

Executive Summary

IT teams strive to achieve operational efficiency while simultaneously enhancing the user experience. SD-WAN can help organizations deliver quality digital experiences more easily and cost-effectively, meeting the demands of employees and customers. However, to achieve this, teams must have centralized visibility into performance trends across the entire infrastructure to determine if any performance issues are related to configuration errors, ISP links, paths, or applications.

The lack of complete and centralized visibility will cause:

- **Difficulty pinpointing the root cause of performance issues:** Determine if the problem is in the application, the network, or the configuration.
- **Inefficient troubleshooting:** Without clear insights into underlay performance, resolving issues becomes time-consuming and costly.
- **Suboptimal application performance:** Poor underlay performance directly impacts application responsiveness, leading to frustrated users and reduced productivity.

A Comprehensive Suite of Features

The Fortinet SD-WAN Underlay and Application Monitoring Service provides administrators with a comprehensive suite of features to enhance user experience. By combining Fortinet best practices, improved underlay performance, and application monitoring into a single service, organizations will enjoy a holistic approach.

This Fortinet offering includes a suite of tools and services that extend the existing capabilities of Fortinet Secure SD-WAN to help IT teams further optimize their application performance and digital experience. It includes measuring WAN bandwidth, dynamically updated performance SLAs, and simplified SD-WAN setup wizard to underlay performance monitoring.

Included Feature	Description	Available in
FortiGuard Speed Testing Service	Speed testing service for FortiGate devices with customizable speed test scheduling	FortiOS 7.0 and above
SD-WAN Setup Wizard	Guided SD-WAN setup wizard for FortiGate devices based on best practices	FortiOS 7.6.1 and above
FortiGuard SLA Database	Managed database of preconfigured SaaS and cloud performance SLAs	FortiOS 7.6.1 and above
Application Performance Monitoring (APM)	Passive application performance monitoring for rich analytics and network triaging	FortiOS 7.6.3 and above
FortiTelemetry	10 endpoint agents per FortiGate for synthetic monitoring of SaaS applications	FortiOS 7.6.3 and above

FortiGuard Speed Testing Service

You can continuously monitor the performance of your ISP links with scheduled or on-demand speed tests to hundreds of FortiGuard servers, identifying potential bottlenecks before they impact users. The test can be executed from FortiManager or FortiOS and charted on a map for easy viewing of performance and can be executed per-device or networkwide. Results can then be viewed on FortiAnalyzer for centralized visibility and reporting.

Learn more about our SD-WAN Network Monitor service [here](#).

