

Cisco DNA Software Subscriptions for Wide Area Networks

Cisco Digital Network Architecture

Cisco® Digital Network Architecture (Cisco DNA) is your team’s bridge to an intent-based network. It is an open, extensible, software-driven architecture that accelerates and simplifies your enterprise network operations while lowering costs and reducing risk. Only Cisco provides a single-network fabric that is powered by deep intelligence and integrated security to deliver automation and assurance across your entire network organization at scale. Cisco DNA gives IT time back from time-consuming, repetitive network configuration tasks so you can focus on the innovation your business needs.

Cisco DNA Software subscriptions provide customers with four key benefits:

- Investment protection of software purchases through software-services-enabled license portability
- Software suites that address typical customer use-case scenarios at an attractive price
- Flexible licensing models to smoothly distribute customer’s software spending over time
- Access to new technology from Cisco

Table 1 outlines common IT management challenges and the ways that Cisco DNA Software helps customers to address them.

Table 1. IT management challenges and Cisco DNA Software benefits

IT management challenges	Cisco DNA Software benefits
<p>Shrinking IT budgets Budgets are shrinking while IT demands continue to accelerate. As the costs of IT and downtime skyrocket, companies need to balance shrinking budgets with easy-to-deploy networks that enhance operational efficiency.</p>	<p>Delivers more value for your money Cisco DNA Software is designed for typical customer use scenarios and offered at a better-together price, making it easier and less expensive to deploy complete solutions.</p> <p>Increases investment protection Software-services-enabled license portability lets your software licenses stay current through hardware upgrades and replacements at no additional cost.</p>
<p>Infrastructure inflexibility IT organizations lack an automated way to keep pace with changing business needs and demands for more resources. It often takes months or weeks to procure and provision a new network service.</p>	<p>Enhances business agility Cisco DNA Software delivers critical business solutions and provides you with the tools you need to deploy, maintain, and manage your software.</p>
<p>Lack of buying options Organizations need more options for buying software to improve their flexibility, reduce risk, and cut costs.</p>	<p>Supplies flexible licensing models Evenly distribute your software spending over time with subscription-based and other flexible purchasing models.</p>
<p>Implementation risk Deploying new software and implementing new use cases can cause major disruptions to current operations.</p>	<p>Reduces risk Cisco’s technical and professional services provide the expertise, smart tools, and proven processes that reduce risk and lower downtime.</p>
<p>Excessive time and costs for maintenance Most of your IT budget and most of your workloads are focused on routine maintenance, limiting your ability to innovate and grow your business.</p>	<p>Accelerates ROI and time-to-value Optimize the performance of your networks to get the most out of your technology investments. Accelerate your business outcomes with expert guidance from Cisco technical and professional services.</p>

Benefits of software subscriptions

Software subscriptions provide numerous benefits:

- **Faster access to innovation**
 - **Frequent access to the latest features:** New features are being released more often than in the past. Subscriptions give you regular, real-time access to the latest features and accelerate your journey to the cloud.
 - **Up-to-date security protection:** Software subscriptions help you stay current with changing security requirements through access to the latest features.
 - **Software refresh independent of hardware:** Subscriptions free the software refresh cycle from the hardware for ongoing access to innovation.
- **Enhanced agility**
 - **Capability to renew and scale what you want:** Stay synchronized with the dynamic nature of your business. Easily update your technology capabilities as your business needs change.
 - **License portability for flexibility:** Subscriptions enable shorter planning cycles and help avoid the overspending associated with long-term capacity planning.
- **Better financial planning**
 - **Linear, predictable budget spending:** Subscriptions give you more spending predictability and linearity and help avoid peaks and valleys.
 - **Shift from Capital Expenditures (CapEx) to Operating Expenses (OpEx):** Be OpEx-centric in the cloud and consumption economy era. In addition, you lower your initial investment.
 - **Keep vendors focused on value:** Subscriptions keep vendors more focused on growing value, a key decision-making factor at renewal time.

