



The bridge to possible

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Cisco public

Cisco DNA Software for SD-WAN and Routing

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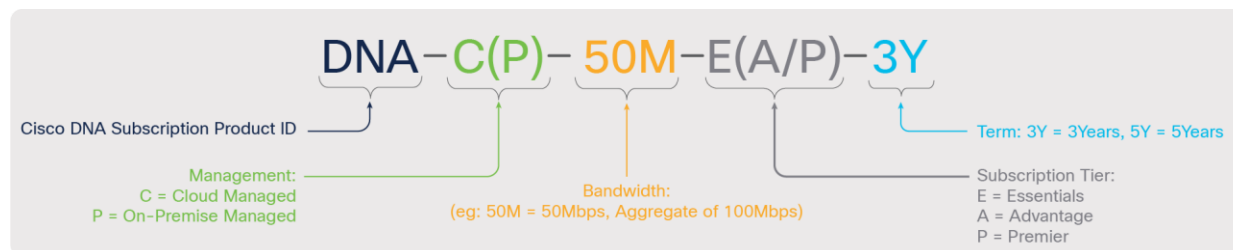
Cisco SD-WAN and Routing subscription gives the flexibility to consume the latest technology, either on the Cloud or On-Premises across the entire routing stack. The Cisco DNA subscription license tiers include 3Y and 5Y term options. All available tiers include Cisco Software Support Service.

Cisco DNA Subscription PID nomenclature

The Cisco DNA Subscription Product part codes have a built-in structure that indicates the following:

- Management options
- Bandwidth entitlement
- Subscription tier
- Subscription term

Structure of Product ID for Cisco DNA subscription



To begin ordering Cisco DNA Software Subscriptions for SD-WAN and Routing, please follow the below steps:

[Step 1: Platforms](#)

[Step 2: Software type](#)

[Step 3: Cisco DNA Software Subscription](#)

[Step 4: Smart account and Virtual account](#)

[Step 5: Services](#)

Note: If you are ordering the Cisco hardware along with Cisco Software Subscriptions, follow through Step-1 to Step-5. If you are ordering Cisco Software Subscriptions for already existing hardware, start from Step-3 through Step-5

Step 1: Platforms

Select the platform most appropriate for your WAN. Cisco offers a variety of hardware, virtual and cloud options, as shown in Table 1.

Table 1. WAN platform summary

Fixed chassis Branch Routers	Cisco 1000 Series Integrated Services Routers Cisco vEdge Router (vEdge-100 and vEdge-1000)
Modular chassis Branch Routers	Cisco 4000 Series Integrated Services Routers Cisco Catalyst 8300/8200 Series Edge Platforms Cisco vEdge Router (vEdge-2000 and vEdge-5000)
Aggregation Services Routers	Cisco 1000 Series Aggregation Services Routers Cisco Catalyst 8500 Series Edge Platforms
Universal CPE Routers	Cisco 5000 Series Enterprise Network Compute System Cisco Catalyst 8200-UCPE Edge platforms
Virtualized Routers	Cisco Cloud Services Router 1000v Cisco Catalyst 8000v Edge Software Router

The platforms in Table-1 above can be ordered either for Cisco SD-WAN deployment or for Traditional Routing along with Cisco DNA Software Subscriptions.

Table-2 below shows all the Cisco DNA bundles that can be specifically ordered for Cisco SD-WAN deployments.

Table 2. Platform Product IDs for Cisco SD-WAN DNA Bundles

Product Family	Product IDs	Cisco DNA Subscription Part Number
Cisco ISR1000 Series	C1111-8P-DNA C1111-8PLTEEA-DNA C1111-8PLTELA-DNA C1111-4P-DNA C1111-4PLTEEA-DNA C1111-4PLTELA-DNA	Bundled with Cisco DNA Software Subscription
Cisco ISR1100 Series	ISR1100-4G ISR1100-4GLTEGB ISR1100-4GLTENA ISR1100-6G	

Product Family	Product IDs	Cisco DNA Subscription Part Number
Cisco ISR4000 Series	ISR4221X-DNA ¹ ISR4321-DNA ISR4331-DNA ISR4351-DNA ISR4431-DNA ISR4451-DNA ISR4461-DNA ¹	
Cisco VEDGE Series	VEDGE-100B-AC-K9 VEDGE-100M-AC-K9 VEDGE-100M-AT-K9 VEDGE-100M-SP-K9 VEDGE-100M-NA-K9 VEDGE-100M-VZ-K9 VEDGE-100M-NT-K9 VEDGE-100M-GB-K9 VEDGE-1000-AC-K9 VEDGE-2000-AC-K9 VEDGE-5000-AC-K9	
Cisco ASR1000 Series	ASR1001-X-DNA ASR1001-HX-DNA ASR1002-HX-DNA ASR1006-X-DNA ²	
Cisco ENCS-5000 Series	NFV-BRANCH-MLB	
Cisco Catalyst 8000 Series Edge platforms	C8300-DNA C8200-DNA C8500-DNA C8500-12X4QC-DNA C8500-12X-DNA	

¹ISR4421X-DNA and ISR4461-DNA bundle is targeted for second half of CY2020, however both these platforms are orderable as ala-carte hardware + L-LIC-DNA-ADD

²ASR1006-X-DNA is only available from Cisco IOS-XE 17.5.1 and later releases.

The platforms in Table-3 below can be ordered as a **la-carte**, either for Cisco SD-WAN deployment or for Traditional Routing along with Cisco DNA Software Subscriptions through L-LIC-DNA-ADD

Table 3. Cisco WAN platform Product IDs supported with Cisco DNA Software Subscriptions

Product Family	Product IDs	Cisco DNA Subscription Part Number
Cisco ISR1000 Series	<ul style="list-style-type: none"> • C1101-4P, C1101-4PLTEP, C1101-4PLTEPW* • C1109-4PLTE2P, C1109-4PLTE2PW* • C1109-2PLTEGB, C1109-2PLTEUS, C1109-2PLTEVZ • C1111-4P, C1111-4PLTEEA, C1111-4PLTELA • C1116-4P, C1116-4PLTEEA, C1116-4PLTEW* • C1117-4P, C1117-4PM, C1117-4PLTEEA, C1117-4PLTELA, C1117-4PMLTEEA • C1121-4P, C1121-4PLTEP, C1121-8P, C1121X-8P, C1121-8PLTEP, C1121X-8PLTEP, C1121X-8PLTEPW*, C1121-8PLTEPW* • C1111-8P, C1111X-8P, C1111-8PLTEEA, C1111-8PLTELA, C1111-8PW*, C1111-8PLTEEA*, C1111-8PLTELA* • C1113-8PLTEEA, C1113-8PMLTEEA • C1161X-8P, C1161X-8PLTEP, C1161-8P • C1127-8PLTEP, C1127-8PMLTEP, C1127X-8PLTEP, C1127X-8PMLTEP 	Order Cisco DNA Software Subscription through L-LIC-DNA-ADD
Cisco ISR4000 Series	<ul style="list-style-type: none"> • ISR4221/K9, ISR4221X/K9 • ISR4321/K9, ISR4331/K9, ISR4351/K9 • ISR4431/K9, ISR4451-X/K9, ISR4461/K9 	
Cisco ENCS-5000 Series	<ul style="list-style-type: none"> • ENCS5104-200/K9, ENCS5104-400/K9, ENCS5104-64/K9 • ENCS5406/K9, ENCS5408/K9, ENCS5412/K9 	
Cisco ASR1000 Series	<ul style="list-style-type: none"> • ASR1002-X, ASR1002-HX • ASR1001-X, ASR1001-HX • ASR1006-X² 	L-DNA-TIER-ADD
Cisco Catalyst 8500 series Edge Platforms	<ul style="list-style-type: none"> • C8500-12X4QC • C8500-12X • C8500L-8S4X 	L-DNA-C8500
Cisco Catalyst 8300 series Edge Platforms	<ul style="list-style-type: none"> • C8300-2N2S-4T2X • C8300-1N1S-4T2X • C8300-2N2S-6T • C8300-1N1S-6T 	L-DNA-C8300

