



Campus Service Assurance with Cisco Catalyst 9000 Switches

Today's campus environments are deeply interconnected with Software-as-a-Service (SaaS) applications, cloud-based services, and many service providers across the global internet. Every day, users access externally hosted applications over hundreds of networks outside of your control. You may not own these networks, but you still own service delivery outcomes—outcomes that can be impossible to influence when you have no visibility outside the campus. When users inevitably experience poor performance or service disruptions, it can take hours or even days to determine if the problem is your network, someone else's network, or the application.

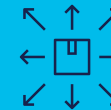
Figure 1. Cisco Catalyst 9000 family of switches



ThousandEyes benefits



Reduce fault isolation
from days to minutes



Gain evidence-based
escalations with providers



Optimize application
performance over
any network

Cisco® ThousandEyes Internet and Cloud Intelligence delivers end-to-end visibility from your campus networks to internet, SaaS, and cloud-based services that are critical to your business but outside your direct control, helping you to meet service commitments and ensure excellent user experience.

Figure 2. Cisco Catalyst 9300 Series switch



Visibility from switch to SaaS—and everything in between

ThousandEyes' visibility, combined with the Cisco Catalyst® 9300 and 9400 Series access switches for campus and branch offices, enables enterprises to rapidly gain insight into external services from within the campus LAN, where users are connected.

Use ThousandEyes on the Catalyst 9300 and 9400 Series to:

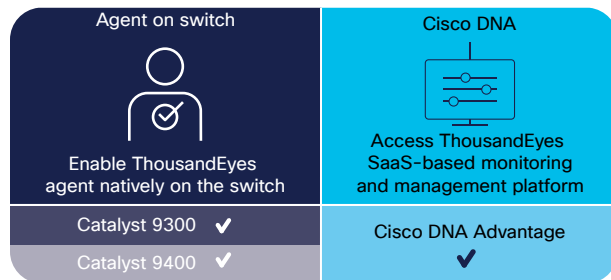
- Help ensure the reachability and availability of campus-critical SaaS, internally hosted apps, and cloud-based services over any network
- Measure and track employee experience in SaaS applications such as Microsoft 365, Salesforce, and Webex by Cisco
- Gain visibility into SD-WAN deployments through in-depth visibility into both underlay and overlay network performance
- Correlate external service delivery paths with internal LAN and network device metrics, and alert and report on the health and availability of all services connected to the campus
- Gain insights into device performance and network topology maps through Simple Network Management Protocol (SNMP) polling and automatic device discovery

Table 1. Practical Usage

Campus connectivity	Application experience	Modern WAN
See end-to-end network paths and metrics from the campus LAN to SaaS, internal apps, IT services, and network endpoints.	Understand how users are experiencing an application with page load waterfalls and metrics and multistep transactions that go beyond an application's front door.* * Requires the SSD storage option on the Catalyst 9300 and 9400 Series.	Correlate overlay visibility with a hop-by-hop Layer 3 underlay path, helping you maintain visibility into underlying network transport and external Border Gateway Protocol (eBGP) routing when deploying SD-WAN and cloud-based security services.

ThousandEyes on Catalyst 9300 and 9400 Series switches

Catalyst 9300 and 9400 Series switches with a Cisco DNA Advantage subscription natively support the ThousandEyes Enterprise Agent and will receive one network/web test running at a 5-minute interval per license.* For each supported Catalyst 9000 switch with a Cisco DNA Advantage subscription, customers can run scheduled tests on applications or network endpoints and visualize the entire network path, alongside correlated performance from applications, the network, routing, and even network devices.



* Each Catalyst 9300 or 9400 Cisco DNA Advantage subscription entitles the customer to run the equivalent of one ThousandEyes network or web test every 5 minutes from a ThousandEyes Enterprise Agent (22 units per month), up to a maximum of 110,000 units per month of ThousandEyes test capacity per customer. ThousandEyes Cloud Agent access is not included in the Cisco DNA license. Test capacity can be increased and Cloud Agents accessed with purchase of additional ThousandEyes Network and Application Synthetics.

ThousandEyes Enterprise Agent hosted on Catalyst 9300 and 9400 Series switches

Table 2. System Requirements

		ThousandEyes Enterprise Agent on flash	ThousandEyes Enterprise Agent on SSD
App mode		Embedded	Custom
Type of agent		Lightweight Enterprise Agent	Full Enterprise Agent
App hosting container		Docker	Docker
Resources	Minimum required CPUs	1 vCPU	2 vCPUs
	Maximum allowed CPUs	2 vCPUs	2 vCPUs
	Memory	2 GB RAM	2 GB RAM
	Storage reserved for app	1 GB for persistent logging by app in the flash file system	Depends on size of SSD
ThousandEyes tests		Network HTTP DNS server DNS trace DNSSEC SIP/RTP FTP	Page load Transaction + Network HTTP DNS server DNS trace DNSSEC SIP/RTP FTP