

Contents

1. Document Specification	2
2. Exam Program	2
2.1 Exam Intro	2
2.2 Take the exam	2
3. Exam knowledge distribution.....	3
TPNP Switching 1_ Stack	3
TPNP Switching 2_ LAG	3
TPNP Switching 3_ VLAN.....	3
TPNP Switching 4_ STP.....	3
TPNP Switching 5_ IGMP Snooping.....	4
TPNP Switching 6_ Network Security.....	4
TPNP Switching 7_ SNMP.....	4
TPNP _ Switching 8 _ QoS	4
TPNP _ Switching 9 _ ACL.....	5
TPNP _ Switching 10 _ SSL&SSH	5
TPNP _ Switching 11 _ LLDP	5
TPNP _ Switching 12 _ Port.....	5
TPNP Routing 1_ Unicast Routing	5
TPNP Routing 2_ Multicast Routing.....	6
TPNP Routing 3_ VRRP	6

1. Document Specification

TPNP SMB Routing & Switching certification exam outline, written by TP-LINK global training center, mainly introduces the content of TPNP SMB Routing & Switching certification exam, for the purpose of guiding examinee to prepare for TPNP SMB Routing & Switching certification exam.

2. Exam Program

2.1 Exam Intro

Object

TPNP SMB Routing & Switching Certification Exam is open to all technicians and sales working in business network devices field with TPNA SMB certificate required.

Content

The exam covers, but not limits to the content of TPNP SMB Routing & Switching serial training courses. Most of the exam content comes from TPNP SMB Routing & Switching serial training courses, but some may be beyond that.

Exam code

TP2-01

Exam duration

90 minutes

Quantity of exam questions

50 (single choice /multiple-choice questions)

Pass Scores

Total scores: 100; Pass scores: 80 or higher

2.2 Take the exam

After you apply for exam, TP-LINK will arrange on-site exam or online exam for you based on your personal information. If you have any problem, please contact us by "training@tp-link.com".

Note: Information in this document is for reference only. TP-LINK reserves the rights of adjusting exam questions, duration and pass scores without informing examinees.

3. Exam knowledge distribution

The TP2-01 exam knowledge distribution is shown as below.

TPNP Switching 1_ Stack

- The background and advantages of stack
- The basic concepts of stack
- The process of stack formation, stack management and stack maintenance
- The behaviors of stack's high reliability
- The configuration methods of stack on TP-LINK Switches

TPNP Switching 2_ LAG

- The basic usage of LAG
- The basic concepts of LAG
- The features, working mechanism and principle of static LAG
- The features, working mechanism and principle of dynamic LAG
- The configuration methods of LAG on TP-LINK Switches
- Dynamic LAG (LACP protocol) analysis based on LACP protocol data packets

TPNP Switching 3_ VLAN

- The background of VLAN
- The basic concepts of VLAN
- The working mechanism and principle of 802.1Q VLAN
- The configuration methods of 802.1Q VLAN on TP-LINK Switches
- The working mechanism and principle of MAC VLAN
- The configuration methods of MAC VLAN on TP-LINK Switches
- The working mechanism and principle of Protocol VLAN
- The configuration methods of Protocol VLAN on TP-LINK Switches
- The working mechanism and principle of GVRP
- The configuration methods of GVRP on TP-LINK Switches

TPNP Switching 4_ STP

- The background of STP
- The basic concepts, working mechanism and principle of STP
- The basic concepts, working mechanism and principle of RSTP
- The basic concepts, working mechanism and principle of MSTP

- The configuration methods of STP(STP, RSTP, MSTP) on TP-LINK Switches
- STP/ RSTP/ MSTP protocol analysis based on STP protocol data packets

TPNP Switching 5_ IGMP Snooping

- The basic multicast application
- IGMP protocol
- The working mechanism and principle of IGMP Snooping
- The working mechanism and principle of Multicast VLAN
- The working mechanism and principle of IGMP Proxy
- The configuration methods of IGMP Snooping & Multicast VLAN on TP-LINK Switches
- IGMP & IGMP Snooping analysis based on IGMP protocol data packets
- The differences between IGMP Snooping and IGMP Proxy

TPNP Switching 6_ Network Security

- Common network attacks and corresponding protection methods
- AAA model
- 802.1X authentication model
- The configuration methods of 802.1X authentication on TP-LINK Switches
- 802.1x authentication analysis based on 802.1x related data packets

TPNP Switching 7_ SNMP

- The basic concepts of SNMP
- The working mechanism and principle of SNMP v1
- The working mechanism and principle of SNMP v2c and SNMP v3
- Different kinds of SNMP management software
- The configuration methods of SNMP(SNMP v1, SNMP v3) on TP-LINK Switches
- SNMP protocol analysis based on SNMP data packets

TPNP _ Switching 8 _ QoS

- The basic concepts of QoS
- Different types of QoS
- The working mechanism of QoS DiffServ Model
- The working mechanism of QoS DiffServ Model

TPNP _ Switching 9 _ ACL

- The basic concepts of ACL
- The working mechanism of ACL
- Different kinds of ACL rules
- The configuration steps of ACL in TP-Link Switches
- The application scenario of IP-MAC-VID-Port Binding
- The configuration methods of IP-MAC-VID-Port Binding

TPNP _ Switching 10 _ SSL&SSH

- The basic concepts of Access Security
- The working mechanism and configuration of Access Control
- The working mechanism and configuration of HTTP/HTTPS(SSL)
- The working mechanism and configuration of SSH

TPNP _ Switching 11 _ LLDP

- The basic concepts of LLDP and LLDP-MED
- The working mechanism of LLDP and LLDP-MED
- The configuration steps of LLDP TP-Link Switches
- The meaning of LLDP-MED data packets
- The application scenario of LLDP and LLDP-MED
- The configuration methods of LLDP-MED when working with VoIP phone

TPNP _ Switching 12 _ Port

- The basic concepts and working mechanism of switch port
- The working mechanism and configuration of Port Config
- The working mechanism and configuration of Port Mirror
- The working mechanism and configuration of Port Security
- The working mechanism and configuration of Port Isolation
- The working mechanism and configuration of Loopback Detection

TPNP Routing 1_ Unicast Routing

- The basic concepts about routing table
- The routing forwarding process of data packets

- The configuration methods and usage of static routing (default routing)
- The working mechanism and principle of unicast routing protocol RIP
- The working mechanism and principle of unicast routing protocol OSPF
- The configuration methods of relevant routing functions (static routing, RIP, OSPF) on TP-LINK Switches.
- Routing protocol analysis based on routing protocol data packets

TPNP Routing 2_ Multicast Routing

- The background and basic concepts of IP multicast
- The working mechanism and principle of multicast routing protocol PIM-DM
- The working mechanism and principle of multicast routing protocol PIM-SM
- The configuration methods of multicast routing functions (PIM-DM & PIM-SM) on TP-LINK Switches.
- The differences between PIM-DM and PIM-SM
- Multicast routing protocol analysis based on multicast routing protocol data packets

TPNP Routing 3_ VRRP

- The background and advantages of VRRP
- The basic concepts of VRRP
- The working mechanism and principle of VRRP
- How to achieve uplink monitoring function of VRRP
- How to achieve load balance function of VRRP
- The configuration methods of VRRP on TP-LINK Switches
- VRRP protocol analysis based on VRRP protocol data packets

**TP-LINK Global Training Center
April 2016**