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Fortinet Secures SAP on Microsoft Azure

Executive Summary

The digital economy is disrupting every industry. Business leaders look to SAP to transform business processes using the latest technologies and intelligent automation. 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 Microsoft Azure for agility and scale on demand.

Microsoft Azure is a cloud platform optimized for SAP workloads. The Embrace initiative deepens the Microsoft and SAP strategic partnership to help customers accelerate the migration of SAP ERP and SAP S/4HANA workloads to Azure. A focused SAP security practice is necessary to protect all the data generated by SAP. Fortinet utilizes a holistic approach to secure the entire SAP landscape. 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.

Microsoft Azure Delivers SAP Cloud Services and Challenges

Organizations deploying SAP workloads on Azure want to take advantage of the public cloud benefits without compromising security. Microsoft Azure supports various security solutions and technologies to protect applications and data in the cloud. But Azure does not provide complete, enterprise-class protection across the SAP ecosystem.

Secure SAP with Holistic Coverage

Azure customers gain the confidence to deploy SAP while maintaining a consistent operational model and managing risks using Fortinet to secure the Intelligent Enterprise running SAP. The Fortinet security solution for SAP centralizes and automates security controls and analytics—making it easier to manage, respond, and automate the SecOps capabilities.

Focused SAP security practice

A consistent security framework protects all SAP workloads. 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 Azure, on-premises or across multi-cloud environments.

Accelerate SAP deployments

Fortinet reduces the time to securely deploy S/4HANA with prepackaged 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.

Enterprisewide security

Hybrid cloud footprints bring additional complexity and increase the level of effort to manage an extended security domain. Such complexity is resolved through the Fortinet single-pane-of-glass and consistent operating system approach to managing infrastructure, regardless of where and on what platform it is deployed. Provide consolidated security, visibility, and analytics with Fortinet to centralize operations across complex computing landscapes such as SAP.

Built-in intelligent technologies

Combat modern threats using AL, ML, and advanced analytics with Fortinet to expedite threat prevention, detection, and response.

Public cloud deployment flexibility

Organizations are using multiple cloud providers to use best-in-class cloud services, and to avoid vendor lock-in. Using a multi-cloud approach protects organizations from potential constraints or substantial costs if they switch cloud providers. 74% of companies are moving apps back and forth between the cloud and on-premises—thus, consistent security across clouds and data centers is critical for ensuring SAP workloads are protected.

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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.