Product Family	Product IDs	Cisco DNA Subscription Part Number
Cisco Catalyst 8200 series Edge Platforms	<ul style="list-style-type: none"> • C8200-1N-4T • C8200L-1N-4T 	L-DNA-C8200
Cisco Universal CPE and Cisco Catalyst 8000 series Virtualized Platforms	<ul style="list-style-type: none"> • C8200-UCPE-1N8 • C8000v 	L-DNA-C8000v

W* – Refer to the ISR1000 ordering guide for more information on various Wireless-domain SKU's:

<https://www.cisco.com/c/en/us/products/collateral/routers/1000-series-integrated-services-routers-isr/guide-c07-740009.html>

²Please refer to Appendix-D for the supported modules on ASR1006-X

The platforms in Table-4 below lists the Software WAN platforms that can be deployed on Private or Public cloud and can be ordered only using L-LIC-DNA-ADD

Table 4. Software WAN platform Product IDs for new deployments

Product Family	Cisco DNA Subscription Product IDs	Platform Selection
Cisco CSR 1000V	L-LIC-DNA-ADD	Choose CSR1KV-DNA
Cisco vEdge Cloud	L-LIC-DNA-ADD	Choose VEDGE-CLOUD-DNA

Step 2: Software Type

Cisco delivers consistent and rich Routing and Security features across multiple operating systems that run on all the platforms mentioned in Step-1. Below are three types of Cisco operating systems to choose from:

- Cisco IOS XE for traditional WAN deployments managed through Cisco DNA Center console
- Cisco IOS XE SD-WAN for SD-WAN deployments managed through Cisco vManage console
- Viptela OS* for SD-WAN deployments managed through Cisco vManage console

*All vEdge devices and ISR 1100-4G/6G devices run on this image, which is not an IOS-XE image. This Viptela OS on VEDGE and 1100-4G/6G devices is factory pre-installed and currently not user-selectable

Understanding the Cisco DNA and Cisco IOS product part codes

The Cisco IOS and subscription product part codes have a built-in structure as described below.

Structure of product ID for Cisco IOS XE image



The diagram illustrates the components of the image name **SISR4300UCMK9-169**:

- SISR4300**: Software for ISR (Image for ISR4300 Series)
- UC**: Universal Image: Single Image for all Licenses
- M**: CM = SDWAN Image
- K9**: Products that use Encryption for Management
- 169**: IOS Version

For any router with a Cisco DNA Bundle (for example, ISR4331-DNA or ASR1001-HX-DNA), the choice of Cisco IOS type is limited only to Cisco IOS XE-SDWAN (which will be pre-installed at factory) and is chosen as below:

- | Category ⓘ | Qty | Extended List Price (USD) | Option Search ⓘ Multiple Options Search ⓘ | |
|------------------------------|-----|---------------------------|--|---|
| SOFTWARE AND LICENSES | | | ASR1001-HX-DNA > Software Version and Type | |
| Port Upgrade Licenses | | | Key ↕ | |
| Software Version and Type ⓘ | | | Expand All Collapse All | |
| Network PNP License | | | ⊖ Image for SDWAN with Encryption | |
| NETWORK-PNP-LIC-O ⓘ | 1 | 0.00 | SKU | Qty Estimated Lead Time ⓘ Unit List Price (USD) |
| POWER | | | <input type="radio"/> SASR1KHXCUMK9-1610 1 28 days 0.00
Cisco ISR ASR1K-HX Series SD-WAN IOS XE Universal More | |

For any ISR/ASR series router (for example, ISR4331/K9 or ASR1001-X), the Cisco IOS type is chosen as below:

- | Category  | Qty | Extended List Price (USD) | ISR4331/K9 > IOS Software and Version Type Key  | | | |
|--|-----|---------------------------|---|--|--|--|
| SOFTWARE  | | | SDWAN Image With Payload Encryption Image with Payload Encryption Image with No Payload Encryption | | | |
| VADSL Firmware Options | | | | | | |
| IOS Software and Version Type | | | | | | |
| IOS Technology Package Licenses | | | | | | |
| DVD for ISRWAAS SW Version | | | | | | |
| NETWORK PNP LICENSE | | | | | | |
| EnergyWise Management | | | | | | |
| MEMORY  | | | | | | |
| DRAM | | | | | | |
| Subtotal | | 3,837.00 | | | | |
| Estimated Lead Time | | 42 days | | | | |

Step 3: Cisco DNA Software Subscription

Cisco DNA Software Subscription offer is constructed with four important elements:

- A. Management option
- B. Bandwidth entitlement
- C. Subscription tier
- D. Subscription term

Management option:

Cisco SD-WAN and Routing subscriptions offer maximum flexibility through cloud or on-premises management options. Cloud management through the vManage console is the recommended option for customers wishing to simplify WAN deployments, accelerate digital transformation, and move toward intent-based networking.

Table 5. Management options

Management Option	Description
Cloud management	Provides simplicity of management with Cisco vManage Cloud management software part numbers follow the Cisco DNA-C-<>-<>-<> construct (For eg: DNA-C-25M-E-3Y)
On-premises management	Manages WAN using Cisco DNA Center or vManage on-premises. On-premises management software part numbers follow the Cisco DNA-P-<>-<>-<> construct (For eg: DNA-P-25M-E-3Y). Cisco DNA Center requires an additional appliance purchase

Cisco DNA licenses for WAN provide you flexibility to move from on-premises to cloud management, and across hardware and software platforms. There is no charge for porting licenses within the same bandwidth tier. Device family classifications for Cisco ONE Software are available in the Cisco ONE Software Device Tiering Guide.

Bandwidth entitlement (Entitled throughput when selecting Bandwidth)

Cisco offers WAN and SD-WAN with multitude of bandwidth options so that you can purchase what's best for your business and networking needs. The key takeaway from the figure below is that Cisco uses two bandwidth nomenclatures. Nominal and Aggregate. Nominal bandwidth is what the Product ID is based on. Aggregate bandwidth is double the nominal bandwidth. This is aligned with how service providers sell WAN bandwidth.

So let's work through the example in the figure below. Aggregate all of your bandwidth together. Upstream. Downstream. Across all circuits. That's your Aggregate bandwidth. In this example it's 143 Mb/s. Now divide that by two to get to a Nominal bandwidth to determine which PID is needed. In this case, you need a PID that can handle greater than 71.5 Mb/s. That's the 100 Mb/s PID.

What causes some confusion is highly asymmetrical usage. In this example, if you look at the sum of the downstream bandwidth, you'll see that it alone is over 100 Mb/s. One might think that the 100 Mb/s license would not be enough. But it is. The 100 Mb/s PID enables 200 Mb/s of aggregate bandwidth, which can be used in any upload / download ratio.

