

# Cisco Certified Network Associate (200-120), Skill Labs

## Course Specifications

Course Number: ACI76-037SL\_rev1.0

Lab Length: Approximately 26 hours

## Configure and Verify Initial Switch Configuration (200-120)

### Introduction

#### Objective

The Configure and Verify Initial Switch Configuration module provides you with the instructions and Cisco hardware to develop your hands-on skills in the basic setup of Cisco switches. This module includes the following exercises:

- Essential Switch Configuration
- Configuring Remote Access
- Verify the Switch Status and Operation
- Configuring Switch Interfaces

## Configuring VLANs and Trunks (200-120)

### Introduction

#### Objective

The Configuring VLANs and Trunks module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring layer 2 technologies VLANs and trunking. This module includes the following exercises:

- Configure and Verify VLANs
- Configure and Verify Trunking

## Configure and Verify Switch Port Security Features (200-120)

### Introduction

#### Objective

The Configure and Verify Switch Port Security Features module provides you with the instructions and Cisco hardware to develop your hands-on skills in securing switch interfaces from unwanted connections. This module includes the following topics:

- Secure unused interfaces.
- Secure interfaces from unknown connections.
- Spanning Tree and Etherchannels (200-120)

## Introduction

### Objective

The Spanning-tree and EtherChannels module provides you with the instructions and Cisco hardware to develop your hands-on skills in both Spanning-Tree and EtherChannel technologies on Cisco switches. This module includes the following exercises:

- Spanning-tree fundamentals and manipulation.
- Spanning-tree and EtherChannels.

## Configure and Verify Initial Router Configuration (200-120)

### Introduction

#### Objective

The Configure and Verify Initial Router Configuration module provides you with the instructions and Cisco hardware to develop your hands-on skills in the basic setup of Cisco routers. This module includes the following exercises:

- Essential Router Configuration
- Basic Interface Configuration
- Verify Network Connectivity

## Configure and Verify Routing Configuration for Static and Default Routes (200-120)

### Introduction

#### Objective

The Configure and Verify Routing Configuration for Static and Default Routes module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring static and default routes on Cisco routers. This module includes the following exercise:

- Configure and verify static and default routes.

## Configure and Verify InterVLAN Routing Using a Router on a Stick (200-120)

### Introduction

#### Objective

The Configure and Verify InterVLAN Routing Using a Router on a Stick module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring interVLAN routing using a router as the router (aka a router on a stick). This module includes the following exercise:

- Configuring InterVLAN Routing with a Router on a Stick

## Configure and Verify OSPF in a Single Area (200-120)

### Introduction

#### Objective

The Configure and Verify OSPF in a Single Area module provides you with the instructions and Cisco hardware to develop your hands on skills in configuring OSPF and related configuration elements. This module includes the following exercises:

- Configuring OSPF.
- Additional OSPF configuration options.

## Configure and verify OSPF in a multi area (200-120)

### Introduction

#### Objective

The Configure and verify OSPF in a multi area module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring Open Shortest Path First (OSPF) in a multi-area environment, changing router IDs, and configuring passive interfaces. This module includes the following exercises:

- Configuring OSPF Multi Area
- Additional OSPF Configuration Options
- DR, BDR, Costs and LSAs

## Configure and verify EIGRP in a single AS (200-120)

### Introduction

#### Objective

The Configure and verify EIGRP in a single AS module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring Cisco's proprietary routing protocol Enhanced Interior Gateway Routing Protocol (EIGRP). This module includes the following exercises:

- Configuring EIGRP
- Load Balancing
- Additional EIGRP Configuration Options

## Configuring SVI interfaces and Secondary IP Addresses (200-120)

### Introduction

#### Objective

The Configuring SVIs and Secondary IP Addresses module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring a layer 3 switch to route as well as switch. This module includes the following exercises:

- Configuring InterVLAN Routing Using SVIs
- Configuring Secondary IP Addressing

## Configure and Verify IP Services (200-120)

### Introduction

#### Objective

The Configure and Verify IP Services module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring dynamic hosts configuration protocol (DHCP) services including using an IOS router as both a server and a client, plus synchronizing time across the network using NTP and Syslog logging services. This module includes the following exercises:

- Configure and Verify DHCP using Cisco IOS
- Configuring Time Synchronization using NTP
- Configuring Syslog

## Configure and Verify ACLs in a Network Environment (200-120)

### Introduction

#### Objective

The Configure and Verify ACLs in a Network Environment module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring access control lists (ACLs). This module includes the following exercises:

