Cisco Application Centric Infrastructure (Cisco ACI)

At-a-glance: The Cisco ACI solution

Cisco® Application Centric Infrastructure (Cisco ACI) is the industry's most secure, open, and comprehensive solution for intent-based networking for datacenters. It enables businesses to innovate faster and minimize downtime by radically simplifying, optimizing, and accelerating infrastructure deployment through consistent security and automation for any workload, in any location, and in any cloud.

Cisco ACI delivers an intent-based networking framework that extends to the WAN and campus, capturing higher-level business and user intent in the form of a policy, and translates this intent into the network constructs necessary to dynamically provision the network, security, and infrastructure services.



© 2026 Cisco and/or its affiliates. All rights reserved.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

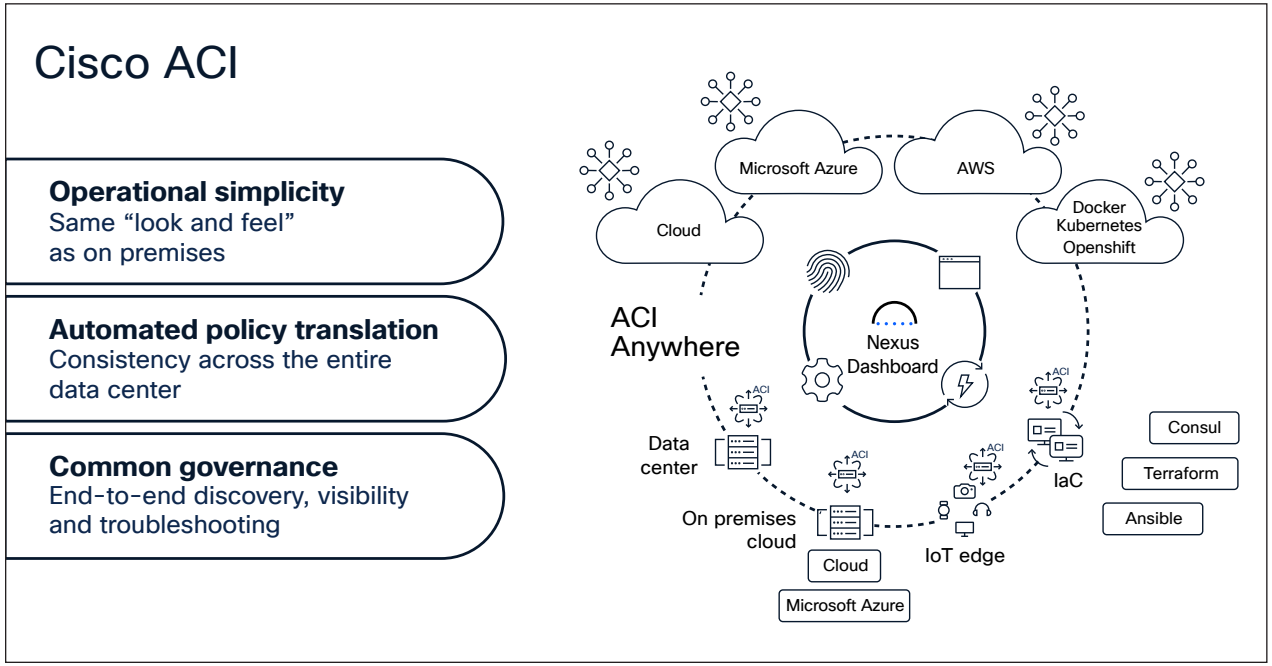


Figure 1. Cisco ACI: any workload, any location, any cloud

Cisco ACI building blocks

The Cisco ACI solution consists of the following blocks:

- Cisco Application Policy Infrastructure Controller (APIC)
- Cisco Nexus 9000 Series Spine and Leaf Switches for Cisco ACI
- Cisco Nexus Dashboard Orchestrator
- Cisco ACI Remote Leaf
- Cisco Mini ACI Fabric