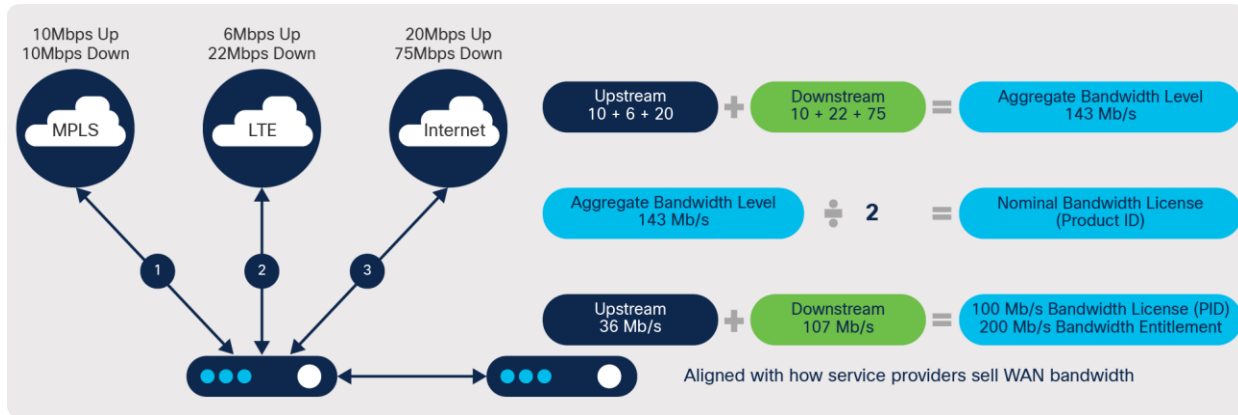


Table 6 below gives the range of Bandwidth entitlement and Subscription term options available with Cisco DNA Software Subscriptions

Table 6. Cisco DNA Cloud and On Premise Software subscription Product IDs

Product IDs	Bandwidth Options	Term Options	Example PID
DNA-C-<BW>-E-<Term> DNA-P-<BW>-E-<Term>	BW = <ul style="list-style-type: none"> 10M (Agg 20Mbps) 15M (Agg 30Mbps) 25M (Agg 50Mbps) 50M (Agg 100Mbps) 100M (Agg 200Mbps) 250M (Agg 500Mbps) 	Term = <ul style="list-style-type: none"> 3Y 5Y 	DNA-C-10M-E-3Y DNA-C-10M-E-5Y DNA-P-10M-E-3Y DNA-P-10M-E-5Y
DNA-C-<BW>-A-<Term> DNA-P-<BW>-A-<Term>	<ul style="list-style-type: none"> 500M (Agg 1Gbps) 1G (Agg 2Gbps) 2.5G (Agg 5Gbps) 5G (Agg 10Gbps) 10G (Agg 20Gbps) 	Term = <ul style="list-style-type: none"> 3Y 5Y 7Y 	DNA-C-25M-A-3Y DNA-C-25M-A-5Y DNA-P-25M-A-3Y DNA-P-25M-A-5Y
DNA-C-<BW>-P-<Term> DNA-P-<BW>-P-<Term>		Term = <ul style="list-style-type: none"> 3Y 5Y 	DNA-C-50M-P-3Y DNA-C-50M-P-5Y DNA-P-50M-P-3Y DNA-P-50M-P-5Y

Note: The numbers in the Product IDs column are not aggregated throughput number.

Subscription tiers:

Three software subscription tiers offer feature combinations tailored to your needs. Depending on the platform and deployment needs, the following offers can be chosen across all the platforms mentioned in Step-1

- Cisco DNA Premier: Product ID format is **DNA-<>-<>-P-<>** (eg: DNA-C-25M-P-3Y)
- Cisco DNA Advantage: Product ID format is **DNA-<>-<>-A-<>** (eg: DNA-C-25M-A-3Y)
- Cisco DNA Essentials: Product ID format is **DNA-<>-<>-E-<>** (eg: DNA-C-25M-E-3Y)

Note: The Cisco 1000 and 4000 Series ISRs include Network Essentials or Network Advantage stack, depending on the tier purchased. ASR 1000 Series include Network Advantage only. Cisco DNA Essentials includes Network Essentials as the perpetual element. Cisco DNA Premier and Cisco DNA Advantage include Network Advantage as the perpetual element. The perpetual element is subscription neutral, meaning that it will continue to work regardless of the subscription term.

Subscription term:

With any of the Cisco Software Subscription offers, there is a choice of 3Y and 5Y Subscription terms

- 3Year, 5Year Cisco DNA Essentials: Product ID format is DNA-<>-<>-E-3Y/5Y.
- 3Year, 5Year and 7Year Cisco DNA Advantage: Product ID format is DNA-<>-<>-A-3Y/5Y/7Y*
- 3Year, 5Year Cisco DNA Premier: Product ID format is DNA-<>-<>-P-3Y/5Y.

*7Y term option is only available for Cisco DNA Advantage subscriptions, and is not eligible for Enterprise Agreement (EA)

Ordering Cisco Software Subscription:

Step-1: Select the Cisco Router of your choice:

- A. If you are choosing a Cisco DNA Bundle (For eg: ISR4331-DNA OR any platform from Table-2 in Step-1: Platforms Section), you can complete the ordering process along with built-in Cisco DNA subscription SKUs. You can skip Step-2.
- B. If you are choosing an ala-carte Router hardware platform (For eg: ISR4221/K9 or ASR1002-X), complete the ala-carte ordering process by selecting the suitable Cisco IOS type, Network Modules and add L-LIC-DNA-ADD SKU at the end.
 - When purchasing a new router, if the intended use is to deploy the subscription through Cisco DNA Center, no additional Technology Package license needs to be purchased (exception: ASR 1000 platforms require selection of IP Base, which acts as the OS). All necessary feature licenses required for a subscription are included when Cisco DNA Essentials or Cisco DNA Advantage licenses are procured (through Step-2)
 - Similarly, all Performance or Boost licenses are included when Cisco DNA Essentials or Cisco DNA Advantage licenses are procured (through Step-2)
 - Refer to “Working with L-LIC-DNA-ADD” section in Step-2 below for completing the Cisco DNA Software subscriptions ordering

Step-2: Select the L-LIC-DNA-ADD SKU:

Working with L-LIC-DNA-ADD

Customers may seek to add a Cisco DNA or SD-WAN subscription to

- A router that has already been deployed in the field
- A router that the customer intends to purchase that does not have a Cisco DNA bundle associated with it (for example, ISR4221/K9, ISR4461/K9 or ASR1001-X, but NOT platform bundles such as ISR4321-SEC/K9, ISR4351-AX/ K9 etc.)
- A Software WAN router that is intended to be deployed on either Private or Public Cloud

In these scenarios, the customer will configure the router and the subscription independently. The customer configures the router (for example, the ISR4321/ K9, ISR4351, or ASR1002-X) and selects the relevant Cisco IOS type as described in the section “Step-2: Software”. Finally, the customer chooses L-LIC-DNA-ADD, which provides various subscription options for each platform family as described below.

If the choice is a cloud platform or a subscription on existing hardware, the product ID shown in Table 7 is applicable.

Table 7. WAN platform Product ID for cloud or existing deployments

Product ID	Description
L-LIC-DNA-ADD	Cisco DNA subscription license for routing

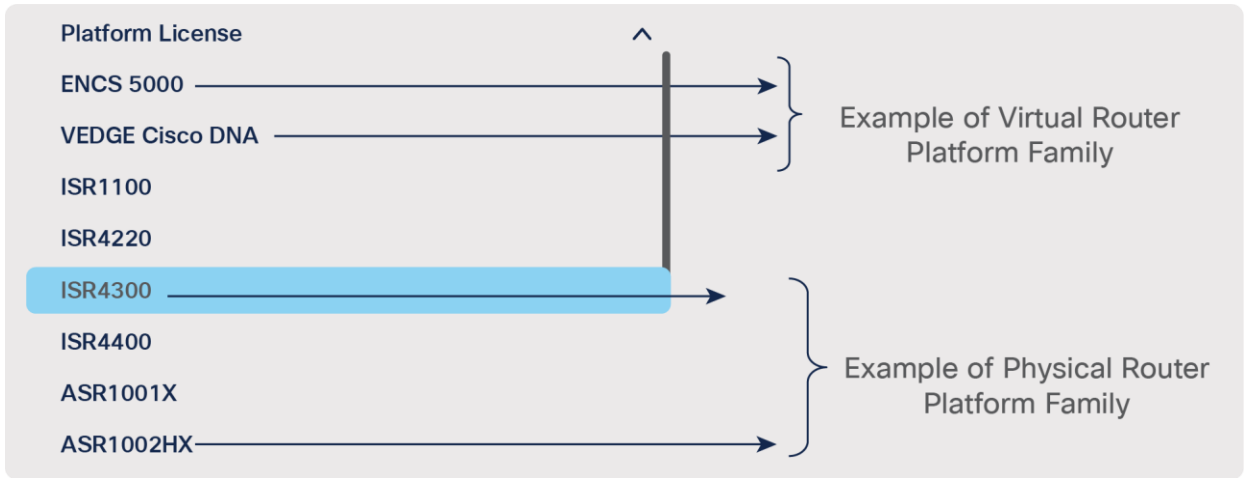
Once you have selected the above product ID, select the platform for which you need to order the Cisco DNA Subscription (See Table 8 below)

