

# NGFW (Next Generation Firewalls)





# Agenda:

- **Introduction**
- **What is NGFW?**
- **History of Firewalls.**
- **NGFW vs Traditional Firewall**
- **NGFW Features.**
- **Packet Flow in NGFW.**
- **Intrusion Prevention (IPS)**
- **Advantages and disadvantages of NGFW.**
- **Best Practices and Hardening.**
- **NGFW VS WAF**
- **What is Sohobcom?**
- **Sohobcom Services**

## ● **Introduction:**

- A Next-Generation Firewall (NGFW) is a modern network security device that combines traditional firewall capabilities with advanced features.
- Goes beyond IP and port filtering to inspect applications, users, and content
- Designed to handle today's complex, encrypted, and cloud-based traffic
- Provides both real-time prevention and contextual awareness
- Essential for businesses facing advanced persistent threats (APTs), ransomware, and cloud risks



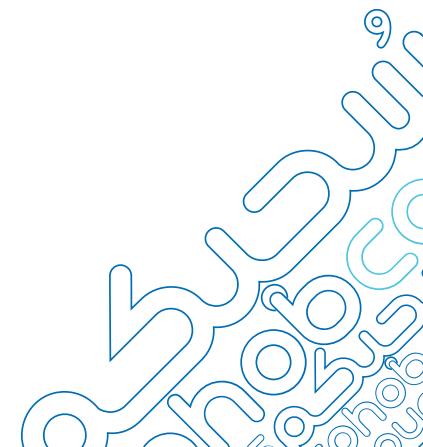
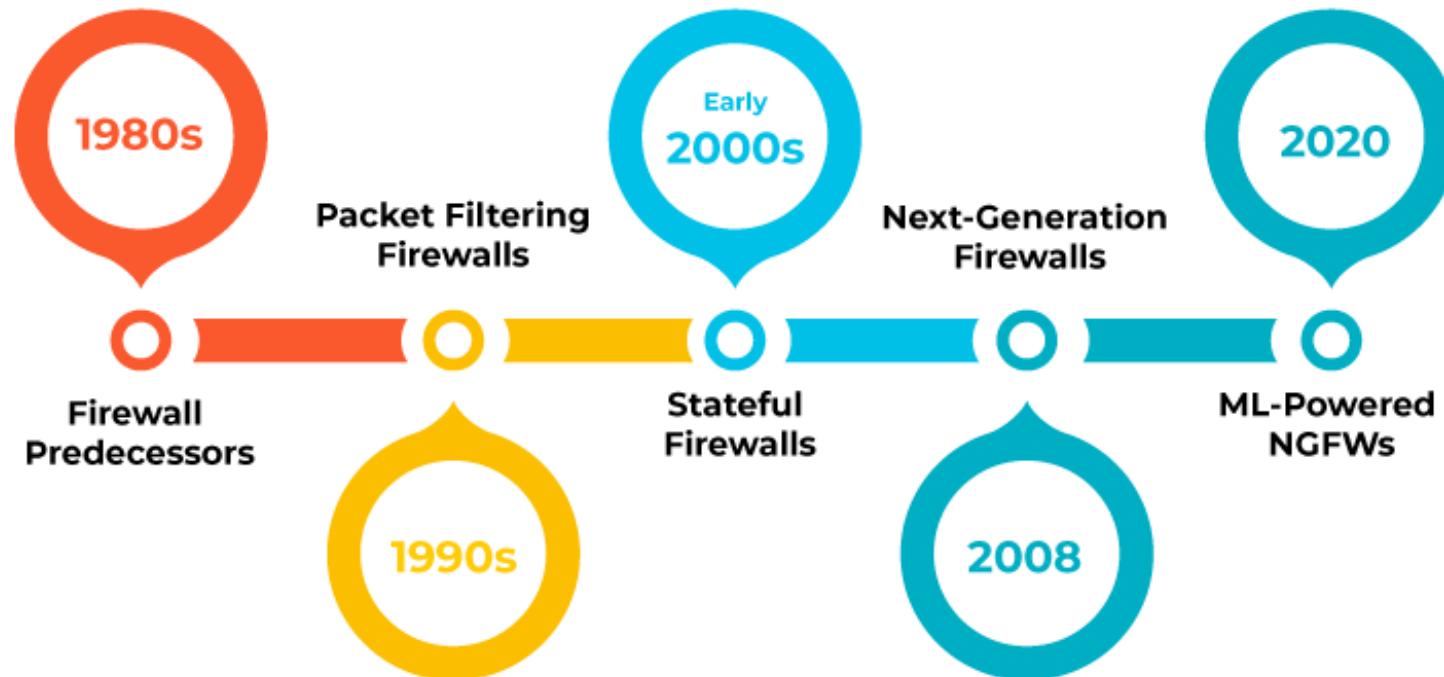
## What is NGFW?