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

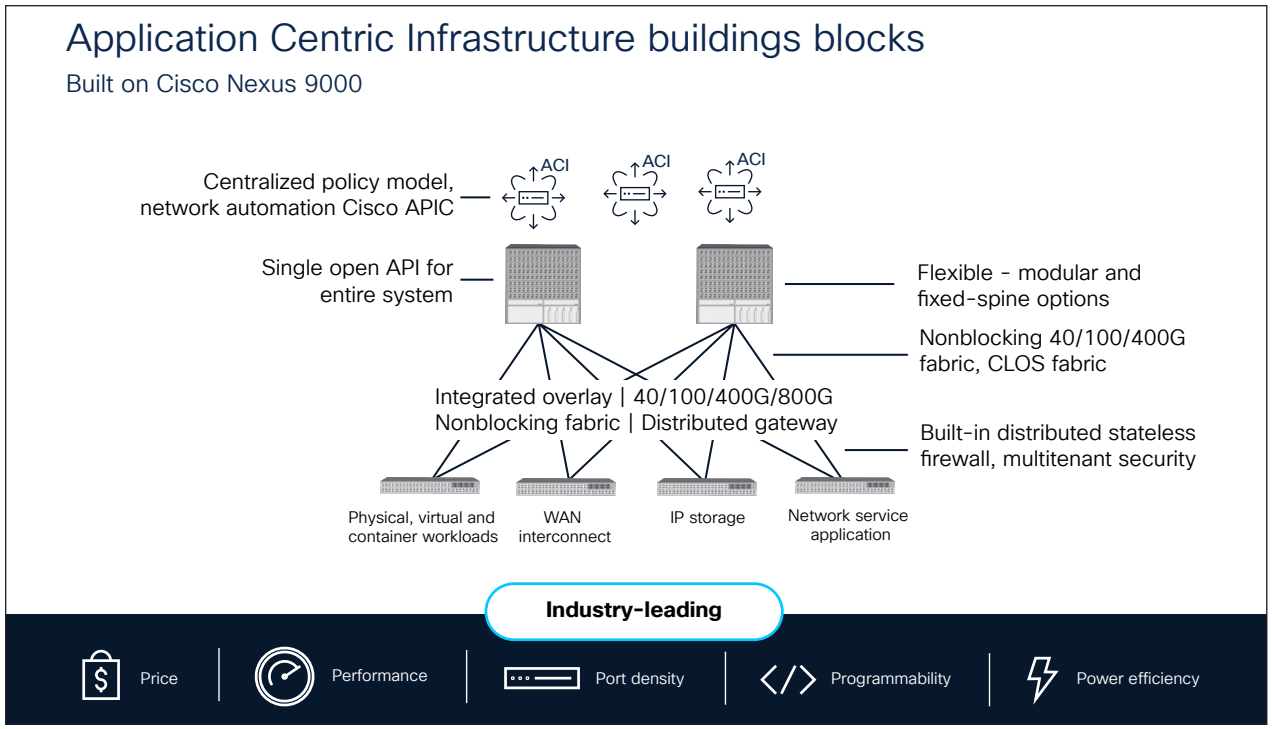


Figure 2. Cisco ACI Architecture

1. Cisco ACI solution components

The minimum set of components required to enable an on-premises ACI fabric are:

a. Cisco Application Policy Infrastructure Controller (APIC)

The infrastructure controller is the main architectural component of the Cisco ACI solution. It is the unified point of automation and management for the Cisco ACI fabric, policy enforcement, and health monitoring. The APIC appliance is a centralized, clustered controller that optimizes performance and unifies the operation of physical and virtual environments. The controller manages and operates a scalable multitenant Cisco ACI fabric.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

b. Cisco Nexus 9000 Series spine and leaf switches for Cisco ACI

The Cisco ACI fabric is a full-mesh topology of high-speed links (40/100/400 G) between redundant spine switches and leaf switches. The Cisco Nexus 9500 Series Switches operate as ACI spine switches and the Cisco Nexus 9300 Series Switches as ACI leaf or spine switches. Modular spines provide the scale and capability to incrementally add ACI leafs to the ACI fabric and grow the ACI fabric to the maximum scale.

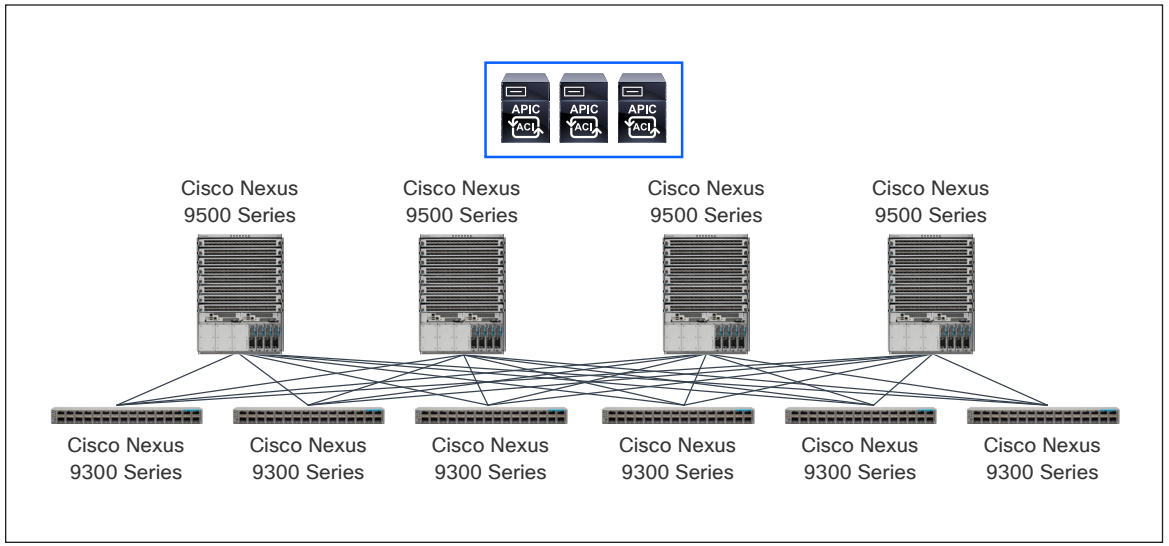


Figure 3. Cisco ACI: Spine Leaf Architecture

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components

2. Cisco ACI deployment models

3. Cisco ACI licensing components

4. Cisco ACI tiered licensing

5. Greenfield ACI fabric deployment ordering guide

6. Brownfield ACI deployment ordering guide

7. Product solution purchasing reference

8. Cisco ACI Smart Licensing

9. Cisco services and support

10. Cisco Capital

11. More information

2. Cisco ACI deployment models

In addition to the core capabilities enabled by the mandatory building blocks, Cisco ACI provides additional functions that span virtualization, infrastructure, and security. Depending on the deployment architectures, customers can choose to enable any or all of the following additional optional components for their solutions:

- Cisco Nexus Dashboard Orchestrator
- Cisco ACI Remote Leaf

For further details on the capabilities of these components and the Cisco ACI solution, click here.

