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# Cisco DNA Traffic Telemetry Appliance

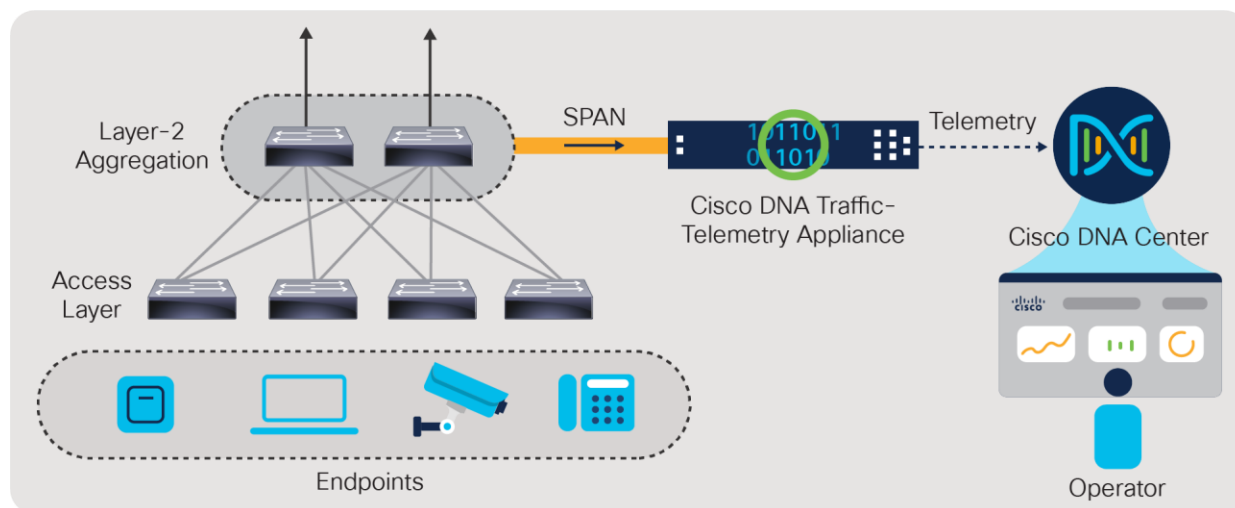
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# Contents

|                                    |    |
|------------------------------------|----|
| Product overview                   | 3  |
| Features and benefits              | 3  |
| Cisco AI Endpoint Analytics        | 3  |
| Cisco DNA Application Assurance    | 4  |
| Detailed feature description       | 4  |
| Product model overview             | 5  |
| Software licensing                 | 5  |
| Scale and hardware specifications  | 5  |
| Physical specifications            | 6  |
| Ordering information               | 8  |
| Cisco environmental sustainability | 9  |
| Cisco Capital                      | 10 |
| For more information               | 10 |

## Product overview

The Cisco DNA Traffic Telemetry Appliance is a telemetry sensor platform that is used to generate telemetry from mirrored IP network traffic and share it with Cisco DNA Center for application and endpoint analytics. Network traffic is received from switches and routers via Switched Port Analyzer (SPAN) mirroring and fed into the Cisco DNA Traffic Telemetry Appliance mirroring interfaces. The appliance analyzes the received traffic to produce a telemetry stream for Cisco DNA Center that is sent via the appliance's network interface.



**Figure 1.**  
Cisco DNA Traffic Telemetry Appliance Overview

The platform supports 20-Gbps sustained forwarding data traffic through the chassis and comes in a 1-Rack-Unit (1RU) form factor. The appliance has six built-in 1-Gbps Small Form Factor (SFP)-only interfaces (these do not support SFP+), and two built-in 10-Gbps Enhanced SFP (SFP+) interfaces (these support only the 10-Gbps rate) that support Synchronous Ethernet (SyncE). The device comes with one copper Ethernet 10/100/1000 Mbps network management port and supports storage extension through the network interface module (NIM) slot.

## Features and benefits

The Cisco DNA Traffic Telemetry Appliance complements endpoint and application analytics solutions on Cisco DNA Center. The fixed, 1RU form factor and Cisco IOS® XE software-based device management make it an easy fit into existing network deployments. Cisco DNA Center manages the appliance in a manner similar to the way it manages network devices such as switches and wireless devices.

## Cisco AI Endpoint Analytics

Cisco® AI Endpoint Analytics aggregates data from a variety of sources in the network, collates and analyzes it to build a detailed endpoint profile, and groups similar endpoints by applying artificial intelligence and machine learning (AI/ML) techniques. The Cisco DNA Traffic Telemetry Appliance performs deep packet inspection (DPI) on mirrored network traffic using the Network-Based Application Recognition (NBAR) feature, and shares the endpoint telemetry with Cisco DNA Center for recognizing and profiling endpoints. For more information on Cisco AI Endpoint Analytics, please refer to: <https://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/software-defined-access/nb-06-ai-endpoint-analytics-wp-cte-en.html>.

