# 400G Networks - Complete Solution for Network Visibility

# Ebook



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Cubro's groundbreaking 400G Advanced Network Packet Broker (NPB), EXA32400, features the most innovative P4 programmable chipset. Designed to address the evolving needs of high-speed networks, this cutting-edge NPB offers unmatched capabilities, flexibility and performance.

The EXA32400 includes 32 x 400G Ports via QSFP-DD slots, and every slot can also be used in break-out mode to 4 x 100G offering up to 128 x 100G capacity in a 1U. All ports can be used simultaneously with full throughput without any restrictions.

Cubro does not only have the EXA32400 Advanced NPB for the emerging 400G market but also offers a full range of Layer 1 products. Our layer 1 products will help customers get full visibility in demanding 400G applications.

The EXA32400 400G packet broker is an advanced network infrastructure solution designed to address the complex challenges modern networks face as they transition to 400 Gigabit per second (Gbps) speeds. It offers a range of technical features that provide substantial value and benefits to organizations like large telecoms operating in high-speed networking environments.



applications.







# **Technical Details**





The EXA32400 is equipped to handle Layer 1 network, a crucial aspect of 400G networking. It can effectively process and manage the physical layer, dealing with high-speed electrical and optical signals. The device acts as a packet broker, which means it can intelligently filter, distribute, and manage network traffic. This is particularly essential in high-speed environments where data volumes are massive.



## Data Processing:

The EXA32400 excels in data processing. It can aggregate, filter, and manipulate data flows efficiently, ensuring that network traffic is optimized and delivered to the appropriate tools and systems.

# High Port Density and Flexibility

EXA32400 features 32 x 400G Ports via QSFP-DD slots, with the option to use each slot in break-out mode to 4 x 100G, providing up to 128 x 100G capacity in just 1U, all with simultaneous full throughput.









# Challenges Addressed

Buffering:

The EXA32400 resolves buffering challenges often encountered in high-speed networks, ensuring smooth data flow and preventing congestion.

**Aggregation:** 

It offers multi-layer aggregation capabilities, allowing for integrating different vendors' equipment into a cohesive network infrastructure.



It facilitates the integration of lower-speed tools, such as 10Gbps and 40Gbps tools, into a 400G environment, optimizing their utility without needing additional equipment.





# Value & Benefits

### Simplified Architecture:

By consolidating multiple functions into a single box, the EXA32400 reduces the complexity of network architecture. This simplification streamlines operations, lowers costs, and reduces the risk of errors associated with managing multiple devices.

### Enhanced Efficiency:

The packet broker's ability to intelligently route traffic to the appropriate tools and systems ensures that network monitoring and security functions are carried out more efficiently. This leads to quicker issue detection, faster response times, and overall improved network performance.

#### Cost Savings:

The EXA32400 eliminates the need for multiple devices and vendor-specific solutions, reducing both capital and operational expenditures. It optimizes the use of existing tools, extending their lifespan and reducing the need for costly upgrades.





# Value & Benefits

## Scalability:

in network infrastructure remain viable over time.

#### **Reduced Downtime:**

to users.

#### Streamlined Operations:





As networks continue to evolve, the EXA32400 is scalable to accommodate future growth and technological advancements. This scalability ensures that investments

By managing traffic intelligently and preventing congestion, the EXA32400 reduces network downtime, ensuring that critical applications and services remain available

The ability to handle Layer 1 challenges and integrate different tools and vendors into a single solution simplifies network operations. It minimizes the need for specialized expertise and reduces the potential for human error.

The EXA32400 400G packet broker offers a comprehensive solution to the challenges of transitioning to high-speed 400G networks. Its technical capabilities, including Layer 1 support, efficient data processing, and aggregation, translate into tangible benefits such as simplified architecture, enhanced efficiency, cost savings, scalability, reduced downtime, and streamlined operations.





Explore Cubro's extensive product range for 400G solutions.

> For more information, contact us at **<u>support@cubro.com</u>**.