Table 8. Platform licenses for L-LIC-DNA-ADD for cloud or existing deployments

Platform License	Part Number	Description
ENCS 5000	ENCS5400-DNA	5400 ENCS platform for Cisco DNA
	ENCS5100-DNA	5100 ENCS platform for Cisco DNA
vEdge Cisco DNA	VEDGE-100B-DNA	vEdge 100B platform for Cisco DNA
	VEDGE-100M-DNA	vEdge 100M platform for Cisco DNA
	VEDGE-1000-DNA	vEdge 1000 platform for Cisco DNA
	VEDGE-2000-DNA	vEdge 2000 platform for Cisco DNA
	VEDGE-5000-DNA	vEdge 5000 platform for Cisco DNA
	VEDGE-CLOUD-DNA	vEdge Cloud platform for Cisco DNA
ISR 1000	C1100-8P-DNA	1100 ISR 8-port platform for Cisco DNA
	C1100-4P-DNA	ISR1100 4-Port platform for Cisco DNA
	C1100SV-8P-DNA	ISR1100 SV 8 Port 1121, 1126, 1127,

Platform License	Part Number	Description
		1161 platforms for DNA
ISR 1100 (Viptela OS)	ISR1100-4G-DNA	ISR1100 platform for Cisco DNA for ISR1100-4G
	ISR1100-6G-DNA	ISR1100 platform for Cisco DNA for ISR1100-6G
	ISR1100-4GLTE-DNA	ISR1100 4GLTE Platform Selection for SDWAN
ISR 4220	ISR4220-DNA	4200 ISR platform for Cisco DNA
ISR 4300	ISR4300-DNA	4300 ISR platform for Cisco DNA
ISR 4400	ISR4400-DNA	4400 ISR platform for Cisco DNA
ASR 1001X	ASR1001HX-DNA	ASR 1001-X platform for Cisco DNA
ASR 1001HX	ASR1001HX-DNA	ASR 1001-HX platform for Cisco DNA
ASR 1002X	ASR1002X-DNA	ASR 1002-X platform for Cisco DNA
ASR 1002HX	ASR1002HX-DNA	ASR 1002-HX platform for Cisco DNA
ASR 1000 ESP 40	ASR1K-ESP-40-DNA	ASR 1000 Series platform with ESP40 for Cisco DNA (no SD-WAN support)
ASR 1000 ESP 100	ASR1K-ESP-100-DNA	ASR 1000 Series platform with ESP100 for Cisco DNA (no SD-WAN support)
ASR 1000 ESP 200	ASR1K-ESP-200-DNA	ASR 1000 Series platform with ESP200 for Cisco DNA (no SD-WAN support)
CSR 1000V	CSR1KV-DNA	CSR 1000V Cisco DNA subscription

- Select the SKU for the subscription L-LIC-DNA-ADD
- Select the platform family (under Option Class: Platform License) against which the subscription is expected to be purchased (For example: Select “VEDGE Cisco DNA Selection” for any vEdge and “ISR Cisco DNA Selection” for ISR1100-4G/6G and ISR1000/4000 devices)



- The warnings indicate the supported bandwidths for the chosen platform family

Warnings (2):

- The quantity of Subscription SKU should be equal to the quantity of Platform License selected. Please adjust the quantity. (CE200648)
- Please make a selection from from 10M,,25M,50M,100M, for 4321 and 25M,50M,100M, 250M of Subscription only for 4331,4351. (CF100007)

- Select the intended subscription reason for SD-WAN or for Cisco DNA Center deployment. This helps Cisco manufacturing prepare the infrastructure for cloud or for on-premises deployment
 - When selecting **SDWAN-ONPREM**, the intended reason is for on-premises implementation of SD-WAN functionality
 - When selecting **SDWAN-CLOUD**, the intended reason is for cloud implementation and management of SD-WAN functionality
 - When selecting **DNACENTER-ONPREM** the intended reason is for on-premises implementation and management using Cisco DNA Center functionality
- Select the appropriate bandwidth for the product family chosen. Refer to Table-9 for the appropriate Bandwidth selections

Table 9 below lists the bandwidths available for each platform. For example, for the 4331 ISR, you can choose from 25M, 50M, 100M and 250M

Table 9. Cisco DNA Subscription Bandwidth tiers by platform

Cisco DNA Software Applicability Matrix

Platform		License type	SD WAN	10 Mbps	15 Mbps	25 Mbps	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
ISR 1000	ISR1000-4P	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						
	ISR1000-8P	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						
	ISR1100-4G (Viptela OS)	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						

Platform		License type	SD WAN	10 Mbps	15 Mbps	25 Mbps	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
	ISR1100-6G (Viptela OS)	Cisco DNA Premier	✓			✓	✓	✓	✓					
		Cisco DNA Advantage	✓			✓	✓	✓	✓					
		Cisco DNA Essentials	✓			✓	✓	✓	✓					
ISR 4000	ISR 4221	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						
	ISR 4321	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						
	ISR 4331	Cisco DNA Premier	✓			✓	✓	✓	✓					
		Cisco DNA Advantage	✓			✓	✓	✓	✓					
		Cisco DNA Essentials	✓			✓	✓	✓	✓					
	ISR 4351	Cisco DNA Premier	✓			✓	✓	✓	✓					
		Cisco DNA Advantage	✓			✓	✓	✓	✓					
		Cisco DNA Essentials	✓			✓	✓	✓	✓					
	ISR 4431	Cisco DNA Premier	✓			✓	✓	✓	✓	✓				
		Cisco DNA Advantage	✓			✓	✓	✓	✓	✓				
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓				
	ISR 4451	Cisco DNA Premier	✓			✓	✓	✓	✓	✓	✓			

Platform		License type	SD WAN	10 Mbps	15 Mbps	25 Mbps	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
	ISR 4461	Cisco DNA Advantage	✓			✓	✓	✓	✓	✓	✓			
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓	✓			
		Cisco DNA Premier	✓			✓	✓	✓	✓	✓	✓	✓		
		Cisco DNA Advantage	✓			✓	✓	✓	✓	✓	✓	✓		
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓	✓			
CSR 1000V		Cisco DNA Premier	✓				✓	✓	✓	✓	✓	✓		
		Cisco DNA Advantage	✓				✓	✓	✓	✓	✓	✓		
		Cisco DNA Essentials	✓				✓	✓	✓	✓	✓			
ENCS	ENCS 5104	Cisco DNA Premier	✓			✓	✓	✓	✓	✓				
		Cisco DNA Advantage	✓			✓	✓	✓	✓	✓				
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓				
	ENCS 5412	Cisco DNA Premier	✓			✓	✓	✓	✓	✓	✓			
	5408 5406	Cisco DNA Advantage	✓			✓	✓	✓	✓	✓	✓			
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓	✓			
ASR 1000*	ASR 1001-X	Cisco DNA Premier	✓								✓	✓		
		Cisco DNA Advantage	✓								✓	✓		
		Cisco DNA Essentials												
	ASR 1002-X	Cisco DNA Premier	✓								✓	✓		
		Cisco DNA Advantage	✓								✓	✓		