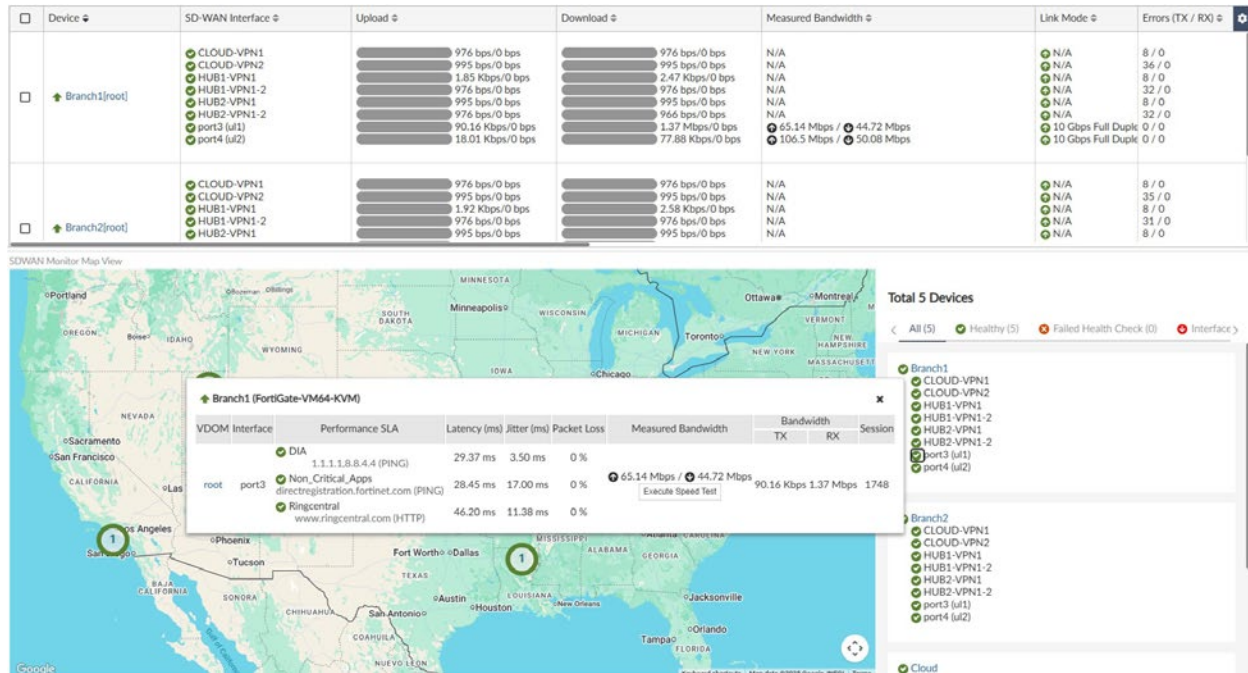


Figure 1: Monitoring ISP performance to identify potential bottlenecks before they impact

FortiGuard Performance SLA Database

You can leverage the FortiGuard managed database of over 250 destinations, including some of the most popular SaaS and cloud applications on the internet. The service provides users with recommended SLA probe targets as well as the optimal measurement protocol. This reduces time spent on setup and ensures the accuracy of the destination probe in SD-WAN performance SLAs.

Learn more about the FortiGuard SLA database for SD-WAN performance SLA [here](#).

