

SOLUTION BRIEF

# Fortinet Provides Advanced Security for SAP Solutions on Google Cloud

## Executive Summary

SAP S/4HANA gives you the business agility you need today, with smart automated processes and insight into every corner of your business, so you can move from crisis to opportunity. Business leaders look to SAP to transform business processes for intelligent enterprise. SAP enables organizations to adopt best practices while attaining operational excellence. As organizations upgrade their existing SAP system or convert to S/4HANA, many leverage Google Cloud for reliability and innovation and Fortinet for a holistic approach to security.

SAP drives improved business outcomes by organizing, correlating, and monetizing data. Whatever the desired outcome, SAP on Google Cloud increases the value of your data through intelligent process, workflow, and analytics. [The Google Cloud infrastructure is certified by SAP](#) to ensure high performance to power SAP workloads. Google Cloud drives agility and efficiency while using modern approaches to incorporate business innovation for SAP workloads. Whether your priority is redefining the customer experience, attaining operational excellence, or optimizing your supply chain, running SAP on Google Cloud delivers intelligence across the business.

A focused SAP security practice is necessary to protect all the data generated by SAP, and Fortinet secures the entire SAP landscape whether on-premises, hybrid or multi-cloud. As more organizations embrace a multi-cloud strategy, Fortinet provides the security layer across the entire ecosystem. By leveraging its extensive threat intelligence, a comprehensive portfolio, and state-of-the-art artificial intelligence (AI)/machine learning (ML) security, Fortinet strengthens an organization's SAP security posture.

## Extend Cloud Security to SAP Workloads

### Securing the cloud

Google offers customers a great deal of security over their instances, running on its infrastructure. However, according to the shared security responsibility model, Google Cloud is only responsible for protecting the cloud infrastructure that runs all the services offered—basically, the **security of the cloud**. Customers are responsible for all the services, SAP workloads, applications, and data they use—**security in the cloud**.

### Flexibility for SAP workloads

Google Cloud and Fortinet have partnered to deliver extensive security orchestration that scales along with cloud workloads. The Fortinet Security solutions complement native Google security functions while supporting secured and encrypted connectivity across public, hybrid and private cloud infrastructure. The Fortinet Security Fabric for Google Cloud protects attack surfaces that span hybrid- & multi-cloud infrastructures providing flexibility for SAP projects.

## The path to an “intelligent enterprise”

The effort to rearchitect existing SAP systems will determine how the SAP Solutions move to Google Cloud. The three main migration paths to SAP S/4HANA are:

### System conversion

Take your existing SAP implementation and migrates it to S/4HANA.

### Landscape transformation

Consolidate your SAP systems from on-prem or any cloud to a S/4HANA.

### New system installation

Deploy a new S/4HANA implementation.

### The SAP threat landscape is shifting

As organizations upgrade their existing SAP system or convert to S/4HANA, many leverage the cloud for agility and scale on demand. Enterprises shift their attack surface by adding more cloud services or by managing hybrid environments. SAP Fiori, the web interface, and smart devices that connect to SAP are targets for security attacks.

## Consistent Enterprise Security for SAP

Fortinet natively integrates into Google Cloud to provide full visibility of SAP workloads. Google Cloud customers can confidently deploy SAP workloads while maintaining centralized management, security automation, and managing risks using Fortinet to secure the Intelligent Enterprise running SAP. By protecting all the data generated within the SAP ecosystem regardless of its location—whether on-premises data center, Anthos, or multiple cloud providers, Fortinet centralizes and automates security controls and analytics—making it easier to manage, respond, and automate security for SAP workloads.

### Focused SAP security practice

A consistent security framework protects all SAP workloads, and Fortinet applies AI for faster threat prevention, detection, and response. It protects all SAP data generated by edge devices, endpoint systems, users, applications, databases, third-party systems on Google Cloud, Anthos, or across multi-cloud environments.

### Accelerate SAP deployments

Fortinet reduces the time to securely deploy S/4HANA with pre-packaged Infrastructure-as-Code templates, enabling the organization to be more agile, to adopt DevOps best practices, and to provide broad protection to your entire SAP deployment.