- NGFWs are firewalls enhanced with deep security intelligence and control features.
- Deep Packet Inspection (L2–L7) of network traffic
- Application and user-aware policy enforcement
- Integrated Intrusion Prevention System (IPS), anti-malware, and URL filtering
- TLS/SSL decryption with policy-based control
- Real-time threat intelligence and automatic response mechanisms

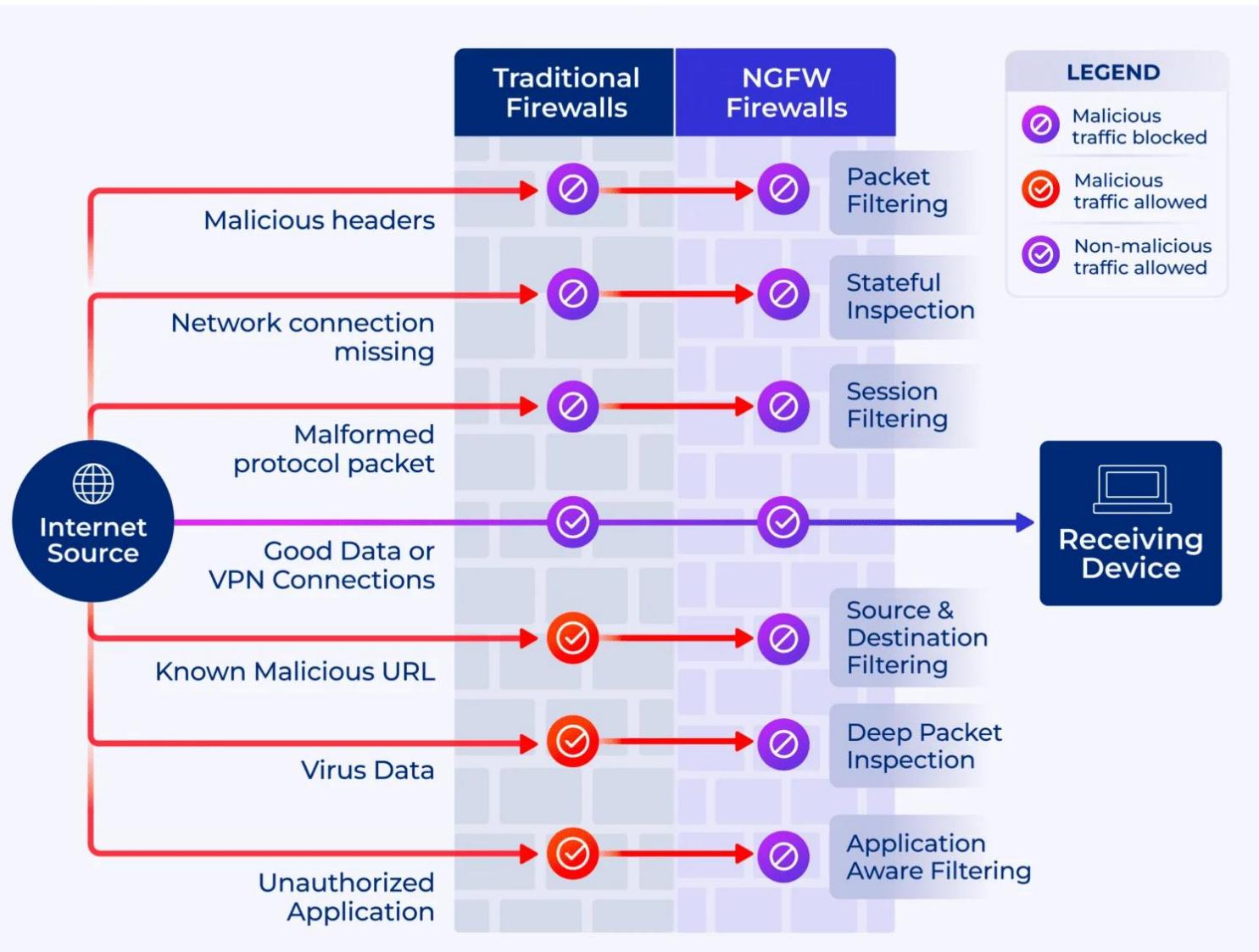


# History of Cloud Computing:

## The History of Firewalls



# • NGFW vs Traditional Firewall



## • Traditional Firewall:

Basic filtering (IP, port); limited visibility; no app/user awareness; weak against modern threats.

## • NGFW:

Deep inspection (L2–L7); identifies apps & users; built-in threat prevention; handles encrypted traffic; ready for cloud & remote work.

Summary: NGFWs offer smarter, adaptive protection—far beyond what legacy firewalls can provide.

