

# N100-I-SDWAN-EDGE-A2

Model:  
**A3A-I-G-5G-X-X**

## PRODUCT FEATURES

### WAN Link Diversity

Supports and combines multiple connectivity options, including ILL (Internet Leased Line), Broadband (BB), and 4G/5G (M2M & Internet SIMs).

### Dynamic Path Selection

Automatically detects link quality based on parameters like packet loss, latency, and jitter.

### Zero Touch Provisioning (ZTP)

With ZTP, all configurations are done remotely, allowing for quick and easy setup without the need for on-site technical expertise.

### Application Aware Policies

Define application behavior by configuring QoS as well as Forwarding policies

### Centralized Configuration and Management

Enables streamlined deployment, monitoring, and control of the network from a single interface, improving operational efficiency.

### Reduced Security Complexity

Integrated security features within the SD-WAN framework minimize the need for multiple point solutions, simplifying security architecture.

### Policy-Based Governance

Facilitates clear alignment between business objectives and network behavior through intent-driven, application-aware policies.



## Introduction-

The NIRAD N100-I-SDWAN-EDGE-A2 is a robust and intelligent industrial-grade 5G Cellular SD-WAN data plane device, built on Software-Defined Networking (SDN) principles. It is specifically designed to support enterprises with distributed branch networks and hybrid WAN environments.

The device integrates advanced capabilities, including secure private Layer 2 Ethernet connectivity between sites and dynamic Layer 3 routing that intelligently adapts to application requirements and defined network policies.

With advanced capabilities like VPN Channel Fusion, N100-I-SDWAN-EDGE-A2 ensures smoother performance by combining bandwidth across different tunnels. It also supports Direct Internet Access (DIA) for faster and more efficient access to cloud applications. Designed with resilience in mind, it offers a gateway component for data center and disaster recovery needs, along with backup tunnel support.

N100-I-SDWAN-EDGE-A2 offers a well-rounded, easy-to-manage solution that helps businesses stay connected, secure, and efficient.



**HIGH-SPEED**



**COST-EFFECTIVE**



**RELIABLE**



**QUICK DEPLOYMENT**

## Orchestration & Management

FEATURE	DESCRIPTION
Centralized Orchestration	The control and management planes are centrally orchestrated through a unified controller.
Zero Touch Provisioning (ZTP)	Automated onboarding of EDGE and Gateway devices
Profile-based Configuration	Simplified device configuration from a single console
Multi-Tenant Support	Logical partitioning of infrastructure to support multiple customers or departments (Multiple Levels of User Authority)
On-Prem / Cloud Option	Deployable on VMs & cloud instances
Management Option	HTTPS, CLI, Controller GUI, SNMP v1/v2/v3, SSH

## Connectivity

FEATURE	DESCRIPTION
Hybrid WAN Support	Supports multiple WAN links such as MPLS, Broadband, ILL, 4G & 5G
Active-Active Tunnel Aggregation	Load-balancing and link bonding across multiple WAN paths
Failover & HA	Active-Standby or Active-Active redundancy for EDGE and Gateway (VRRP, WAN Link Failover, WAN link Fallback)
Virtual Private L2 Overlay	Point-to-point Layer 2 connectivity
Autonomous Local Operation	Full network functionality and service availability during WAN failure.
Encryption	AES-256 encrypted tunnels with SSL VPN
Per-Packet Load Balancing	VPN Channel Fusion technology to bond WAN links
Direct Internet Access (DIA)	Direct breakout to cloud and internet applications
VPN-based Tunnels	Supports SSL-based VPN (with capabilities comparable to IPsec), along with PPTP, GRE, L2TP, and OpenVPN.
VLAN	Traffic isolation via VLAN/sub-interface handling

## Deployment Flexibility

FEATURE	DESCRIPTION
SD-Ports	Configurable WAN/LAN port roles based on topology
Integration	Seamless integration with existing and future-ready environments, including NMS platforms, NGFWs, and other security systems, through REST APIs and third-party tools.
SIM Support	Supports 5G*/4G connections with WAN failover