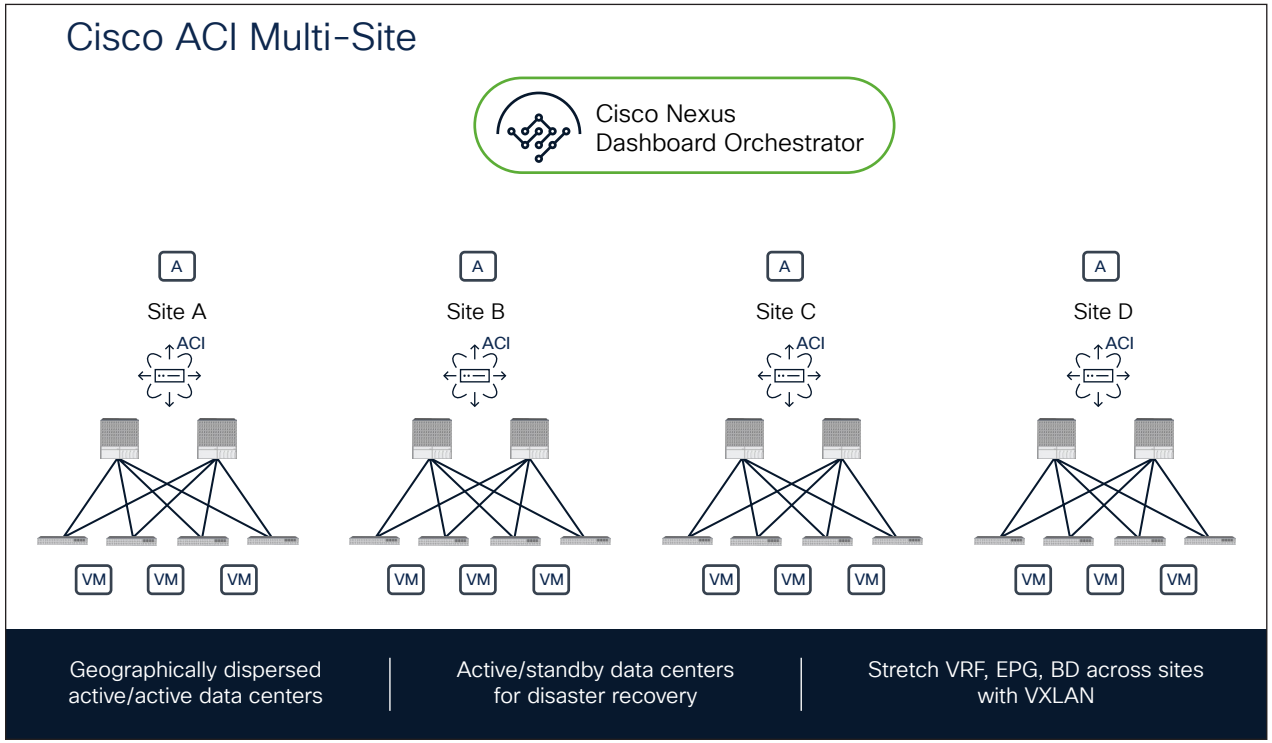


Figure 4. Cisco ACI Multi-Site

© 2026 Cisco and/or its affiliates. All rights reserved.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components

2. Cisco ACI deployment models

3. Cisco ACI licensing components

4. Cisco ACI tiered licensing

5. Greenfield ACI fabric deployment ordering guide

6. Brownfield ACI deployment ordering guide

7. Product solution purchasing reference

8. Cisco ACI Smart Licensing

9. Cisco services and support

10. Cisco Capital

11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

3. Cisco ACI licensing components

3.1 On-premises physical ACI fabric

The on-premises ACI fabric is licensed per the Cisco Nexus 9000 devices running in the fabric. There are tiered license options along with add-on licenses for on-premises ACI deployments.

For more information, refer to section 5: Greenfield ACI fabric deployment Ordering Guide.

4. Cisco ACI tiered licensing

Cisco ACI licenses are applied per Cisco Nexus 9000 device in a physical on-premises ACI deployment.

The per-device ACI licenses are offered as tiered licenses for easy consumption. Add-on licenses are charged per device, based on value-added feature offerings. For details on data-center licenses, please see the DCN software licensing BDM here.

For the full breakdown of what features are included in each tier (Essentials, Advantage, and Premier), please reference the Cisco DCN Software Subscriptions page.

5. Greenfield ACI fabric deployment ordering guide

This section lists the steps to order a base ACI fabric for greenfield ACI deployments.

5.1 Cisco Application Policy Infrastructure Controller (APIC)

The following table lists the SKUs for a physical APIC.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 1. Orderable SKUs for physical APIC

Product SKU	Product description	Number of physical appliances
APIC-CLUSTER-M4	APIC cluster for medium configurations (up to 1200 edge ports)	3
APIC-CLUSTER-L4	APIC cluster for large configurations (more than 1200 edge ports)	3
APIC-M4	APIC appliance for medium configurations (up to 1200 edge ports)	1
APIC-L4	APIC appliance for large configurations (more than 1200 edge ports)	1
APIC-M4=	APIC appliance for medium configurations (up to 1200 edge ports) (SPARE)	1
APIC-L4=	APIC appliance for large configurations (more than 1200 edge ports) (SPARE)	1

5.2 Cisco ACI tiered and add-on licenses

ACI software licenses are available as subscription and perpetual consumption models.
Subscription – These term-based software licenses are available in 3-year, 5-year, and 7-year terms.

- Tiered licenses are available in DCN Essentials, DCN Advantage, and DCN Premier levels tiers as well as add-ons that support Cisco ACI.
- For customers that have a net Total Contract Value (TCV) of more than $100,000, we recommend data-center enrollment for a Cisco Enterprise Agreement. Learn more about Enterprise Agreements to cover your data-center technologies.

Perpetual – This is a nontransferable, fixed-price, traditional licensing model with the right to use covered features for a perpetual term. DCN Perpetual licenses are not portable between devices.

- The DCN Advantage tier is available as a perpetual license, as well as add-ons that support Cisco ACI.

Nexus licenses are categorized on platform bandwidth capacity. The following sections list the switches mapped to each license class and the SKUs required to order ACI software licenses for ACI deployment. Licenses are required for both leaf and spine switches.

