Introduction to Infrastructure and Automation

7.0.1

Why Should I Take this Module?

You have learned about scaling automation. Now it is time to learn to automate the infrastructure of networks. This is a big change in the way experts think about networks, from design to creation and management. As a NetAcad student, you could not have picked a better time to explore automation and networking!

Sure, there are many tools for automating many tasks, and specialty tools for simulating a network for testing. But even more valuable to network engineers is speed with precision and safe self-service options. Puppet, Ansible, and Chef all work well for these use cases. In addition, pyATS and VIRL are tools that have been specifically created for the network.

7.0.2

What Will I Learn to Do in this Module?

Module Title: Infrastructure and Automation

Module Objective: Compare software testing and deployment methods in automation and simulation

Automating Infrastructure with Cisco	Describe deployment environments that benefit from automation.
DevOps and SRE	Explain the principles of DevOps.
Basic Automation Scripting	Describe the use of scripting in automation.
Automation Tools	Explain automation tools that speed the development and deployment of code.
Infrastructure as Code	Explain the benefits of storing infrastructure as code.

Topic Title	Topic Objective
Automating Testing	Explain how automation tools are used in the testing of application deployments.
Network Simulation	Describe the use of the Cisco VIRL network simulation test environment.

7.0.3

Lab - Install the CSR1000v VM

In topic 7.4 of this module, you will have two labs that require a different VM. In this lab, you install this VM, so it is ready for you when you get to topic 7.4.

You will complete the following objectives:

- Part 1: Install the DEVASC-LAB VM on VirtualBox
- Part 2: Install the CSR1000v VM on VirtualBox
- Part 3: Verify Communications to CSR1000v VM

Install the CSR1000v VM

6.6 Summary: Application Deployment and Se...

7.1 Automating Infrastructure with Cisco