



# Cisco Catalyst Center



## Cisco Catalyst Center is a powerful management system that leverages AI to connect, secure, and automate network operations.

Enterprise networks are at the heart of the digital infrastructure that power today's digital enterprises. Networks are business critical, and hence they must be robust and stable and must scale at the speed of business. Users expect mobility, uninterrupted connectivity, and seamless application experience, no matter where they are and how they are connected. An ever-expanding digital footprint, increasing use of public cloud, and remote and hybrid work introduce new risks.

How do you manage all these expectations and challenges without increasing complexity? You need a network management system that leverages AI to automate network operations securely and provide digital agility for the business. You need Cisco Catalyst Center.

Cisco Catalyst Center simplifies the IT experience to streamline complex network operations, resulting in a faster time to value. Leveraging AI/ML, Cisco Catalyst Center can increase business agility and operational efficiency by creating consistent orchestration across a wired and wireless network.

As part of the Cisco® smart buildings solution portfolio, Cisco Catalyst Center helps you achieve your sustainability goals with energy management and automation.

Whether you want to deploy in a cloud service or an on-premises environment, Cisco Catalyst Center offers operational flexibility and a choice of deployment options. The Cisco Catalyst Center physical appliance is designed for enterprise-scale networks and is available for on-premises management. The Cisco Catalyst Center Virtual Appliance is designed to be deployed in a public cloud service such as AWS, or a VMware ESXi virtual environment located on premises, in a private cloud, or in a colocation facility.

### Benefits

- **Get the network up and running faster** with intelligent and automated provisioning.
- **Save valuable human capital** with automation of routine administrative tasks.
- **Reduce outages and minimize business impact** with AI-driven insights and predictive performance analytics.
- **Realize efficiencies of business process automation** using an integrated Cisco and third-party ecosystem and leveraging the Cisco Catalyst Center APIs.
- **Deliver optimal user experience** with deep insights into application performance and end-users' application experience.
- **Secure the digital enterprise** with intuitive security policy management, strong AI-driven enforcement, and zero-trust network access.
- **Help the organization achieve sustainability goals** by managing IT energy and enabling smart buildings.

“I was particularly impressed by the fact that AI supports us in determining causes. Cisco Catalyst Center automatically collects information from network equipment, and AI analyzes it to identify the type and cause of the problem and suggest solutions.”

– Eiji Hiro  
IT Infrastructure Promotion Division,  
[Denso Corporation](#)

## Simplify the IT experience with Cisco Catalyst Center

The world is changing fast. You need to be agile, resilient, and productive wherever and whenever. Cloud and the future of work are offering incredible opportunities to deliver new and transformative experiences to your users. These experiences span all parts of our world, from things and applications to people. This demands more from the underlying network, causing it

to continually expand. Enterprises find stopgap solutions to expand the network and address their needs, resulting in increased fragmentation and exposure to more security risks. As a result, the IT experience suffers. When the IT experience suffers, the user experience suffers. What is the solution? Simplify the IT experience with Cisco Catalyst Center.

### Scale at the speed of business

Cisco Catalyst Center helps you design, deploy, and manage large-scale networks at a fast pace with features such as auto discovery, zero-touch provisioning, and configuration automation.

- Plan and manage capacity and help ensure optimal coverage with AI-enhanced Radio Resource Management (RRM), Wireless 3D Analyzer, Wi-Fi 6/6E dashboards, planning tools, etc.
- Gain deep insights into the health of your network, and proactively identify and resolve issues quickly, using AI insights and automation.
- Streamline IT processes and improve operational efficiencies using out-of-the-box integrations with Cisco applications such as ThousandEyes®, Cisco Spaces, and Splunk as well as third-party solutions such as ServiceNow ITSM. Use Cisco Catalyst Center’s advanced APIs to build custom automation and realize the benefits of further business process automation by integrating it with your applications.

“The way Cisco Catalyst Center configures devices makes it much easier for us to roll out new networks and new devices remotely from a central location. There are huge advantages in terms of the reduction on IT resources as well as the time to get a new location up and running.”

– Pat Cluney  
Senior Technical Officer, Network Systems,  
[SETU](#)

## Deliver an optimal user experience

Cisco Catalyst Center simplifies the IT experience and helps deliver an optimal end-user experience.

- Gain deep insights into performance and end-users’ experience of applications with Application Assurance. Identify issues, establish root cause – whether the issues are with the application or the network – and resolve issues quickly. Built-in integrations with ThousandEyes and other Cisco solutions enhance these capabilities.
- Improve Wi-Fi spatial coverage and performance using Wireless 3D Analyzer. Manage users’ experience of Wi-Fi using insights gained through integrated Cisco Spaces.
- Use available integration with Webex® by Cisco, Microsoft Teams, and other applications to unravel the complexity of application and network interactions and deliver a better hybrid work experience.
- Identify and resolve issues with the vast majority of end-user devices using exclusive integrations with device and chipset vendors including Apple, Samsung, and Intel.