Table 2. License categories and associated supported platforms (Cisco Nexus 9000 Series Switches)

1G Fixed Platform (GF) License	10G/25G/40G/100G Fixed Platform (XF) License	10G/25G/40G/100G Fixed Platform (XF2) License	4-Slot Modular Platform License	8-Slot, 16-Slot Modular Platform License	8-Slot Centralized Modular Platform License	4-Slot Distributed Modular Platform License	8-Slot Distributed Modular Platform License
N9K-C9348GC-FXP	N9K-C9332C	N9K-C9364C	N9K-C9504	N9K-C9508	N9K-C9408	N9K-C9408	N9K-C9808
N9K-C92348GC-X	N9K-C93180YC-EX	N9K-C9316D-GX		N9K-C9516			
	N9K-C93108TC-EX	N9K-C93600CD-GX					
	N9K-C93180LC-EX	N9K-C9364C-GX					
	N9K-C93180YC-FX	N9K-C9332D-GX2B					
	N9K-C93108TC-FX	N9K-C9348D-GX2A					
	N9K-C93240YC-FX2	N9K-C9364D-GX2A					
	N9K-C93216TC-FX2						
	N9K-C93360YC-FX2						
	N9K-C9336C-FX2						
	N9K-C93180YC-EX-24						
	N9K-C93108TC-EX-24						
	N9K-C93180YC-FX-24						
	N9K-C93108TC-FX-24						
	N9K-C93180YC-FX3S						
	N9K-C93180YC- FX3						
	N9K-C93108TC-FX3P						

© 2026 Cisco and/or its affiliates. All rights reserved.

5.2.1 Cisco ACI subscription software license SKUs

Select the options below when selecting the Cisco Nexus 9000 Series device, or standalone (without hardware) under top-level PID C1-N9K-ADD-T.

Table 3. PIDs for subscription tier-based licenses for DCN (ACI+NX-OS) (Cisco Nexus 9000 Series Switches in fixed platforms)

License	1G Fixed Platforms (GF)	10G/25G/40G/100G Fixed Platforms (XF)	Cisco Nexus 9364C and 9300-GX Platforms (XF2)
Essentials package	C1E1TN9300GF-3Y C1E1TN9300GF-5Y C1E1TN9300GF-7Y	C1E1TN9300XF-3Y C1E1TN9300XF-5Y C1E1TN9300XF-7Y	C1E1TN9300XF2-3Y C1E1TN9300XF2-5Y C1E1TN9300XF2-7Y
Advantage package	C1A1TN9300GF-3Y C1A1TN9300GF-5Y C1A1TN9300GF-7Y	C1A1TN9300XF-3Y C1A1TN9300XF-5Y C1A1TN9300XF-7Y	C1A1TN9300XF2-3Y C1A1TN9300XF2-5Y C1A1TN9300XF2-7Y
Premier package[5]	C1P1TN9300GF-3Y C1P1TN9300GF-5Y C1P1TN9300GF-7Y	C1P1TN9300XF-3Y C1P1TN9300XF-5Y C1P1TN9300XF-7Y	C1P1TN9300XF2-3Y C1P1TN9300XF2-5Y C1P1TN9300XF2-7Y
Add-on licenses			
NDB	C1-N9K-NDB-3Y C1-N9K-NDB-5Y C1-N9K-NDB-7Y	C1-N9K-NDB-3Y C1-N9K-NDB-5Y C1-N9K-NDB-7Y	C1-N9K-NDB-3Y C1-N9K-NDB-5Y[6] C1-N9K-NDB-7Y
Security	C1-N9K-SEC-XF-3Y C1-N9K-SEC-XF-5Y C1-N9K-SEC-XF-7Y	C1-N9K-SEC-XF-3Y C1-N9K-SEC-XF-5Y C1-N9K-SEC-XF-7Y	C1-N9K-SEC-XF-3Y C1-N9K-SEC-XF-5Y C1-N9K-SEC-XF-7Y*
Storage	Not supported	C1-N9K-STRG-XF-3Y C1-N9K-STRG-XF-5Y C1-N9K-STRG-XF-7Y	Not supported
Sync-E	Not supported	C1-N9K-SYNCE-XF-3Y C1-N9K-SYNCE-XF-5Y C1-N9K-SYNCE-XF-7Y	C1-N9K-SYNCE-XF-3Y C1-N9K-SYNCE-XF-5Y C1-N9K-SYNCE-XF-7Y

[5] The Cisco ACI Premier license package includes the Cisco ACI Essentials and Cisco ACI Advantage license packages.

[6] The Cisco Nexus 9300-GX switches do not support Cisco Nexus Data Broker.

* Cisco Nexus 9300-GX platforms do not support MACsec feature.

© 2026 Cisco and/or its affiliates. All rights reserved.

A security add-on license is mandatory for the N9K-C9348D-GX2A platform. This platform is targeted for use cases that require MACsec on all ports.

Table 4. PIDs for subscription tier-based licenses for DCN (ACI+NX-OS) (Cisco Nexus 9000 Series Switches in modular platforms)

License	4-Slot Modular Platforms	8- to 16-Slot Modular Platforms	8-Slot Centralized Modular Platforms	8-Slot Distributed Modular Platforms	8-Slot Distributed Modular Platforms
Essentials package	C1E1TN9500M4-3Y C1E1TN9500M4-5Y C1E1TN9500M4-7Y	C1E1TN9500M816-3Y C1E1TN9500M816-5Y C1E1TN9500M816-7Y	C1E1TN9400CM8-3Y C1E1TN9400CM8-5Y C1E1TN9400CM8-7Y	C1E1TN9800M8-3Y C1E1TN9800M8-5Y C1E1TN9800M8-7Y	C1E1TN9800M8-3Y C1E1TN9800M8-5Y C1E1TN9800M8-7Y
Advantage package	C1A1TN9500M4-3Y C1A1TN9500M4-5Y C1A1TN9500M4-7Y	C1A1TN9500M816-3Y C1A1TN9500M816-5Y C1A1TN9500M816-7Y	C1A1TN9400CM8-3Y C1A1TN9400CM8-5Y C1A1TN9400CM8-7Y	C1A1TN9800M8-3Y C1A1TN9800M8-5Y C1A1TN9800M8-7Y	C1A1TN9800M8-3Y C1A1TN9800M8-5Y C1A1TN9800M8-7Y
Premier package[7]	C1P1TN9500M4-3Y C1P1TN9500M4-5Y C1P1TN9500M4-7Y	C1P1TN9500M816-3Y C1P1TN9500M816-5Y C1P1TN9500M816-7Y	C1P1TN9400CM8-3Y C1P1TN9400CM8-5Y C1P1TN9400CM8-7Y	C1P1TN9800M8-3Y C1P1TN9800M8-5Y C1P1TN9800M8-7Y	C1P1TN9800M8-3Y C1P1TN9800M8-5Y C1P1TN9800M8-7Y
Add-on licenses					
NDB	C1-N9K-NDB-M4-3Y C1-N9K-NDB-M4-5Y C1-N9K-NDB-M4-7Y	C1-N9K-NDB-M816-3Y C1-N9K-NDB-M816-5Y C1-N9K-NDB-M816-7Y			
Security	C1-N9K-SEC-M-3Y C1-N9K-SEC-M-5Y C1-N9K-SEC-M-7Y	C1-N9K-SEC-M-3Y C1-N9K-SEC-M-5Y C1-N9K-SEC-M-7Y	C1-N9K-SEC-M-3Y C1-N9K-SEC-M-5Y C1-N9K-SEC-M-7Y	C1-N9k-SEC-M-3Y C1-N9k-SEC-M-5Y C1-N9k-SEC-M-7Y	C1-N9k-SEC-M-3Y C1-N9k-SEC-M-5Y C1-N9k-SEC-M-7Y
Storage	C1-N9K-STRG-M-3Y C1-N9K-STRG-M-5Y C1-N9K-STRG-M-7Y	C1-N9K-STRG-M-3Y C1-N9K-STRG-M-5Y C1-N9K-STRG-M-7Y			

