

# How to deploy network security devices



## Overview

Choosing a new network-security solution need not be difficult — but it might take a lot of planning and research.

## Key Takeaways

Network security devices should be deployed strategically across the network, configured securely, and continuously monitored to enforce policies, detect threats, and protect critical assets. Key Principles for Deployment<sup>1</sup>. Conduct a Network and Asset Assessment Before deploying devices, perform a thorough inventory of all network assets, endpoints, and cloud resources.

Identify vulnerabilities, critical systems, and potential attack vectors. Understand your organization's threat model, regulatory requirements, and remote workforce needs to determine which devices are necessary and where they should be placed. 2.

## Choose the Right Devices for Your Needs

Firewalls: Place at network perimeters and between internal segments to control traffic based on IP, port, protocol, and application. IDS/IPS: Deploy inline or at key network chokepoints to detect and block malicious traffic in real time.

UT

M Appliances: Ideal for SMBs, combine firewall, IPS, antivirus, web filtering, and VPN in one device.

NA

C Systems: Enforce endpoint compliance and identity verification, especially in BYOD or zero-trust environments.

WA

Fs: Protect web applications and APIs from attacks like SQL injection and XSS by placing them between web servers and the internet.

VP

N Gateways: Secure remote access by encrypting traffic for distributed teams. 3. Follow Secure Configuration Practices Default device configurations are often insecure.

Implement rigorous configuration management and change control processes to harden devices, disable unnecessary services, remove default accounts, and enforce strong passwords. Regularly review and update configurations to prevent vulnerabilities from accumulating over time. 4.

Strategic Placement and Segmentation Deploy devices at network boundaries, between internal segments, and near critical assets. Use network segmentation to limit lateral movement of attackers and enforce access controls. For zero-trust architectures, assume threats exist both inside and outside the network and place security controls accordingly.

5. Continuous Monitoring and Maintenance Regularly update firmware and software to patch vulnerabilities. Monitor logs, alerts, and traffic patterns to detect anomalies.

Implement automated policy enforcement where possible to reduce human error and maintain consistent security across the network. 6. Integration and Policy Management Ensure devices work cohesively, sharing threat intelligence and enforcing consistent policies.

Automate policy updates and align device rules with organizational risk management objectives to prevent gaps or conflicts. 7. Testing and Validation After deployment, test devices to ensure they are functioning correctly and effectively mitigating threats.

Conduct penetration testing and vulnerability assessments periodically to validate security posture. By following these steps, organizations can maximize the effectiveness of network security devices, reduce exposure to threats, and maintain a resilient, secure network environment.

## Article Content

Deploy Microsoft Defender endpoint security to Windows devices

Learn how to onboard and offboard Windows devices using the Defender deployment tool.

10 steps to choose and deploy a network-security solution

Choosing a new network-security solution need not be difficult — but it might take a lot of planning and research. Here's what you need to do to properly implement your network-security

Plan Your Device Security Deployment Using Best Practices

Consider the following best practices when preparing a Device Security deployment.

Turn on network protection

This article describes how to enable and configure network protection using Microsoft Defender for Endpoint Security Settings Management, Microsoft Intune, Group Policy, PowerShell,

Simplified onboarding of Microsoft Defender for

The Defender deployment tool streamlines the onboarding process by dynamically adapting to the operating system and delivering healthy endpoint

Network Infrastructure Security Guide

An administrator's role is critical to securing the network against adversarial techniques and requires dedicated people to secure the devices, applications, and information on the network....

6-Step Implementation Guide to IDS & IPS

By following the step-by-step guide outlined in this document, you can establish a robust security framework that detects and prevents cyber threats effectively.

A Deep Dive into Deployment Considerations for Network Security

Explore our comprehensive guide on Deployment for Network Security Monitoring. We'll delve into key strategies to improve your network's defense.

Mastering Secure Deployment and Configurations: An

This comprehensive guide delves into the critical aspects of secure deployment and configurations, providing detailed insights, best practices, and

Network Device Configuration Security | Strobes

Expert guide to network device configuration reviews: routers, switches, firewalls. Discover best practices & Strobes solutions today.

Configure ASR rules and exclusions

For more information, see Microsoft Intune licensing. Microsoft Intune is the recommended tool for configuring and distributing ASR rule policies to devices. In Intune, endpoint

The Network DNA: Networking, Cloud, and Security

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Secure the moments attackers target: onboarding, access requests,

Learn how Face Check supports high assurance identity verification for onboarding, access requests, and account recovery.

Create and deploy an Azure OpenAI in Microsoft Foundry Models

Learn how to get started with Azure OpenAI and create your first resource and deploy your first model in the Azure CLI or the Azure portal. (classic)

Device enrollment guide for Microsoft Intune

Devices in bring-your-own-device (BYOD) scenarios can be MDM enrolled in Intune. The supported enrollment methods enable employees and students to use their personal devices for

Deployment guide: Manage iOS/iPadOS devices in Microsoft Intune

Intune supports mobile device management (MDM) of iPads and iPhones to give users secure access to work email, data, and apps. This guide provides iOS-specific guidance to help you

Routers and SD-WAN appliances

Deploy an intelligent, self-defending network with a NetSecOPEN certified platform for network security (SD-WAN) performance.

Use SCEP certificate profiles with Microsoft Intune

After you configure your infrastructure to support Simple Certificate Enrollment Protocol (SCEP) certificates, you can create and then assign SCEP certificate profiles to users and devices in

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