## Secure the digital enterprise

Cisco Catalyst Center simplifies zero trust for the workplace and secures the digital enterprise.

- Enforce strong authentication and ensure access to only authorized resources using integrated Cisco Identity Services Engine (ISE) and easy-to-administer policy management.
- Limit the attack surface using granular and multilevel macro- and micro-segmentation.
- Detect anomalous behavior and stop its manifestation into security threats using Cisco AI Endpoint Analytics and endpoint trust score automation.
- Reduce security vulnerabilities to improve your security posture with software and configuration compliance checks, automated software image management, and configuration automation.
- Reduce exposure to security threats with an integrated Cisco security suite that includes Cisco Umbrella®, Cisco Secure Network Analytics, and Cisco Talos®, among others.

“With a lean IT team of 10 members managing 45 campus locations concurrently, they were spending weeks at a time on site trying to diagnose network issues. Now, with Cisco Catalyst Center, they can automate and monitor all sites remotely as well as leverage AI-based insights to reduce the Time to Resolution for network issues from two weeks to just two minutes.”

– Vaughan Hamblen  
Executive Director of Technology, [Keller Independent School District](#)

## Help achieve sustainability goals

Cisco Catalyst Center enables smart workspaces and helps you achieve your organization’s sustainability goals.

- Enable smart buildings by connecting, securing, and managing various IoT devices and environmental sensors.
- Optimize the energy footprint of the Power over Ethernet (PoE) network infrastructure with insights into power consumption characteristics of network devices as well as PoE devices.

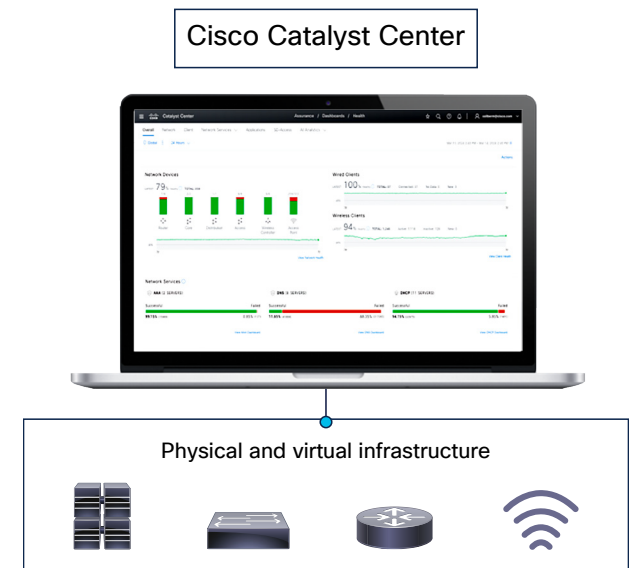


Figure 1. Cisco Catalyst Center

## Key features

Cisco Catalyst Center is a powerful network management solution that enables management of the entire campus network – headquarters and branch, wired and wireless, IT and OT – all from a single console. Cisco Catalyst Center provides operational flexibility. The software can be deployed on a dedicated physical appliance, a customer-supplied on-premises VMWare ESXi server, or in AWS cloud service. It is a comprehensive solution with functionality that spans all aspects of modern network management including design, discovery,

policy, provisioning, predictive analytics, intelligent monitoring, visibility, and compliance. It leverages AI/ML to simplify management and allow organizations to focus their valuable human capital on business innovation. Cisco Catalyst Center includes built-in automation and simplified workflows to help ensure efficiency and consistency in operations. It enables business process automation with an extensive Cisco ecosystem and integrated third-party applications.

Table 1. Key features and benefits of Cisco Catalyst Center

Feature	Description	Benefits
<b>NETOps innovations</b>		
<b>Software Image Management (SWIM)</b>	Build a central repository of software images and apply them to devices. Manage “golden” images for each device family. Automate pre-checks and post-checks for upgrades and application of software images.	Automate software upgrades. Enforce consistency of software versions across the network and help ensure compliance.
<b>Simplified campus automation</b>	Optimize the discovery and configuration of devices in your network with a more streamlined simple and easy-to-use automation tool. With features such as simplified discovery, IT can discover devices within the network in just a few steps. Also available is a more streamlined GUI that provides a more-simplified view of switch configurations and software details on a port-by-port basis.	Provide more efficient tools for IT that will allow them an improved way to discover devices, learn and gain better insights about these devices, and streamline their day-to-day activities.
<b>Configuration Visibility and control</b>	Preview and approve device configuration changes before they are applied to the network. Supervisors are presented with the affected configuration lines in a “before and after” window for review before they are pushed to the devices.	Provide a more efficient way of executing the automation and configuration process while retaining proper software conformance. This is especially critical for larger IT teams.