## Routing

FEATURE	DESCRIPTION
VRRP	Supports standard routing protocols for HA and hybrid deployments
Routing protocols	Static routing, Dynamic routing (Optional - BGP, OSPF, RIP)
Route Control	Supports Route Filtering & Policy-Based Routing
Application Aware Routing	Optimizes paths using latency, jitter, packet loss, Link Availability
Traffic Shaping	Steer traffic based on link availability, Application, SLA Metrics
Dynamic Path Selection	Intelligently selects optimal paths based on real-time performance metrics. Provides automatic link failover to backup circuits
Network protocols	IPv4, IPv6, PPP, PPPoE, TCP, UDP, DHCP, RIPv1/v2, HTTP, HTTPS, DNS, Telnet, VLAN, SSH, SNMP v1/v2c/v3, DDNS, VRRP, ARP, QOS, SNTP,
Connection monitoring	ICMP for link inspection
Firewall	Port forward, traffic rules, custom rules
Network firewall	Distributed stateful firewall, distributed and centralized policy enforcement
Multicast	Supports L3 Multicast Functionality
Load balancing	Balance your internet traffic over multiple WAN link
Traffic Forwarding	High-performance forwarding with full session awareness at line-rate interface throughput.

## Performance Monitoring

FEATURE	DESCRIPTION
Real-Time Analytics	Dashboard with bandwidth usage, network traffic, link performance
Historical Reporting	Traffic trend analysis with exportable XLS reports
Logging	Device Logs, Administrative logs, Firewall & Security event logs
Alerting	Alarm triggers based on thresholds or events

## Security

FEATURE	DESCRIPTION
Built-in Firewall	Stateful and zone-based L3 firewall
URL Filtering	URL filtering and manual allow/block lists (IP & Domain)
DoS/DDoS Mitigation & Protection	Detection and control at the edge
Role-Based Access Control	Granular admin access for centralized control
Device Authentication	Certificate based authentication
Network Segmentation	VRF-based traffic isolation per customer or business unit
Security	Access Control, DMZ, Port Mapping, MAC Binding, IP Passthrough

## Scaling and Performance

FEATURE	DESCRIPTION
Tunnel Throughput	1 Gbps
Internet traffic- SIM	Based on the operator signal

## Product Specifications

MODEL	INDOOR
Ethernet - LAN/WAN	<ul style="list-style-type: none"> <li>1 × 2.5G RJ45 WAN (Fixed)</li> <li>1 × 1G RJ45 LAN (Fixed)</li> <li>3 × 1G RJ45 LAN/WAN</li> <li>1 × 2.5G SFP LAN/WAN</li> </ul>
USB	<ul style="list-style-type: none"> <li>1 x USB 3.0</li> </ul>
Antenna Port	<ul style="list-style-type: none"> <li>Yes (Support External &amp; Built-in Antenna)</li> </ul>
Memory & RAM	<ul style="list-style-type: none"> <li>Quad Core</li> <li>2GB DDR4(SOC support can up to 4GB)</li> <li>8GB eMMC flash</li> </ul>
SIM (4G LTE/5G)	<ul style="list-style-type: none"> <li>Internal /External (USB) 4G/5G Sim Support</li> </ul>
Reset Button	<ul style="list-style-type: none"> <li>1 x Reset Button</li> </ul>
LED	<ul style="list-style-type: none"> <li>Power LED</li> <li>LAN/WAN LED</li> </ul>
DC Jack	<ul style="list-style-type: none"> <li>DC jack x 1</li> </ul>
Power supply	<ul style="list-style-type: none"> <li>12V DC-in power connector</li> <li>Field replaceable power adapter</li> </ul>
Use the environment	<ul style="list-style-type: none"> <li>Operating temperature : -0°C upto 55°C</li> </ul>

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