

# 20240530 - BPF 2024 / ThaiNOG Day - Network Monitoring & Management Tutorial - Course Overview

## Synopsis

Monitoring and managing networks provide visibility, telemetry, and logging to help manage network components, allocate resources and maximise their efficiency, and monitor critical services for unusual behaviour. The objective of this tutorial is to introduce Network Management and Monitoring concepts, techniques, tools, and best practices that can help participants effectively implement solutions catered for their requirements.

## Target Audience

This course is targeted to network managers and operators who are interested in Network Management and Monitoring and want to gain an understanding of how to utilise various tools to improve network telemetry.

## Pre-requisites

It is assumed that participants have a basic understanding of:

- network operations, Internet technologies, OSI reference model and TCP/IP
- Basic command line (CLI) skills

We recommend the following Academy courses be completed before the start of the tutorial:

- Routing Fundamentals: <https://academy.apnic.net/en/course/routing-fundamentals-course>
- Linux Virtual Lab: <https://academy.apnic.net/en/virtual-labs?labId=87395>

## Course Outline

- Introduction to NMM
- SNMP and RRDTools
- Log Management and TSDB

## Other Requirements

- Participants are advised to bring their own laptop or desktop computers with high-speed internet access and administrative access to system. It is also recommended that computers have Intel i5 or i7 processor, >=8GB of RAM and 30GB of free hard disk space.
- Software: SSH Client, Telnet Client (PuTTY)
- Confirm Secure SHell (SSH) is allowed from the office or home network to access the lab infrastructure? Test SSH connectivity, try to connect to [routeviews.routeviews.org](https://routeviews.routeviews.org). For example, from the CLI type: `ssh rviews@route-views.routeviews.org`
- Attendees must have an APNIC Academy login account. If you don't have one already, you can create an account for free at <https://academy.apnic.net/>
- Please test the speed of your Internet connection to the servers where the Virtual Machines (VMs) are hosted at the Learn on Demand data centres, using the speed test tool at <https://www.learnondemandsystems.com/speedtest/>