

Cisco 300-635 DCAITI Exam Prep: 2026 Edition

Cisco 300-635 DCAITI 2026. Python for Cisco, Ansible automation, and YANG data models.

IT Certifications Instructor: Jason Miller • 5 sections • 43 lessons • 14.50h total

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About this course

Preparing for the Cisco 300-635 DCAITI exam can feel overwhelming with the volume of automation concepts to cover. This course cuts through the noise, giving you a focused and practical path to understanding the key exam objectives for 2026. We move beyond theory into hands-on skills for automation in real Cisco environments.

You will get a step-by-step guide to Python scripting for Cisco platforms, automating with Ansible, and understanding data models with YANG. We include real problem-solving sessions and downloadable code templates.

Course curriculum

Foundations: Cisco Automation & Exam Blueprint

- **Decoding the 300-635 DCAITI Exam Blueprint (14m)**
We'll walk through the official exam topics for 2026, so you know exactly what to focus on and can build a smart study plan.
- **Setting Up Your 2026 Automation Lab (22m)**
A step-by-step guide to configuring a practical lab environment using Cisco sandbox resources and local tools, avoiding common setup errors.
- **Python Fundamentals for Network Engineers (28m)**
Learn the specific Python concepts you need for the exam, with network-focused examples and downloadable code templates.
- **Understanding REST APIs and JSON (18m)**
A practical look at how REST APIs work, with a real case study on making API calls to a Cisco device and parsing the JSON response.
- **Git for Network Configuration Management (12m)**
Learn why Git is essential for automation and how to use basic commands to version control your network scripts and playbooks.
- **Netmiko vs. Paramiko: When to Use Which (16m)**
A problem-solving session comparing these two Python libraries for SSH-based device interaction, with practical code examples.
- **Introduction to Ansible for Network Automation (25m)**
Get a clear overview of Ansible architecture and learn how to write your first simple playbook to configure a network device.

Core Concepts: Automating Cisco Platforms

- **Automating Cisco IOS and IOS XE with Ansible (24m)**
A deep dive into using Ansible modules to manage configurations on traditional Cisco routers and switches, including a downloadable playbook.
- **Using Python to Interact with Cisco IOS XE (31m)**
Learn how to use the ncclient library and Netmiko to programmatically pull operational data and push configuration changes.
- **Automating NX-OS for Data Center Switches (19m)**
We'll cover the specific Ansible modules and Python libraries for managing Cisco Nexus switches, with a real-world configuration case.
- **Leveraging YANG Data Models and NETCONF (27m)**
Understand how YANG models structure device data and learn to use NETCONF with Python to configure interfaces programmatically.
- **Introduction to Cisco DNA Center APIs (15m)**
Explore the high-level APIs available in Cisco DNA Center and learn how to authenticate and make your first API call.

- **Automating Network Device Upgrades with Python (32m)**
A practical, step-by-step project showing how to write a script to automate software upgrades on multiple devices.
- **Ansible Roles for Scalable Network Automation (21m)**
Learn how to structure your Ansible projects with roles for better reusability and management across your network.
- **Managing Cisco ASA Firewall Rules with Ansible (17m)**
A focused lesson on using Ansible to add, remove, and audit firewall rules on Cisco ASA devices.
- **Data Parsing with Python: CSV, JSON, and XML (20m)**
A problem-solving session on how to parse command outputs from devices and save them in usable formats for reports.

Deep Dive: Cisco ACI Automation

- **ACI Fundamentals for Automation (16m)**
A quick refresher on key ACI concepts like tenants, EPGs, and contracts that are essential for scripting against the APIC.
- **Automating ACI with Ansible (26m)**
A step-by-step guide to using Ansible modules to manage tenants, EPGs, and application policies in your ACI fabric.
- **Python Scripting for the ACI REST API (29m)**
Learn how to interact directly with the APIC REST API using Python requests library for full control over the fabric.
- **ACI Cobra SDK: A Practical Introduction (23m)**
Discover how the Cobra SDK simplifies Python scripting for ACI and build a script to query endpoint information.
- **Building a Multi-Tenant ACI Environment Programmatically (18m)**
A real-world case study on automating the setup of a complex multi-tenant environment from scratch.
- **Troubleshooting ACI Fabric with Python (15m)**
Learn how to write a script that pulls fault records and health scores from the APIC for proactive monitoring.
- **Integrating ACI with Virtualized Environments (22m)**
Understand how to automate the creation of VM domains and static bindings in ACI using Python.

Advanced Application: Complex Automation Workflows

- **Cisco SD-WAN (Viptela) Automation with Python (25m)**
A practical guide to authenticating with the SD-WAN vManage API and automating template management.
- **Automating Cisco Meraki with its Dashboard API (20m)**
Learn how to use Python to manage Meraki networks, including pulling device lists and configuring SSIDs.
- **Building a Network Health Check Dashboard (35m)**
A capstone project where you'll combine Python, APIs, and a simple web framework to build a live network health dashboard.

- **Error Handling and Logging in Automation Scripts (19m)**
Write more robust scripts by learning how to implement proper try/except blocks and log events for debugging.
- **Ansible Vault for Securing Sensitive Data (11m)**
A short, practical lesson on how to use Ansible Vault to encrypt passwords and API keys in your automation projects.
- **Orchestrating Workflows with Python and Ansible (28m)**
Learn how to call Ansible playbooks from a Python script to create complex, conditional automation workflows.
- **Using Postman for API Discovery and Testing (13m)**
A quick guide on using Postman collections to test and understand Cisco APIs before you write your Python code.
- **Model-Driven Programmability with OpenConfig (26m)**
Explore the benefits of using vendor-neutral OpenConfig models for consistent network configuration across devices.
- **Automating Network Compliance Checks (21m)**
A real-world case study on building a script that checks device configurations against a compliance baseline.
- **Working with Cisco Webex Teams APIs (12m)**
Learn how to send automated network alerts and notifications to a Webex space from your Python scripts.

Implementation & Next Steps: Exam Day & Beyond

- **Full-Scale Practice Exam: Scenario 1 (38m)**
A timed, scenario-based practice exam simulating the pressure of the real test, followed by a detailed solution breakdown.
- **Full-Scale Practice Exam: Scenario 2 (40m)**
Another challenging practice scenario focusing on a different set of exam topics to test your overall readiness.
- **Final Review: Top 10 Exam Topics to Remember (17m)**
A rapid-fire review of the most critical concepts and commands that are frequently tested on the 300-635 exam.
- **Common Exam Pitfalls and How to Avoid Them (15m)**
We'll discuss common mistakes students make during the exam and share strategies to ensure you don't fall for them.
- **Time Management Strategies for the DCAITI Exam (10m)**
Learn how to pace yourself effectively through the lab-based questions to maximize your score.
- **Setting Up Your Home Lab for Continued Practice (23m)**
A guide to building a cost-effective home lab using virtualization and Cisco's learning labs for continued skill development.
- **Exploring Professional Paths After Certification (12m)**
Discover how to leverage your new automation skills and certification for roles like Network Development Engineer.

- **Staying Current: Resources for 2026 and Beyond** (9m)

A curated list of blogs, GitHub repos, and communities to follow to keep your Cisco automation skills sharp.

- **Course Wrap-Up & Exam Booking Checklist** (6m)

A final checklist of steps to take before, during, and after you book your 300-635 exam appointment.

- **Bonus: Downloadable Python & Ansible Code Repository** (5m)

Get lifetime access to a private GitHub repository containing all the scripts, playbooks, and templates from the course.

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