# DNA-Center: Troubleshooting

Duration: 2 days

## - Day 1 -

### Troubleshooting Cisco DNA Center Architecture, Provisioning and Assurance

1. Cisco DNA Center Architecture overview
   - Cisco DNA Center System UI and Shell (maglev}
   - Cisco DNA Center – Networking
   - High availability architectural overview
   - Understanding and using RCA
   - Cisco DNA Center User Interface Architecture
2. Automation
   - Software Image Management (SWIM)
   - Surfing through the Cisco DNA Center logs (Kibana and CLI)
   - Plug and Play
   - LAN Automation
   - Provisioning
3. Assurance
   - Workflow
   - Troubleshooting
4. Best Practices

Lab:
- Troubleshooting DNA Center (troubleshooting the services with magctl, logs)
- SWIM
- PnP

### Troubleshooting Software Defined Access

1. The fabric
   - LISP operations (wireshark capture of the control-plane operations)
   - VXLAN encapsulation (wireshark capture of the packet encapsulation)
2. Layer 3 Forwarding
   - IP anycast
   - Registration of endpoints

- Packet walkthrough analysis with CLI
- DHCP in the fabric

## - Day 2 -

### Troubleshooting Software Defined Access (Continued)

3. Layer 2 Forwarding
   - Packet walkthrough analysis with CLI
   - ARP in the fabric
4. Authentication
5. Secure Fabric
   - Cisco Trustsec
   - CTS enforcement

Lab:
- Troubleshooting SD-A
- Five TS tickets to practice troubleshooting

### Cisco DNA Center Programmability

1. Cisco DNA Center API Overview
2. Postman collection and DNA Center token
3. Cisco DNA authentication in Python
4. Helper functions in Python

Lab:
- Python script to display the list of devices