Overview

The Zero To Engineer 5-Day Bootcamp is an intensive, in-person, hands-on workshop that is designed to familiarize students with a real-world full stack network and help them to become certified as a Full Stack Network Associate (FSNA). Students work on dedicated high quality Cisco networking equipment and each student is provided with a jam packed welcome kit that includes real-world network engineer tools.

To begin, you will be introduced to the world of network engineering and learn how to become a Full Stack Network Engineer. Next, we'll get right into hands-on labs where you will use your FSNA Handbook as a field guide to reference your configurations. Working alone or in teams of two you will set up and configure a complete branch network with routing, switching, security, voice over IP, and cloud controlled wireless. The student Branch pods connect back to a Headquarters network over a private Wide Area Network with redundancy over an internet-based Virtual Private Network. The Headquarters lab location provides network services to the Branch pods such as domain services, network management, Voice over IP Call Control and voice gateway services. In addition to building out the lab environments each student's actions will be verified with a Skills Qualification Check (SQC). The SQC validates that each student was able to successfully perform the work associated with each skill in the checklist.

After successfully completing the SQC students are awarded the Full Stack Network Associate (FSNA) certification.
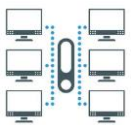
Requirements:
- A Laptop computer with Ethernet and Wireless NIC
- An eager mind

Outline:

Day 1
- How to Become a Full Stack Network Engineer
- Discover Your Dream Job
- Lab Orientation & Basic Cisco IOS Configuration
- Set up the Branch switched Infrastructure
- Observing the Functions of an Ethernet Switch
- Making Cables with Cat 5e and Connecting Hosts

Day 2
- Branch Router & Inter-VLAN Routing
- Dynamic Host Configuration Protocol
- Securing the Management Plane
- More Switches!
- VLAN Trunking Protocol
- Spanning-Tree Protocol

Day 3
- Private WAN & BGP
- Voice over IP Phone Installs
- VoIP Quality of Service
- Internet Access & NAT

Day 4
- Cloud Controlled Wireless
- IPSec VPN
- Automated WAN Failover
- Network Monitoring & Management

Day 5
- Lab Review and Practice
- FSNA Skills Check

Headquarters
Network Operations

Virtualized
UC Servers

IP Phone

PSTN

HQ Switch

HQ Voice
Router

HQ Edge
Router

NOC PC
Network Management

Private
WAN

BGP

VPN

Internet

Private WAN to
VPN Failover

Branch
Router

Switch 1

Cloud Controlled
Wireless AP

Switch 3

Switch 3

IP Phone

IP Phone

Student
Branch Pod

Student 1 Laptop

Student 2 Laptop