



# ORAMA X25N NETWORK PACKET BROKER

**Vision for Data Center Networks  
Robust and Scalable**

Orama X25N from Larch Networks is the next-generation network visibility solution. It delivers robustness and flexibility that meets the ever-evolving needs of the data center.

Orama X25N bridges the gap between today's ultra-high speed networks and existing management, monitoring and security tools.

Orama X25N provides a scalable range from 48 ports of 1/10/25 Gbps and 8 ports 40/100 Gbps to 48+32 1/10/25 ports with breakout links, enabling users to interconnect different network protection and monitoring tools quickly and easily.

Packaged in a compact single RU chassis the Orama X25N offers immediate value for today and an efficient path to the inevitable adds and changes for tomorrow.



## Highlights

- Next-generation network and server ready base unit 48 x 1/10/25G ports + 8 x 40/100G ports
- Scalable to 80(48+32) ports of 1/10/25
- Aggregate, Filter and Load Balance core network traffic across existing and future tool portfolio
- Non-blocking architecture, Line Rate System Throughput 2 Tbps
- Session Aware Load Balancing by IP address, protocol, port, VLAN, MAC address or other parameters.
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- Maximizes visibility and efficiency for monitoring and security tools
- Dual Hot swap power supplies and fans for greater resilience







## Key Features

- Zero packet loss with total traffic capture.
- Load-Balance traffic to multiple monitoring and analysis tools.
- Aggregate traffic from multiple Network TAPs or SPAN ports.
- Application layer visibility allows for efficient packet processing on individual L7 protocols.
- Filter traffic, ensuring that security and monitoring tools see all the data they need.
- Smart rule optimization engine calculates all filter rule interaction automatically.





The fastest processing, highest density, most flexible combination of port speeds and simplest management make Orama X25N from Larch Networks the best choice for complete network visibility. Your speed, your scale, your network.

# Product Capabilities

## Basic Capabilities

|   |  |
|---|--|
|  <b>Flexible traffic filtering</b><br>L2: MAC, VLAN, MPLS, Ethertype<br>L3: IPv4, IPv6, DSCP, Protocol<br>L4: Port, Custom Fields      |  <b>Comprehensive management</b><br>Configure and manage the entire system through the easy-to-use web interface and SNMP monitoring support                              |
|  <b>Traffic aggregation</b><br>Aggregate traffic from multiple TAP modules to the backplane for aggregation, regeneration or filtering |  <b>Scalable architecture</b><br>Scalable to 80 ports of 1/10/25G ports with support for 40 and 100G ports. Non-blocking architecture, Line Rate System Throughput 2 Tbps |
|  <b>Traffic Load Balancing</b><br>Session Aware Load Balancing by IP address, protocol, port, MAC address or other parameters.         |  <b>Reliability</b><br>Dual Hot swap power supplies and fans for greater resilience   |

## Advanced Capabilities (Optional\*)

|   |  |
|---|--|
|  <b>Tunneling support</b><br>Tunnel Termination/De-Encapsulation ERSPAN, GRE and VxLAN   |  <b>Port Tagging</b><br>Custom P-Tag functionality enables complex traffic processing workflows   |
|  <b>Packet Slicing</b><br>Truncate packets at a particular byte to remove payloads and reduce appliance workload and storage requirements. |  <b>Protocol Header stripping</b><br>Remove any tunneling protocol to obtain the un-tunneled traffic for further (filtering) processing, such as GRE, GTP(U/C), RTP, VN-Tag, MPLS |

\*Optional Capabilities are hardware supported functionality that may require additional software licensing and may be provided with future software versions.

