



**CUBRO**  
NETWORK VISIBILITY

# APPLICATION FILTERING WITH OMNIA120

COMPLETE LAYER 7 VISIBILITY



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APPLICATION NOTE

17 NOVEMBER 2022

### Key advantages of using Omnia120

- State-of-the-art chipset with a high throughput
- Inline traffic blocking via innovative Domain filtering
- DPI Analytics with detailed information and graphical GUI
- All-in-one solution for easy deployment, everything in one box

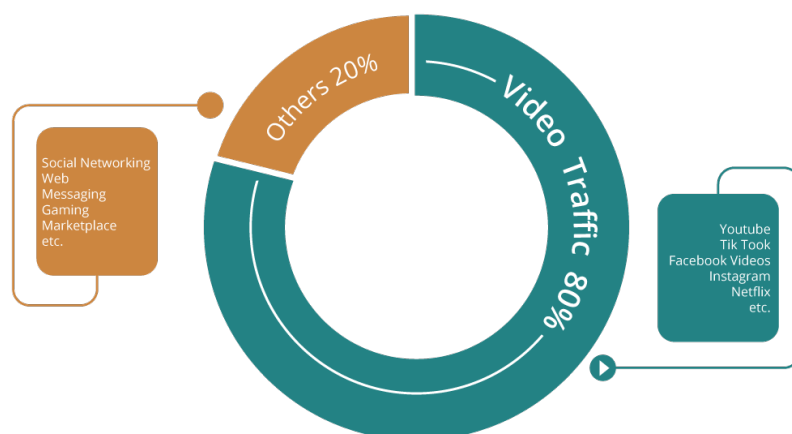
## Introduction

Omnia120 is a versatile device that combines features of an advanced NPB such as aggregation, L2 to L4 filtering, load-balancing and deduplication with high throughput DPI analytics. Thus, it enables application-based filtering to feed the tools with only the relevant traffic to improve network visibility, tool efficiency and traffic handling while reducing the cost of security & performance monitoring. The application filtering feature of Omnia120 offers full layer 7 visibility and as a result it delivers the right data to the right tools.

## High cost of security & performance monitoring

Network traffic monitoring and analysis for security, compliance and network operations are of key importance for service providers, operators, enterprises and governmental organizations. However, due to the surging traffic volume, the costs of monitoring and security tools are spiralling.

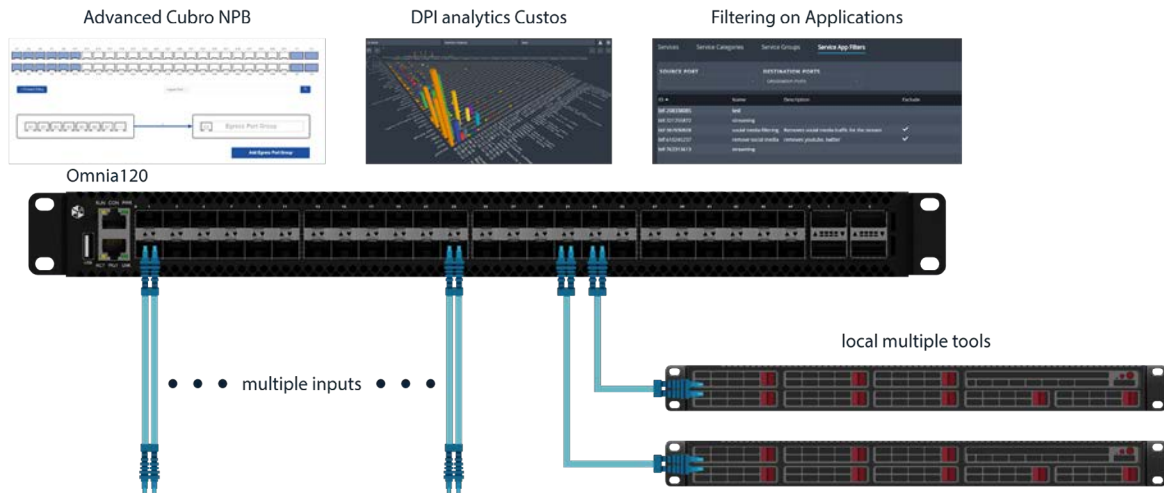
Traffic filtering by application is an excellent choice to release monitoring and security tools from overloading and maximizing the return on investment. Application filtering is useful not only because it makes monitoring less complicated but also eliminates irrelevant traffic, such as that from Social Media or video streaming. Global online video traffic is more than 80% of the total internet traffic and is anticipated to grow even more.