By applying the Fortinet unified portfolio, organizations can have a consistent security framework for SAP across multiple locations and regions. The Fortinet Security Fabric is a broad, integrated, and automated cybersecurity framework, and weaves together all operational and technical security facets, creating a consistent structure for the needs of the SAP security landscape.
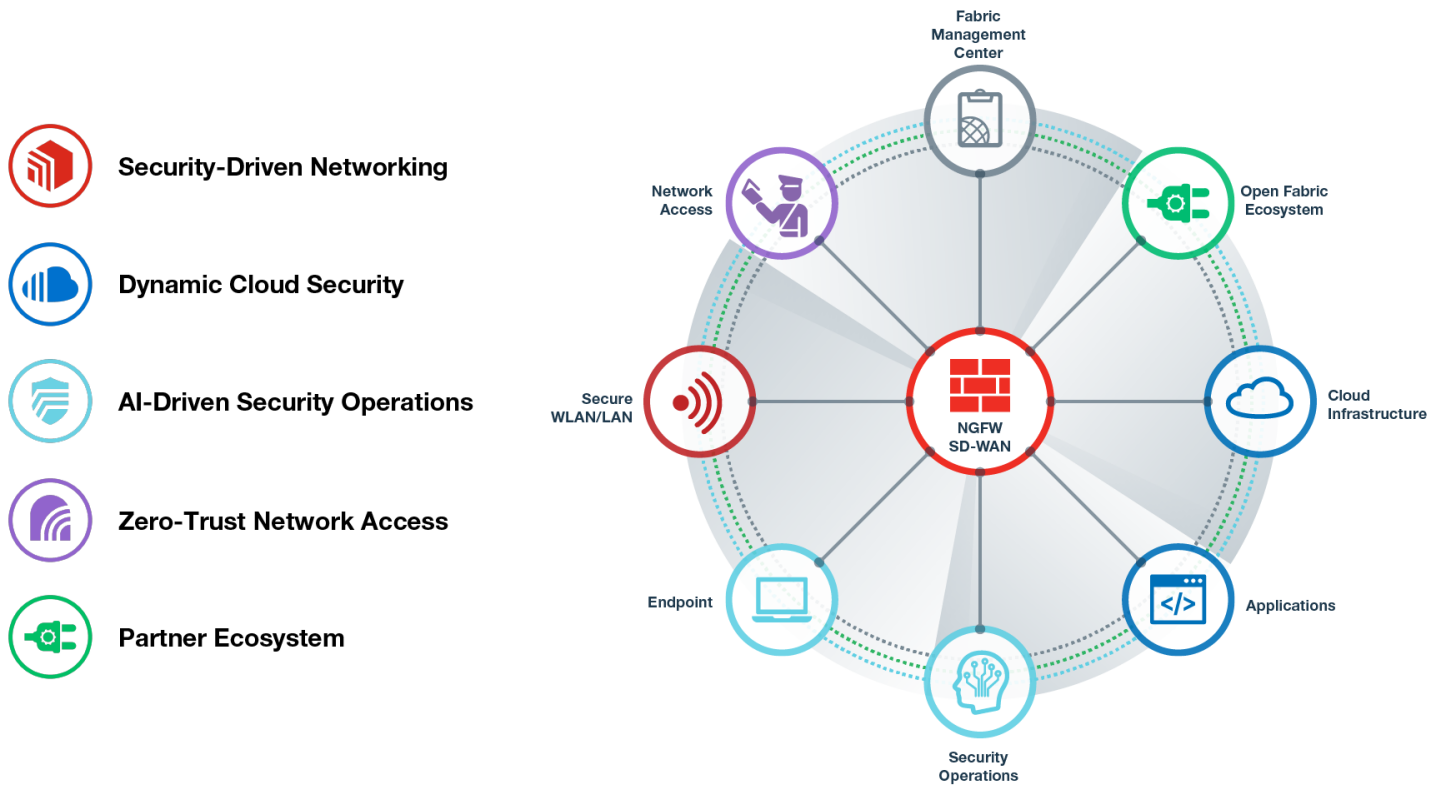
Security-Driven Networking

Dynamic Cloud Security

AI-Driven Security Operations

Zero-Trust Network Access

Partner Ecosystem

Figure 1: Fortinet Security Fabric diagram.