Feature	Description	Benefits
<b>Third-party Device support</b>	Gain visibility for third-party devices that support standard SNMP MIB2. Information includes device uptime, visibility of the devices in the topology, and discovery and inventory support.	Provides simplified operations for customers with multi-vendor environments and is a single source of visibility for network devices and firewalls.
<b>Plug and Play (PnP)</b>	Perform zero-touch provisioning of new devices. Provision off-the-shelf Cisco devices across the entire portfolio of Cisco Catalyst® wired and wireless devices simply by connecting them to the network.	Enable deployment of new devices in minutes, without the need for onsite support visits. Eliminate repetitive tasks and staging of devices.
<b>Network and client health dashboards</b>	View the overall operational status of network devices. Gain visibility into the status of end-user devices.	Gain a better view of the overall health of the network while drilling down for additional details to investigate issues faster.
<b>Workflows</b>	A library of built-in guided workflows is available. Their scope spans onboarding of network devices, endpoint registration, configuring integrations, etc.	Ease routine and complex activities and reduce the possibility of errors.
<b>AIOps innovations</b>		
<b>Machine Reasoning Engine</b>	A fully automated inference engine that uses AI to perform root cause analysis and corrective actions.	Enable first-level operations to troubleshoot and remediate issues quickly. Implement full automation and/or guided manual workflows to suit the comfort level of the organization.

Feature	Description	Benefits
<b>Application 360</b>	Provides visibility and insights into the performance of applications. Together with Client 360, it provides insights into end-users' experience of applications. Integrations with leading collaboration platforms, including Webex by Cisco and Microsoft Teams, are available out of the box.	IT administrators gain visibility into the performance of applications, allowing them to quickly isolate network issues from application issues and improve end-users' application experience.
<b>Device 360 and Client 360</b>	Displays device and client connectivity from any angle or context. Includes information on topology, throughput, and latency from different times for various applications.	Provides a detailed view of the performance of any device or client over time and from any application context. Provides very granular information for troubleshooting.
<b>Wireless 3D Analyzer</b>	Three-dimensional wireless propagation and mapping experience takes you into a virtual representation of your office space to visualize the Wi-Fi signal propagation across multiple floors. Provides insights into client experience through Integration with Cisco Spaces 3D client location maps.	Accurate and fast wireless heatmap that allows simulations for adding or moving access points. Accurate coverage planning reduces over dimensioning of access points. Three-dimensional client-location and wireless-propagation maps enable faster troubleshooting of wireless issues.
<b>AI-enhanced Radio Resource Management (RRM)</b>	AI-enhanced RRM evaluates past RF experiences, predicts future trends, and recommends configurations, resulting in minimal configuration changes and a more consistent end-user experience. The RRM simulator allows administrators to model these recommendations and verify changes to the design.	IT can now manage all sites and locations, eliminating the need for time-consuming RF tuning. This enhances the wireless performance in dynamic environments, resulting in a better client experience for users.



Feature	Description	Benefits
<b>SecOps innovations</b>		
<b>Group-based policy and segmentation</b>	A simple visual matrix where IT can create groups of users or endpoints and assign policies for application and resource access. Cisco Catalyst Center will then configure segments and microsegments based on these groups and policies.	Simplifies the creation of policies and segmentation for both fabric and nonfabric networks. Enables clear visualization of policies and segmentation between source and destination groups.
<b>AI Endpoint Analytics</b>	Uses deep packet inspection and other methods to identify endpoint clients upon accessing the network and enforces policies that are already defined. It then uses AI to place them into logical groups so that policies can be assigned based on the endpoint classification.	Greatly simplifies onboarding and provisioning of IoT endpoints in larger facilities, such as hospitals and manufacturing plants. Provides immediate identification of unauthorized endpoints connecting to the network.
<b>Rogue Management and aWIPS</b>	Enables detection of threats from unauthorized access points. Detects and mitigates wireless intrusion threats.	Provides detailed threat analysis and a global view of all rogue access points detected in the network, with insight into the highest-priority threats so that they can be quickly identified and mitigated.
<b>PoE analytics</b>	Provides insights into PoE devices, power consumption, operational status, etc. In addition, it provides power consumption details of the PoE switch as well as power loss attributed to thermal dissipation.	As a key component of the Cisco smart buildings portfolio, Cisco Catalyst Center enables monitoring of PoE devices and assists with capacity planning of PoE infrastructure.