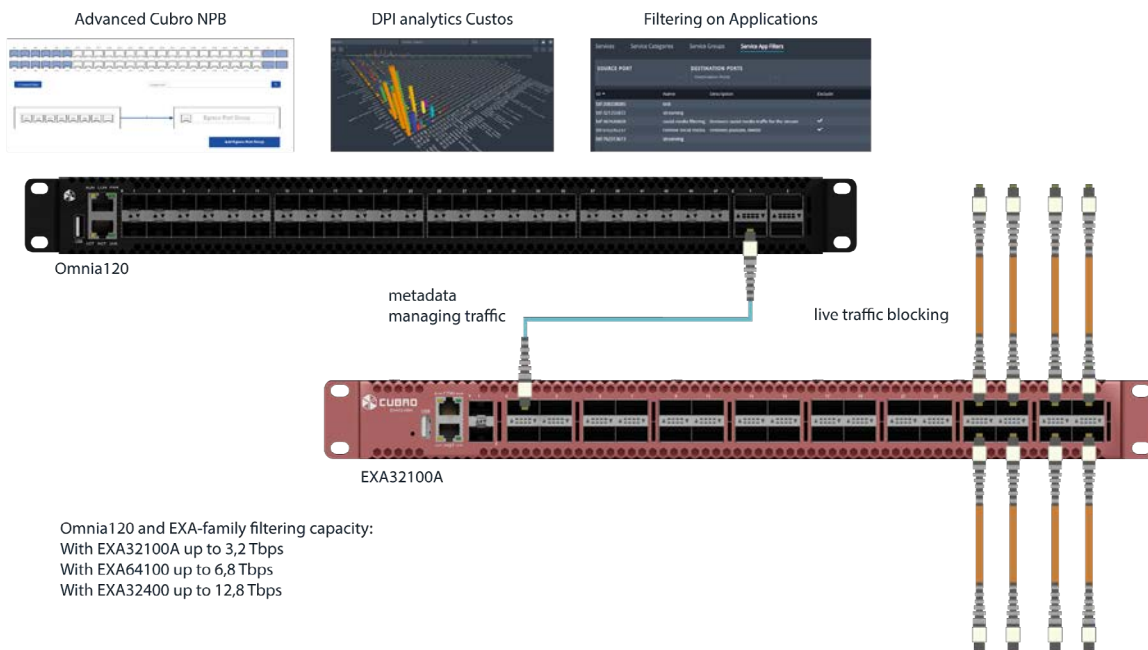
Usually application filtering per user is an expensive task. At Cubro we have a different approach that provides better return on investment while reducing the cost of monitoring. Our application-based filtering based on Omnia120 is an extremely economical way to reduce traffic and look at the relevant traffic in greater detail.

## Technical Solution Overview & Key Use Cases

### Application filtering with high bandwidth



### Application filtering with Omnia 120 beyond 1 Tbps

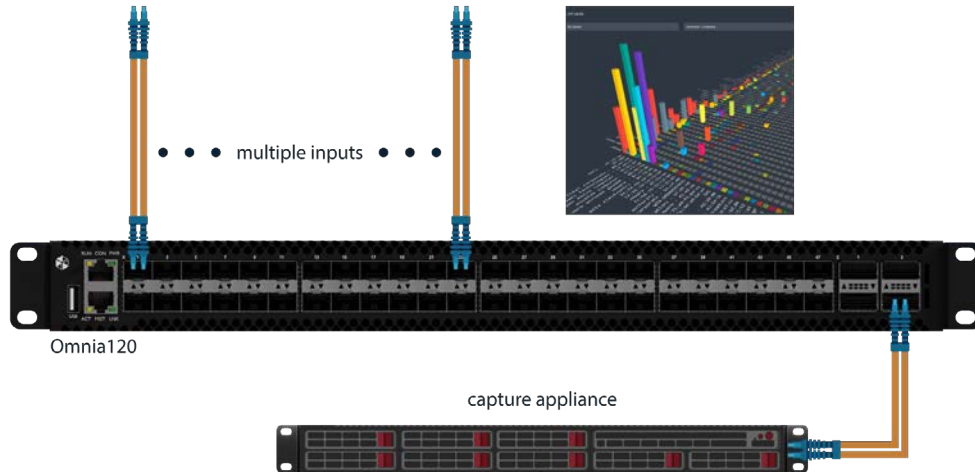


In combination with a Cubro Advanced Packet Broker the Omnia120 is a perfect choice for application filtering in Tbits networks.

Omnia120 can be used also in Inline mode, making it possible to remove defined traffic completely.