Fortinet Ensures SAP Workloads Running on Azure Are Protected

The Fortinet Security Fabric was designed to complement Microsoft Azure security solutions. Fortinet solutions not only run seamlessly in Azure but they also integrate with Azure security services, including Azure Sentinel and the Azure Security Center, to provide transparency of security policies and events across the cloud infrastructure. Further, Fortinet's native integration with Microsoft Azure enables seamless, automated, and centralized management across all clouds to support SAP deployments that span cloud environments.
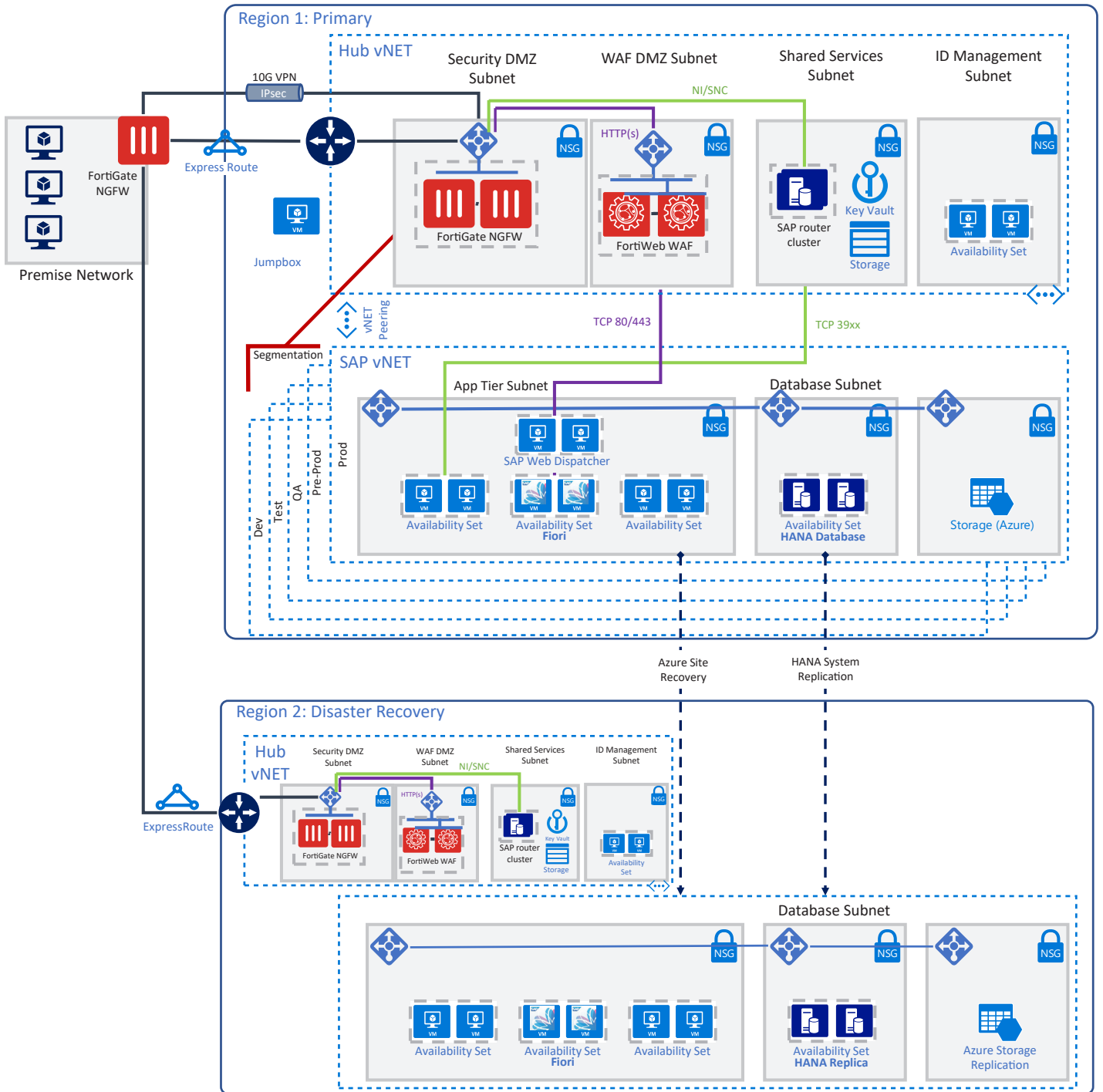
Fortinet Reference Architecture for SAP S/4HANA

Figure 2: Fortinet Reference Architecture for SAP S/4HANA on Microsoft Azure.

Fortinet 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.

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.

Provide high-performance SSL inspection

Physical **FortiGate next-generation firewalls (NGFWs)** use proprietary hardware acceleration that offloads encryption functions to a security processing unit. This Fortinet-only capability boasts performance advantages of up to 20x that of competitors in the latest-generation devices.

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 user behaviors and cloud network traffic, and provides comprehensive compliance reports and alerts.

Conclusion

Protecting SAP's business-critical infrastructure and systems becomes especially difficult for migrations from traditional data centers to S/4HANA running on Microsoft Azure, creating the opportunity for blind spots in the security posture. SAP systems are protected with Fortinet's holistic coverage that ensures security policy and visibility remain unified across the hybrid and multi-cloud footprints. Fortinet eases skills gaps and correlates events through machine learning and workflow automation, multiplying the scale of basis, network, and security administrators.

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