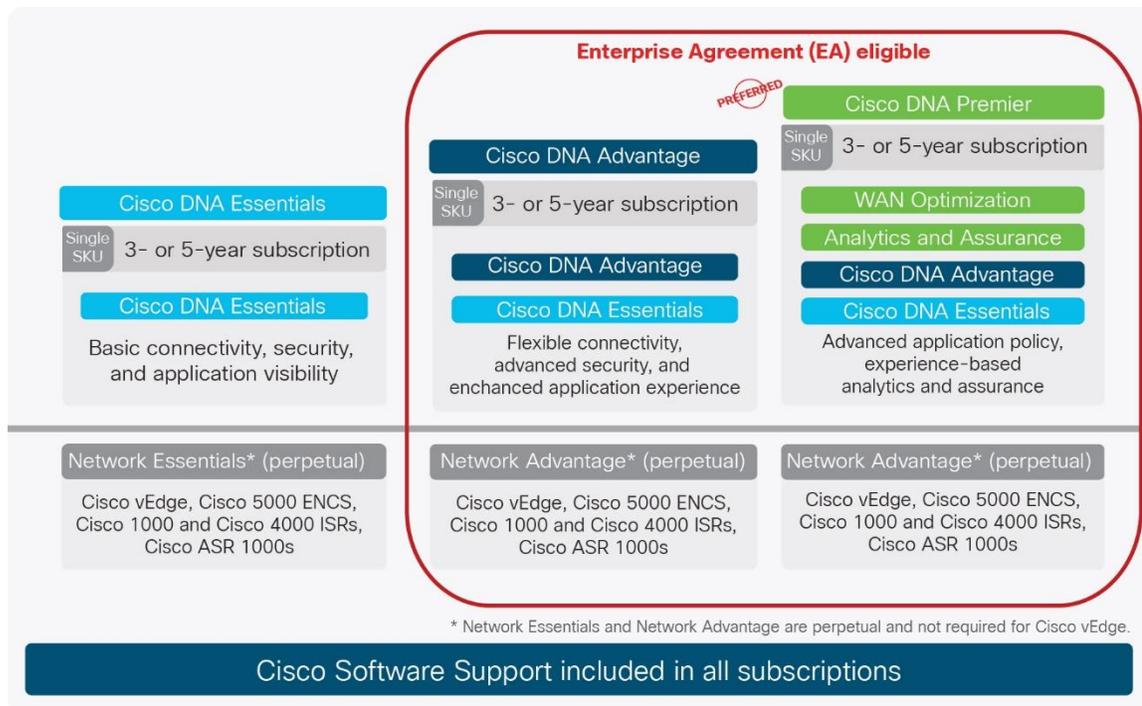
Product overview

Massive transformation is happening in wide-area networks with the second wave of software-defined networking moving from the data center to the WAN. Cisco is reinventing the enterprise network with a new era of intent-based networking solutions that include policy-based orchestration, automation, and assurance. Customers have access to the latest innovations through simple subscription tiers and management flexibility, in the cloud or on premises (on-prem), across the routing stack. For customers who require pure-play enterprise-grade Software Defined WAN (SD-WAN), cloud networking and WAN network-as-a-service functions, the Cisco SD-WAN offer is the optimal solution. Cisco DNA Premier is the preferred offer.

Cisco DNA Premier for WAN subscription

Cisco DNA Premier delivers an unbound network on an open and extensible architecture to help you navigate the digital journey. These 3- and 5-year subscriptions include Cisco Digital Network Architecture (Cisco DNA) capabilities supported by Cisco SD-WAN analytics, automation, and security. SD-WAN subscription offers are categorized into good, better, and best solutions: Cisco DNA Essentials, Cisco DNA Advantage, and Cisco DNA Premier, respectively. Cisco DNA Premier is the lead offer and is eligible for an enterprise agreement (Figure 1).

Figure 1. Cisco DNA Software: routing subscription offer structures



Cisco DNA Premier for WAN subscription ordering information

Click [here](#) for Cisco DNA Premier for WAN subscription part number ordering information.