## Offload capture appliances

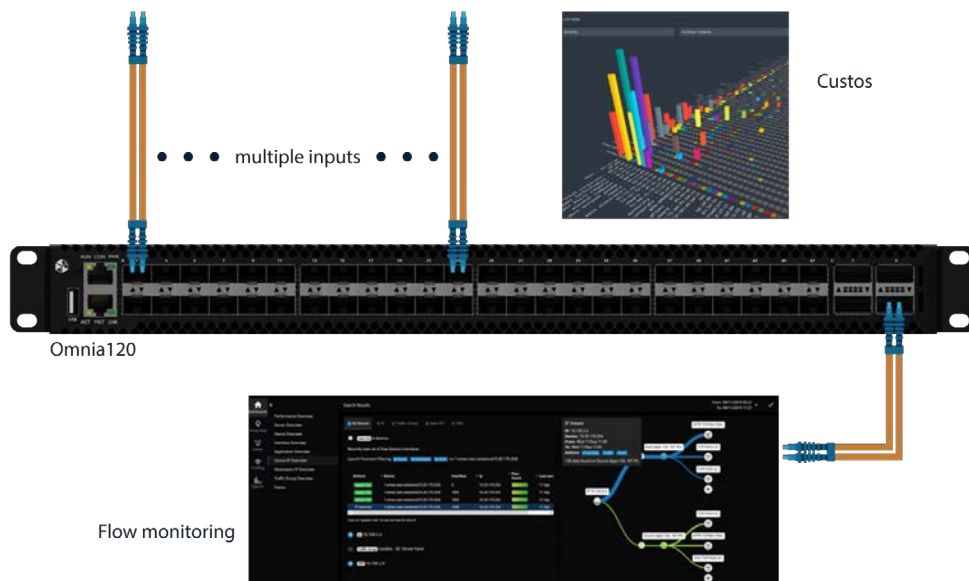
Metadata information for the full traffic and packets only for the relevant traffic



The Cubro solution helps to offload the capture appliance and at the same time delivers a DPI metadata view of the full traffic in all details, with a bandwidth resolution in 1 sec. This data can also be used for further analytics.

## Offload flow monitoring appliances

Metadata information for the full traffic and flow data only for the relevant traffic



The Cubro solution helps to offload the NetFlow appliance and at the same time delivers a DPI metadata view of the full traffic in all details, with a bandwidth resolution in 1 sec. This data can also be used to enrich the flow data. The main advantage is that Custos handles the traffic, which is poison for Flow solutions. Cloud services with millions of flows.

## Packet storage savings calculation

### Original Traffic

| Bandwidth in Gbit/s | 1     | 3     | 6    | 12  | 24    | Retention time in hours |
|---------------------|-------|-------|------|-----|-------|-------------------------|
| 0,1                 | 0,08  | 0,25  | 0,5  | 1   | 2     |                         |
| 0,5                 | 0,25  | 0,75  | 1,5  | 3   | 6     |                         |
| 1                   | 0,46  | 1,375 | 2,75 | 5,5 | 11    |                         |
| 5                   | 2,25  | 6,75  | 13,5 | 27  | 54    |                         |
| 10                  | 4,50  | 13,5  | 27   | 54  | 108   |                         |
| 50                  | 22,50 | 67,5  | 135  | 270 | 540   |                         |
| 100                 | 45,00 | 135   | 270  | 540 | 1.080 | in TB storage           |

### After application traffic filtering

| Bandwidth in Gbit/s | 1     | 3      | 6     | 12   | 24   | Retention time in hours |
|---------------------|-------|--------|-------|------|------|-------------------------|
| 0,1                 | 0,024 | 0,075  | 0,15  | 0,3  | 0,6  |                         |
| 0,5                 | 0,075 | 0,225  | 0,45  | 0,9  | 1,8  |                         |
| 1                   | 0,138 | 0,4125 | 0,825 | 1,65 | 3,3  |                         |
| 5                   | 0,675 | 2,025  | 4,05  | 8,1  | 16,2 |                         |
| 10                  | 1,35  | 4,05   | 8,1   | 16,2 | 32,4 |                         |
| 50                  | 6,75  | 20,25  | 40,5  | 81   | 162  |                         |
| 100                 | 13,5  | 40,5   | 81    | 162  | 324  | in TB storage           |

These two tables show how much storage can be saved by removing relevant traffic. The calculation is very conservative – 70% (in reality it could be more).

This leads to several advantages.

- Save cost
- Longer observation time
- Faster response time

## Feature/Application Benefit of Application Filtering

- Traffic classification and application detection with more than 4000 DPI signatures
- Application based filtering to feed the tools with relevant traffic to avoid overload of monitoring infrastructure
- Brings application awareness to SOC (Service Operations Center) /NOC (Network Operations Center) and security teams, helping teams to make better decisions faster
- Single box solution that includes a full-featured high performance advanced network packet broker for example for tunnel removal, inner tunnel filtering, and load-balancing

Omnia120 offers traditional packetmaster and sessionmaster features together with DPI functionality. Omnia also offers an application that utilises DPI with an advanced GUI.



## Operational and Business Value of the Cubro Solution

- Lower cost for security and performance monitoring
- Improve tool efficiency - lower processing and storage requirements by filtering unwanted traffic
- Improve security posture - focus only on the relevant applications/traffic
- Improve troubleshooting and capacity planning of your network and monitoring infrastructure

## Products

[Omnia120](#)

[Cubro G5+ Advanced Packet Broker](#)