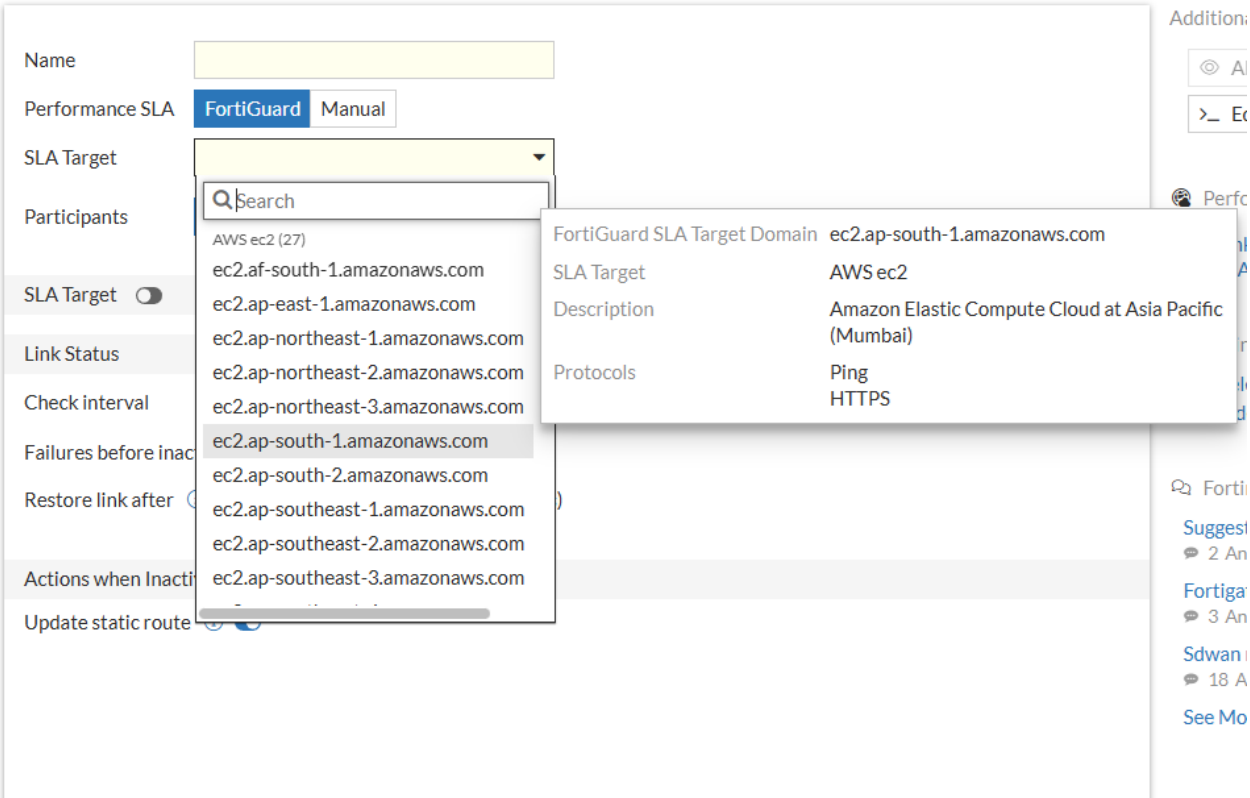


Figure 2: The user interface for the FortiGuard SLA database for SD-WAN performance SLA

Application Performance Monitoring

The FortiOS operating system provides deep visibility into the end-to-end user experience through the passive monitoring of application sessions. The SD-WAN Underlay and Application Monitoring Service enabled in FortiOS automatically calculates advanced performance metrics such as network response time, server response time, TCP resets and retransmits, and SYN/SYN-ACK retransmissions. By analyzing real user traffic, FortiOS helps identify whether performance issues stem from the application, server, or network, empowering IT teams to quickly pinpoint and resolve problems before they impact users. Learn more about application performance monitoring [here](#).