Preferred management

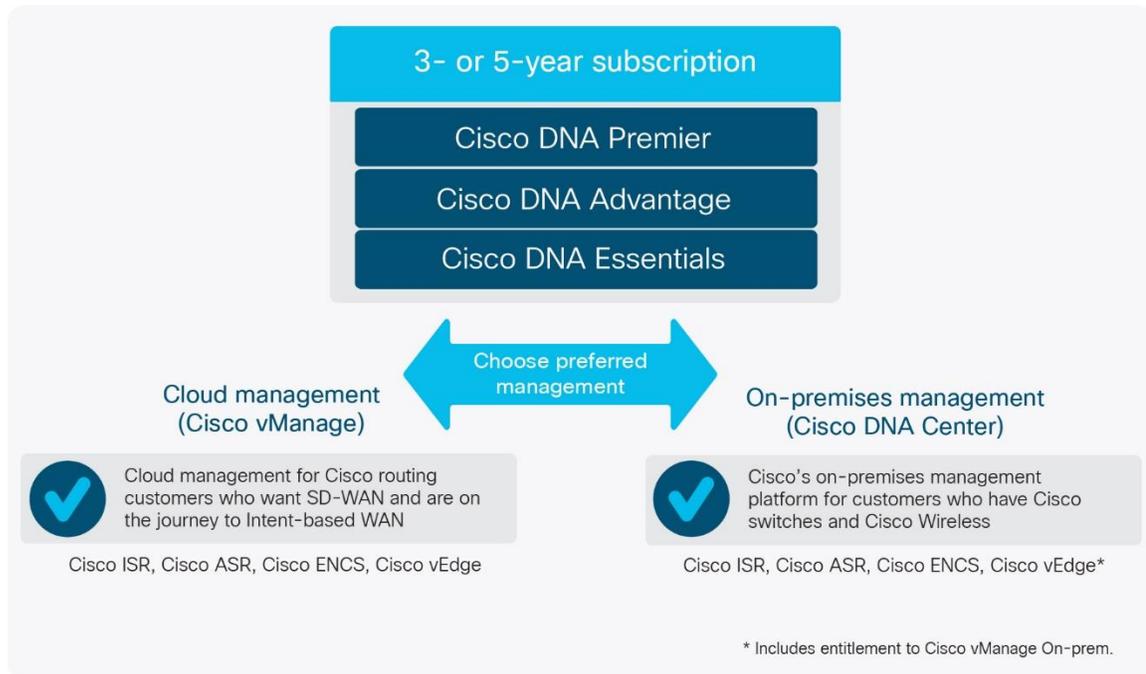
Cisco DNA Premier for WAN subscriptions offers maximum flexibility through cloud management or on-premises management options (Table 2 and Figure 3). Cloud management with Cisco vManage is the preferred option for customers who wish to simplify WAN deployments, accelerate digital transformation, and move toward intent-based WAN.

Table 2. Management options

Management options	Description
Cloud management	Provides simplicity of management from the cloud with Cisco vManage and is the recommended option for all SD-WAN deployments (Figure 2 and Table 3).
On-premises management	Manages WAN using Cisco DNA Center™ (Figure 2 and Table 4). The subscription for the Cisco vEdge platform includes entitlement for vManage On-prem.

WAN Cisco DNA licenses offer you both portability and flexibility to move from cloud management to on-premises management and across hardware platforms. There is no extra charge for porting licenses within the same bandwidth tier. Device family classifications for Cisco DNA Software are available in the [Software Device Tiering Guide](#).

Figure 2. Cisco DNA Premier management flexibility



Components of the Cisco DNA Premier offer

Cisco DNA Premier for SD-WAN delivers advanced application policy and experience-based analytics and assurance. Components of the Cisco DNA Premier offer include:

- [WAN Optimization](#) accelerates applications delivered from private and virtual private cloud infrastructures, using policy-based on-demand orchestration.
- [Cisco DNA Analytics and Assurance](#) puts data to work by assuring network performance with real-time and historical data analytics, to learn, adapt, and even detect problems before they happen.
- [Cisco DNA Advantage](#) delivers flexible connectivity, advanced security, and enhanced application experience.
- [Cisco DNA Essentials](#) provides basic connectivity, security, and application visibility.

All Cisco DNA subscription offers include embedded support with the Cisco Technical Assistance Center (TAC), knowledge base access, and software downloads. Additional services, such as Cisco Solution Support with Smart Net Total Care[®] and Cisco Solution Support with Software Support Services (SWSS) are available for purchase separately.

Cisco platforms supported by the Cisco DNA Premier subscription

Cisco DNA Premier supports the following platforms:

Fixed, high-performance routers

- [Cisco 1000 Series Integrated Services Routers \(ISRs\) \(1100-8P, 1100-4P\)](#)
- Cisco vEdge Routers (100 Series)

Modular, high-performance routers

- [Cisco 4000 Series ISRs \(4221, 4321, 4331, 4351, 4431, 4451\)](#)
- Cisco vEdge Routers (2000 and 5000 Series)

Aggregation services routers for service providers or the enterprise network edge

- [Cisco ASR 1000 Series Aggregation Services Routers \(ASRs\) \(ASR 1001-X, ASR 1002-X, ASR 1001-HX, ASR 1002-HX, ASR 1004, ASR 1006, ASR 1006-X, ASR 1009-X, ASR 1013\)](#)

The Cisco Enterprise Network Compute System for virtualizing routers in branch offices

- [Cisco 5000 Series Enterprise Network Compute System \(ENCS\)](#)

The Cisco 1000 and 4000 Series ISRs, Cisco 1000 Series ASRs, and the Cisco 5000 Series ENCS include Network Essentials or Network Advantage depending on the tier purchased. Cisco DNA Premier and Cisco DNA Advantage include Network Advantage as the perpetual element. Cisco DNA Essentials includes Network Essentials as the perpetual element. The perpetual element is subscription-agnostic, meaning it will continue to work regardless of the subscription terms.

