

SOLUTION BRIEF

Fortinet and LinkEye WAN AIOps Solution

Automate all WAN-related operations with WAN Assurance with AI

Executive Summary

The Fortinet Secure SD-WAN and the LinkEye integration helps organizations completely automate the management and troubleshooting of WAN circuits across the globe. Proactively detect, troubleshoot, and fix WAN issues with AI.

The Challenges

Organizations owning numerous sites often grapple with the complexity of dealing with hundreds of ISPs for their WAN circuits. Efficiently monitoring and troubleshooting WAN circuit faults is a recurrent challenge, mainly when dealing with many ISPs. While ISPs commit to service SLAs, customers lack practical tools to track and ensure adherence to these promised SLAs.

Joint Solution

LinkEye and Fortinet have partnered to deliver an industry-leading WAN AIOps solution to address these challenges. The LinkEye and Fortinet Secure SD-WAN integration delivers full automation of WAN operations, reducing WAN downtimes and related production losses.

Solution Components

The LinkEye solution components are:

1. A local probe is a Linux-based image that must be installed on a VM at the DC or SD-WAN hub location.
2. LinkEye cloud-hosted probes are called "WANtage Points," or external probes. They are hosted and maintained by LinkEye on Azure and AWS.
3. LinkEye Hardware Agent is pluggable into the facility's LAN from which the applications must be monitored.

Fortinet FortiGate Next-Generation Firewalls (NGFWs) provide industry-leading threat protection and decryption at scale with a custom ASIC architecture. They deliver secure networking with integrated features such as SD-WAN, switching and wireless, and 5G. Converge your security and networking point solutions into a simple-to-use, centralized management console powered by a single operating system, FortiOS, and simplify IT management.

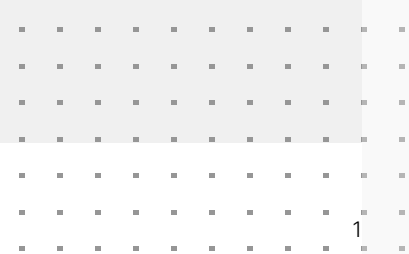
Fortinet FortiManager delivers unified management for consistent security across complex hybrid environments, protecting against security threats. Key benefits include accelerated zero-touch provisioning with best-practice templates for SD-WAN deployment at scale and streamlined workflows within the Fortinet Security Fabric.

Solution Components

- FortiGate NGFW and FortiManager
- LinkEye Probe server (VM), SaaS licenses, and Hardware Agent (IoT sensor)

Solution Benefits

- Manage and monitor all WAN circuits globally
- Pro-active SD-WAN auto-troubleshooting with AI
- Deep insights about ISP service SLA violations
- Application experience monitoring
- Unparalleled security protection provided by the Fortinet Security Fabric



Solution Integration

LinkEye continuously monitors all the WAN circuits through its internal and external probes. A failure of the WAN circuit triggers the AI engine to perform a series of troubleshooting procedures. These troubleshooting steps are executed through SSH/API calls to the FortiGate device. If the root cause for WAN circuit failure is identified as the ISP, then a ticket can automatically be logged with the ISP.