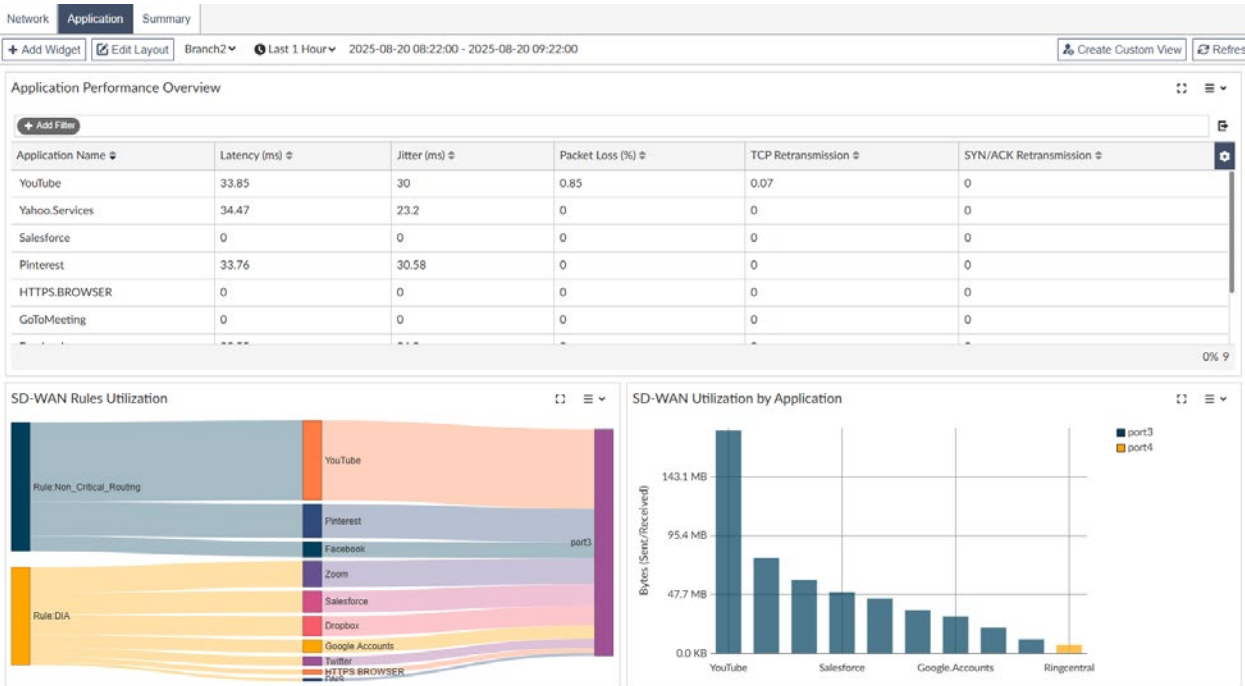


Figure 3: Application performance monitoring for deep visibility



FortiTelemetry Agent-Based Monitoring

To obtain detailed application performance metrics for SaaS applications based on synthetic transactions, you can configure the SaaS applications to monitor in FortiOS, and it will synchronize probing rules with the agents on endpoint machines. FortiTelemetry agents can be deployed globally in strategic locations to provide different regions with application performance metrics, such as server time, total RTT, DNS, application downloading time, application throughput, and failure rate. Ten FortiTelemetry agents are included with the underlay and application monitoring service.

Learn more about application and network performance monitoring with FortiTelemetry [here](#).

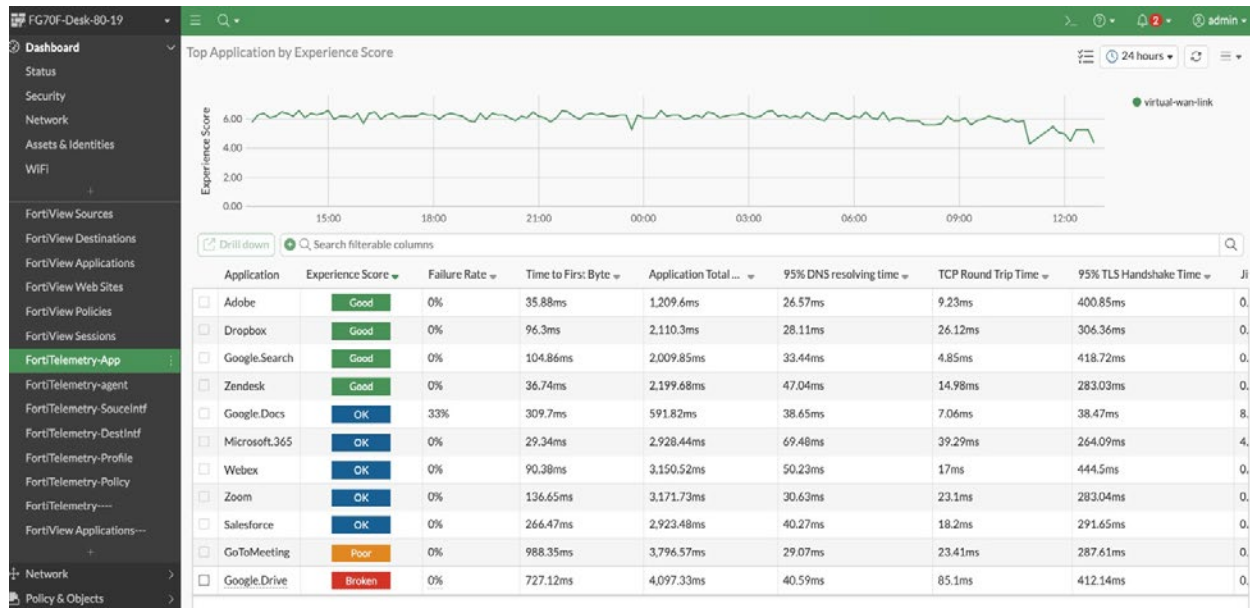


Figure 4: FortiTelemetry agents deployed globally in strategic locations

SD-WAN Setup Wizard

Simplify SD-WAN provisioning in FortiOS with a step-by-step wizard based on Fortinet best practices, minimizing configuration errors even without trained IT staff. The wizard guides the user through underlay selection, underlay routing, performance SLA, and SD-WAN rule creation. It is ideal for smaller SD-WAN deployments without FortiManager.