Platform		License type	SD WAN	10 Mbps	15 Mbps	25 Mbps	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
	ASR 1001-HX	Cisco DNA Essentials												
		Cisco DNA Premier	✓									✓	✓	✓
		Cisco DNA Advantage	✓									✓	✓	✓
		Cisco DNA Essentials												
	ASR 1002-HX	Cisco DNA Premier	✓									✓	✓	✓
		Cisco DNA Advantage	✓									✓	✓	✓
		Cisco DNA Essentials												
	ASR 1000 ESP 40	Cisco DNA Premier										✓		
		Cisco DNA Advantage										✓		
		Cisco DNA Essentials												
	ASR 1000 ESP 100 **	Cisco DNA Premier										✓		
		Cisco DNA Advantage										✓		
		Cisco DNA Essentials												
	ASR 1000 ESP 200	Cisco DNA Premier												✓
		Cisco DNA Advantage												✓
		Cisco DNA Essentials												

Platform		License type	SD WAN	10 Mbps	15 Mbps	25 Mbps	50 Mbps	100 Mbps	250 Mbps	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
vEdge	vEdge 100B	Cisco DNA Premier	✓	✓	✓	✓	✓							
		Cisco DNA Advantage	✓	✓	✓	✓	✓							
		Cisco DNA Essentials	✓	✓	✓	✓	✓							
	vEdge 100M	Cisco DNA Premier	✓	✓	✓	✓	✓							
		Cisco DNA Advantage	✓	✓	✓	✓	✓							
		Cisco DNA Essentials	✓	✓	✓	✓	✓							
	vEdge 1000	Cisco DNA Premier	✓	✓	✓	✓	✓	✓						
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓						
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓						
	vEdge 2000	Cisco DNA Premier	✓			✓	✓	✓	✓	✓	✓			
		Cisco DNA Advantage	✓			✓	✓	✓	✓	✓	✓			
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓	✓			
	vEdge 5000	Cisco DNA Premier	✓			✓	✓	✓	✓	✓	✓	✓		
		Cisco DNA Advantage	✓			✓	✓	✓	✓	✓	✓	✓		
		Cisco DNA Essentials	✓			✓	✓	✓	✓	✓	✓			
	vEdge-Cloud*	Cisco DNA Premier	✓	✓	✓	✓	✓	✓	✓	✓	✓			
		Cisco DNA Advantage	✓	✓	✓	✓	✓	✓	✓	✓	✓			
		Cisco DNA Essentials	✓	✓	✓	✓	✓	✓	✓	✓	✓			

*Only fixed chassis of ASR1000 family supports Cisco SD-WAN DNA subscriptions

Ordering Enforced Encryption (HSEC) License

Federal regulations mandate that all encrypted traffic greater than 250Mbps be provisioned through a separate license – the HSEC License. The HSEC License is required purely for increasing the crypto throughput and tunnel scale, irrespective of SD-WAN or Traditional routing deployments. The following examples demonstrate how the HSEC licenses may be provisioned for different scenarios.

Scenario 1: Purchasing subscription in conjunction with the platform using the Cisco DNA bundles (eg: ISR4331-DNA, C1111-8P-DNA)

Scenario 2: Purchasing subscription for an existing Router using the L-LIC-DNA-ADD top level SKU (eg: ISR4221/K9, C1117-4P and a subscription using L-LIC-DNA-ADD)

In Scenario 1, the HSEC license is auto included with each Cisco DNA bundle where the chosen subscription exceeds 250Mbps.

In Scenario 2, the customer is entitled to a HSEC license at \$0 where the chosen subscription throughput exceeds 250Mbps. The entitled HSEC may be procured by choosing the appropriate product SKU.

Cisco SD-WAN Security applicability matrix

The core security features—Enterprise Firewall with Application awareness and DNS Security Monitoring—are supported in all platforms listed in the Cisco SD-WAN applicability matrix. (Note that vEdge routers support only zone-based firewall.)

The following advanced security features require a minimum of 8-GB memory and 8-GB boot flash on all platforms:

1. Intrusion prevention system
2. URL filtering
3. Advanced Malware Protection (AMP and ThreatGrid)

Platforms/Features	Ent FW	Ent FW App Awareness	IPS	URL Filtering	AMP and TG	DNS/weblayer security
vEdge - (100, 1000, 2000 and 5000)	Y	N/A	N/A	N/A	N/A	Y
CSR 1000V	Y	Y	Y	Y	Y	Y
ISRV (ENCS)	Y	Y	Y	Y	Y	Y
ISR 4000 (4461, 4451, 4431, 4351, 4331, 4321, 4221x)	Y	Y	Y	Y	Y	Y
ISR 1100 (ISR1100-4G, ISR1100-6G)	Y	N/A	N/A	N/A	N/A	Y

Platforms/Features	Ent FW	Ent FW App Awareness	IPS	URL Filtering	AMP and TG	DNS/weblayer security
ISR 1000X (1111X, 1121X, 1126X, 1127X, 1161X)	Y	Y	Y	Y	Y	Y
ASR1K (1001-HX, 1002-HX, 1001-X, 1002-X, 1006-X)	Y	Y	N/A	N/A	N/A	Y

Notes:

1. CSR 1000V supports URL Filtering, AMP and DNS Security only in on-premise deployment. The Cisco ISRV and Cisco CSR 1000V need four vCPU and a minimum of 8GB RAM and 8GB bootflash.
2. URL filtering is supported with cloud lookup only with 8GB. 16GB is required for on-box URL database download and lookup.

Step 4: Smart account and Virtual account

An end-user smart account and virtual account are mandatory for the Cisco SD-WAN ordering process. Cisco SD-WAN requires a unique identifier to auto-provision hardware devices for end customers. Since Smart Accounts and Virtual Accounts are both unique and partner-enabled, they provide a convenient mechanism for provisioning the Cisco SD-WAN solution. (Note: SD-WAN will be provisioned on Cisco routers using Smart Accounts.)

For the Cisco SD-WAN solution, Virtual Accounts are aligned to a customer overlay and the devices that should be associated with the overlay. Failure to provide a Virtual Account during ordering will result in a delay in device provisioning.

Each Smart Account can have multiple Virtual Accounts. If the customer has two customer overlays, they would have two different Virtual Accounts. Managed Services Providers (MSPs) will create a Smart Account and be the Smart Account owner. The MSP would then need to create a Virtual Account for every end customer (or tenant), assuming that each end customer has a specific overlay.

- Step 1: Create a Smart Account (one-time operation)
 - Go to <https://software.cisco.com/software/company/smartaccounts/home#accountcreation-account>
 - Don't use email addresses in the Smart Account name. A Smart Account name can have A-Z, a-z, 0-9, and _
 - Example Smart Account format: <MSP>_SD-WAN or <Customer-Name>_SD-WAN
- Step 2: Create Virtual Accounts (one is needed for every tenant)
 - Go to Manage Smart Accounts at <https://software.cisco.com/#module/accountdetails>
 - Click "New Virtual Account"
 - Don't use email addresses in the Virtual Account name. A Virtual Account name can have A-Z, a-z, 0-9, and _. Virtual Account names can be a maximum of 32 characters
 - The Virtual Account name is the Org ID. The Org ID is used in the certificate Org Name
 - Example Virtual Account format: For an MSP tenant, <END-CUSTOMER>_PROD

- Step 3: Go to CCW and start ordering

- <https://apps.cisco.com/ccw/cpc/estimate/create>

- Ensure that the Smart Account and Virtual Account details are populated via “Assign Smart Account”

When ordering in Cisco Commerce Workspace (CCW), the end customer’s Smart Account and Virtual Account can be added at the line level or at the header level and applied to all applicable Smart items on the order.

Assign Smart Account

Smart Account will only be assigned to Smart Account enabled items.