[7] The Cisco ACI Premier license package includes the Cisco ACI Essentials and Cisco ACI Advantage license packages.

© 2026 Cisco and/or its affiliates. All rights reserved.

5.2.2 Cisco ACI perpetual software license SKUs

Select the options below while selecting the Cisco Nexus 9000 Series device, or standalone (without hardware) by adding an equal sign and searching in Cisco Commerce (for example, ACI-AD-GF=.)

Note: There is no perpetual offer for Cisco ACI Premier; Premier must be purchased as a subscription.

Table 5. PIDs for perpetual tier-based licenses for DCN (ACI+NX-OS) (Cisco Nexus 9000 Series Switches)

License	1G Fixed Platforms (GF)	10G/25G/40G/100G Fixed Platforms (XF)	Cisco Nexus 9364C and 9300-GX Platforms (XF2)1011
Advantage package	ACI-AD-GF	ACI-AD-XF	ACI-AD-XF2
Add-on licenses			
Security	Not supported	ACI-SEC-XF	ACI-SEC-XF2
Storage (FC NPV, FCoE NPV, and SAN switching)	Not supported	ACI-STRG[12]	Not supported
SyncE		DCN-SYNCE-XF*	DCN-SYNCE-XF*

Table 6. PIDs for perpetual tier-based licenses for Cisco ACI (Cisco Nexus 9000 Series Switches in modular platforms)

License	4-Slot Modular Platforms	8- to 16-Slot Modular Platforms	8-Slot Centralized Modular Platforms	4-Slot Distributed Modular Platforms	8-Slot Distributed Modular Platforms
Advantage package	ACI-AD-M4	ACI-AD-M8-16	ACI-AD-CM8	ACI-AD-DM4	ACI-AD-DM8
Add-on licenses					
Security	ACI-SEC-XM	ACI-SEC-XM	ACI-SEC-XM	ACI-SEC-XM	ACI-SEC-XM

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 7. PIDs for port-upgrade licenses

Description	Spare licenses (select without any hardware)
Nexus 9300 48 Port-upgrade license for 24-port EX/FX platforms (N9K-C93180YC-EX-24, N9K-C93180YC-FX-24, N9K-C93108TC-EX-24, N9K-C93108TC-FX-24)	N9K-EX-24P-UPG= N9K-FX-24P-UPG=

6. Brownfield ACI deployment ordering guide

6.1 Cisco ACI upgrade for tiered licenses

This section lists the SKUs required to order upgrade licenses for Cisco ACI deployments. This is typically applicable for brownfield deployments when customers have purchased a lower-tier Cisco ACI license and want to migrate to a higher-tier license for existing hardware.

Table 8. License upgrade SKUs

Description	Perpetual -> Perpetual upgrade license	Subscription -> Subscription upgrade license
ACI 1G Base-to-Essentials upgrade license	N/A	Modify Subscription
ACI 10/25/40G Base-to-Essentials upgrade license	N/A	Modify Subscription
ACI 1G Base-to-Advantage upgrade license	ACI-UPG-B-AD-GF=	Modify Subscription
ACI 10/25/40G Base-to-Advantage upgrade license	ACI-UPG-B-AD-XF=	Modify Subscription
ACI 1G Base-to-Premier upgrade license	N/A	Modify Subscription
ACI 10/25/40G Base-to-Premier upgrade license	N/A	Modify Subscription
ACI 1G Essentials-to-Advantage upgrade license	ACI-UPG-ES-AD-GF=	Modify Subscription
ACI 10/25/40G Essentials-to-Advantage upgrade license	ACI-UPG-ES-AD-XF=	Modify Subscription

© 2026 Cisco and/or its affiliates. All rights reserved.

Description	Perpetual -> Perpetual upgrade license	Subscription -> Subscription upgrade license
ACI 400G Essentials-to-Advantage upgrade license	ACI-UPG-ES-AD-XF2=	Modify Subscription
ACI 1G Essentials-to-Premier upgrade license	N/A	Modify Subscription
ACI 10/25/40G Essentials-to-Premier upgrade license	N/A	Modify Subscription
ACI 400G Essentials-to-Premier upgrade license	N/A	Modify Subscription
ACI 1G Advantage-to-Premier upgrade license	N/A	Modify Subscription
ACI 10/25/40G Advantage-to-Premier upgrade license	N/A	Modify Subscription
ACI 400G Advantage-to-Premier upgrade license	N/A	Modify Subscription

6.2 Cisco ACI perpetual to subscription upgrade

- No upgrade is available to migrate from a perpetual to a subscription license model. For this case, order new subscription licenses under C1-N9K-ADD-T (refer to **Table 5.** PIDs for subscription tier-based licenses for DCN (ACI+NX-OS).