## Cisco DNA Application Assurance

Cisco DNA Application Assurance enables network administrators to monitor application performance and troubleshoot issues related to application experience using the Cisco DNA Center. Cisco DNA Center automates the Application Telemetry configuration on the Telemetry Appliance via “Enable Application Telemetry” workflow in the Inventory, enabling optimized application performance monitoring on the Telemetry appliance. Cisco DNA Center receives Qualitative Application performance metrics from the Telemetry appliance. It can calculate Application health for business-critical applications and visualize essential metrics such as delay, jitter, and packet loss to isolate and troubleshoot Application performance issues effectively.

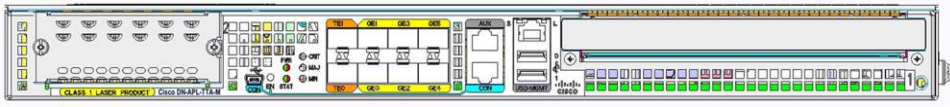
### Detailed feature description

**Table 1.** Features and benefits

| Feature   | Description and benefits  |
|---|---|
| <b>Network-Based Application Recognition (NBAR)</b>                           | NBAR-based protocol inspection and endpoint attribute extraction.   |
| <b>Control and Provisioning of Wireless Access Points (CAPWAP) inspection</b> | CAPWAP protocol traffic decapsulation and inspection.   |
| <b>Promiscuous interface mode</b>   | Reception and processing of each data packet seen on the wire, including packets not destined for the MAC address of the appliance or any of its interfaces.  |
| <b>Scalable capacity and throughput</b>                                       | 20-Gbps ingress throughput support.   |
| <b>AI Endpoint Analytics</b>  | <ul style="list-style-type: none"><li>• NBAR-based protocol inspection and endpoint attribute extraction.</li><li>• Support for 40,000 endpoints.</li></ul>   |
| <b>Application Assurance</b>  | <ul style="list-style-type: none"><li>• NBAR for application and protocol identification.</li><li>• Quantitative analytics for each application flow in the network.</li><li>• Qualitative analytics including packet loss, latency, jitter, and application response times per flow.</li><li>• NetFlow/IPFIX export to Cisco DNA Center.</li></ul> |
| <b>Automation via Cisco DNA Center</b>  | The main Assurance dashboard gives a high-level overview of the health of every network device and client on the network, wired and wireless. It provides the top 10 global issues and allows the administrator to expand views by geographical site, device list, client list, or topology.  |

## Product model overview

The Cisco DNA Traffic Telemetry Appliance comes in one model. The appliance is a 1RU box that supports 20-Gbps throughput. The model uses the innovative and powerful Cisco Flow Processor and supports purpose-built capabilities based on the Cisco IOS XE operating system.



**Figure 2.**  
Cisco DNA Traffic Telemetry Appliance

## Software licensing

The Cisco DNA Traffic Telemetry Appliance supports software-based subscription using Cisco DNA based licensing. Unlike the other Cisco campus platforms, the appliance is available with only one Cisco DNA based software subscription license: Cisco DNA Advantage. The Cisco DNA license is supported for the appliance using Cisco DNA Center, the controller and analytics platform at the heart of Cisco's intent-based network. For more information on Cisco DNA Center and supported platforms, please refer to <https://www.cisco.com/site/us/en/products/networking/catalyst-center/index.html>.

The Cisco DNA Traffic Telemetry Appliance runs on Cisco IOS XE 17.3.1 or later. The appliance supports only one operating system and does not require a feature license (such as IP Base or Advanced IP Services) or a perpetual licensing package (such as Network Essentials or Network Advantage). The Cisco DNA Traffic Telemetry Appliance requires one of the following four packages:

- Cisco DN-APL-TTA IOS XE UNIVERSAL
- Cisco DN-APL-TTA IOS XE UNIVERSAL WITHOUT Lawful Intercept
- Cisco DN-APL-TTA IOS XE UNIVERSAL - NO PAYLOAD ENCRYPTION
- Cisco DN-APL-TTA IOS XE UNIVERSAL - NO PAYLOAD ENCRYPTION WITHOUT Lawful Intercept

## Scale and hardware specifications

The following table lists the scale and hardware performance specification for the Cisco DNA Traffic Telemetry Appliance.

