



## Introduction

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## About the Application Policy Infrastructure Controller

The Cisco Application Centric Infrastructure (ACI) is a distributed, scalable, multitenant infrastructure with external end-point connectivity controlled and grouped through application-centric policies. The Application Policy Infrastructure Controller (APIC) is the unified point of automation, management, monitoring, and programmability for the ACI. The APIC supports the deployment, management, and monitoring of any application anywhere, with a unified operations model for the physical and virtual components of the infrastructure. The APIC programmatically automates network provisioning and control that is based on the application requirements and policies. It is the central control engine for the broader cloud network; it simplifies management and allows flexibility in how application networks are defined and automated. It also provides northbound Representational State Transfer (REST) APIs. The APIC is a distributed system that is implemented as a cluster of many controller instances.

## About the ACI Simulator Appliance Server



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### Important

The ACI Simulator Appliance Server is no longer for sale after June 20, 2019, as noted [here](#). For recent and future releases, you can download the Cisco ACI Simulator VM, an OVA file that can be installed in a virtual machine (VM) on any server that meets the installation requirements.

The ACI Simulator Appliance Server can only simulate the Cisco Application Policy Infrastructure Controller (APIC) 4.2 releases and earlier. To simulate later releases, use the ACI Simulator virtual machine. For more information, see the [Cisco ACI Simulator VM Installation Guide](#).

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The intent of the ACI Simulator is to provide real, fully-featured Cisco APIC software, along with a simulated fabric infrastructure of leaf switches and spine switches in one physical server. Because the ACI Simulator includes Cisco APICs with real production software, you can use it to understand features, exercise APIs, and initiate integration with third-party orchestration systems and applications. The native GUI and CLI of the Cisco APIC use the same APIs that are published to third parties.

The ACI Simulator includes simulated switches, so you cannot validate a data path. However, some of the simulated switch ports have been mapped to the front-panel server ports which allows you to connect external management entities such as ESX servers, VMware vCenters, VMware vShields, bare metal servers, Layer 4 to Layer 7 services, AAA systems, and other physical or virtual service appliances. In addition, the ACI Simulator allows simulation of faults and alerts to facilitate testing and to demonstrate features.

One instance of the production Cisco APIC is shipped per server appliance. By contrast, the ACI Simulator includes three actual Cisco APIC instances and two simulated leaf switches and two simulated spine switches in a single server. As a result, the performance of the ACI Simulator is slower than deployments on production hardware.

Using the Simulator, you can perform operations on the simulated fabric using any of the following functional interfaces:

- graphical user interface (GUI)
- command line interface (CLI)
- application programming interface (API)

The ACI Simulator consists of simulation software running on a special version of the Cisco UCS C220 M3 or M4 High-Density Rack Server. For information about the hardware installation and requirements of the physical server, you can refer to the documentation for the Cisco UCS C220 Server at this URL: [http://www.cisco.com/en/US/docs/unified\\_computing/ucs/c/hw/C220/install/C220.html](http://www.cisco.com/en/US/docs/unified_computing/ucs/c/hw/C220/install/C220.html)



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**Note** The ACI Simulator software cannot be installed separately on a standard Cisco UCS C220 Server or on other servers. The software runs only on the ACI Simulator server, which has the following PID:

- APIC-SIM-S (based on Cisco UCS C220 M3 server)
  - APIC-SIM-S2 (based on Cisco UCS C220 M4 server)
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