Alternatively, some credit may be offered for migrating to an Enterprise Agreement. For more information on the Enterprise Agreement, please reference the Cisco Enterprise Agreement page.

© 2026 Cisco and/or its affiliates. All rights reserved.

6.3 Cisco NX-OS to Cisco ACI upgrade licenses

This section is applicable for customers who had purchased perpetual licenses for Cisco Nexus 9000 in Cisco NX-OS standalone mode and want to migrate to perpetual ACI licenses.

Table 9. Perpetual to subscription upgrade license SKUs

Description	Perpetual upgrade license	Subscription licenses
Cisco NX-OS Essentials to Cisco ACI Essentials upgrade license for 1G device	N/A	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS Essentials to Cisco ACI Essentials upgrade license for 10G+ device	N/A	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS Advantage to Cisco ACI Advantage upgrade license for 1G device	NXOS-ACI-UP-AD-GF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS Advantage to Cisco ACI Advantage upgrade license for 10G+ device	NXOS-ACI-UP-AD-XF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS LAN to Cisco ACI Essentials upgrade license for 1G device	N/A	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features

© 2026 Cisco and/or its affiliates. All rights reserved.

Description	Perpetual upgrade license	Subscription licenses
Cisco NX-OS LAN to Cisco ACI Essentials upgrade license for 10G+ device	N/A	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS LAN to Cisco ACI Advantage upgrade license for 1G device	Step 1: NXOS-UPG-L-AD-GF= Step 2: NXOS-ACI-UP-AD-GF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS LAN to Cisco ACI Advantage upgrade license for 10G+ device	Step 1: NXOS-UPG-L-AD-XF= Step 2: NXOS-ACI-UP-AD-XF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS Essentials to Cisco ACI Advantage upgrade license for 1G device	Step 1: NXOS-UPG-ES-AD-GF= Step 2: NXOS-ACI-UP-AD-GF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features
Cisco NX-OS Essentials to Cisco ACI Advantage upgrade license for 10G+ device	Step 1: NXOS-UPG-ES-AD-XF= Step 2: NXOS-ACI-UP-AD-XF=	N/A Current subscription SKUs include both Cisco ACI and Cisco NX-OS features

© 2026 Cisco and/or its affiliates. All rights reserved.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

7. Product solution purchasing reference

7.1 Cisco Nexus Dashboard Orchestrator

Cisco Nexus Dashboard Orchestrator provides a single point of provisioning for multiple Cisco ACI fabrics.

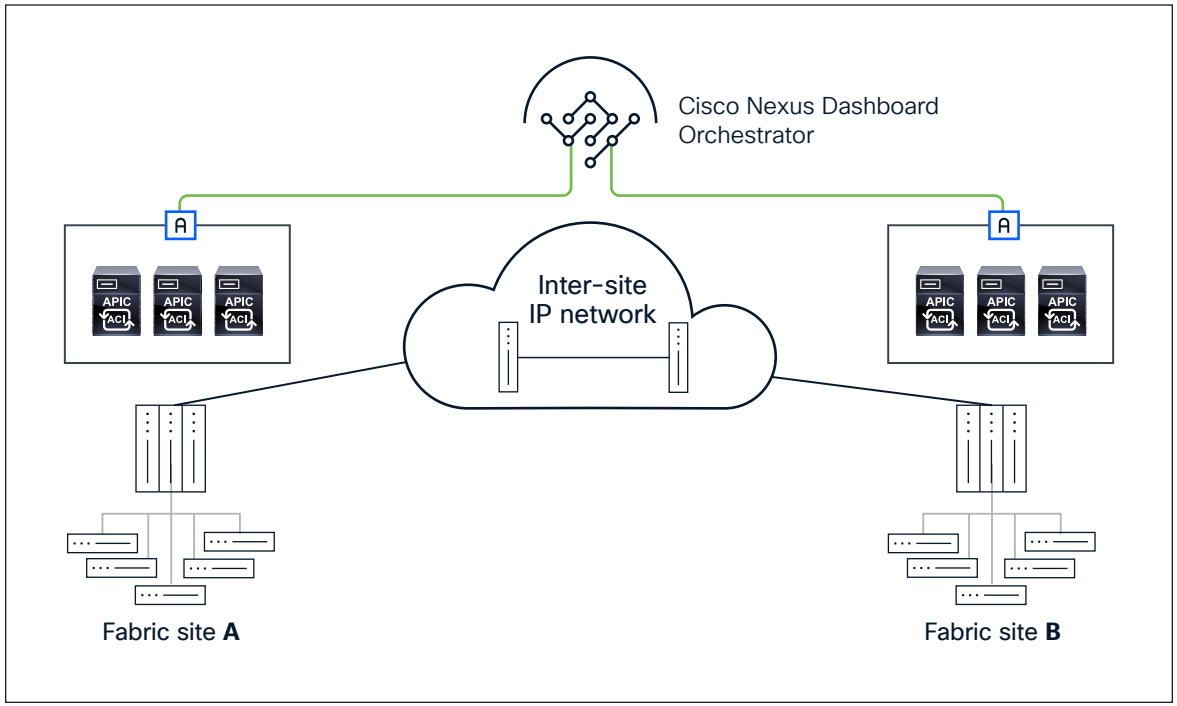


Figure 5. Cisco Nexus Dashboard Orchestrator Licensing Components

Cisco Nexus Dashboard Orchestrator requires purchase of the following:

- Cisco ACI spine-leaf architecture with an APIC cluster for each fabric
- One Data Center Networking Advantage or Premier License per device for all of the connected fabrics

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

7.2 Virtual APIC

Ordering option 1: Purchase virtual APIC (vAPIC) bundle

Table 10. vAPIC ordering option 1

Product SKU	Quantity to Purchase
ACI-C9332-VAPIC-B1	1
Any ACI-supported leaf switches	2 minimum
Any ACI license	3 per device

Ordering option 2: Purchase virtual APIC standalone

Table 11. vAPIC ordering option 2

Product SKU	Quantity to Purchase
DCN-VAPIC	3
Any ACI-supported fixed spine switches	2
Any ACI-supported leaf switches	2
Any ACI license	Per device

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

7.3 ACI security feature licensing

7.3.1 Encryption (MACsec)

MACsec is an IEEE 802.1AE standard that provides MAC-layer hop-by-hop encryption for data confidentiality and integrity for media-access-independent protocols. MACsec uses out-of-band methods for encryption keying. The APIC will be responsible for the MACsec keychain distribution to all the nodes in a pod or to specific ports on a node.