Select Smart Account Type

☒ Customer Smart Account ⓘ

☐ Holding Smart Account ⓘ

Customer Smart Account Virtual Account Name

Enter Smart Account Name or Virtual Account Name OR Request New Customer Smart Account

☒ Assign to all current and future items in this order.

☐ Assign only to currently unassigned items.

Assign Cancel

Partners who have placed the order using a holding account can add the end customer’s Smart Account and Virtual Account details after order submission. Please click [here](#) for a training video on reassigning an order from a partner holding account to the end customer’s smart account.

Assign Customer Smart Account

Smart Account will only be assigned to Smart Account enabled items.

Search for a Customer Smart Account ⓘ

demo.cisco.com OR Request New Customer Smart Account

Customer Domain Identifier	Customer Account Name	Virtual Account Name
demo.cisco.com	Cisco Demo Smart Account	AF-Region
demo.cisco.com	Cisco Demo Smart Account	1_EMEAR Demo
demo.cisco.com	Cisco Demo Smart Account	2_EMEAR Demo
Partner Domain Identifier	Partner Domain Smart Account	1 - EMEAR Partner

Assign Cancel

The end customer's email address is essential for Cisco SD-WAN orders. In the case of cloud deployments, details on vManage will be sent to this email address.

The screenshot displays the 'Shipping Groups' configuration page in a web interface. At the top, there's a 'Create New Shipping Group' button and a note: 'Note: Shipping details are mandatory only if group contains shippable products.' Below this, a green checkmark indicates 'This is a default group.' The main area is divided into three columns: 'Shipping Address', 'Install Site', and 'End Customer'. Each column contains a form for 'ALEXANDER MANUFACTURING COMPANY' with fields for 'SiteUseID' (1010901004) and 'Address' (12978 TESSON FERRY RD, SAINT LOUIS MO 63128, UNITED STATES). Below these are 'Copy Address to' options and 'Shipping Contact' fields. The 'End Customer Contact' section is highlighted with a red box and contains fields for 'TEST NAME', a phone number (9832798472083), and an email address (SAJIKHAH@UIUSA.COM). At the bottom, there are fields for 'Request Date' (21 Mar 2018), 'Routing Option' (Cisco), and 'Shipping Service Options' (Standard).

Step 5: Services

Cisco Customer Experience Technical Services for SD-WAN

We recommend that Cisco SD-WAN customers purchase Cisco Solution Support for both hardware and SD-WAN license support.

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

Cisco Embedded Support includes:

- Access to support and troubleshooting via online tools and web case submission. Case severity or escalation guidelines are not applicable
- Cisco Technical Assistance Center (TAC) access 24 hours per day, 7 days per week to assist by telephone, or web case submission and online tools with application software use and troubleshooting issues
- Entitlement to maintenance releases and software updates for SD-WAN software only. The Support for the hardware platform OS, along with OS updates, is covered by the support contract on the hardware.
- Access to www.cisco.com This system provides the customer with helpful technical and general information on Cisco products, as well as access to Cisco's online Software Center library

No additional products or fees are required to receive these services with a software subscription. Hardware support must be purchased separately and is not covered as part of the embedded SW support contract.

Recommended: Cisco Solution Support with Smart Net Total Care

Cisco Solution Support is an essential element of Cisco DNA as it helps customers maintain its performance, reliability, and return on investment

Solution Support provides:

- Centralized support from a primary point of contact
- Priority access and response from a solution expert
- Addresses Cisco and Solution Support Partner products
- Coordination between Cisco and Solution Support Partner product support teams
- Accountability for issue management and resolution

When purchased on the hardware, it also covers any issues encountered with the Cisco SD-WAN software hosted on that hardware platform Refer to the service description for more detailed information regarding Cisco Solution Support.

- Cisco Solution Support with Cisco Smart Net Total Care® Service

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

Steps for ordering a WAN subscription on the Cisco Enterprise Network Compute System (ENCS)

In this section we will go over the subscription ordering process for the ENCS. The Enterprise NFV solution is ordered through term-based subscription licenses that may be purchased with a 3- or 5-year duration. At the time of ordering, you may choose a Cisco DNA Licensing for SD-WAN and Routing start date that is independent of the hardware ship date.

The ordering process for routing subscriptions on the ENCS hardware is structured using a multiline bundle. This bundle provides the flexibility to choose the appropriate software stack and the corresponding hardware stack to run it on.

To order the SD-Branch solution, use the NFV-BRANCH-MLB top-level part number, as shown in Table 10.

Table 10. Enterprise NFV solution top-level Product ID

Product ID	Description
NFV-BRANCH-MLB	NFV multiline bundle for software and hardware options

NFV-BRANCH-MLB is the top-level multiline part number and can be used as the starting point for both the software subscription licenses and the Cisco ENCS hardware options. Table 11 covers the sub options under NFV-BRANCH-MLB.

Table 11. Sub options under NFV-BRANCH-MLB

Product IDs	Description
Software licenses	
L-LIC-DNA-ADD	Software subscription licenses
Hardware	
ENCS5412/K9	5412 Enterprise Network Compute System (12-core, 1.5 GHz Intel® CPU, 16 GB DRAM)
ENCS5408/K9	5408 Enterprise Network Compute System (8-core, 2.0 GHz Intel CPU, 16 GB DRAM)
ENCS5406/K9	5406 Enterprise Network Compute System (6-core, 1.9 GHz Intel CPU, 16 GB DRAM)
ENCS5104-400/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 400G SSD)
ENCS5104-200/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 200G SSD)
ENCS5104-64/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 64G SSD)

Ordering software subscription licenses for the Cisco 5000 Series ENCS

L-LIC-DNA-ADD is a container for all of the term subscription licenses for the 5000 Series ENCS solution. These software licenses are common to all ENCS platforms. The ENCS platforms have been grouped together under the Hardware category.

The WAN licenses include choices along four main dimensions: preferred choice of management, performance, term, and feature tiers.

For ENCS deployments, choosing on-premises or cloud SKUs will entitle the end user to Cisco DNA Center licenses, as the instantiation of virtual network functions on the ENCS is orchestrated via Cisco DNA Center.

Performance options on the ENCS range from 25 Mbps to 500 Mbps. This selection maps to the Cisco Integrated Services Virtual Router (ISRV) and IOS XE SD-WAN throughput licenses. When using L-LIC-DNA-ADD, you must choose the platform license. The platform license determines the throughputs supported on the underlying hardware. Table 12 lists the throughput licenses supported on the ENCS platforms.

Table 12. Throughputs supported on the ENCS platforms

Platform	Throughputs supported
5400ENCS	25, 50, 100, 250 and 500 Mbps
5100ENCS	25, 50, 100 and 250 Mbps

Ordering ENCS hardware options

Table 15 lists the various hardware options available for the Enterprise NFV solution for deployment at the branches or remote sites. The hardware platform requirements must be derived from the software components that it hosts. Its resources must not only exceed the sum of the individual VNF requirements, but also leave room for future growth. While each hardware platform is unique in its own way, each has three basic common resources – CPU cores, memory, and disk capacity – that must be considered individually.

The ordering tool does not verify the VNF requirements at this time. For the purposes of sizing in this document, the terms “core,” “vCPU,” and “physical CPU core” are considered equivalent.

Software selection choices on the ENCS

Software subscription licenses are ordered via L-LIC-DNA-ADD, as described in the previous section. On the ENCS hardware you will have to select either the ISRv (non-SD-WAN) or ISRv XE SD-WAN image binary and version.

Note:

3. Selecting this instance does not license the VNF. This ensures only that the right code is loaded onto the hardware
4. ISRv XE SD-WAN is supported on all 5400 ENCS platforms

Table 13 lists the supported ENCS platforms.