**Table 2.** Scale and hardware specifications

| DN-APL-TTA-M                                 |                                       |
|--|---------------------------------------|
| Hardware description                         | Cisco DNA Traffic Telemetry Appliance |
| <b>Cisco DNA Traffic Telemetry Appliance</b> |                                       |
| Number of Endpoints (For Endpoint Analytics) | 40,000                                |
| Throughput                                   | 20Gbps                                |
| Number of TTA supported by Cisco DNA Center  | 25                                    |

## Physical specifications

The Cisco DNA Traffic Telemetry Appliance is available in one form factor and comes with the Cisco IOS XE image preloaded on it and ready for installation.

**Table 3.** Physical specifications

| Physical Specifications               | Model   |
|---------------------------------------|---|
| Part number for ordering              | DN-APL-TTA-M  |
| Hardware series                       | Cisco DNA Traffic Telemetry Appliances  |
| Minimum Cisco IOS XE Software release | Release 17.3.1  |
| Physical dimensions (H x W x D)       | Height: 1.71 in. (43.43 mm)<br>Width: 17.3 in. (439.42 mm)<br>Depth: 18.17 in. (461.5 mm)<br>Weight:<br><ul style="list-style-type: none"> <li>• 25 lb (11.35 kg) fully loaded</li> </ul>                                       |
| Default Memory                        | 16-GB DRAM  |
| Processor                             | Integrated in the chassis: Intel 1.8GHz Quad Core Processor   |
| Network and management I/O            | Supported connectors:<br>One RJ-45 10/100/1000 management Ethernet port<br>One RJ-45/RS-232 compatible console port<br>One Mini-USB serial console port<br>One RJ-45/RS-232 compatible auxiliary port<br>Two USB 2.0 connectors |
| Gigabit Ethernet ports                | Yes: Six 1G SFP ports   |
| 10 Gigabit Ethernet port              | Yes: Two 10G SFP+ ports<br><b>Note:</b> Built-in 10G ports cannot be reduced to 1G speed.   |
| Network interface module              | Yes, Only for SSD cards   |
| Rack-mounting                         | Yes: 19-inch  |
| Wall-mounting                         | No  |
| External USB flash memory             | 1-GB USB flash-memory support   |
| Redundant power supply                | Yes: Dual power supplies by default; option of either AC or DC power supply<br><b>Note:</b> A mix of one AC and one DC power supply is not supported.   |
| Power input                           | Worldwide ranging AC input range (85 to 264 VAC)<br>Worldwide ranging DC (-40 to -72V; 48V nominal)   |

| Physical Specifications                          | Model   |
|--|---|
| Power consumption                                | <ul style="list-style-type: none"> <li>• Maximum (DC): 242W</li> <li>• Maximum (AC): 250W</li> <li>• Maximum (out): 250W</li> </ul>   |
| Airflow  | Front to back   |
| Operating temperature (nominal)                  | 32 to 104° F (0 to 40° C)   |
| Operating temperature (short-term)               | 32 to 122° F (0 to 50° C)   |
| Operating humidity (nominal) (relative humidity) | 10% to 85%  |
| Operating humidity (short-term)                  | 5% to 90%   |
| Storage temperature                              | -40° to 150° F<br>(-40° to 70° C)   |
| Storage humidity (relative humidity)             | 5% to 95%   |
| Operating altitude                               | -500 to 10,000 feet (-152 to 3048 meters)   |
| Network Equipment Building Standards (NEBS)      | GR-1089 and GR-63   |
| EMC standards                                    | <ul style="list-style-type: none"> <li>• FCC 47 CFR Part 15 Class A</li> <li>• VCCI Class A</li> <li>• AS/NSZ Class A</li> <li>• CES-003 Class A</li> <li>• EN55022/CISPR 22 Information Technology Equipment (Emissions)</li> <li>• EN55024/CISPR 24 Information Technology Equipment (Immunity)</li> <li>• EN300 386 Telecommunications Network Equipment (EMC)</li> <li>• EN50082-1/EN61000-6-1 Generic Immunity Standard</li> </ul> |
| Safety Standard                                  | <ul style="list-style-type: none"> <li>• UL60950-1</li> <li>• CSA C22.2 No. 60950-1-03</li> <li>• EN 60950-1</li> <li>• IEC 60950-1</li> <li>• AS/NZS 60950.1</li> </ul>  |

## Ordering information

Table 3 lists ordering information for the Cisco DNA Traffic Telemetry Appliance. To place an order, visit the Cisco Ordering homepage at

[https://www.cisco.com/en/US/ordering/or13/or8/order\\_customer\\_help\\_how\\_to\\_order\\_listing.html](https://www.cisco.com/en/US/ordering/or13/or8/order_customer_help_how_to_order_listing.html)