Table 3 lists feature sets for the various Cisco DNA Premier for SD-WAN subscription offers.

Table 3. Feature sets for Cisco DNA Premier for WAN subscription (Cloud Management with vManage)

Features and capabilities	Cisco 4300 and 4400 Series ISRs	Cisco 4200 Series ISRs	Cisco ASR 1000 Series	Cisco 5000 Series ENCS	Cisco vEdge
Cisco DNA Premier					
Connectivity (VPNs: up to system scale)	✓*	✓*	✓*	✓*	✓
Cisco WAN Optimization (Cisco Wide Area Application Services [WAAS]) right-to-use license	✓* 2500 connections	✓* 2500 connections ¹	✓* 2500 connections ¹	✓* 2500 connections ¹	✓* 2500 connections ¹
Cisco Virtual WAAS (vWAAS) ²	✓* 6000 connections	✓* 6000 connections	✓* 6000 connections	✓* 6000 connections	✓ 6000 connections
Analytics (vAnalytics platform)	✓*	✓*	✓*	✓*	✓
Cisco DNA Advantage					
Connectivity (service-side routing, mesh topology, Multicast VPNs: 5 [1 transport, 4 service-side])	✓*	✓*	✓*	✓*	✓
Security (control policy, advanced policies: service chaining, extranet)	✓*	✓*	✓*	✓*	✓
Cisco Application Experience (DPI for app-aware routing and policies, Software-as-a-Service [SaaS] on-ramp, TCP optimization)	✓*	✓*	✓*	✓*	✓
Management and orchestration (end-to-end SD-WAN policy orchestration, and network and application troubleshooting)	✓*	✓*	✓*	✓*	✓
Cisco DNA Essentials					
Connectivity (VP overlay, topology: hub-and-spoke, Cisco IOS [®] Network Address Translation (NAT), split tunnel, 2 VPNs: 1 transport, 1 service-side VPN with Layer 2 or Layer 3)	✓*	✓*	✓*	✓*	✓

¹ WAAS Right to Use (RTU) licenses are not supported on Cisco 4200 Series ISRs, Cisco ASR 1000 Series, Cisco 5000 Series ENCS, and Cisco vEdge. WAAS RTUs allow for portability and use with Cisco 4300 and 4400 Series ISRs.

² vWAAS requires a separate deployment in a virtual environment; additional hardware may be required.

Features and capabilities	Cisco 4300 and 4400 Series ISRs	Cisco 4200 Series ISRs	Cisco ASR 1000 Series	Cisco 5000 Series ENCS	Cisco vEdge
Security (encryption: Advanced Encryption Standard [AES]-256, policy support: Local Access Control List (ACL) only, data policy)	✓*	✓*	✓*	✓*	✓
Application Experience (Quality of Service [QoS] [classification, policing, remarking, scheduling], app-aware routing [5-tuple only], DPI for visibility, app visibility [name, throughput])	✓*	✓*	✓*	✓*	✓
Management (Viptela® vManage platform, Zero Touch Provisioning (ZTP), day-0, day-1, day-N changes)	✓*	✓*	✓*	✓*	✓

*Available in FY2019

Table 4 lists the feature sets for Cisco DNA Premier for WAN subscription.