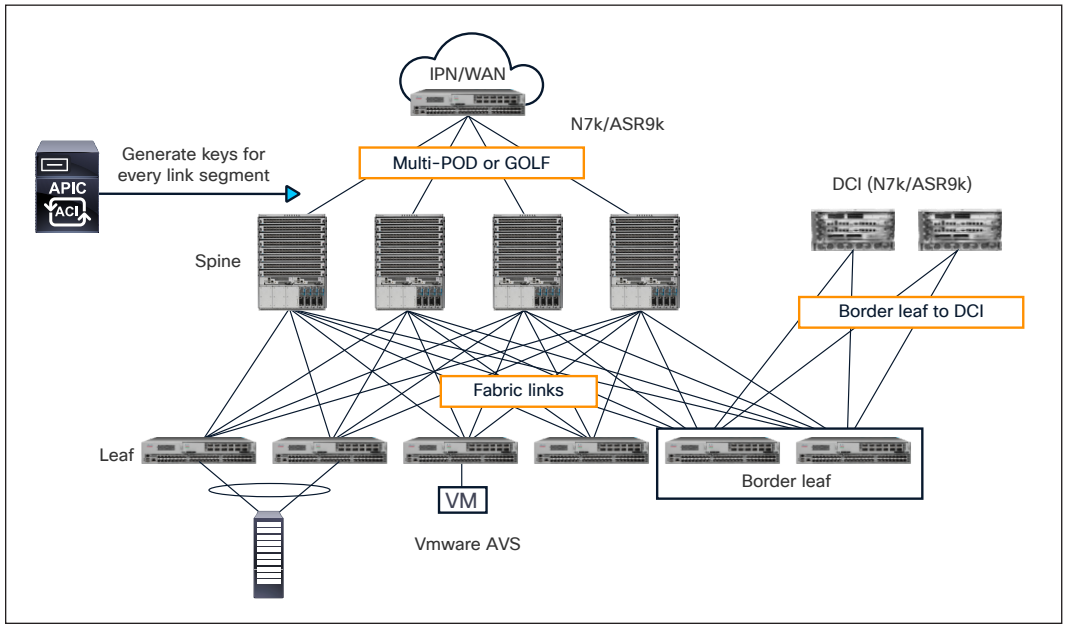


Figure 6. MACsec Encryption Licensing Components

The encryption capability requires purchase of the following:

- ACI spine-leaf architecture with an APIC cluster for the main fabric
- One Essentials, Advantage, or Premier license per device in the fabric
- An add-on license ACI-SEC-XF/GF per device (leaf) for encryption
- An add-on license ACI-SEC-XF per device (fixed spine) for encryption
- An add-on license ACI-SEC-XM per device (modular spine) for encryption

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

7.3.2 Encryption (CloudSec)

Cisco ACI Multi-Site uses VXLAN overlay tunnels over the Intersite Network (ISN) to interconnect each ACI data center site; these VXLAN tunnels are not encrypted. CloudSec is a new technology that solves this problem by providing site-to-site encryption for all data center interconnect traffic in a Cisco Nexus Dashboard Orchestrator deployment. Encryption keys are configured on each site's APIC, and Cisco Nexus Dashboard Orchestrator will automatically exchange and distribute keys to sites as well as refresh keys automatically periodically.

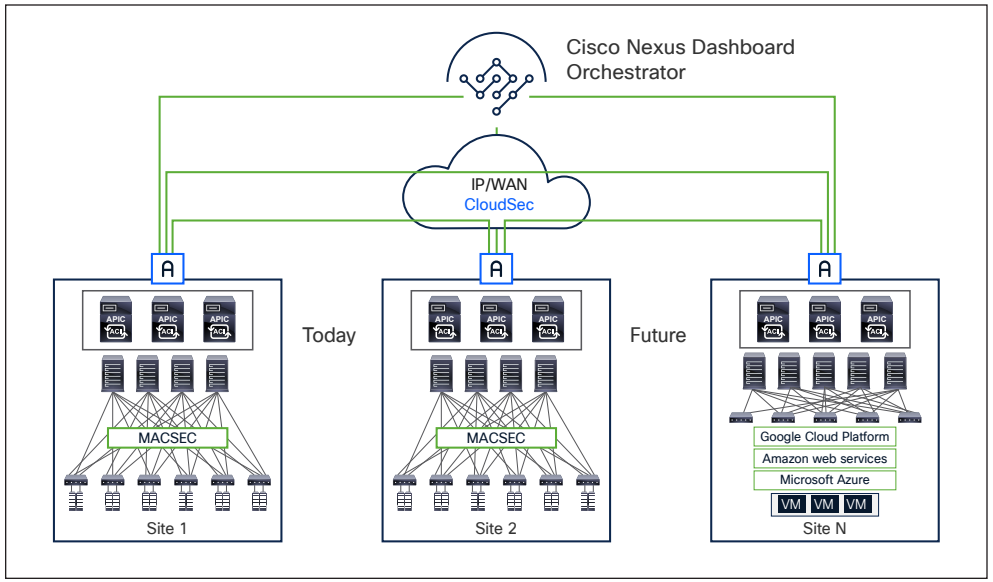


Figure 7. CloudSec encryption licensing components

The CloudSec encryption capability requires purchase of the following:

- ACI spine-leaf architecture with an APIC cluster for each site
- Deployment of a Cisco Nexus Dashboard Orchestrator to manage each site
- One Advantage or Premier license per device in the fabric
- An add-on license ACI-SEC-XF per device (fixed spine) for encryption
- An add-on license ACI-SEC-XM per device (modular spine) for encryption

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

7.4 Fiber Channel over Ethernet (FCoE)

Cisco ACI enables the configuration and management for Fibre Channel over Ethernet (FCoE) traffic on the ACI fabric. A typical implementation of FCoE protocol support on the ACI fabric enables hosts located on the Ethernet-based ACI fabric to communicate with SAN storage devices located on a Fibre Channel network.