### Built-in intelligent technologies

Combat modern threats using AI, ML, and advanced analytics powered by FortiGuard Labs, Fortinet's industry-leading cybersecurity research and intelligence organization, to expedite threat prevention, detection, and response.

### SAP security risks

Cyber threats use infrastructure as an entry to access sensitive data that resides within SAP. Currently, SAP does not provide guidance on infrastructure security, and SAP's Security Baseline Template leaves these problems to the customer to solve.

### Application security and edge

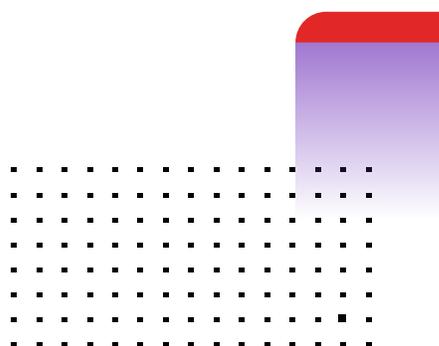
Fortinet enables Zero Trust Security that move defenses from static, network-based perimeters to focus on users, assets, and resources.

### Enterprise wide security

The single-pane-of-glass management enabled by the Fortinet Security Fabric portfolio and cybersecurity platform provides a complete and consolidated view of security events for SAP workloads. Fortinet employs built-in intelligent technologies, including AI, ML, and advanced analytics to expedite threat prevention, detection, and response. Simplify operations and provide network wide security, visibility, and analytics with Fortinet to centralize operations across complex computing landscapes such as SAP.

### Public cloud deployment flexibility

A multi-cloud strategy is being adopted by 84% of enterprises in efforts to reduce exposure to single sourcing and overpayment. Organizations are using hybrid clouds for flexibility in modernizing existing applications. Google's Anthos was built on open-source technology and enables application modernization consistency between on-premises and cloud environments—thus, consistent security across locations is critical for ensuring SAP workloads are protected.



## How your SAP workloads are safer with Google Cloud and Fortinet

Together, Google Cloud and Fortinet provide customers with consistent enterprise security protection. Leverage a broad, integrated, automated cybersecurity platform across Google Cloud, multi-cloud, and hybrid environments. Fortinet secures the Intelligent Enterprise running SAP – by protecting all SAP data generated by edge devices, endpoint systems, users, AI, applications, databases, 3rd party systems in multi-cloud environments, and on-premises.

### End to end security from within Google Cloud

- Conceived and built to be natively integrated with Google Cloud
- Complete suite of integrated Firewall, Load Balancing, Threat Analytics and Security Management solutions
- Threat Intelligence, AI-based Threat Detection, Layer 7 Application Inspection, High Performance and Multi-Layer Advanced Security

## How Fortinet Secures the Intelligent Enterprise

The different solutions that comprise the Fortinet Security Fabric protect data generated in SAP against common and emerging threats. Fortinet ensures all critical assets stay protected as IT teams embark on their SAP projects. The Fortinet Security Fabric protects all SAP-generated data across multiple locations and regions.

### Consolidation and simplification

- Provides new and existing Google Cloud customers with greater visibility, protection, and control of their entire IT environment through a “single pane of glass”
- Enhances Google Cloud so organizations can manage their portion of the Shared Responsibility Model
- Lowers total cost of ownership (TCO)

### Fortinet Security Fabric helps SAP customers to:

- Meet best practice security standards
- Gain visibility and monitor enterprise IT environment
- Comply with ever changing regulatory landscape
- Reduce risk and security complexities
- Simplify and automate operations

By applying the Fortinet unified portfolio, organizations can have a consistent security framework for SAP across multiple locations and regions. Leveraging the Fortinet Security Fabric, a broad, integrated, and automated cybersecurity platform, it weaves together all operational and technical security facets, creating a consistent structure for the SAP security landscape.

