

ACI Fundamentals

This entry-level ACI Fundamentals training prepares network admins to configure, automate, and secure Cisco's ACI, integrate it with cloud services, and optimize network performance. Learning to use, manage, and optimize Cisco's ACI makes you a more innovative and valuable asset for employers operating or hoping to get started with automated data center solutions.

[CBT Nuggets course material](#) →

WEEK 1

Describe ACI Concepts

155 min.

What is Cisco ACI?	15
ACI Components	15
Deploying ACI	7
Validation	2

Describe ACI Fabric Management

ACI Fabric	12
ACI Management	18
Nexus Dashboard Fabric Controller (NDFC)	5
Topology Challenge	7

Explain the ACI Spine-Leaf Architecture

Traditional Architectures	11
Spine-Leaf Architectures	13
VXLAN Data Plane	10
VXLAN and VNIs	10
Topology Challenge	4

Explain ACI VXLAN Forwarding

VXLAN Control Plane in ACI	12
Anycast Gateways	14

WEEK 2

152 min.

VPCs in ACI	12
Traffic Flow Challenge	6

Explain ACI Fabric Forwarding

ACI Spine Proxies	13
ACI Leaf Learning	12
Packet Walk	6
ACI Bounce Entries	8
ACI Packet Walk Challenge	6

Explore the Nexus 9K Family

ACI ASIC Progression	11
Interpreting Nexus Part Numbers	15
Nexus 9500s	8
Nexus 9500 Line Cards	3
Nexus 9800s	2
Nexus 9300s, 9400s, and 9200s	6
Architecture Design Challenge	4

Configure a Basic ACI Fabric

ACI Simulator	7
ACI Initialization Process	11
APIC Initialization	16
Fabric Initial Setup	6

WEEK 3

153 min.

Lab Challenge	1
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Explain the APIC

The Application Policy Infrastructure Controller	7
APIC Offerings	8
APIC Models	10

APIC Clusters and Data Sharding	9
APIC Redundancy	7
APIC Design Challenge	6

Manage ACI and the APIC

APIC Management	8
GUI Overview	8
CLI Overview	6
API Overview	16
Side-by-side Configurations	8
Configuration Challenge	1

Describe the ACI Physical Model

Mapping the Physical Model	15
Interfaces	17
Domains and VLAN Pools	8
AAEPs	5
Lab Challenge	1

Describe the ACI Logical Model

Mapping the Logical Model	12
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WEEK 4

162 min.

Endpoint Groups	8
Contracts	9
Bridge Domains	8
Contexts (VRFs) and Tenants	10
Diagram Challenge	1

Configure ACI Endpoint Groups

Logical to Physical Mapping	13
Application Profiles	7
Perform Logical Configuration	6
EPG Configuration	7
Configuration Challenge	10

Explain and Diagram the ACI Architecture

Introduction	1
Spine-Leaf Architecture Challenge	18
ACI Physical Architecture Challenge	15
ACI Logical Architecture Challenge	12

Explain and Configure ACI Traffic Flow

Introduction	1
Spine-Leaf Packet Flow Challenge	14
ACI Policy Application Challenge	1
ACI Configuration Challenge	21

WEEK 5

Configure ACI Contracts

161 min.

Contracts	7
Subjects and Filters	9
EPG Labels	10
Taboo Contracts	6
EPG Collection and vzAny	4
Configuration Demo	6
Configuration Challenge	3

Connect ACI to L3 External Networks

External Networks	12
L3 External	17
L3 Packet Walk	9
Quiz Challenge	1
Solution Review	5

Connect ACI to L2 External Networks

L2 External	14
L2out and Application EPGs	11
ACI and STP	13
ACI and MST	9
Design Challenge	4

Diagram ACI Traffic Flows

Broadcast Traffic	10
Unknown Unicast Traffic	11

WEEK 6

153 min.

ARP Flooding	9
Bridge Domain Options	1
Contract Enforcement	7
Traffic Challenge	5

Configure ACI External Networks

Fabric Design and Prep	8
Configure an L3out	14
Configure an L2out	6
Configure L2 via EPG	3

Configure STP Policy	9
Configuration Challenge	5

Describe ACI Architectures

Standard ACI Fabrics	13
ACI Multipod	14
ACI Multisite	9
Multipod + Multisite Design	4
ACI Cloud	4
Design Challenge	4

Describe API Usage in ACI

ACI and APIs	12
XML and JSON	18
Northbound APIs	8

WEEK 7

145 min.

Southbound APIs	7
Quiz Challenge	1

Describe the ACI Object Model

APIs and ACI Objects	10
The ACI Object Model	11
Object Discovery Tools	9
Make an API Call	10
API Challenge	5

Review ACI Foundations

Introduction	1
Quiz 1-5	14
Quiz 6-10	14
Quiz 11-15	10
Quiz 16-20	9

ACI Foundations Configuration Challenge

Introduction	2
Lab Section 1 - APIC and Fabric Initialization	8
Lab Section 2 - Physical Model	8
Lab Section 3 - Logical Model	10
Lab Section 4 - Contract Creation	5
Lab Section 5 - External Networks	11