The bridge to possible

Cisco Catalyst SD-WAN Analytics

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Q: How does a lack of application visibility impact overall IT operations?

A: Applications and users are more distributed than ever, and the internet has become the new enterprise WAN. As SD-WAN has transformed to connect users across multicloud, branch, data centers, and a hybrid workforce, enterprises and other organizations are constantly challenged to deliver reliable connectivity, application performance, and security over networks and services they don't own or directly control.

IT and network teams often carry the burden of proving the network innocent when something goes wrong. Application issues might manifest as network issues. Service disruptions can lead to endless finger-pointing. The resulting cycles spent pinpointing the source of issues can lead to prolonged service interruptions that ultimately damage the revenue and reputation of the business. To empower IT leaders to deliver transformation, they need a network analytics solution that provides visibility, predictivity, and automation to help them simplify network operations over such a dynamic environment.

Q: What is Cisco Catalyst™ SD-WAN Analytics?

A: Cisco Catalyst SD-WAN Analytics simplifies network operations by providing granular network insights, predictivity, and automation

that not only heighten network integrity but also deliver an optimal application experience. By liberating IT and network teams from complex network operations, Cisco SD-WAN empowers IT and network teams to maximize productivity and improve operational efficiency and resiliency, ultimately accelerating digital transformation and innovation.

Cisco Catalyst SD-WAN Analytics consists of SD-WAN Analytics, Predictive Path Recommendations, and Cisco ThousandEyes®.

Q: How does Cisco Catalyst™ SD-WAN Analytics improve the user experience?

A: SD-WAN Analytics aggregates a large volume of telemetry data and correlates application performance with underlying networks for operational insights, in a highly visualized and simplified manner. SD-WAN Analytics enhances network visibility, establishes historical benchmarks, and expedites root-cause isolation, ultimately enabling enterprises to take the necessary corrective actions and gain total control of the user experience.

For more information, see https://www.cisco.com/c/en/us/solutions/enterprise-networks/sd-wan-analytics/index.html.

Q: Can SD-WAN Analytics provide enhanced visibility and insights for Microsoft 365 applications?

A: Yes, SD-WAN Analytics provides enhanced visibility and insights for Microsoft 365-informed network routing by providing visibility into network Quality of Experience (QoE) metrics and Microsoft telemetry metrics for each available path. Microsoft 365 path analytics provide visibility into which path is being used by Microsoft 365 traffic over a given period, enabling network operators to easily visualize the best path. This helps in monitoring the traffic and application experience and provides insights to make troubleshooting easier.

Q: Can SD-WAN Analytics extend visibility into Webex® by Cisco?

A: SD-WAN Analytics, integrated with Webex telemetry, provides enhanced visibility with insights into application and network performance metrics. With the Webex app providing feedback via telemetry, customers can visualize the app's performance metrics such as loss, latency, jitter, resolution height, media bitrate, framerate, and much more in the Webex 360 panel within the Cisco SD-WAN Analytics dashboard. Webex telemetry also provides insights into application perspective via network Key Performance Indicators (KPIs) such as loss, latency, etc., offering a holistic view of

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network and application health. This feature also empowers IT teams and network administrators to proactively identify and resolve network or application problems across their organization's global offices, for an improved user experience.

Q: How is SD-WAN Analytics activated?

A: SD-WAN Analytics can be on-boarded alongside your new Cisco Catalyst SD-WAN fabric from the [Catayst SD-WAN Portal](). For existing deployments, it can be activated from Catalyst SD-WAN Manager. Please refer to the [Cisco Catalyst SD-WAN Analytics user guide]() for details.

Q: What type of data is collected by SD-WAN Analytics and how is it protected?

A: SD-WAN Analytics only collects the metadata from participating traffic flows. The payload data itself is not collected. The data is protected per the [Cisco privacy terms]().

Q: What is Predictive Path Recommendations?

A: Cisco's Predictive Path Recommendations (PPR), powered by ThousandEyes WAN Insights, an integral component of Cisco Predictive Networks, delivers a predictive network solution enabling Cisco SD-WAN customers to proactively improve the application experience

for users. Leveraging advanced algorithms and predictive models, PPR determines the performance and policy compliance of the paths carrying the site application traffic. When performance is below historical benchmarks or SLAs, PPR can make recommendations and automatically implement corrective actions – before users are affected.

Q: How is Predictive Path Recommendations activated?

A: Predictive Path Recommendations is included in Cisco DNA Advantage. It can be activated from SD-WAN Analytics . Please refer to the [Cisco Catalyst SD-WAN Analytics user guide]() for details.

Q: What is Bandwidth Forecasting?

A: Bandwidth Forecasting takes a comprehensive approach to provide predictions of circuit usage based on historical network traffic patterns. This helps network operators monitor performance trends on the circuits and provides capacity planning for the Catalyst SD-WAN overlay.

Q: How is Bandwidth Forecasting activated?

A: The Bandwidth Forecast feature can be activated for a specific SD-WAN overlay in the Catalyst SD-WAN Analytics Dashboard

under the Predictive Network tab. Users can then select which circuits to generate forecast predictions.

Q: What is Cisco ThousandEyes?