Learn more about our SD-WAN setup wizard for guided configuration [here](#).

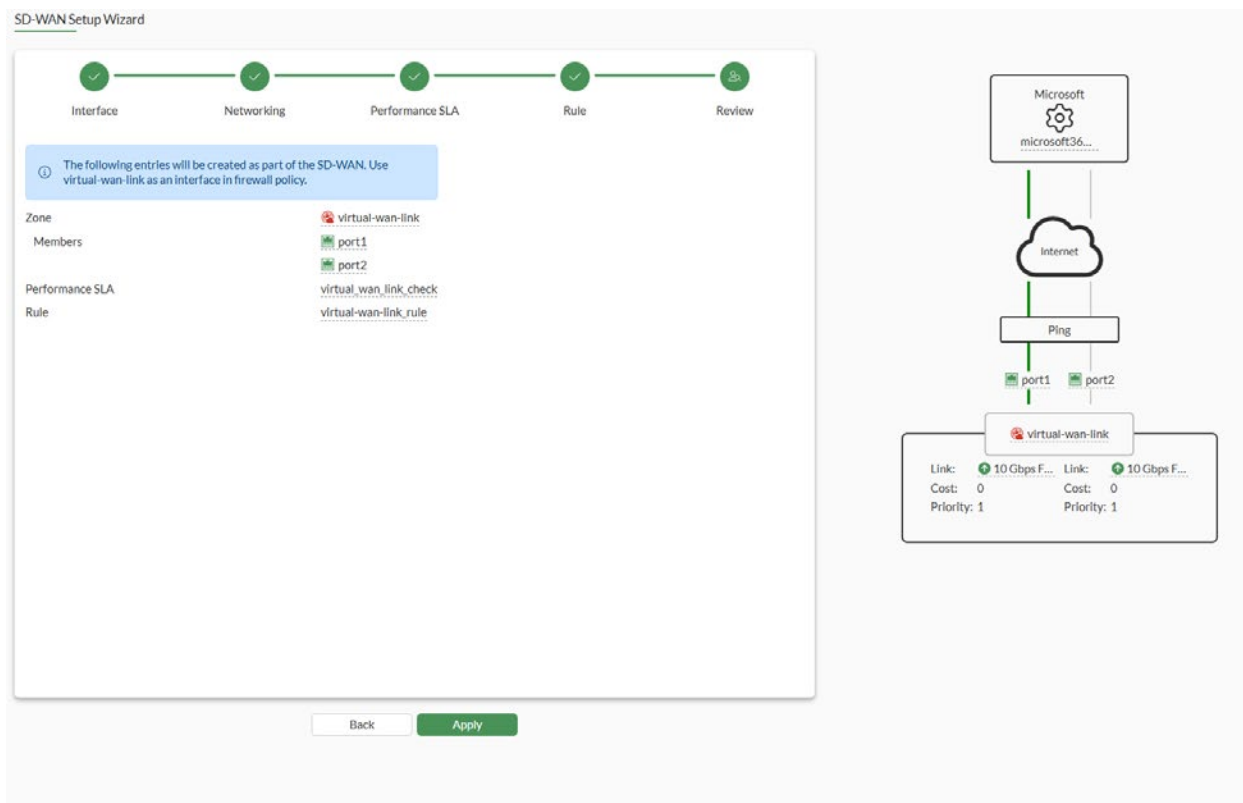


Figure 5: The SD-WAN setup wizard for smaller SD-WAN deployments without a FortiManager

Real-Time Dashboards and Reporting

The Fortinet SD-WAN Underlay and Application Monitoring Service includes additional key underlay and application performance metrics in FortiAnalyzer via intuitive dashboards and reports, enabling proactive issue identification and resolution.