Table 13. Hardware platforms supported on the ISRv 16.9 – SD-WAN XE

Model	Description
ENCS 5412/K9	5412 Enterprise Network Compute System (12-core, 1.5 GHz Intel CPU, 16 GB DRAM)
ENCS 5408/K9	5408 Enterprise Network Compute System (8-core, 2.0 GHz Intel CPU, 16 GB DRAM)
ENCS5406/K9	5406 Enterprise Network Compute System (6-core, 1.9 GHz Intel CPU, 16 GB DRAM)

NIMs on the ENCS with ISRv 16.9.1 XE SD-WAN

A limited number of network interface modules (NIMs) are supported on the ENCS when using ISRv XE SD-WAN 16.9 on the ENCS. Table 14 lists the modules supported on the 5400 ENCS.

Table 14. NIMs supported with ISRv XE SD-WAN 16.9 on the 5400 ENCS

Type of Interface	NIMs
4G-LTE	NIM-LTEA-EA NIM-LTEA-LA
T1/E1	NIM-1MFT-T1/E1 NIM-2MFT-T1/E1 NIM-4MFT-T1/E1 NIM-8MFT-T1/E1

ISRv 16.9.1 (non-SD-WAN) is supported on all ENCS platforms. Table 15 lists the supported ENCS platforms.

Table 15. Hardware platforms supported on the ISRV 16.9.1

Model	Description
ENCS 5412/K9	5412 Enterprise Network Compute System (12-core, 1.5 GHz Intel CPU, 16 GB DRAM)
ENCS 5408/K9	5408 Enterprise Network Compute System (8-core, 2.0 GHz Intel CPU, 16 GB DRAM)
ENCS 5406/K9	5406 Enterprise Network Compute System (6-core, 1.9 GHz Intel CPU, 16 GB DRAM)
ENCS 5104-400/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 400G SSD)
ENCS 5104-200/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 200G SSD)
ENCS5104-64/K9	5104 Enterprise Network Compute System (4-core, 3.4 GHz AMD CPU, 16 GB DRAM, 64G SSD)

Further, additional NIMs are supported with ISRV 16.9 (non-SD-WAN), as shown in Table 16.

Table 16. NIMs supported with ISRV 16.9 on the 5400 ENCS

Type of Interface	NIMs NIM-4G-
4G-LTE	LTE-NA NIM-4G- LTE-VZ NIM-4G- LTE-GA NIM- 4G-LTE-ST NIM-4G-LTE-LA NIM-LTEA-EA NIM-LTEA-LA
T1/E1	NIM-1MFT-T1/E1 NIM-2MFT-T1/E1 NIM-4MFT-T1/E1 NIM-8MFT-T1/E1 NIM-1CE1T1-PRI NIM-2CE1T1-PRI NIM-8CE1T1-PRI

Appendix-A: Cisco SD-WAN Subscription Opt-out

All Cisco DNA bundled routers have to be ordered with a mandatory subscription attach. However, there can be exceptions as mentioned below:

- Customer has a valid Enterprise License Agreement (EA)
- Managed Service Providers (MSPs) who would opt for MSLA construct

In order to accommodate such type of orders, there is an option for “Opting out of DNA Subscriptions” by selecting the appropriate DNA-OPTOUT SKU under all the Cisco DNA Bundled routers, and can be chosen as shown below:

- Under the Cisco DNA hardware bundle, select the Option class “DNA OPT OUT” and select one of the below appropriate opt-out SKU’s

PID	Description
DNA-SDWAN-EA	Subscription: Enterprise Agreement Use Only
DNA-SDWAN-MSLA	Subscription: MSLA Use Only

Appendix-B: Modules supported in SD-WAN on the 4000 Series ISRs

The following modules are supported for the 4000 Series ISRs:

NIM-1GE-CU-SFP	NIM-8MFT-T1/E1	NIM-LTEA-LA	UCS-E160S-M3/K9
NIM-2GE-CU-SFP	NIM-ES2-4	NIM-VAB-A	UCS-E180D-M3/K9
NIM-1MFT-T1/E1	NIM-ES2-8, NIM-ES2-8-P	NIM-VAB-M	UCS-E1120D-M3/K9
NIM-2MFT-T1/E1	NIM-1T	SM-X-4X1G-1X10G	UCS-EN140N-M2/K9
NIM-4MFT-T1/E1	NIM-LTEA-EA	SM-X-6X1G	

The following crypto modules are required for the ASR 1000 Series routers:

- ASR1001HX-IPSECHW, for the ASR 1001-HX
- ASR1002HX-IPSECHW, for the ASR 1002-HX


































Appendix-C: Ordering the new Cisco Catalyst 8000 series Edge Platforms

The Cisco Catalyst 8000 series Edge platforms needs to be ordered with mandatory Cisco DNA subscriptions for either SD-WAN or Traditional Routing deployments. For more details on how to order these platforms and the applicable Cisco DNA subscriptions, please refer to the links below:

- 1) [Ordering Cisco Catalyst 8300/8200 series Edge platforms](#)
- 2) [Ordering Cisco Catalyst 8500 series Edge platforms](#)
- 3) [Ordering Cisco Catalyst 8000 series UCPE and C8000v Virtualized platforms](#)

Starting with Cisco IOS-XE 17.5.1, ASR1006-X platform can also be ordered with SD-WAN Cisco DNA subscriptions. The Cisco DNA subscriptions applicable on this platform is a Tiered-Subscription (T3-Advantage OR T3-Premier). Please use the below table to compare the various aggregation routers and their respective subscriptions available.

Table 17. Cisco DNA subscription applicability matrix for Aggregation platforms

<div><div> Essentials</div><div> Advantage</div><div> Premier</div></div>						
Platforms	Applicable Cisco DNA Subscriptions					
	1G	2.5G	5G	10G	T2	T3
ASR1001-X	 	 	N/A	N/A	N/A	N/A
ASR1002-X	 	 	N/A	N/A	N/A	N/A
ASR1001-HX	N/A	 	 	 	N/A	N/A
ASR1002-HX	N/A	 	 	 	N/A	N/A
ASR1006-X	N/A	N/A	N/A	N/A	N/A	 
C8500-12X4QC	N/A	N/A	N/A	N/A	N/A	 
C8500-12X	N/A	N/A	N/A	N/A	N/A	 
C8500L-8S4X	N/A	N/A	N/A	N/A	 	 

Note: The T3 subscription license on ASR1006-X entitles the customer to the maximum platform throughput for SD-WAN.

There are broadly two ways to order this platform as outlined below.

Option-1: Ordering ASR1006-X-DNA as a greenfield SD-WAN router

ASR1006-X can be ordered as an “SD-WAN only” bundled with Cisco DNA subscriptions through a top-level SKU “ASR1006-X-DNA”. In this bundle the ASR1006-X chassis comes with the following default hardware configuration

- 1) One Cisco ASR Route Processor 3 (RP3)
 - a. Comes with a default 8GB DRAM (upgradeable upto 64GB)
 - b. Comes with a default 100GB SSD (upgradeable upto 400GB)
- 2) One Cisco ASR1000 Embedded Services Processor X, 200G (ESP200-X)
- 3) Optionally one/two ASR1000 100G Modular Interface Processor
 - a. Each MIP slot can be optionally configured with upto two EPA's
- 4) Cisco DNA SD-WAN Subscription options
 - a. A Tier-3 Cisco DNA Advantage Cloud/On-Prem license (3Y/5Y/7Y)
 - b. A Tier-3 Cisco DNA Premier Cloud/On-Prem license (3Y/5Y)

Below are the some of the ordering screenshots of ASR1006-X-DNA

Step 1. Select the universal IOS-XE image, required DRAM, HDD and Power supply options

Card

Option Search Multiple Options Search

ASR1006-X-DNA > Card > RP Slot > ASR1000-RP3

Expand All Collapse All

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
SA1KRPUK9-175	1	28 days	0.00
UNIVERSAL			