A: ThousandEyes enables enterprises that are increasingly dependent on internet, cloud, and Software-as-a-Service (SaaS) to see, understand, and improve digital experiences for customers, employees, and users. Its end-to-end visibility from any user to any application over any network enables enterprises to quickly pinpoint the source of issues, get to resolution faster, and measure and manage the performance of what matters.

ThousandEyes collects multilayered telemetry data from vantage points distributed throughout the internet, as well as in enterprise data centers and cloud, branch, and campus environments, providing detailed metrics on conditions between those vantage points and applications and services distributed throughout the globe. The result is insight into the application experience and underlying dependency, whether network, service, or application related.

For more information, see [https://www.thousandeyes.com]().

Q: How is Cisco Catalyst SD-WAN integrated with ThousandEyes?

A: Cisco Catalyst SD-WAN is natively integrated ThousandEyes vantage points. This solution supports eligible routers from the Cisco Catalyst 8200, 8300, and 8500 Series Edge Platforms, Cisco 4000 and 1000 Series Integrated Services Routers (ISRs), and ASR 1000 Series Aggregation Services Routers. Existing customers can expedite the deployment of ThousandEyes agents with the Catalyst SD-WAN Manager integration and enable faster time to value for their IT operators.

For more information, see the [Cisco Catalyst SD-WAN with Cisco ThousandEyes integration video](#).

Q: How is ThousandEyes ordered?

A: Customers can leverage an existing ThousandEyes subscription with eligible Cisco Catalyst 8200, 8300, and 8500 Series Edge Platforms and Cisco 4000 and 1000 Series ISRs, as well as Cisco ASR 1000 Series Aggregation Services Routers.

- Existing ThousandEyes customers can use their available ThousandEyes license and units toward new tests.

- New ThousandEyes customers will need to purchase a ThousandEyes license to activate the ThousandEyes agents.

Q: How does ThousandEyes complement Cisco SD-WAN Analytics?

A: SD-WAN Analytics aggregates a large volume of telemetry data and correlates application performance with underlying networks for operational insights in a highly visualized and simplified manner. ThousandEyes enables enhanced visibility beyond the traditional SD-WAN fabric into the internet, cloud, and SaaS to deliver an optimal application experience.

Q: How does Cisco Catalyst SD-WAN Analytics deliver greater application visibility?

A: Cisco Catalyst SD-WAN Analytics enables greater visibility for IT and network operators to drive optimal digital experience across the internet, cloud, and SaaS. With this solution, you can:

- Gain enhanced visibility into the network underlay, including detailed path and performance metrics.

- Measure and proactively monitor SD-WAN overlay performance and routing policy validation.

- Determine the reachability and performance of SaaS and internally owned applications.

- Establish network and application performance baselines across global regions before, during, and after deployment of SD-WAN to mitigate risk and establish and validate KPIs.

- Predict the probability of traffic disruption for different applications and use these forecasts to provide recommended network paths, thereby avoiding user-impacting issues, eliminating the need for reactive network changes, and subsequently reducing the impact on user experience.

- Correlate raw telemetry sources, establish historical benchmarks, and provide operational insights, thereby transforming network operations from a reactive model to a highly predictive one.

- Offer a seamless Microsoft 365 and Webex user experience via telemetry, path optimization, and policy automation.

- Deploy highly visualized graphic capabilities that simplify analytics for an improved user experience.

- Offer your CIO, CTO, and COO visual representation and analysis reports for offline review.

Q: What are the benefits of Cisco Catalyst SD-WAN Analytics?

A: With Cisco Catalyst SD-WAN Analytics, IT managers can rapidly pinpoint the root cause of application and network disruptions, provide actionable insights, and accelerate resolution time.

- **Optimize efficiency:** Correlate raw telemetry sources, establish historical benchmarks, and provide operational insights, thereby transforming network operations from a reactive to a highly predictive model.

- **Optimize user experience:** Provide the unified application experience your end users have come to expect, regardless of their location and associated network environment.

- **Optimize resiliency:** Monitor network and application performance proactively, while validating implemented policies with business requirements to avoid performance issues that could impact users.

- **Optimize operational sustainability:** Establish a perpetual optimization cycle that achieves overall CapEx and OpEx efficiency. Predictive analytics enhance resource planning and network engineering that enable organizations to forecast optimal capacity, thereby driving CapEx efficiency. OpEx efficiency is achieved by proactively preventing user-impacting issues, automating resolution, and reducing overall troubleshooting cycles.

- **Optimize productivity:** Create a proactive engagement model that allows network conditions that may otherwise have gone unnoticed to be addressed before reaching a noticeable level. A proactive operating model will ultimately free up resources and time that can be shifted to higher-level strategic and innovation priorities.

- **Optimize operations:** Deliver strategic business outcomes to enterprise and service providers. Workforce challenges in the IT sector are not new, with ongoing difficulties in finding the right talent to keep up with attrition and growth. Skills gaps grow greater each year as employers chase a smaller pool of highly skilled workers with expertise in cloud-native platforms, networking engineering, and security. Enhanced visibility, automation, and prediction can fill the gaps by standardizing operations and executing routine operational activities on a proactive basis.