



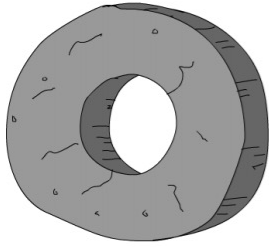
Cisco Certified DevNet Associate Certification (DEVASC 200 – 901)

May 2023

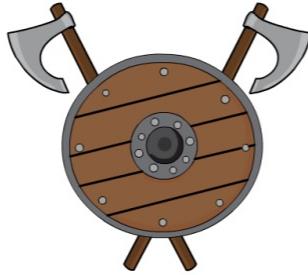


Introduction

Networking through the ages...



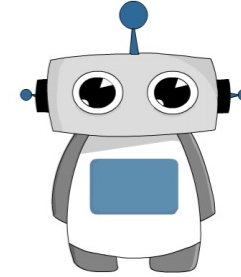
Stone Age
Spanning Tree
VLANs



Bronze Age
Routing Protocols
WAN Design
IP-magedon



The Renaissance
SDN
OpenFlow
Controllers
Overlays
MP-BGP
VXLAN
Micro-Segmentation
White Box

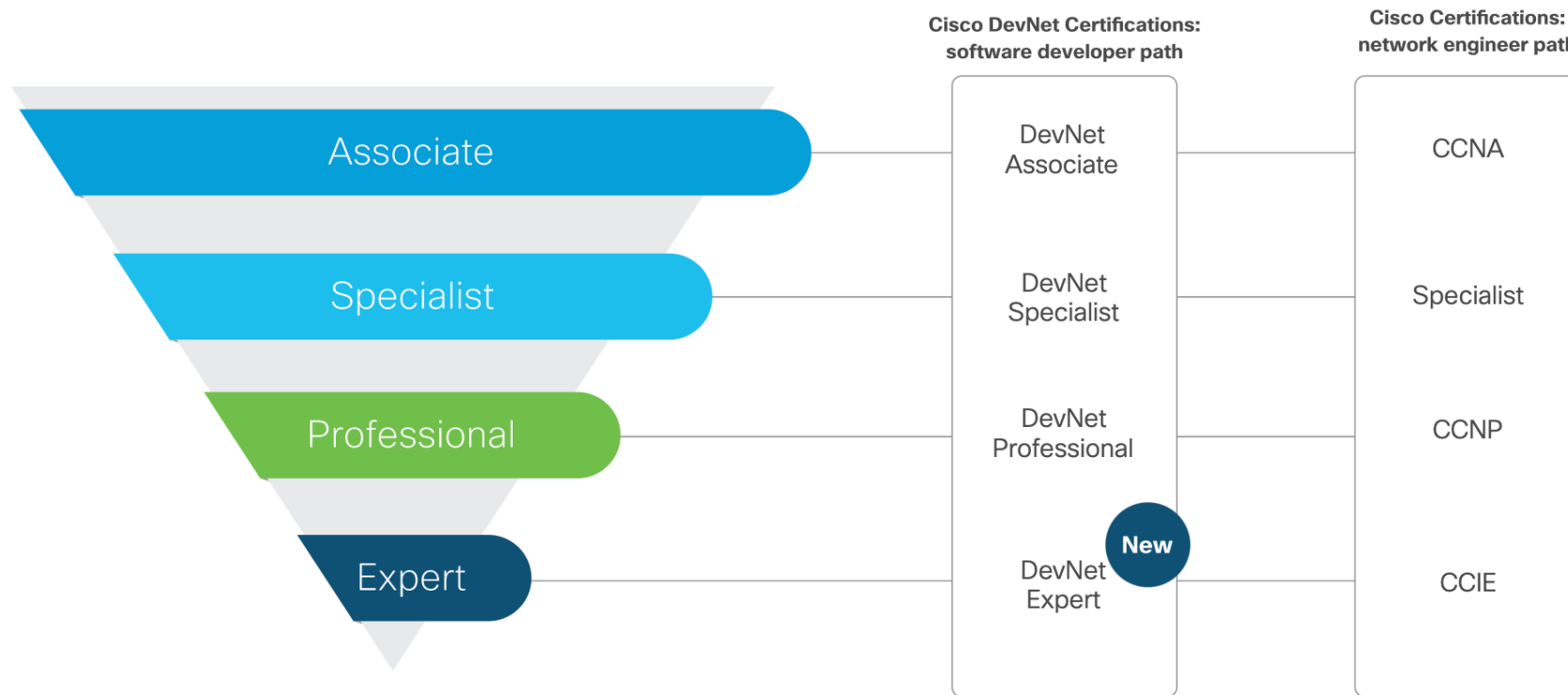


Programmable Age
Cloud
Python
REST / APIs
NETCONF / YANG
“Fabrics”
Network Function
Virtualization (NFV)
DevOps
Containers