Feature	Description	Benefits
<b>LAN Automation enhancements</b>	<p>LAN Automation now accommodates smaller IP address pools, so precious IP addresses are not wasted. When IT maps device serial numbers to hostnames, manual loopback address configuration is introduced, allowing IT additional control over the network design.</p>	<p>LAN Automation enhances how customers discover and refresh network devices. This is especially important for larger networks that want to save time in their refresh.</p>
<b>DevOps innovations</b>		
<b>Integrated ecosystem</b>	<p>Out-of-the-box integrations with Cisco's suite of software solutions, including Cisco ISE, Cisco Secure Network Analytics, Cisco Umbrella, Cisco Spaces, Cisco ThousandEyes, and Webex and Splunk. Technology partnerships and integrations with Intel®, Apple, and Samsung allow deep insights into end-user devices. Available integrations with third-party solutions such as ServiceNow ITSM allow business process automation and analytics.</p>	<p>Cisco Catalyst Center, together with the extensive Cisco ecosystem, provides deep insights, enhances security, and enables automation. enabling IT to improve the end-user wireless experience. Other third-party integrations allow business process automation, improving business agility.</p>
<b>Application Programming interfaces (API)</b>	<p>Cisco Catalyst Center offers rich RESTful APIs classified as intent APIs, integration APIs, and events and notifications. Multiple Software Development Kits (SDKs) including Python SDK and an Ansible certified collection are available.</p>	<p>Enable network automation with intent APIs and business process automation with external integrations. Available SDKs with popular platforms make integration quick and reliable.</p>

## Getting started with Cisco Catalyst Center

Cisco offers a number of ways to get started with Cisco Catalyst Center, depending on your networking goals. The automation, assurance, and policy capabilities are delivered through two software subscription tiers that are purchased with your Cisco Catalyst switches and renewed after a 3-, 5-, or 7-year term:

- Cisco Catalyst Advantage, which enables complete policy-based automation, assurance, and analytics.
- Cisco Catalyst Essentials, which offers basic automation such as Plug and Play (PnP), Easy QoS configuration and management, and embedded Cisco Software Support.

The more value-rich offer, Cisco Catalyst Advantage, delivers policy-based automation with SD-Access and Cisco Catalyst Center. It includes Cisco ISE Advantage licenses (quantity dependent on switch model). Both Cisco Catalyst software tiers include embedded base product-level software and hardware support.

To see a full list of features, visit the [Cisco Catalyst software subscription for Switching feature matrix](#).

To see a full list of software features for wireless, visit the [Wireless feature matrix](#).

## Cisco Services

With IT environments more complex, rapidly changing technologies, and pressure to do more with less, you need expertise to move faster, insights to take action quickly and scale, and best practices to empower your team to stay ahead for what's next. For all of this to come together, we're transforming the way you work with Cisco. We're working with you to be more proactive and predictive, delivering expertise and insights at scale to accelerate your success.

With [Cisco Success Track for Campus Network](#), we stay with you at every step through the entire lifecycle journey to help

you remove the barriers between you and your goals and get faster return on your Cisco Catalyst Center. The Cisco Success Track for Campus Network is a packaged service that connects you to Cisco expertise, insights, learning, and support to help you realize value faster with a new way of engaging with Cisco – through a one-stop, personalized digital experience with Cisco CX Cloud.

With Cisco CX Cloud, you get a contextual view of your IT environment and the guidance to predict better outcomes, faster.

## Cisco Capital

**Flexible payment solutions are available to help you achieve your objectives.**

Cisco Capital® makes it easier to get the right technology to achieve your objectives, enable business transformation, and 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 payments. [Get payment details](#).

## Customer success stories

Cisco customers in every industry are changing the way they manage their networks with Cisco Catalyst Center. Take a look at the latest customer case studies to learn how customers are deploying Cisco Catalyst Center and how it is aligning their network operations with their business goals. [Read stories.](#)

## Promotions

Going digital has never been easier. Check out the latest promotions to help you get started on your journey to a digital-ready network. [Find deals.](#)

## Why Cisco?

Cisco is the worldwide leader in technology that powers the Internet. Cisco Catalyst Center along with the Cisco Catalyst family empowers IT to connect, seamlessly and securely, anyone and anything from anywhere. With innovations in automation, simplicity, and network insights, Cisco Catalyst Center creates consistent orchestration across a wired and wireless network, providing IT with business agility and operational efficiency.

## Next steps

For more information:

- Visit the [Cisco Catalyst Center website](#) and the [Catalyst Center Datasheet](#) for more information and resources.
- Visit the [Cisco Catalyst Center DevNet page](#) and take full advantage of the Cisco Catalyst Center programming capabilities.
- Connect with peers and Cisco specialists in the [Cisco Catalyst Center community page](#).