- **NGFW Features.**

Deep Packet Inspection



Application Control

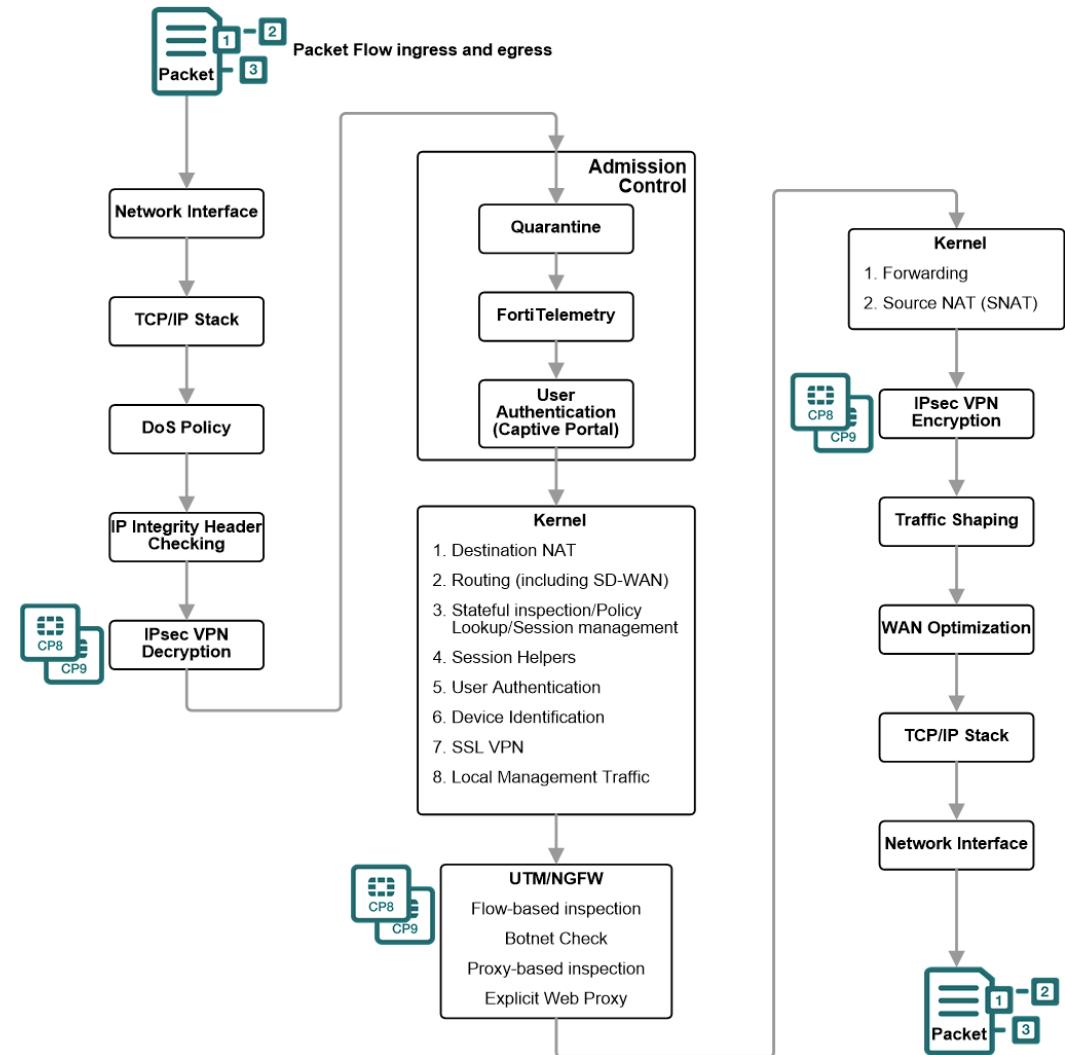
Integrated IPS

Web Filtering & DNS Filtering

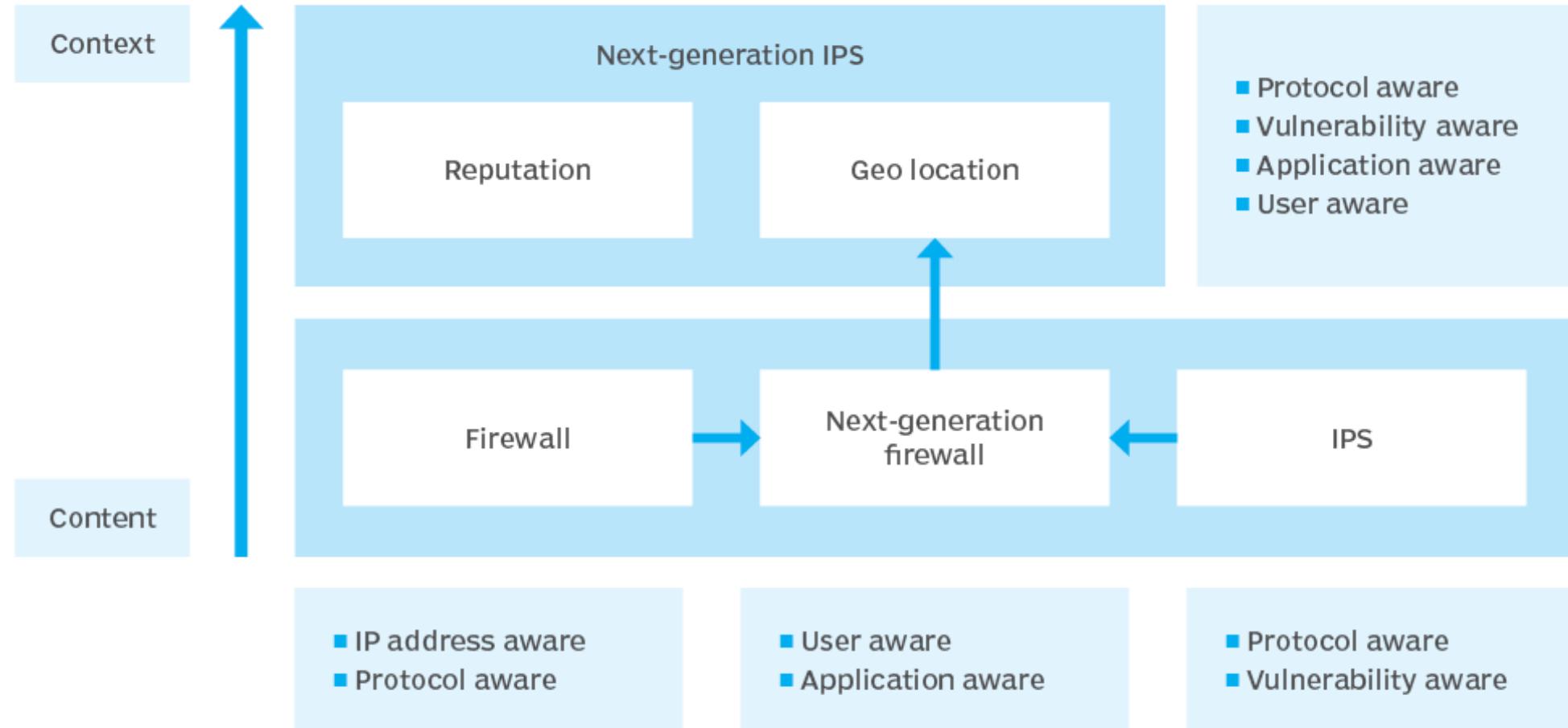
TLS/SSL Inspection

SD-WAN Support

# Packet Flow in NGFW.



# ● Intrusion Prevention (IPS)



# • Advantages and disadvantages of NGFW



## ☑ Benefits