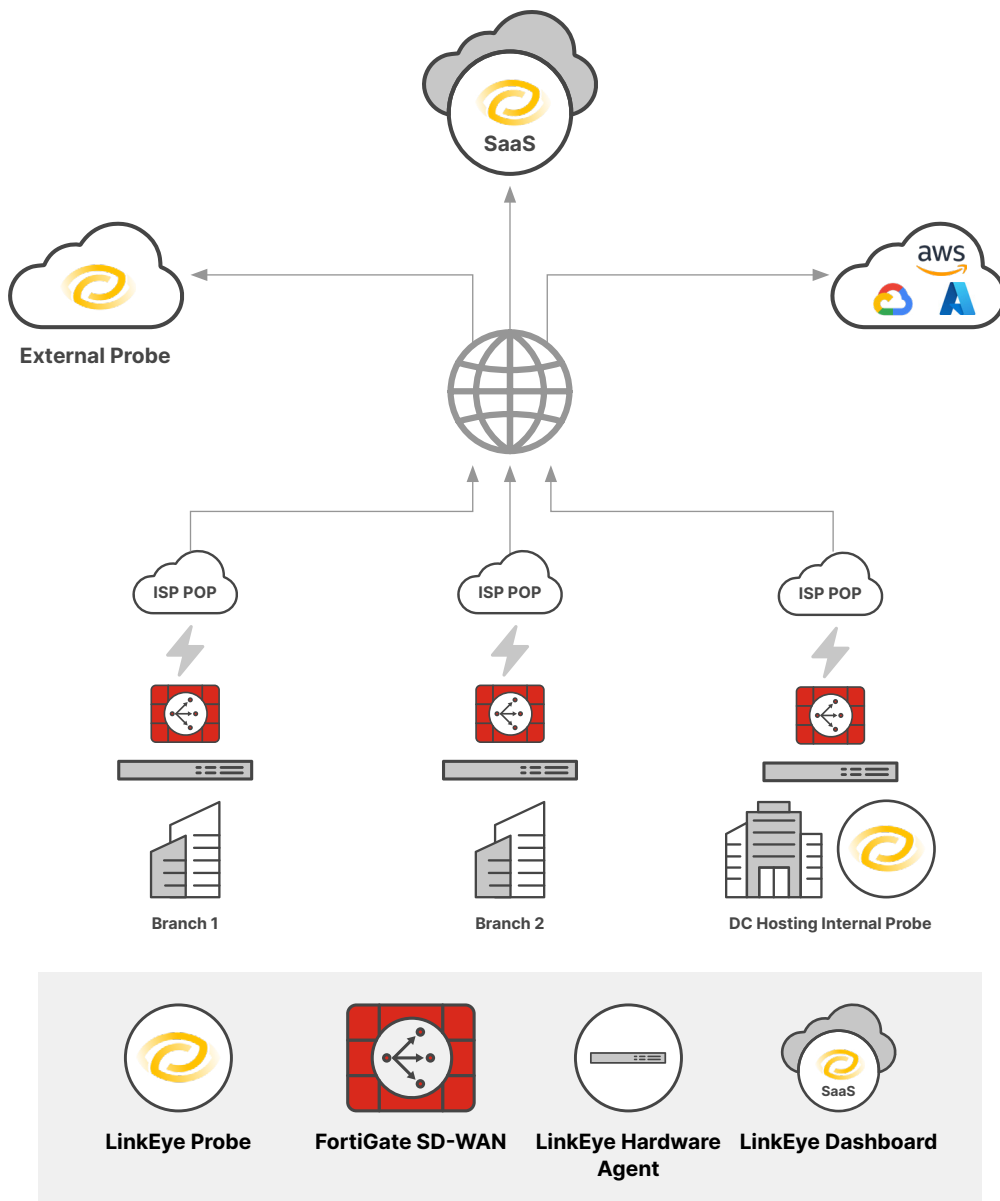


Figure 1: LinkEye and Fortinet integration architecture

In addition to monitoring the WAN circuits, the LinkEye agent at each facility monitors business-critical applications, synthesizing application traffic to the application IP/URLs. It provides link performance data that can influence application performance. The agent mimics user interaction with the application and alerts if there are any anomalies due to link availability or performance for the applications.

Use Cases

Use case #1: MSP reduces MTTR by 90%¹ by using LinkEye and Fortinet Secure SD-WAN integration for WAN operations

Integrating with FortiGate, LinkEye performs first-level troubleshooting, extracting data points available on the SD-WAN related to the internet experience on behalf of an engineer and identifying the RCA. RCA is identified in less than 30 seconds, which otherwise takes 30 to 40 minutes by an engineer.

Use case #2: Customers can access ISP performance against the SLA

With our unique method of monitoring the FortiGate SD-WAN fabric, LinkEye can precisely identify whether the issue is due to the ISP or customer environment. Consequently, every single ISP outage hour is tracked without fail.

Use case #3: Predict application performance degradation

Application unavailability and WAN degradation issues are alerted to the LinkEye agent before the user. The IT team is then notified to implement the necessary BCP, improving user experience.

About Filoffee Software Private Limited:

Filoffee Software Private Limited was founded in 2022 with a vision to build fully autonomous networks. Since going live with the First Product, "LinkEye," the platform has grown into a Niche provider in the network AiOPS Space, delivering Flexible Solutions, Network Assurance, and an unmatched internet experience. Today, the company is constantly reimagining how to increase the Internet Happiness Quotient via rational use of AI, allowing users to Self-Diagnose and Self-Heal any kind of internet issue.

¹ ["Role of LinkEye in reducing MTTR and improving Operational efficiency of IT Services & MSP," LinkEye, 2023.](#)