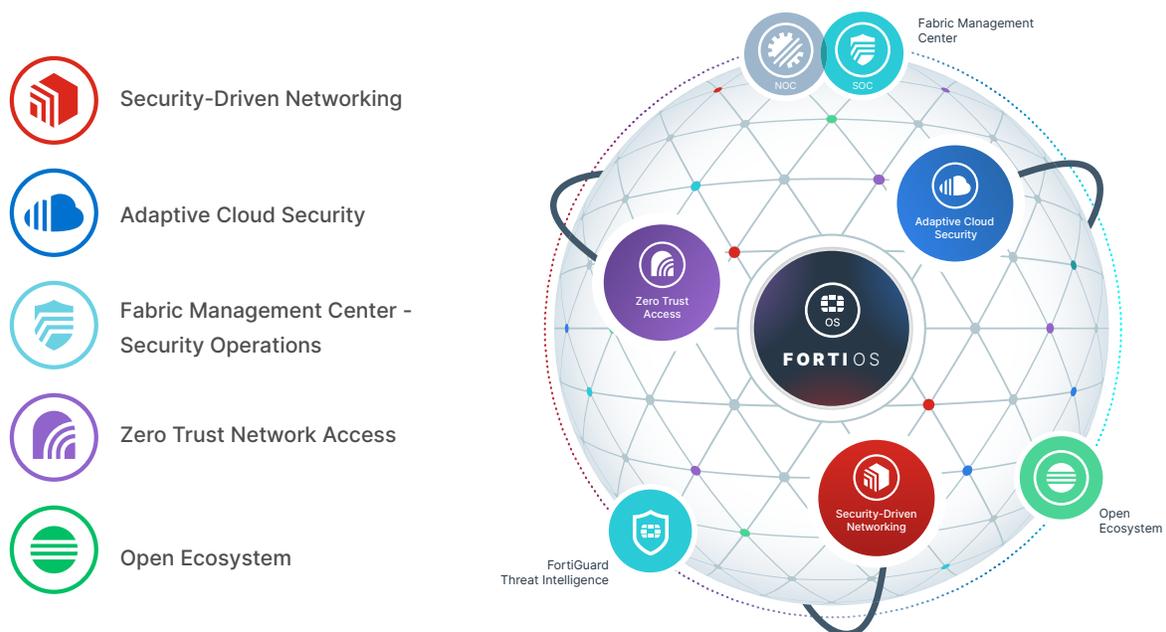


Figure 1: Fortinet Security Fabric diagram.

## Fortinet Protects SAP Workloads Running on Google Cloud

The Fortinet Security Fabric provides integrated defenses that span the full SAP attack spectrum to protect all SAP data generated by edge devices, endpoint systems, and SAP workloads. Fortinet breaks down the barriers that inhibit security visibility and management across private, public, and hybrid cloud platforms. Native integration with Google Cloud and Anthos enables Fortinet to provide seamless, automated, and centralized management to support SAP deployments.

Organizations can achieve a consolidated view of their security posture across SAP workloads, a single console for policy management and governance reporting, and event monitoring regardless of physical, virtual, or cloud infrastructure.

### Integration with Google Cloud's Security Command Center

Fortinet's FortiCWP integrates with Google Cloud's Cloud Security Command Center to improve IT efficiency using familiar tools to manage workloads and view security threats.

### Support for Anthos

Fortinet and Google Cloud provide organizations a flexible deployment model to SAP 4/HANA using a hybrid cloud deployment model with Anthos. Customers who are transforming their business can use SD-WAN as an onramp with Google Cloud. The Fortinet Security Fabric provides multi-layer protection and operational benefits for securing SAP workloads across hybrid environments for the cloud journey to SAP 4/HANA on Google Cloud.