## General Specifications

### Hardware Performance

- Fully non-blocking 2Tb switch capacity
- Forwarding Rate of over 1050Mpps
- Packet buffer 16MB
- Line-rate across all ports
- 1GbE/10GbE/25GbE/40GbE/100GbE support

### Management

- Web UI via HTTPS/HTML5,
- CLI via SSH/RS-232,
- SNMP v1/v2c/v3

### MTBF

- > 582,692 hours

### Interfaces

- 48 x 1/10/25Gbps SFP28
- 8 x 40/100Gbps QSFP28
- OOB: 1x 10/100/1000 Mbps Eth RJ-45
- 1x RS-232 Console RJ-45
- USB A 2.0
- 16GB eMMC Flash + M.2 slot

### Configuration

- MAC : MARVELL/98CX8512
- CPU : Intel Broadwell-DE D1517
- Memory: DDR3 SO-DIMM 8G

### Fan Tray

- 5 (4+1 redundant) hot swappable
- Air Flow: 36.78 CFM / MIN. 32.85CFM
- Rated Speed: 23000/22500 RPM

## Physical Specifications

### Size and Weight

- Dim: (W x D x H) 440 x 470 x 44 mm
- Mounting: Surface or 19" rack (1U)
- Weight: 9,7kg

### Electrical

- Power Consumption: 520W MAX
- 2 PSU (1+1 redundant) Hot swappable

### Compliance

- UL/CSA, cUL, CB, CCC

## Operating Specifications

### Temperature

- Operating Temperature: 0°C to 40°C,
- Non-Operating Temperature: -40°C to 70°C,

### Humidity

- Relative Humidity: 5% to 95% (non-condensing)



## KEY VISIBILITY ATTRIBUTES

- Smart, drag-and-Drop, Intuitive GUI
- Zero-Packet Loss Architecture
- Overlapping Filter Rules Automatically Handled by Visibility Engine

## INLINE SECURITY

- Multiple network links tool sharing (VLAN port tag)
- Multiple network links tool sharing (MAC address)
- Multi-path (multiple criteria for different data paths)

## MANAGEMENT

- RESTful API\* (Optional)
- Role Based User Accounts
- TACACS+, RADIUS Authentication
- SNMP Traps
- Strong Password
- Event monitoring and Alarm Generation with SNMP Traps
- Link Status Trap
- Packet Counters and Statistics
- WebUI for System Management

## NETSTACK

- Three Stages of Filtering - Filter rules may be applied to ingress, dynamic, and/or egress traffic
- Counter Comparison - Ingress, Dynamic, Egress
- Max # of General & Custom Rules- 3K\*
- Max # of Source IP Rules (unicast)- 3K\*
- Max # of Destination IP Rules (unicast)- 3K\*
- Max # of Multicast IP Rules (No wildcard / masking capability)- 3K\*
- Priority Based Filtering (PBF) provides ACL-like logic when filtering traffic.
- VLAN Tagging - Track packets easily by adding VLAN IDs to packets based on the source (ingress) port and remove them as they leave a packet broker via exit (egress) ports.
- VLAN Tagging per Port
- Aggregation - Consolidate incoming traffic to optimize port usage and simplify filtering:
  - 1:1
  - 1: Many
  - Many:1
  - Many: Many\*
- Replication - Replicate traffic to multiple dynamic filters (ingress) or to multiple tools (egress)
- Load Balancing - Distributes traffic across tool ports
- Load balancing Standard (2 Tuple & 4 Tuple)\*
- Maximum Ports per Load Balancing Group- 128
- Command Line Interface Management

\* Current Firmware has 1k rules limit imposed to allow non-packet-loss configuration switching.

Total amount of supported rules can be increased up to 3k – this will influence load balancing features (as rules share same memory with load balancing) and will result in possible packet loss when configuration changes. Exact rule consumption is hidden from user and only percentage is shown as any Intersections between filters & maps produce additional rules.

\* In order to create Many to Many Aggregation user shall create Many-to-One group and attach it to Load Balancing group and one-to-many group to egress ports.

\* Current firmware supports 2-tuple/4-tuple load balancing. TCP/UDP protocols will be added to the further firmware versions

## PACKETSTACK

- Packet Trimming\* - Send only what security and monitoring tools need by cutting out the unnecessary information and reducing packet size
- GRE Tunneling\* - Encapsulate and de-encapsulate data. Origination and termination features.
- Source Port Labeling with push P-Tag operation

\*Optional Capabilities are hardware supported functionality that may require additional software licensing and may be provided with future software versions.