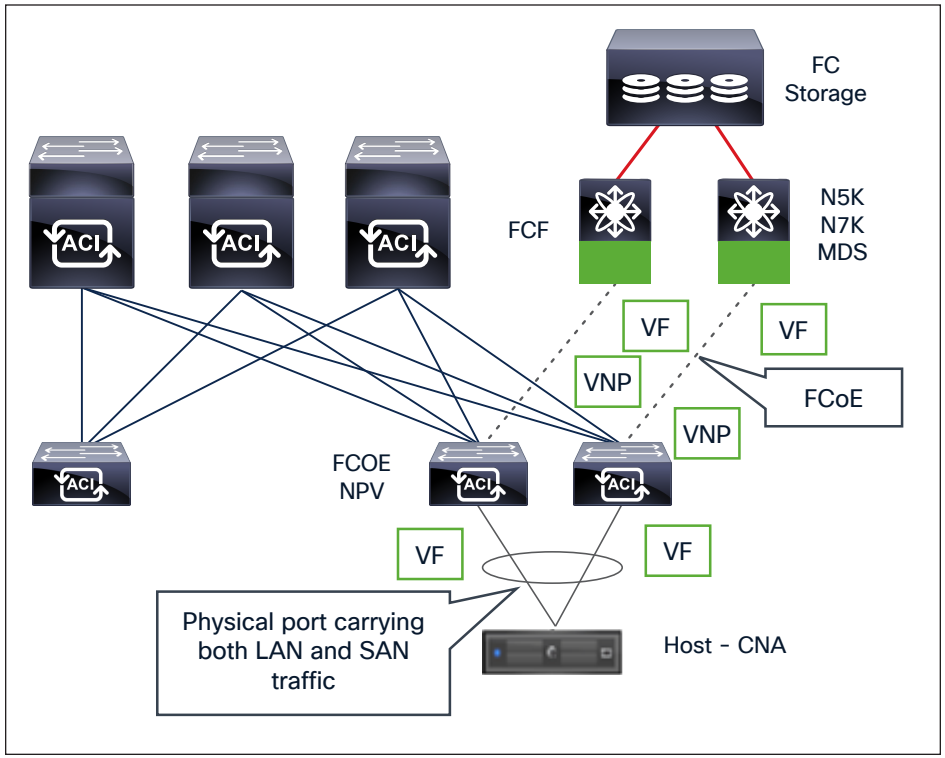


Figure 8. ACI FCOE licensing components

The FCoE solution requires purchase of the following:

- ACI spine-leaf architecture with an APIC cluster for the main fabric
- One Essential, Advantage, or Premier license per device for the main fabric
- An add-on license ACI-STRG per device with FCOE/FC NPV configuration

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

© 2026 Cisco and/or its affiliates. All rights reserved.

8. Cisco ACI Smart Licensing

Cisco Smart Licensing is a flexible licensing model that provides you with an easier, faster, and more consistent way to purchase and manage software across the Cisco portfolio and across your organization. And it's secure – you control what users can access. With Smart Licensing you get:

- **Easy Activation:** Smart Licensing establishes a pool of software licenses that can be used across the entire organization—no more PAKs (Product Activation Keys).
- **Unified management:** Cisco License Central (CLC) provides a complete view into all of your Cisco products and services in an easy-to-use portal, so you always know what you have and what you are using.
- **License flexibility:** your software is not node-locked to your hardware, so you can easily use and transfer licenses as needed.

To use Smart Licensing, you must first set up a Smart Account on Cisco License Central.

For a more detailed overview on Cisco Licensing, visit the Licensing Hub.

9. Cisco services and support

Achieve business outcomes faster with Cisco Services for Cisco ACI: The Cisco ACI Services portfolio provides a range of professional and support services for each stage of your Cisco ACI journey. Cisco ACI can deliver significant advantages for your business. To help you quickly gain the benefits of your Cisco ACI solution while also mitigating risk, we offer a comprehensive portfolio of services. These services provide expert guidance to enable you to accomplish your business and technical outcomes. Cisco Services can help ensure your success with Cisco ACI, delivering expert support for planning, designing, deploying, and supporting your new infrastructure. To get started in learning more about Cisco Services for ACI, visit this link.

Contents

At-a-glance: The Cisco ACI solution

Cisco ACI building blocks

1. Cisco ACI solution components
2. Cisco ACI deployment models
3. Cisco ACI licensing components
4. Cisco ACI tiered licensing
5. Greenfield ACI fabric deployment ordering guide
6. Brownfield ACI deployment ordering guide
7. Product solution purchasing reference
8. Cisco ACI Smart Licensing
9. Cisco services and support
10. Cisco Capital
11. More information

10. Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payment. Learn more.

11. More information

Cisco Commerce ordering tool	Click here
Cisco ACI solution data sheet	Click here
Cisco APIC data sheet	Click here
Cisco Nexus 9000 Series Switches data sheets	Click here
Cisco Nexus Insights	Click here
Cisco Nexus Dashboard	Click here
Technical white papers	Click here
Solution overviews	Click here
Release notes for Cisco ACI and APIC solutions	Click here
Release notes for Cisco Nexus 9000 Series Switches	Click here
Download Cisco ACI software	Click here

© 2026 Cisco and/or its affiliates. All rights reserved. Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

C07-736255-20 06/26