### A secure path to Google Cloud

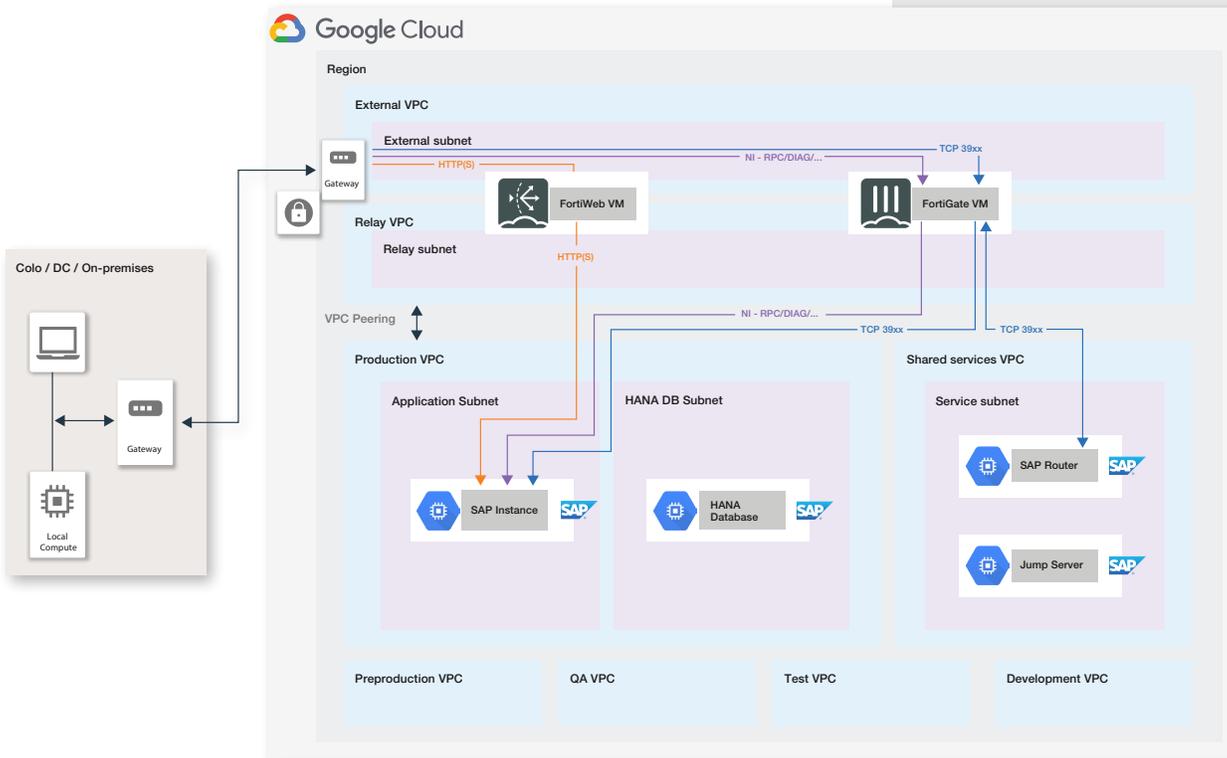
As organizations plan for SAP 4/HANA migrations they often identify additional workloads to migrate to the cloud. The Fortinet and Google Cloud partnership provide customers with a secure path to Google Cloud to support all workload migrations. The Security Fabric offers Network, Application, and Cloud platform security capabilities provided in a variety of form factors including VM-, container-, and SaaS delivered protection that natively integrates Fortinet security functionality into Google Cloud.

### Enterprise Security for Google Cloud

- Simplify security management with single-pane control across GCP and on-premises data centers
- Gain cloud-native visibility and control into your GCP workloads and applications
- Leverage Fortinet Cloud Security Services Hub for scalable and multi-layer secure connectivity
- Security offerings in VM, and SaaS form factors



## Fortinet Reference Architecture for SAP S/4HANA



### Fortinet on Google Cloud Use Cases for SAP

#### Segment SAP workloads with low latency

**FortiGate** delivers high-performance, low-latency SAP security through the deep packet and content inspection specific to SAP services.

**FortiGate NGFW** leverages AI/ML & Google data analytics for better business agility - Google core data analytics assets: Dataflow, Datalab, BigQuery.

