# **TP-Link Training and Certification**

## TP-Link Network Associate Enterprise Routing and Switching

### **Course Outline**



Version: 1.0





#### Introduction

TPNA Enterprise Routing and Switching, **TPNA(ERS)** for short, is an **entry-level** certification course based on TP-Link Enterprise routers and switches, focusing on foundational concepts and Stand-Alone configuration of wired networking.

This certification course is a two-day or three-day classroom training course, which includes theoretical learning and hands-on lab activities, led by an experienced TP-Link Certified Instructor, allowing students to quickly master the needed knowledge and skills.

At the end of the classroom training, students will take an online certification exam arranged by the TP-Link Certified Instructor or coordinator, and get the **TPNA Enterprise Routing and Switching** certificate by passing the exam at 70% or higher

#### Certificate Sample:



### **Training Outline**

#### **Target Audience**

This course is designed for anyone seeking TPNA Enterprise Routing and Switching certification, including junior network engineers, sales and technicians.



#### **Course Objectives**

After completing the course, participants will

- 1) Know the applications of key functions of TP-Link enterprise-level routers and switches.
- 2) Be able to configure the key functions such as DHCP server, VLAN and ACL on TP-Link enterprise routers or switches in Standalone mode.
- 3) Provide basic support for TP-Link enterprise routers and switches in Standalone mode.

#### **Prerequisites**

No mandatory prerequisites but having basic network fundamentals is recommended.

#### **Course Duration**

- 3 Days (approximately 40% theoretical learning, and 60% hands-on lab activities.)
- \* The specific training duration and schedule are subject to your instructor.

#### **Detailed Training Outline**

Theoretical Learning (accounting for 40% in the exam)

Title	Content
Module 1: Wired Basics	<ul> <li>Structure of OSI Model</li> <li>LAN, WAN</li> <li>Ethernet type</li> <li>MAC Address</li> <li>Twisted Pair &amp; Fiber</li> <li>Power Supply &amp; Fan</li> </ul>
Module 2: Enterprise Switch Introduction	<ul> <li>What is a switch?</li> <li>Main Usage of Switch</li> <li>Installation Layer of Switch</li> <li>Ethernet Port</li> <li>The difference between Unmanaged, Easy Smart, Smart, and Managed Switch</li> <li>What is Optical Module</li> <li>What is Media Converter</li> </ul>
Module 3:  Basic Functions of Enterprise Switch	<ul> <li>PoE</li> <li>802.1Q VLAN, PVID, Tagged/Untagged</li> <li>static LAN, LACP</li> <li>STP</li> <li>Switch ACL</li> <li>Port security</li> </ul>



Module 4: Advanced Functions of Switch	<ul> <li>DHCP Snooping &amp; Filter</li> <li>IGMP Snooping</li> <li>Layer 3 Interface</li> <li>Routing</li> <li>QoS</li> </ul>
Module 5: Enterprise Router Introduction	<ul> <li>What's a Router?</li> <li>Main Usage of Router</li> <li>SOHO Router and Enterprise Router</li> <li>Appearance Design of Enterprise Router</li> </ul>
Module 6: Highlight Functions of Enterprise Router	<ul> <li>Load Balancing</li> <li>Policy Routing</li> <li>Link Backup</li> <li>PPTP, L2TP, IPSec, OpenVPN</li> <li>Portal Authentication</li> <li>Multi-VLAN + Multi-Subnet</li> <li>IPTV</li> </ul>
Module 7: Advanced Functions of Enterprise Router	<ul> <li>Virtual server, One-to-One NAT</li> <li>Multi-nets NAT</li> <li>Online Detection</li> <li>Behavior Control</li> <li>IPv6</li> </ul>

### Hands-On Labs (accounting for 60% in the exam)

Title	Contents
Section A:	Using TP-Link Omada Router in Standalone mode:
Basic Setup of Router and Switch	<ul><li>A1 - Quick Setup</li><li>A2 - Configure DHCP Server</li><li>A3 - Configure Load Balancing</li></ul>
	Using TP-Link JetStream Switch in Standalone mode:
	A4 - Basic Configuration
	A5 - Configure Ports and LAGs
	A6 - Configure 802.1Q VLAN
Section B:	Using TP-Link Omada Router in Standalone Mode:
Advanced Setup of Omada Router	B1 - Configure NAT Features
	B2 - Configure Web Filtering
(Choose 2 of 7 for Labs)	B3 - Configure Access Control
	B4 - Configure Bandwidth Control and Session Limit
	B5 - Configure Portal Authentication
Section C:	Using TP-Link JetStream Switch in Standalone mode:



Advanced Setup of JetStream	C1 - Configure DHCP for Multiple VLAN Networks
Switch	C2 - Configure ACL
	C3 - Configure Bandwidth Control
	C4 - Configure Security Features

### **Exam Outline**

Certification Exam Outline		
Exam Name	TPNA Enterprise Routing and Switching	
Level	Associate (Entry-level)	
Prepare for the Exam	Complete the training course for TPNA(ERS)	
Exam Duration	80 minutes	
Language	English by default	
Question Type	40 questions in total with a mix of Single Choice (select one correct answer) and Multiple Answer (select more than one correct answer), including fill-in-the-blanks or ordering.	
Delivery Method	Online proctored	
Passing Score	■ 56 points, 70% of the total score (Total score is 80 points as each question is preset to 2 points for the time being.)	
Certificate Validity	3 years from the date of passing the exam	
Exam Outline	The same as the <i>Detailed Training Outline</i> .  01. Product Theory – accounting for 40%  • All module contents for Theoretical Learning could be included in the exam.  02. Practical Configuration – accounting for 60%.	

#### Note:

The content above is only for reference, other related content not mentioned in this article may also appear in the exam. To better reflect what students need to master, this course outline is subject to change at any time without notice.