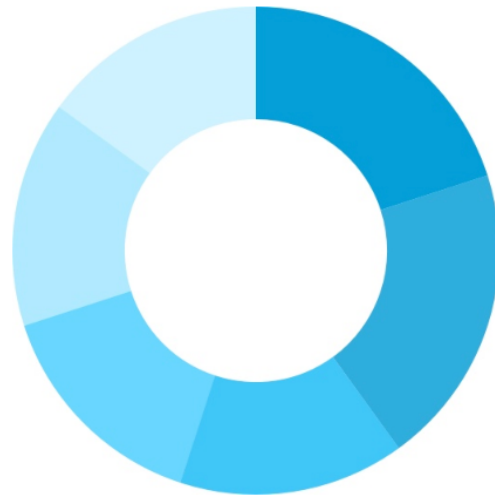
The Four Ages of Networking.....

Cisco DevNet Overview

Cisco Career Certification Overview

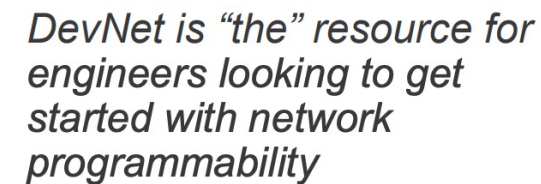
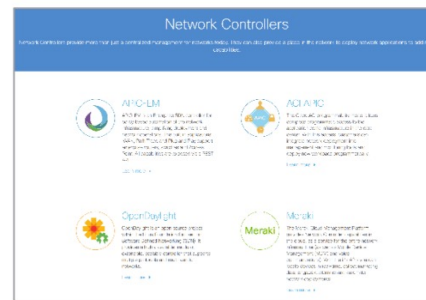


Cisco DevNet Associate Knowledge Domains



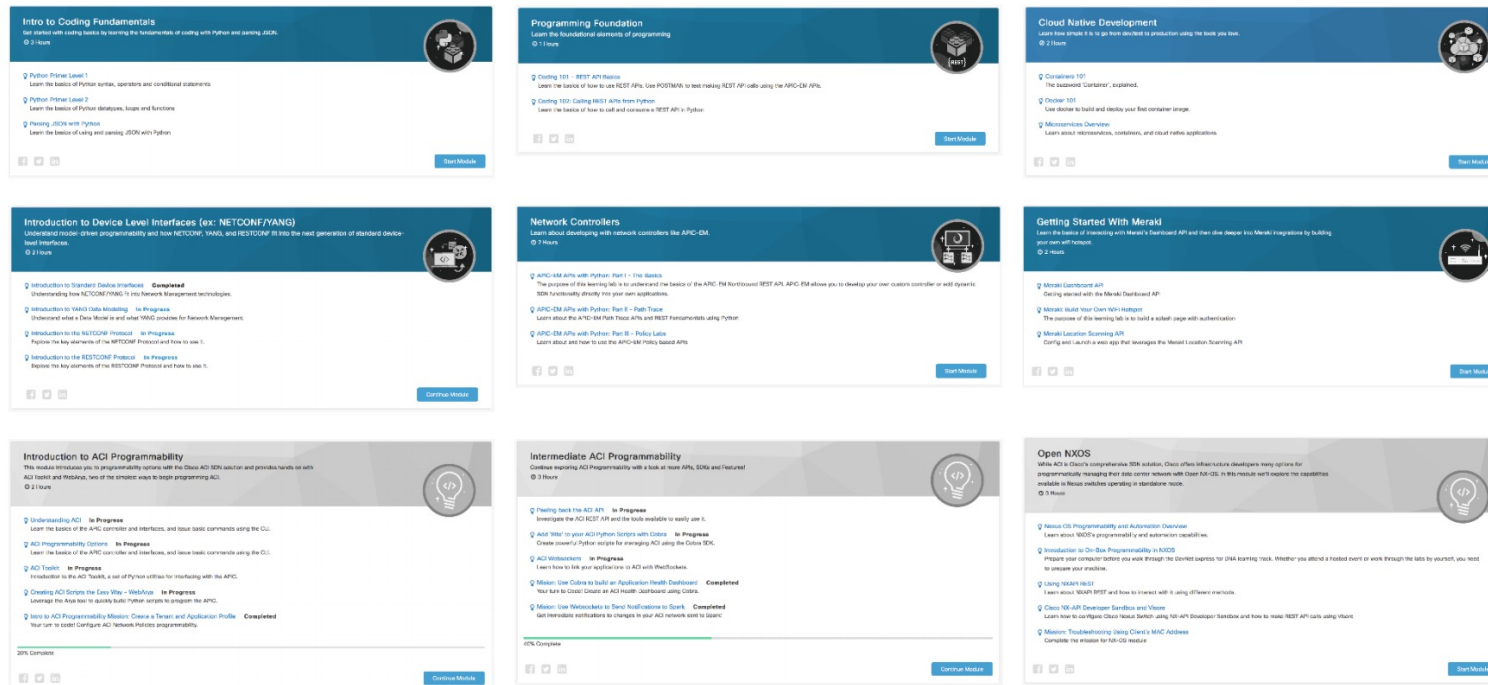
- 20%** Understanding and Using APIs
- 20%** Infrastructure and Automation
- 15%** Application Deployment and Security
- 15%** Cisco Platforms and Development
- 15%** Network Fundamentals
- 15%** Software Development and Design