Table 4. Feature sets for Cisco DNA Software for WAN subscription (On-prem management with Cisco DNA Center)

Features and capabilities	Cisco 4300 and 4400 Series ISRs	Cisco 4200 Series ISRs	Cisco ASR 1000 Series	Cisco 5000 Series ENCS	Cisco vEdge Routers
Cisco DNA Premier					
Advanced Application Experience (AppNav, WAN full-stack WAAS [managed by WCM-WAAS Central Manager])	✓	✓	✓	✓	✓
Cisco WAN Optimization (WAAS) right-to-use license	✓ 2500 connections	✓ 2500 connections ¹	✓ 2500 connections ¹	✓ 2500 connections ¹	✓ 2500 connections ¹
vWAAS ²	✓ 6000 connections	✓ 6000 connections	✓ 6000 connections	✓ 6000 connections	✓ 6000 connections
Cisco DNA Advantage					
Cisco Intelligent WAN (IWAN) (IWAN application)	✓	✓	✓	✓	
Branch-office virtualization (third-party VNF orchestration)	✓	✓	✓	✓	✓
Assurance (Cisco Enterprise Network Functions Virtualization (ENFV) 360 Router router underlay insights, ENFV insights, 360 pages, health score, time travel, targeted insights, neighbor topology, path trace, KPIs, baselining, trends, custom reports [Cisco Application Experience, Cisco Software-Defined Access (SD-Access), Wi-Fi KPIs, etc.])	✓	✓	✓	✓	✓
Automation (application policy, SWIM [patching], Cisco Software Defined-Bonjour (SD-Bonjour), Encrypted Traffic Analysis (ETA), reporting [Tableau])	✓	✓	✓	✓	✓
Cisco DNA Essentials					
Router deployment (day-1 and day-2 changes)	✓	✓	✓	✓	✓
Branch-office virtualization (NFV provisioning on ENCS and Cisco Unified Computing System™ (Cisco UCS®) E-Series Servers, Cisco VNF orchestration only (ISRv, vEdge, vASA, and vWAAS)	✓	✓	✓	✓	✓
Application visibility (name and throughput)	✓	✓	✓	✓	✓

Features and capabilities	Cisco 4300 and 4400 Series ISRs	Cisco 4200 Series ISRs	Cisco ASR 1000 Series	Cisco 5000 Series ENCS	Cisco vEdge Routers
Monitoring (router monitoring [basic]), VNF monitoring [ISRV, vWAAS], ENFV [ENCS, Cisco UCS E-Series], dashboards [overall health, network health, client health], topology, precanned reports, custom thresholds)	✓	✓	✓	✓	✓
Automation (inventory, discovery, topology, software image management, site management, network settings, credential update, integrity verification, template programmer, canned reports, plug-and-play applications)	✓	✓	✓	✓	✓

For a list of Cisco DNA Premier for Routing product and service part numbers, [click](#). For Cisco ISRV ordering information, please refer to the ISRV [ordering guide](#).

Cisco and partner services

Our industry-leading methodology and tools, expertise, best practices, and established partner relationships help our customers deliver extraordinary outcomes. We take a holistic approach to planning implementing and managing your next-generation network. With our services, you quickly recognize the full value of your SD-Access investment. For more information about this and other Cisco Services, contact your local representative or visit <https://www.cisco.com/go/enservices>.

Cisco Technical Services

We recommend that Cisco DNA Premier subscription customers purchase Cisco Solution Support for both hardware and license support.

Cisco Embedded Support is included with the purchase of the software subscription. Cisco Embedded Support provides Cisco technical support access online or by phone.

Cisco Embedded Software Support includes:

- Access to support and troubleshooting through online tools and web case submission; case severity or escalation guidelines are not applicable.
- Cisco Technical Assistance Center (TAC) access 24 hours a day to assist by telephone, or web case submission and online tools with application software use and troubleshooting problems.
- Entitlement to maintenance releases and software updates for SD-WAN software.
- Access to <https://www.cisco.com>; this system offers customers helpful technical and general information about Cisco products as well as access to the online Cisco Software Center library.

No additional products or fees are required to receive these services with a software subscription.

Cisco Solution Support

Cisco Solution Support is the recommended service on both the routing hardware and SD-WAN software licenses. Cisco Solution Support is an essential element of the Cisco DNA networking architecture because it helps customers maintain the performance, reliability, and return on investment of the architecture. The service delivers centralized support across the Cisco and third-party solution partner products in your solution ecosystem. Cisco's team of solution experts is the primary point of contact and owns the case from first call to resolution, no matter where the problem resides in the customer's network.

Refer to the [service description](#) for more detailed information regarding Cisco Solution Support.

- [Cisco Solution Support with Smart Net Total Care](#)
- [Cisco Solution Support with Software Support Services](#)

You can learn more about Cisco Solution Support at <https://www.cisco.com/go/solutionsupport>.

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 payments. [Learn more](#).

For more information

For more about Cisco DNA offers for routing, visit <https://cs.co/dnawan>. If you are interested in having a conversation about Cisco DNA Software, please contact your account manager or authorized reseller.



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