- Advanced Security: Multi-layer inspection (L2–L7), threat intelligence, built-in antivirus & ransomware protection
- Cost-Effective: Replaces multiple tools, reduces bandwidth waste, lowers long-term TCO
- Faster Networks: Eliminates multiple bottlenecks, preserves end-user speed
- Modern-Ready: Handles encrypted traffic, remote users, cloud apps, BYOD devices

## ⚠ Challenges

- Policy Complexity: May block legitimate access (e.g., home VPN), needs manual tuning
- Upfront Costs: High initial investment, offset by long-term savings

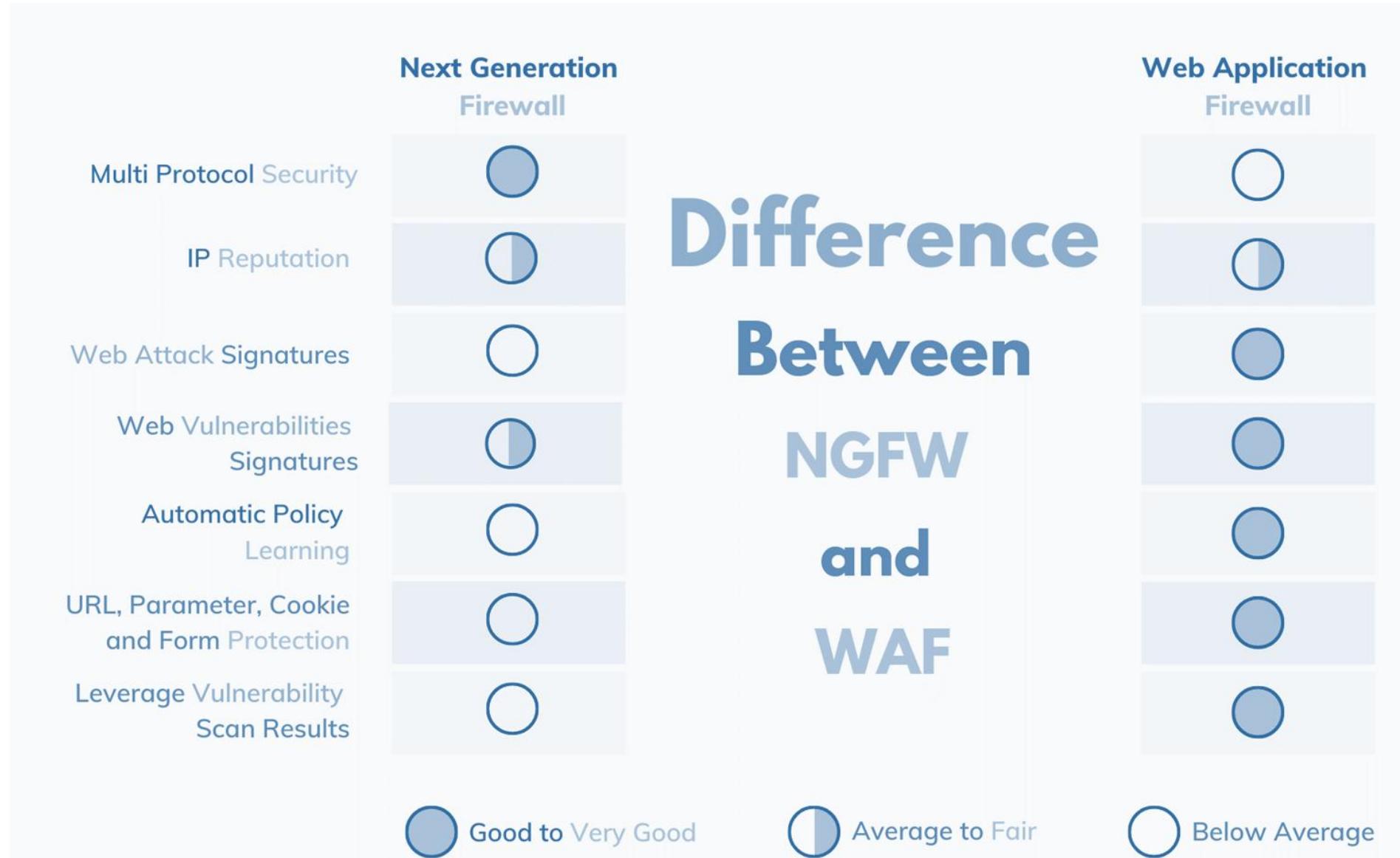
Bottom Line: NGFWs are essential for today's threats—offering stronger protection, efficiency, and visibility, despite initial complexity.