<https://developer.cisco.com/site/networking/>



DevNet Learning Labs Anytime, Anywhere!

<https://developer.cisco.com/learning/>



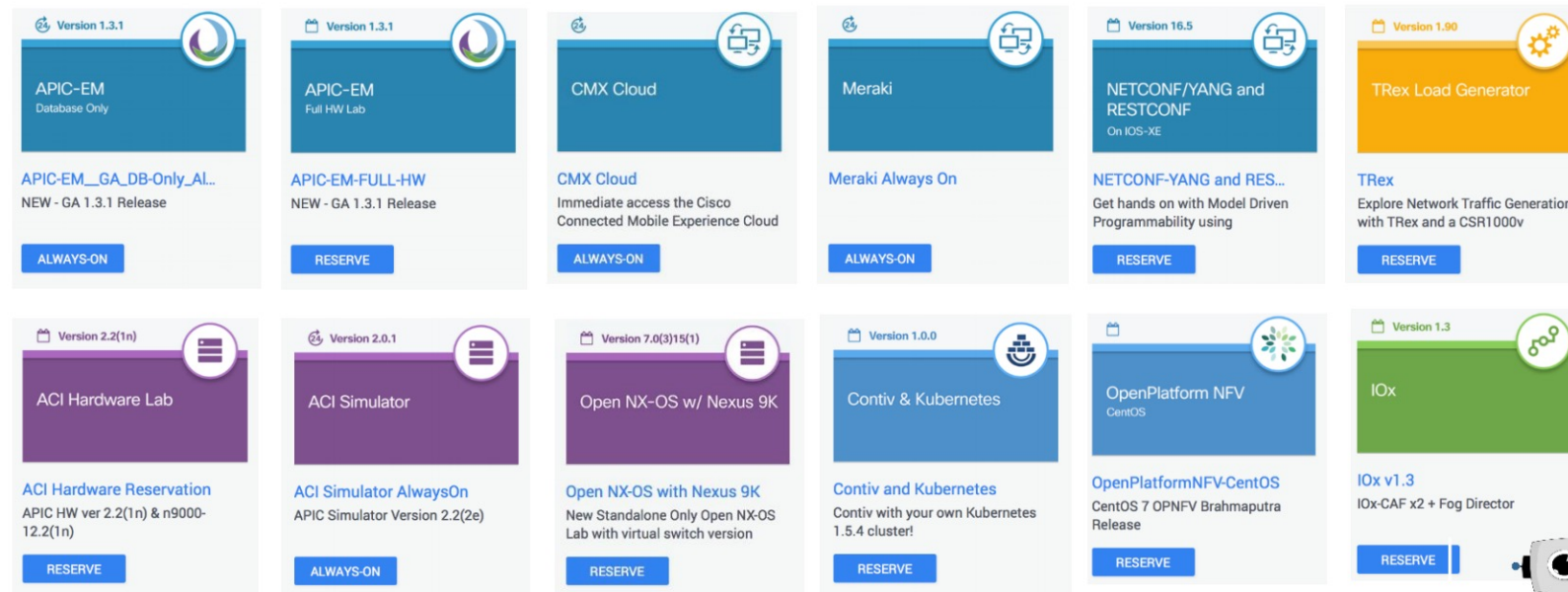
The image displays a grid of nine DevNet Learning Lab cards, each representing a different learning path. Each card includes a title, a brief description, a progress indicator (e.g., '0/3 hours'), a list of topics, and a 'Start Module' button. The cards are arranged in three rows and three columns.