#### Protect threats targeting SAP with intrusion prevention system (IPS) and content inspection

The **FortiGate**, combined with **FortiGuard Threat Intelligence**, delivers validated industry-leading IPS technology. FortiGuard Labs provides SAP threat intelligence to the FortiGate's IPS engine to protect from well-known and emerging threats. Common exploits such as relay attacks, command execution, SQL injections in SAP NetWeaver ABAP and Java and other services are mitigated with microsecond latency. Configuration errors are minimized as SAP heuristics, and signatures are enabled in the default IPS policy.

#### IPS Signatures for SAP

Year after year, Fortinet has been reported as a standout leader in next-generation IPS through independent studies such as those by NSS Labs and Virus Bulletin. Fortinet's catch rate for exploit and exploit evasion attempts is among the highest in the industry.

### Fortinet Key Facts

Fortinet, Inc. provides cyber security solutions to a range of enterprises, service providers and government organizations across the world. **Its "Fabric Ready" network security solutions consist of cloud, virtual and physical platforms, which provide integrated security and networking functions** to protect data, applications and users from network-and content-level security threats.

- 4 Gartner Magic Quadrants as Leader/Visionary
- #1 Units Shipped, Security Appliances
- Over 500,000 Customers
- HQ Location: Sunnyvale, CA USA
- Employees: >8,200
- Revenue: >\$2.5B Growing
- Website URL: <https://www.fortinet.com>
- Google Cloud Premier and Co-Sell Partner



## Provide high-performance SSL inspection

Zero-touch deployment with **FortiGate Cloud** simplifies setup and ongoing management while providing centralized configuration and device management. Customizable dashboards and actionable reports display all threats so you can remediate fast. FortiGate delivers broad protection and automated management for consistent enforcement and visibility to protect SAP workloads.

## Protect SAP Web Dispatchers

The **FortiWeb web application firewall (WAF)** is a dedicated HTTP(s) protection platform that not only protects against Open Web Application Security Project (OWASP) threats but also provides virtual patching and auto tuning, and uses AI and ML to detect threats faster.

## Evaluate SAP compliance

**FortiCWP** assesses cloud configuration security posture, detects potential threats originating from misconfiguration of cloud resources, monitors cloud network traffic, and provides comprehensive compliance reports.

## Fortinet simplifies cloud security

**WAFaaS** natively integrates into Google Cloud to protect your hosted web applications without deploying and managing infrastructure.

## Security for the Intelligent Enterprise

As organizations move their SAP workloads to Google Cloud, protecting SAP systems that contain data from finance, human resources, and other sensitive data is paramount. It becomes incredibly difficult to secure the SAP landscape while the attack surface shifts as organizations use the hybrid, multi-cloud, Fiori, and smart devices.

Organizations can rest assured running Fortinet on Google Cloud will provide the security protection they need to maintain operationally viable, consistent security protection

## A secure path to Google Cloud

Reduce your security risk and protect your workloads as you migrate to Google Cloud. The Fortinet cloud security for Google Cloud provides consistent, enterprise security to Google Cloud-based environments.

- Continuous threat visibility within CWP and integration with Google Command Center
- Improve IT efficiency using familiar tools to manage workloads and view security threats
- Advanced security and threat protection with SD-WAN Cloud onramp for branch office
- Reduce risk from advanced threats by accessing the latest threat intelligence and sharing information in real-time
- Secure branch office access to Google cloud with Fortinet SD-WAN
- Dynamic security from the edge to the cloud
- Run your applications anywhere using consistent security with universal security management pane for flexible workload deployments
- Google SaaS web protection with FortiWEB WAFaaS
- A SaaS implementation of WAF protects Google Cloud workloads against sophisticated attacks

in a shared responsibility model, whether on-premises or in the cloud. SAP workloads gain comprehensive, advanced security and threat prevention. Fortinet eases skills gaps and correlates events through machine learning and workflow automation, multiplying the scale of basis, network, and security administrators. Using Fortinet, organizations can accelerate their SAP projects while providing multilayer security and threat prevention across their entire IT environment.



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