Clear Selection

Processor Memory

Processor Disk Drive

Subtotal 134,469.00

Estimated Lead Time 70 days

Reset Configuration Cancel Done

Step 2. (Optional) Select the MIP100 and EPA's

Hardware

Software Mode

IOSXE-CTRL-MODE 1 0.00

Network PNP License

NETWORK-PNP-LIC-O 1 0.00

MIP Slot 0

ASR1000-MIP100 1 12,042.00

EPA-BLANK 2 0.00

MIP Slot 1

Subtotal 146,511.00

Estimated Lead Time 70 days

Reset Configuration Cancel Done

ASR1006-X-DNA > MIP Slot 0 > MIP Slot 0 > ASR1000-MIP100

Expand All Collapse All

EPA Option

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
EPA-2X40GE	Qty	28 days	55,192.50
ASR1000 2X40GE EPA More			
EPA-10X10GE	Qty	28 days	50,175.00
ASR1000 10X10GE Ethernet Port Adapter			
EPA-QSFP-1X100GE	Qty	42 days	60,210.00
ASR1000 1X100GE QSFP Ethernet Port Adapter More			

Step 3. Choose the Cisco DNA SD-WAN subscription license

Category Qty Extended List Price (USD)

ASR1006-X-DNA > Cisco DNA Advantage

Expand All Collapse All

On Premise - 3Y

On Premise - 5Y

On Premise - 7Y

Cloud - 7Y

Cloud - 5Y

Cloud - 3Y

Advantage Embedded Support

Subtotal 228,160.80

Estimated Lead Time 70 days

Reset Configuration Cancel Done

Cisco DNA Advantage

DNA-P-T3-A-5Y 1 70,999.80

SVS-PDNA-T3-A5Y 1 10,650.00

Cisco DNA Premier

Umbrella SIG Buy more

EXPANSION

SDWAN-ONPREM-PF 1 0.00

SDWAN-UMB-ADV 1 0.00

DSTACK-T3-A 1 0.00

SL-ASR1K-6X-NA 1 0.00

Option-2: Ordering Brownfield SD-WAN subscriptions for ASR1006-X using L-DNA-TIER-ADD

This option is applicable only if the ASR1006-X hardware is already purchased. You can buy the Cisco DNA SD-WAN subscription license using the top-level SKU “L-DNA-TIER-ADD”. For more information on supported hardware, please refer to the Option-1 section above.

Step 1. Under L-DNA-TIER-ADD, make the platform selection of ASR1006-X-DNA-PF and the software mode as IOSXE-CTRL-MODE-PF

The screenshot shows the Cisco DNA ordering interface. On the left, under 'Subscriptions', the 'ASR Platform selection' is set to 'ASR1006-X-DNA-PF' (1 unit, 0.00) and the 'Software Mode' is set to 'IOSXE-CTRL-MODE-PF' (1 unit, 0.00). The 'Cisco DNA Advantage' section is expanded. On the right, under 'Option Search', the 'L-DNA-TIER-ADD' option is selected. Below this, the 'Software Mode' section is expanded, showing the 'IOSXE-CTRL-MODE-PF' option selected. The table below shows the selected option with a term of 60 months, a billing model of 'Prepaid Term', and a unit list price of 0.00. The 'Subtotal' is 0.00 and the 'Estimated Lead Time' is 7 days.

SKU	Term (Month(s))	Billing Model	Auto Renewal	Qty	Unit List Price (USD)
IOSXE-CTRL-MODE-PF	60	Prepaid Term	<input type="checkbox"/>	1	0.00

Step 2. Choose the Cisco DNA SD-WAN subscription license

The screenshot shows the Cisco DNA ordering interface. On the left, under 'Subscriptions', the 'Cisco DNA Advantage' section is expanded, showing 'DNA-C-T3-A-3Y' (1 unit, 42,500.16) and 'SVS-CDNA-T3-A3Y' (1 unit, 6,374.88). The 'Cisco DNA Premier' section is also expanded. On the right, under 'Option Search', the 'L-DNA-TIER-ADD' option is selected. Below this, the 'Cisco DNA Advantage' section is expanded, showing a list of options: 'Cloud - 3Y', 'Cloud - 5Y', 'Cloud - 7Y', 'On Premise - 3Y', 'On Premise - 5Y', 'On Premise - 7Y', and 'Cisco DNA Advantage Embedded Support'. The 'Subtotal' is 48,875.04 and the 'Estimated Lead Time' is 7 days.

Appendix-E: Cisco DNA ordering and license management on the 4000 Series ISRs

When the customer wishes to subscribe to a Cisco DNA Center and orders.

- Cisco DNA Essentials, Advantage, or Premier with bandwidth less than or equal to the factory default² of the platform, no performance license need to be ordered for the platform
- Cisco DNA Essentials, Advantage, or Premier with bandwidth greater than the factory default but less than the bandwidth provided by the High- Performance license³ of the platform, a performance license is automatically added at the time of order and the customer does not need to order it. Additionally, if the bandwidth (post-encryption) is greater than 250 Mbps, the HSEC license for the relevant platform is automatically added

- Cisco DNA Essentials, Advantage, or Premier with bandwidth greater than the High-Performance license⁴ of the platform, but less than or equal to the maximum subscription bandwidth permitted for the platform, a BOOST license is automatically added to the order and the customer does not need to order it. Additionally, if the bandwidth (post-encryption) is greater than 250 Mbps, the HSEC license for the relevant platform is automatically added.
- Cisco DNA Essentials, Advantage, or Premier with bandwidth, no additional Technology Packages need to be ordered
- Unified Communications is now packaged into the Cisco DNA Essentials and Cisco DNA Advantage. Voice Optimization is supported in Essentials whereas Rich voice services and integration with SRST /FXO/FXS are the prime focus on the Cisco DNA Advantage package

When the customer wishes to subscribe to Cisco DNA for Enterprise Routing and SD-WAN and orders.

- Cisco DNA Essentials, Advantage, or Premier with bandwidth less than or equal to the factory default⁵ of the platform, no performance license need to be ordered for the platform. No IP Base license or Technology Packages (or add-on licenses) need to be purchased
- Cisco DNA Essentials, Advantage, or Premier with bandwidth greater than the factory default but less than the bandwidth provided by the High- Performance license⁶ of the platform, a performance license is not added to the order and the customer doesn't need to order it. Additionally, if the bandwidth (post-encryption) is greater than 250 Mbps, the HSEC license for the relevant platform is automatically added. No IP Base license or Technology Packages (or add-on licenses) need to be purchased
- Cisco DNA Essentials, Advantage, or Premier with bandwidth greater than the High-Performance license⁷ of the platform, but less than or equal to the maximum subscription bandwidth permitted for the platform, a BOOST license is not added to the order and the customer does not need to order it. Additionally, if the bandwidth (post-encryption) is greater than 250 Mbps, the HSEC license for the relevant platform is automatically added. No IP Base license or Technology Packages (or add-on licenses) need to be purchased

²For platform positioning, please refer to <https://www.cisco.com/c/en/us/products/collateral/routers/4000-series-integrated-services-routers-isr/white-paper-c11-734550.html> (Table 1) **ISR 4000 Performance Levels**.

⁴The 4331 ISR provides up to 250 Mbps of encrypted performance per direction (incoming and outgoing), aggregating to 500 Mbps of platform performance.

⁶As an example, for the 4331 ISR, the High-Performance license allows a customer to go up to a bandwidth of not more than 300 Mbps. Hence (as an SD-WAN subscription license provides a customer with an entitlement for the purchased bandwidth in each direction), the 4331 ISR supports a bandwidth of 100 Mbps (allowing for 100 Mbps up and 100 Mbps down).

⁷The SD-WAN software on the 4331 ISR can provide for 250 Mbps of performance in each direction.

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