**Table 4.** Ordering information

| Product Number   | Product Description   |
|--|---|
| <b>Cisco DNA Traffic Telemetry Appliance chassis</b>                           |   |
| DN-APL-TTA-M   | Cisco DNA Traffic Telemetry Appliance                             |
| DN-APL-TTA-M=  | Cisco DNA Traffic Telemetry Appliance Spare                       |
| DN-APL-TTA-ACS   | Cisco DNA Traffic Telemetry Appliance Accessory Kit               |
| DN-APL-TTA-ACS=  | Cisco DNA Traffic Telemetry Appliance Accessory Kit Spare         |
| <b>Cisco DNA Traffic Telemetry Appliance Memory</b>                            |   |
| M-DN-APL-TTA-16GB  | Cisco DN-APL-TTA-M 16GB DRAM                                      |
| M-DN-APL-TTA-16GB=   | Cisco DN-APL-TTA-M 16GB DRAM Spare                                |
| <b>Cisco DNA Traffic Telemetry Appliance Power Supply Options <sup>†</sup></b> |   |
| ASR1001-X-PWR-AC   | Cisco ASR1001-X AC Power Supply                                   |
| ASR1001-X-PWR-AC=  | Cisco ASR1001-X AC Power Supply Spare                             |
| ASR1001-X-PWR-DC   | Cisco ASR1001-X DC Power Supply                                   |
| ASR1001-X-PWR-DC=  | Cisco ASR1001-X DC Power Supply                                   |
| <b>Cisco DNA Traffic Telemetry Appliance Software</b>                          |   |
| SCISEUK9-173   | Cisco DN-APL-TTA XE 17.3 UNIVERSAL                                |
| SCISENPE-173   | Cisco DN-APL-TTA XE 17.3 UNIVERSAL W/O LI                         |
| SCISEUNLK9-173   | Cisco DN-APL-TTA XE 17.3 UNIVERSAL - NO PAYLOAD ENCRYPTION        |
| SCISENELK9-173   | Cisco DN-APL-TTA XE 17.3 UNIVERSAL - NO PAYLOAD ENCRYPTION W/O LI |
| <b>Cisco DNA Traffic Telemetry Appliance Subscription</b>                      |   |
| DNA-APL-TTA-M-A  | Cisco TTA DNA Advantage Term Licenses                             |
| DNA-APL-TTA-M-A=   | Cisco TTA DNA Advantage Term Licenses Spare                       |
| DN-APL-TTA-M-A-1Y  | Cisco TTA DNA Adv 1 Year Term License                             |
| DN-APL-TTA-M-A-3Y  | Cisco TTA DNA Adv 3 Year Term License                             |



| Product Number     | Product Description                                       |
|--------------------|---|
| DN-APL-TTA-M-A-5Y  | Cisco TTA DNA Adv 5 Year Term License                     |
| DN-APL-TTA-M-A-7Y  | Cisco TTA DNA Adv 7 Year Term License                     |
| DN-APL-TTA-M-FED   | Cisco TTA DNA Advantage Term Federal Licenses             |
| DN-APL-TTA-M-FED=  | Cisco TTA DNA Advantage Term Federal Licenses             |
| DNA-APL-TTA-M-A-R= | Cisco TTA DNA Advantage Term Licenses Spare, Renewal only |

† The Cisco ASR 1001-X Router power supply units are compatible with the Cisco DNA Traffic Telemetry Appliance

## Cisco environmental sustainability

Information about Cisco’s environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the “Environment Sustainability” section of Cisco’s [Corporate Social Responsibility](#) (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the “Environment Sustainability Approach” section of the CSR Report) are provided in the following table:

| Sustainability topic   | Reference                       |
|--|---------------------------------|
| Information on product material content laws and regulations                                       | <a href="#">Materials</a>       |
| Information on electronic waste laws and regulations, including products, batteries, and packaging | <a href="#">WEEE compliance</a> |

Reference links to **product-specific environmental sustainability information** that is mentioned in relevant sections of this data sheet are provided in the following table:

| Sustainability topic | Reference  |
|----------------------|--|
| <b>General</b>       |  |
| Product compliance   | Safety and compliance information                        |
| <b>Power</b>         |  |
| Power supply         | Power supplies, typical and maximum power specifications |
| <b>Material</b>      |  |
| Dimensions           | Physical dimensions                                      |

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

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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.

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### For more information

See how Cisco DNA Center helps you move faster, lower costs, and reduce risk:

<https://cisco.com/go/dnacenter>.

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San Jose, CA

#### Asia Pacific Headquarters

Cisco Systems (USA) Pte. Ltd.  
Singapore

#### Europe Headquarters

Cisco Systems International BV Amsterdam,  
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