Learn more about our new metrics for SD-WAN monitoring [here](#).

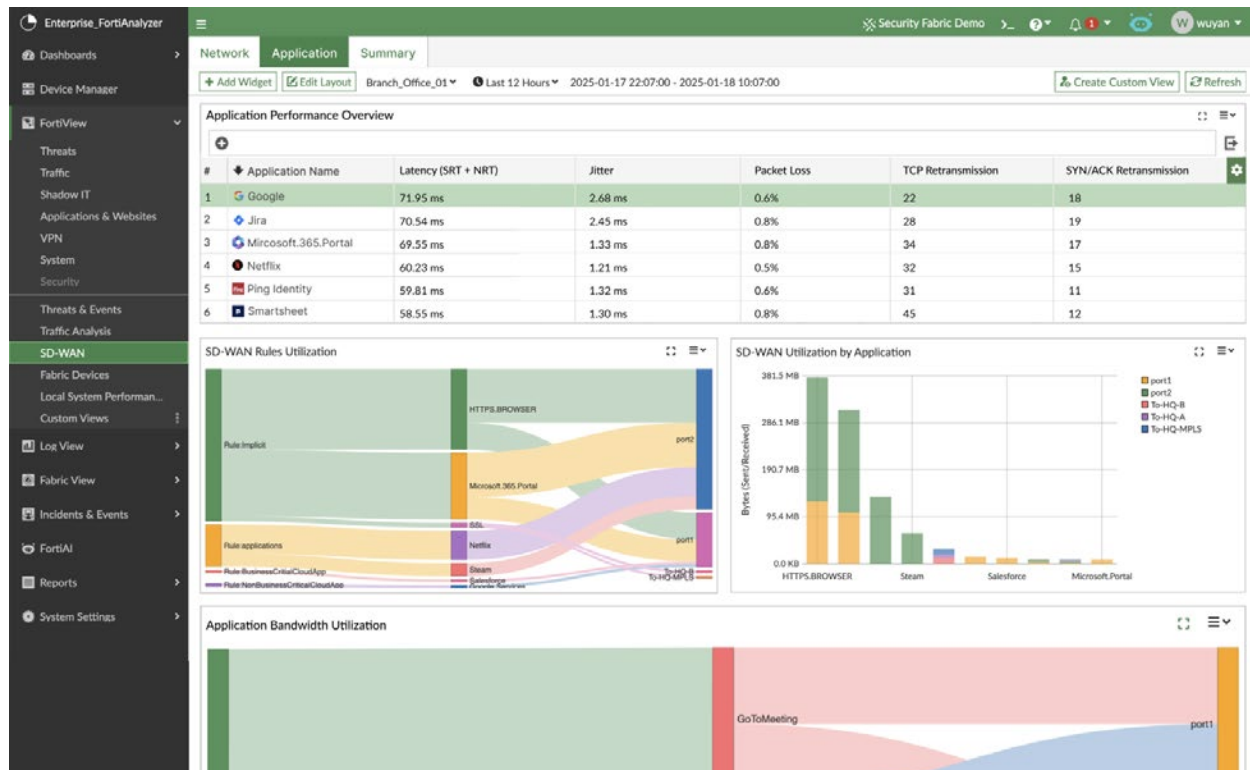


Figure 6: Intuitive dashboards and reports for application performance overviews

Licensing

The SD-WAN Underlay and Application Monitoring Service is available as a per-FortiGate add-on entitlement (SKU: FC-10-XXXXX-288-02-DD).

The Visibility, Control, and Automation Your Organization Needs

In today's digital-first world, a high-performing underlay network is essential for delivering optimal digital experiences. The Fortinet SD-WAN Underlay and Application Monitoring Service provides the visibility, control, and automation you need to optimize your underlay network, ensuring seamless application performance and user satisfaction.