

# Building Cisco Service Provider Next-Generation Networks, Part 1 v1.0

SPNGN1



**Delivery Type:** Classroom

**Duration:** 5 days

## Overview

- ✓ This 5-day course is designed to provide network engineers and technicians with the basic knowledge and skills required to support a service provider network.
- ✓ The course provides knowledge of the major components of a network and helps learners to understand how service provider networks function. The course introduces IP Next-Generation Network (IP NGN) architecture that helps service providers to build modern, scalable, and reliable networks.
- ✓ The course also includes classroom activities with remote labs that are useful to gain practical skills for deploying basic Cisco IOS Software, IOS XE Software, and Cisco IOS XR Software features to operate and support a service provider network.

## Certification

### Recommended preparation for exam(s):

- ✓ 640-875 - Building Cisco Service Provider Next-Generation Networks, Part 1

## Pre-Requisites

### Attendees should meet the following prerequisites:

- ✓ Basic computer literacy
- ✓ Basic Microsoft Windows navigation skills
- ✓ Basic Internet usage skills

## Objectives

### After completing this program, you will be able to:

- ✓ Describe how networks function, and identify major network components, functions of network components, and the OSI reference model
- ✓ Using the host-to-host packet delivery process, describe issues that are related to increasing traffic on an Ethernet LAN and identify switched LAN technology solutions to Ethernet networking issues
- ✓ Describe the reasons for extending the reach of a LAN and the methods that can be used
- ✓ Describe the reasons for connecting networks with routers and how routed networks transmit data by using TCP/IP
- ✓ Describe the function of WANs and the major devices of WANs

- ✓ Configure PPP encapsulation, static and dynamic routing, and NAT
- ✓ Describe different management tools that are used to manage a service provider network

### **Follow on Courses**

**Delegates looking to achieve CCNA SP Certification, will also need attend the following course**

- ✓ SPNGN2 - Building Cisco Service Provider Next-Generation Networks, Part 1

### **Further Information**

Cisco currently offer two associate level certifications aimed specifically atService providers. CCNA SP and CCNA SP OPS. Please enusre you are on your required certification path before starting this course as there are distinct differences between the areas covered.