# ● Best Practices and Hardening.

- ✓ Design the Firewall Deployment
- ✓ Set Firewall Rules
- ✓ Set Explicit Drop Rules
- ✓ Keep Audit Logs
- ✓ Block Default Traffic
- ✓ Restrict Zone Access
- ✓ Create Secure User Accounts
- ✓ Define a Change Management Strategy
- ✓ Specify Source and Destination IP Addresses
- ✓ Test the Firewall
- ✓ Update Firewall
- ✓ Perform Regular Firewall Security Audits



## • NGFW VS WAF

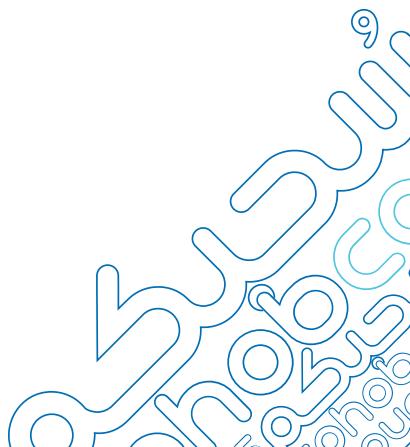




Sohobcom is Yemen's national cloud service provider. It is offering a multi-tenant cloud platform for managing virtualized resources tailored for private and hybrid clouds.

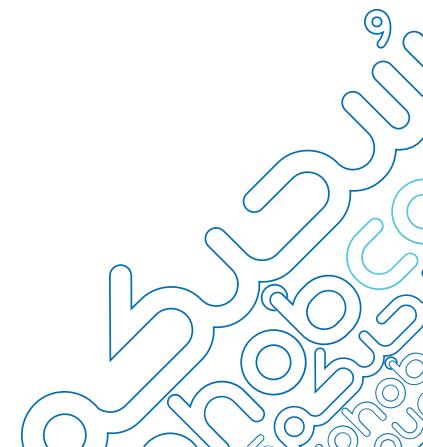
## Key Features:

- **Resource Management:**
  - Centralized management of virtual machines (VMs), networks, and storage.
- **Virtualization Technology:**
  - Utilizing VMware vCloud Director for efficient resource management.
- **Advanced Security:**
  - Implementation of NGFW, SDN Solutions such as ACI & NSX.



# ● Sohobcom Services

- **ERP as a Service.**
- **Email as a Service.**
- **Firewall as a Service.**
- **WAF as a Service.**
- **Disaster Recovery as a Service.**
- **Backup as a Service.**
- **Co-location as a Service.**
- **Virtual Data Center (VDC) as a Service.**
- **Cloud Virtual Private Server as a Service.**
- **Cloud Web Hosting as a Service.**
- **Domain Name as a Service.**



Thank You  
شكراً لكم

