

Cisco Network Data Platform

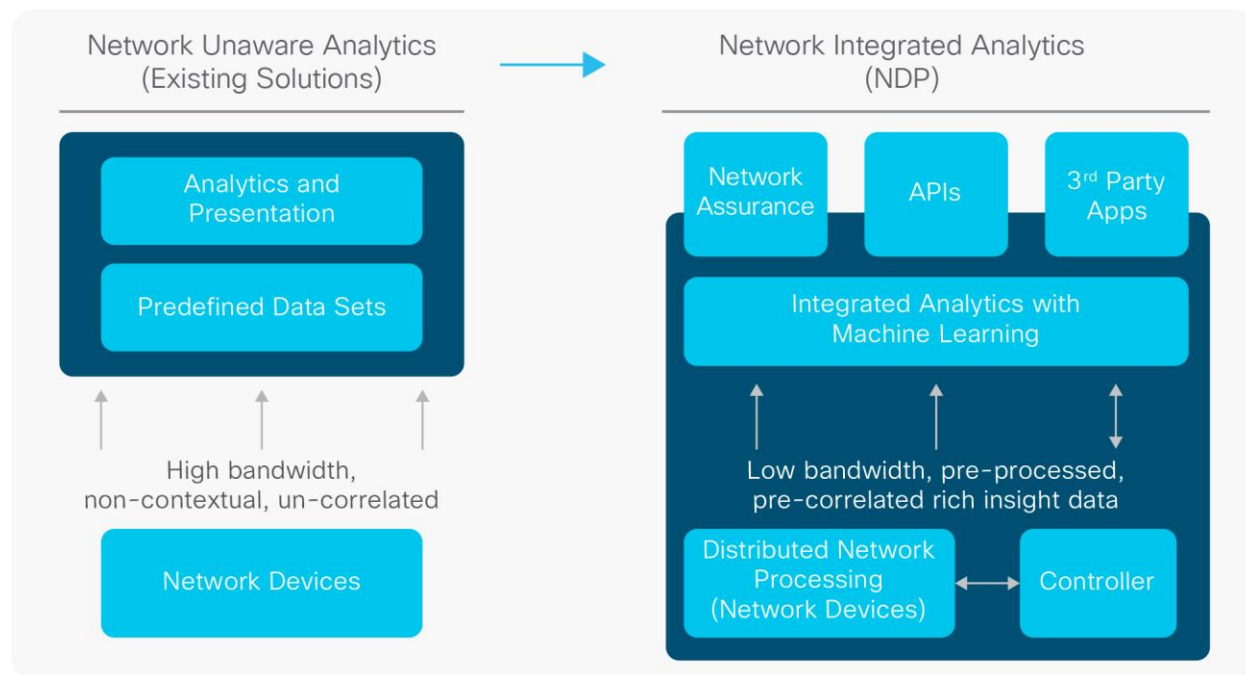
By simplifying the collection, conditioning, and correlation of network data and offering a rich set of APIs, Cisco Network Data Platform can streamline network data analytics and help you focus on your business goals.

Product overview

Today, companies are drowning in a sea of data. The variety, velocity, volume, and veracity trends that digital transformation imposes on their networks can be a significant challenge for even the most effective IT organizations. Cisco® Network Data Platform (NDP) can help empower your IT team by providing an accurate and useful view of what is really happening on your network. Unlike traditional tools, NDP doesn't simply generate data and transport it in bulk, but collects it and sends it to the platform with the proper vetting and context. The platform collects the necessary telemetry from network devices and adds the applicable contextual information.

This new approach is built upon a simpler, more modular platform with improvements at each layer. The resulting benefits include lower bandwidth usage, efficient and relevant data collection, and complete control over what is being collected from the devices. It handles the data issues that often bog down point software solutions and has built-in APIs that developers can use to customize the power of the platform's analytics engine.

In the Cisco Digital Network Architecture (Cisco DNA™) context, NDP is the enabling layer for the deployment and management of the next-generation digital network and is the underpinning of the Assurance tasks available in Cisco DNA Center. This east-west integration works seamlessly with Cisco DNA Automation for awareness of network topology, device capabilities, and configurations.



Features and benefits

Feature	Benefit
Contextualization	<ul style="list-style-type: none"> Process network data according to user or device context (for example, geo-location, peak time, business unit, technology touchpoints, and other relevant localizations).

Correlation	<ul style="list-style-type: none"> Streamline troubleshooting and enable businesses to be more agile, resilient, and responsive by correlating disparate sets of data to derive second-order insights.
Trending	<ul style="list-style-type: none"> Use cost policy and bandwidth utilization to preempt traffic congestion on business-critical WAN links, or track baselines to identify anomalies and departures from the norm.
Standards-based APIs	<ul style="list-style-type: none"> Use historic data to extrapolate and predict future scenarios while comparing historical deviations in data sets.
	<ul style="list-style-type: none"> Intuitively access data and insights for faster and easier development at multiple layers – getting only the desired data sets.
Network engineering and data science integration	<ul style="list-style-type: none"> Provide contextual interpretation with network data graphs and relationship implications.
Low-latency network data collection	<ul style="list-style-type: none"> Accelerate insights via distributed data processing. Efficiently and securely transport data from devices to platform with aggregation and deduplication done locally for each network segment.
Operation with Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM)	<ul style="list-style-type: none"> Works seamlessly with the native APIC-EM instance for device attributes. Collects device types, topology, capabilities, and OS versions. Works through automation for enabling of telemetry collection.
Integration with Cisco DNA Assurance	<ul style="list-style-type: none"> Onboard clients for connectivity experiences, including Authentication, Authorization, and Accounting (AAA); Dynamic Host Configuration Protocol (DHCP); RF; and roaming. Access extensive network metrics on availability, health, coverage, capacity, connectivity, and throughput. Measure end-user application statistics for type and traffic and application experiences through sensor IP Service-Level Agreements (IP SLAs) and Application Performance Management (APM). Enable best data resolution and deep learning through inline monitoring.

Quickly find the right information

Telemetry quotient is a measure of how well instrumented the network is for the collection of telemetry data from switches, routers, wireless access points and controllers, and endpoints. Cisco Network Data Platform can automatically determine the capability of the device and allow the user to enable the telemetry from a single interface, while also keeping track of the impact on overall network traffic. Telemetry correlation is done using advanced big data techniques to create relationships between key components of the network.

- Real-time stream processing provides the mechanism to collect the desired telemetry directly from devices without overburdening the network or creating unnecessary noise.
- Machine learning modules within the processing engine track baselines and thresholds for activity so that network performance norms can be established and compared.
- Contextual search uses natural language so users can intuitively interact with the platform to find the information they are looking for with the proper context.
- Extensibility gives users the ability to consume the output from the platform through the native interface or extract the data using standard, published APIs.

Call to action

Insight for effective network management

With the complexity and pace of today's digital transformation, it is more important than ever to recognize that network telemetry can be used to drive business value for network operations, lines of business, and key IT decisions. To learn more, visit [DNA Assurance](#).

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