- Intro to Coding Fundamentals**: Get started with coding labs by learning the fundamentals of coding with Python and parsing JSON. 0/3 hours. Topics: Python Primer Level 1, Python Primer Level 2, Parsing JSON with Python. Start Module.
- Programming Foundation**: Learn the foundational aspects of programming. 0/3 hours. Topics: Coding 101 - TEST API Basics, Coding 102 - Calling REST APIs from Python. Start Module.
- Cloud Native Development**: Learn how clouds fit in to go from development to production using the tools you love. 0/2 hours. Topics: Containers 101, Docker 101, Kubernetes Overview. Start Module.
- Introduction to Device Level Interfaces (ex: NETCONF/YANG)**: Understand how to program network devices using NETCONF, YANG, and RESTCONF. 0/2 hours. Topics: Introduction to Standard Device Interfaces, Introduction to YANG Data Modeling, Introduction to the NETCONF Protocol, Introduction to the RESTCONF Protocol. Continue Module.
- Network Controllers**: Learn about developing with network controllers like APIC-EM. 0/3 hours. Topics: APIC-EM APIs with Python: Part 1 - The Basics, APIC-EM APIs with Python: Part 2 - Path Trace, APIC-EM APIs with Python: Part 3 - Policy Logic. Start Module.
- Getting Started With Meraki**: Learn the basics of connecting with Meraki's cloud-managed API and then dive deeper into Meraki's capabilities by building your own web app. 0/2 hours. Topics: Meraki Cloud API, Meraki Cloud API: Building a Web App, Meraki Cloud API: Building a Web App. Start Module.
- Introduction to ACI Programmability**: This module introduces you to programmability options with the Cisco ACI SDK and provides hands-on with ACI SDK and RESTCONF, two of the simplest ways to begin programming ACI. 0/3 hours. Topics: Understanding ACI, ACI Programmability Overview, ACI SDK, ACI RESTCONF, ACI RESTCONF: Creating a Simple Application, ACI RESTCONF: Creating a Simple Application. Continue Module.
- Intermediate ACI Programmability**: Continue exploring ACI Programmability with a look at how APIs, SDKs and RESTCONF. 0/3 hours. Topics: Creating a Simple Application, ACI RESTCONF: Creating a Simple Application, ACI RESTCONF: Creating a Simple Application. Continue Module.
- Open NXOS**: With ACI's comprehensive SDK solution, Cisco offers network developers many options for programmatically managing their data center network with Open NXOS. In this module we'll explore the capabilities available to those working with Open NXOS. 0/3 hours. Topics: Open NXOS SDK, Open NXOS SDK: Building a Web App, Open NXOS SDK: Building a Web App. Start Module.

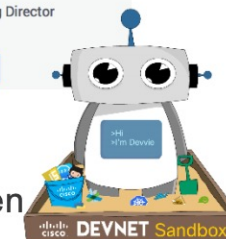
* New Labs and Modules Always in Development, check back often

DevNet Sandbox

<https://developer.cisco.com/site/sandbox/>



* New Sandboxes always in Development, check back often



Devnet course overview (1)

- **MODULE 1: SOFTWARE DEVELOPMENT AND DESIGN**
 - Describing Software Development Process
 - Linux BASH
 - Software Version Control
- **MODULE 2: PYTHON FUNDAMENTALS FOR DEVASC (1)**
 - Getting Started with Python
 - Understanding Python Syntax
 - Data Types and Variables
 - Flow Control with Conditionals and Loops
 - Python Functions
 - Working with Python Modules
 - File Input and Output
- **MODULE 3: UNDERSTANDING AND USING APIs**
 - Application Programming Interfaces (APIs)
 - REST Tools
 - Introducing Cisco Platforms and APIs
- **MODULE 4: APPLICATION DEPLOYMENT**
 - Application Deployment Models
 - DevOps
 - Docker
- **MODULE 5: INFRASTRUCTURE AND AUTOMATION**
 - Infrastructure Automation
 - Model-Driven Programmability