COSGrid NETWORKS

FIREWALL
Next Generation Firewall (NGFW)

DATASHEET

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-E

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
800 Mbps	600 Mbps	175 Mbps	2 x DDR3 UDIMM slots, up to 32GB 7 x 1GbE RJ-45 , 2 x SFP+, or 5 x 1GbE RJ-45 slots

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
- RADIUS/Active-Directory integration (Optional)
- 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

Networking

- IP address assignment - Static (DHCP, PPPoE, L2TP
- and PPTP client), Internal DHCP server, DHCP relay
- Networking Protocol -DHCP, DNS,Fast Ethernet,
- Gigabit Ethernet,IPSec
- Transport- DHCP,DNS,IPSec,L2TP,PPPoE
- Protocol Standards - TCP/IP, UDP, ICMP, HTTP, HTTPS,
- IPSec, ISAKMP/IKE, SNMP, DHCP, PPPoE, L2TP, PPTP,
- RADIUS, IEEE 802.3"

Performance

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

Web Filtering

- URL filtering , Proxy avoidance , DNS 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 & Visiblity

- 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)
- Detailed reporting and network visibility

Intelligent Routing

- Routing (BGP, OSPF, RIPv1/v2, static routes, policy-based routing)
- Dynamic routing (RIP/OSPF/BGP)
- Policy-based routing (ToS/metric and ECMP)
- 802.1Q VLAN and Layer2 switching support
- Rich traffic/shaping QOS support
- Dynamic routing over VPN (e.g. OSPF) groups
- Inbound/outbound load balancing
- Asymmetric routing

Security

- Stateful packet inspection
- Reassembly-Free Deep - Packet Inspection
- DDoS attack protection (UDP/ICMP/SYN flood)
- IPv4/IPv6 support

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.

High availablity & Redundancy

- High availability-Active/Standby with state sync
- L2 bridge, wire/virtual wire mode, tap mode, NAT mode
- A/P high availability with state sync
- 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.
- Command Line Interface (CLI) through consoleport, telnet SNMPvl/v2c/v3 | System Log
- 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

- LDAP (multiple domains), XAUTH/RADIUS, SSO, Novell, internal user database, Terminal Services, Citrix,Common Access Card (CAC)
- User-specific policies and access controls based on roles (students, teachers, administrators).

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.

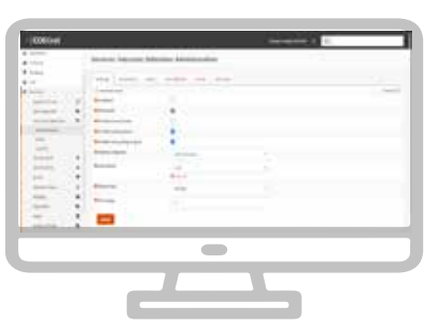
System Performance

Firewall throughput	**4000 Mbps**
Firewall IMIX	**2400 Mbps**
IPS throughput	**800 Mbps**
NGFW Throughput	**600 Mbps**
Threat Protection throughput	**175 Mbps**
Concurrent connections	**1040000**

NFRXG-E Hardware Appliance

- Intel® Atom™ C2558 processor, 2.4GHz, 4GB RAM
- 2 x DDR3 UDIMM slots, up to 32GB
- 7 x 1GbE RJ-45 ,
- 2 x SFP+, or 5 x 1GbE RJ-45 slots

NFRXG GUI /WEB INTERFACE



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COSGrid Networks, a leading SASE company, offers advanced cybersecurity solutions to product users, data, applications, and workloads. With our AI / Big data ML based Cybersecurity solutions, organizations can stay ahead of attackers and safeguard their digital assets, ensuring secure access, reliable connectivity with 4G/5G, and protection to both on prem and cloud across various locations and applications.

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