Level Management
  - Capacity Management
  - IT Service Continuity Management
  - Financial Management for IT services

- **Security**
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• Service Desk
  - The Service Desk provides a vital day-to-day contact point between Customers, Users, IT services and third-party support organisations. Service Level Management is a prime business enabler for this function. At an operational level, its objective is to provide a single point of contact to provide advice, guidance and the rapid restoration of normal services to its Customers and Users.

• Incident Management
  - The primary goal of the Incident Management process is to restore normal service operation as quickly as possible and minimise the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained. ‘Normal service operation’ is defined here as service operation within Service Level Agreement (SLA) limits.

• Problem Management
  - The goal of Problem Management is to minimise the adverse impact of Incidents and Problems on the business that are caused by errors within the IT Infrastructure, and to prevent recurrence of Incidents related to these errors. In order to achieve this goal, Problem Management seeks to get to the root cause of Incidents and then initiate actions to improve or correct the situation.

The Problem Management process has both reactive and proactive aspects. The reactive aspect is concerned with solving Problems in response to one or more Incidents. Proactive Problem Management is concerned with identifying and solving Problems and Known errors before Incidents occur in the first place.
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• **Configuration Management**
  - The goals of Configuration Management are to:
    - account for all the IT assets and configurations within the organisation and its services.
    - provide accurate information on configurations and their documentation to support all the other Service Management processes.
    - provide a sound basis for Incident Management, Problem Management, Change Management and Release Management.
    - verify the configuration records against the infrastructure and correct any exceptions.

• **Change Management**
  - The goal of the Change management process is to ensure that standardised methods and procedures are used for efficient and prompt handling of all Changes, in order to minimise the impact of Change-related Incidents upon service quality, and consequently to improve the day-to-day operations of the organisation.
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- **Release Management**
  
  - The goals of Release Management are:
    - to plan and oversee the successful rollout of software and related hardware
    - to design and implement efficient procedures for the distribution and installation of Changes to IT systems
    - to ensure that hardware and software being changed is traceable, secure and that only correct, authorised and tested versions are installed
    - to communicate and manage expectations of the Customer during the planning and rollout of new Releases
    - to agree the exact content and rollout plan for the Release, through liaison with Change management
    - to implement new software Releases or hardware into the operational environment using the controlling processes of Configuration management and Change Management – a Release should be under Change Management and may consist of any combination of hardware, software, firmware and document C
    - to ensure that master copies of all software are secured in the Definitive software library (DSL) and that the Configuration management database (CMDB) is updated
    - to ensure that all hardware being rolled out or changed is secure and traceable, using the services of Configuration Management.
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- **Availability Management**
  - The goal of the Availability Management process is to optimise the capability of the IT Infrastructure, services and supporting organisation to deliver a cost effective and sustained level of **Availability** that enables the business to satisfy its business objectives.

  **Availability** Management should ensure the required level of Availability is provided. The measurement and monitoring of IT Availability is a key activity to ensure Availability levels are being met consistently. Availability Management should look continuously to optimise the Availability of the IT Infrastructure, services and supporting organisation, in order to provide cost effective Availability improvements that can deliver evidenced business and User benefits.

- **Security**
  - Security is a global subject, applying to every aspects of Network Operations.
  
  - The goal of Security Management is to ensure by specific configurations or actions, the usage and the operation of the Network will be limited to people (group of people / communities) explicitly known and measures will prevent other people to have access.
THE END

Thank you for your attention