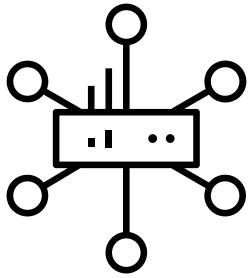
The bridge to possible



Cisco ASR 1000 Series Aggregation Services Routers

Enhance your network with an industry-leading SD-WAN headend

Your network traffic volumes are likely exploding because of mobility, cloud networking, video, and other applications. You need more performance in locations where traffic converges to avoid bottlenecks and keep the digital experience consistent.

Cisco® ASR 1000 Series Aggregated Services Routers (ASR 1000) have the power to aggregate all your traffic streams from branch offices and other sites while running the intelligent services that help you control, filter, and secure traffic. You get consistent application performance among enterprise sites and cloud locations.

All this is provided on a compact, universal hardware platform. Consistent software operates across the whole product family, so you can deploy and manage all your ASRs in the same way. Many ASR 1000 models also support SD-WAN, so you can set up, provision, and make adjustments to your sites and cloud network from the comfort of a remote console.

Super fast. Always on.

Cisco ASR 1000 Series routers deliver the extra oomph you need to data centers, large offices, and service provider networks. The boost in performance comes from the routers' split data and control plane architecture. The control plane is dedicated to control functions, and the data plane is dedicated to traffic forwarding, so you can program your data plane with predictable performance.

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Benefits

- Network speeds to 200 Gbps and 50 Gbps in SD-WAN
- High-performance support for multiple concurrent services
- Compliance with industry security mandates
- All-in-one compact router design for OpEx and CapEx savings
- In-service software upgrades and redundant power supply for high availability
- High-speed crypto and firmware defenses for better security and performance

“By providing network connectivity that is very fast and always on, we’re enabling our scientists to collaborate in ways they never could have collaborated before.”

Eric Hicks
Director of Information Technology, Burnham Institute for Medical Research

Another source of performance power is our Cisco QuantumFlow Processor™. The processor delivers massive parallel processing so you can activate many enhanced routing services simultaneously while maintaining high performance.

The ASR 1000 Series’ architecture supports a redundant design for five-nines (99.999 percent) availability. The ASR 1006-X and ASR 1009-X chassis support N+1 redundancy of power supply, for the flexibility to balance uptime, cost, and the size of your carbon footprint.

Cisco SD-WAN capability can be enabled on the ASR 1000 Series platforms with Cisco IOS® XE. Cisco SD-WAN offers an entirely new way to manage and operate your WAN infrastructure. This cloud-delivered architecture offers secure, flexible, and rich services. And together, Cisco SD-WAN and the ASR 1000 Series platforms provide integrated security built right in for branch security with these capabilities:

- Application-aware enterprise firewall
- DNS layer enforcement (Cisco Umbrella®)

Application visibility

Applications and users are more distributed than ever, and the internet has effectively become the new enterprise WAN. As organizations continue to embrace internet, cloud, and SaaS, network and IT teams are challenged to deliver consistent and reliable connectivity and application performance over networks and services they don’t own or directly control. Cisco ThousandEyes is natively integrated on eligible Cisco Catalyst® 8000 edge platforms to expand visibility across the internet, cloud, and SaaS.

- Gain hop-by-hop visibility into network underlay, including detailed path and performance metrics.
- Monitor SD-WAN overlay performance and routing policy validation.
- Measure the reachability and performance of SaaS and internally owned applications.
- Establish network and application performance baselines across global regions before, during, and after deployment of SD-WAN to mitigate risk and validate key performance indicators (KPIs).
- Isolate fault domains and provide actionable network insights that drastically expedite troubleshooting and resolution before users are impacted.

Unified access security and multi-factor authentication

Zero trust security model, allows SD-WAN secure connections to all applications (whether on premises or in the cloud) based on the trust worthiness of users and devices.

A variety of models and licensing options help you meet the changing speed and budget requirements of your various locations. You can choose from router models that support speed ranges from 2.5 to 200 Gbps to get just the right price/performance ratio for a particular site. The product series contains nine ASR models (Table 1) in form factors ranging from a single Rack Unit (RU) to 13 RU.

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Table 1. ASR 1000 Router models

ASR model	1001-X	1002-X	1001-HX	1002-HX	1004	1006	1006-X	1009-X	1013
Speed	2.5 to 20 Gbps	5 to 36 Gbps	44 to 60 Gbps	44 to 100 Gbps	20 to 40 Gbps	20 to 100 Gbps	40 to 200 Gbps	40 to 200 Gbps	40 to 200 Gbps
Typical Uses	▪ High-end branch ▪ Enterprise SD-WAN or Internet edge ▪ Route Reflector ▪ Data center Edge	▪ Enterprise SD-WAN or Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Enterprise SD-WAN or Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Enterprise SD-WAN or Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Enterprise WAN or Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Large enterprise Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Large enterprise SD-WAN or Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Large enterprise Internet edge ▪ Service provider edge ▪ Data center Edge	▪ Large enterprise Internet edge ▪ Service provider edge ▪ Data center Edge

Accelerate your intent-based networking journey with Cisco Services

With proven experience, best practices, and innovative tools, we help you confidently migrate, adopt, deploy, and manage your new solutions. View all services for routers at: https://www.cisco.com/c/en/us/products/routers/service-listing.html.

How to buy

To view buying options and speak with a Cisco sales representative, visit https://www.cisco.com/c/en/us/buy.html.

Next steps

For more information about the Cisco ASR 1000 Series, visit https://www.cisco.com/go/asr1000.

To further compare models, visit https://www.cisco.com/c/en/us/products/routers/asr-1000-series-aggregation-services-routers/models-comparison.html.

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