

AI/ML Based NGFW Powered by Zero Trust Security ZTNA 2.0 & Advanced Threat Protection

COSGrid NGFW- NFRXG

COSGrid NGFW - NFRXG utilizes AI-driven security and advanced machine learning to provide comprehensive Threat Protection across all levels. With COSGrid NGFW - NFRXG, Organistaions can gain enhanced insight into their network infrastructure and identify potential threats posed by applications, users, and devices before they materialize.



COSGrid NGFW- NFRXG- M

HIGHLIGHTS



Zero Trust and cloud-based web gateway



Seamless Protection & Performance enabled by High Performance Appliance



Behaviour based Anomaly Detection using COSGrid NetShield NDR



Best in Protection through Proofpoint ETPro subscription or equivalent for IDS/IPS signatures



Single Management Console for managing multiple NG Firewall with Consolidated analytics



Adaptive Policy & Rules tuning for **seamless operations with Hi-touch support**

IPS	NGFW Throughput	Threat Protection	Interfaces
3 Gbps	2.4 Gbps	700 Mbps	8 RJ45 Gigabit Ethernet LAN 2 SFP Gigabit Ethernet LAN 2 SFP+10 Gigabit Ethernet LAN

COSGrid NGFW- NFRXG FEATURES

Secure Zero Trust Remote Access

- **SSL and IPSec VPN** support
- Site-to-Site IPSec VPN (with Dynamic Routing)
- Two-Factor authentication- **2FA** support (e.g. Secure Token)
- **High performance** VPN concentrator solution
- Optional*
- RADIUS/Active-Directory integration
- Granular network access policies

Intrusion Detection & Prevention

- Detect and block network borne attacks
- **Protect mail, web and remote-access servers from attacks** (IIS, Exchange, Citrix)
- **Protect staff and internal systems** from application level attacks (e.g. Office, Adobe Acrobat)
- **Common web platform protection** (e.g. .NET, PHP, WordPress, CRM)
- **Customizable rule-set** and signatures
- Subscription to URL reputation and categories
- Open-source Threat intel to augment

Performance

- **Hyperscan**: Fast Multi-pattern Regex Matcher
- 8 to 16 Core **Multi-threaded performance** without blocking users

Web Filtering

- **Control access to websites** and website categories (e.g. business, news, sports, social media)
- Integrate into Active Directory, applying policies to specific users or user groups.
- **Block access to malicious content** or websites
- Enforce **Safe Search**
- Full SSL Inspection support
- Transparent solution (or explicit proxy support)

Application Control & Visibility

- **Control and monitor cloud application usage** (e.g. Dropbox, Box, Google Apps)
- **Full network visibility** of HTTP and HTTPS traffic Control access to specific applications (e.g. Web Games, Video Streaming)
- Block or control access to Cloud services.
- **Detailed web access reports** (by user, group, website)

Intelligent Routing

- **Dynamic routing** (OSPF/BGP/RIP)
- Load-Balancing and ECMP
- 802.1Q **VLAN** and Layer2 switching support
- **Rich traffic/shaping QOS** support
- Dynamic routing over VPN (e.g. OSPF)

NetShield NDR

- Adds to Signature based protection
- Correlation with Signature based protection deliver **multi-fold improved threat protection**

COSGrid NGFW- NFRXG FEATURES

Compliance and Regulatory Features

- Features that assist in **complying with data protection regulations** (e.g., GDPR, FERPA).
- **Customizable policies** to meet local or regional regulatory requirements.

ISP Management

- Support for **multiple ISPs to ensure redundancy and failover capabilities**.
- **Load balancing across multiple ISP connections** for efficient utilization of bandwidth and improved network reliability.
- **Configuration options for managing ISP failovers** and selecting the primary ISP for specific types of traffic.

Bandwidth Management

- Traffic shaping and Quality of Service (QoS) controls to **prioritize and allocate bandwidth based on specific needs**.
- Bandwidth monitoring tools to track and **analyze network usage patterns**.
- **Bandwidth quotas or limits for users or groups** to prevent excessive usage and ensure fair distribution of resources.
- **Dynamic bandwidth allocation** based on user roles, application types, or time of day.

Redundancy

- Redundancy features to **minimize downtime** in case of hardware or software failures.

Ease of Management

- **User-friendly web-based interface** for easy configuration and management.
- User-friendly graphical user interface (GUI) that **supports multiple administrators with varying levels of access**.
- **Role-based access control** within the GUI to ensure that different administrators have access only to the features and settings relevant to their responsibilities..
- **Customizable dashboards** for quick insights into network health, security status, and other key metrics.
- **WAN management interfaces** for remote configuration and monitoring.

User Authentication

- **User-specific policies** and access controls based on roles (students, teachers, administrators).
- **Captive Portal for authentication** of (students, teachers, administrators, guest user)

Logging and Reporting

- **Comprehensive logging** of network activities for auditing purposes by IP & MAC addresses.
- **Customizable reporting tools** to generate reports on network usage, security incidents, etc.

Support

- An **active and supportive** open-source community for ongoing development, bug fixes, and community -driven support.

COSGrid NGFW- NFRXG SPECIFICATIONS

NFRXG Technical Functions

Content Filtering	- Web content filtering to block inappropriate or distracting websites. - Customizable filtering rules to meet educational requirements.
Application Control	- Ability to control and monitor applications and services (e.g., social media, gaming) to ensure a productive learning environment. - Peer-to-peer application control. - VPN & other application control like- Windows update, play store, App store.
Intrusion Detection and Prevention System (IDPS)	- Real-time monitoring for malicious activities and immediate response mechanisms. - Signature-based and behavior-based intrusion detection. - Traffic Shaping and Quality of Service (QoS) - Prioritization of network traffic to ensure critical applications receive the necessary bandwidth. - Bandwidth management to prevent network congestion.

System Performance

Firewall throughput	16,000 Mbps
Firewall IMIX	9000 Mbps
IPS throughput	3000 Mbps
NGFW Throughput	2400 Mbps
Threat Protection throughput	700 Mbps
Concurrent connections	4160000

NFRXG Hardware Appliance

- 8 RJ45 Gigabit Ethernet LAN ports
- 2 SFP Gigabit Ethernet LAN ports
- 2 SFP+ 10 Gigabit Ethernet LAN ports
- 1 RJ45 Dedicated IPMI LAN port
- 2 USB 3.0 ports
- 1 COM port
- 1 VGA Port

NFRXG GUI /WEB INTERFACE