- Configuring Standard and Extended Access Lists
- Configure Named Access Lists
- Configuring Access Lists to Restrict Remote Access

## Configure and Verify NAT for Given Network Requirements (200-120)

### Introduction

#### Objective

The Configure and verify NAT for given network requirements module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring and verifying the operation of Network Address Translation (NAT, dynamic NATport address translation [PAT]). This module includes the following exercises:

- Configuring Static and Dynamic NAT
- Configuring PAT for an ISP Connection

## Recognize High Availability (200-120)

### Introduction

#### Objective

## Course Outline

The Recognize High Availability module provides you with the instructions and Cisco hardware to develop your hands-on skills in observing the different redundancy and load balancing protocols for Cisco routers. This module includes the following exercises:

- Identifying Hot Standby Router Protocol
- Identifying Virtual Router Redundancy Protocol
- Identifying Gateway Load Balancing Protocol (GLBP)

## Configure and Verify a Basic WAN Connections (200-120)

### Introduction

#### Objective

The Configure and Verify a Basic WAN Connections module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring simple point-to-point wide area network (WAN) links. This module includes the following exercises:

- Configuring a Point-to-Point Link
- Configuring a Point-to-Point Link Using PPP

## Configure and Verify Frame Relay Connections (200-120)

### Introduction

#### Objective

The Configure and verify Frame Relay connections module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring wide area network (WAN) links using frame-relay. This module includes the following exercise:

- Configure and Verify Frame Relay on Cisco Routers.

## Manage Cisco IOS Files (200-120)

### Introduction

#### Objective

The Manage Cisco IOS files module provides you with the instructions and Cisco hardware to develop your hands-on skills in managing the configuration file on a switch and changing a switches IOS (operating system). This module includes the following exercises:

- Manage IOS Configuration Files
- Manage Cisco IOS

## IPv6 and OSPFv3 (200-120)

### Introduction

#### Objective

## Course Outline

The IPV6 and OSPFv3 module provides you with the instructions and Cisco hardware to develop your hands-on skills in configuring IPV6 and exchanging routing information using OSPFv3 on Cisco routers. This module includes the following exercises:

- Configuring IPv6 Addressing
- Configuring OSPFv3 for IPv6
- Multi-Area Configuration

### **Troubleshoot OSPF routing related problems (200-120)**

#### **Introduction**

#### **Objective**

The Troubleshooting OSPF routing related problems module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a preconfigured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learned in those modules to help you resolve the issues that are present in the lab.

### **Troubleshoot EIGRP Routing Related Problems (200-120)**

#### **Introduction**

#### **Objective**

The Troubleshooting Routing Related Technologies EIGRP module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a pre-configured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learnt in those modules to help you resolve the issues that are present in the lab.

## **Troubleshooting InterVLAN Routing and Host Configuration Issues (200-120)**

### **Introduction**

#### **Objective**

The Troubleshooting InterVLAN Routing and Host Configuration Issues module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a preconfigured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learned in those modules to help you resolve the issues that are present in the lab.

## **Troubleshooting the WAN (200-120)**

### **Introduction**

#### **Objective**

The Troubleshooting the WAN module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a preconfigured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learned in those modules to help you resolve the issues that are present in the lab.

## **Troubleshooting ACLs (200-120)**

### **Introduction**

#### **Objective**

The Troubleshooting ACLs module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a preconfigured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learned in those modules to help you resolve the issues that are present in the lab.

## Troubleshoot Switch Related Technologies (200-120)

### Introduction

#### Objective

The Troubleshooting Switch Related Technologies module is part of the series of the troubleshooting modules which takes a different approach to learning from what has previously been used in this course.

Instead of providing you with a set of instructions and walkthroughs on how to configure specific technologies, this module provides you with a preconfigured environment which you will use to hone your troubleshooting and diagnostic skills.

In this module are a number of problems that you will need to diagnose and solve, these are outlined in the symptoms section.

All the issues that are present in the lab are formed from technologies that you have learned about within the previous modules in this course. You will need to use the skills learnt in those modules to help you resolve the issues that are present in the lab.

## Final Review Test Lab (200-120)

### Introduction

#### Objective

The Final Review Test Lab module was created to give you a set of labs that you can go away and configure as a self-assessment method to see if you can build your own configuration based on a set of requirements.

The requirements in each of the labs are technologies that have been covered in the modules that you have completed within this course already, if you have not completed all of the course modules it is recommended to do so before attempting this module.

This module includes the following lab modules for you to complete:

- Lab 1 Switching Technologies
- Lab 2 Routing Technologies
- Lab 3 IP Services