

MetaMux

*Packet aggregation in
45 nanoseconds*



45 ns



Aggregation



Deterministic

MetaMux is a network application designed for Arista's FPGA-enabled switches performing multiplexing/aggregation of incoming streams in an average of 45 ns*.

The MetaMux application provides a configurable number of multiplexer (mux) options all the way from 48:1 down to multiple 4:1 mux instances. To allow for the situation where multiple packets arrive at the multiplexer at the same time, MetaMux will queue packets in its input buffers to ensure contending packets can be sent on the link. Buffer utilisation and statistics are available from the device.

MetaMux performs packet multiplexing with significantly lower latency than the best conventional switches, making it extremely useful for connecting trading machines directly to exchanges, for example. Its latency is significantly lower whilst offering the same level of industry standard monitoring and management as traditional switches.

It is optimised for the Arista E-Series at an average of 45 ns, but also available on the K-Series network devices with slightly higher latency profiles*.

FEATURES	BENEFITS
Ultra-fast multiplexing in 45 ns	Aggregate streams from multiple sources into a single stream for hand-off to exchanges, microwave links, or WAN links. Configurable as many N:1 multiplexers
Deterministic	Know and rely upon your system's latency for fairness, or to get the best execution environment for all your orders. Without contention MetaMux aggregation latency varies by +/- 7 ns.
Complete packet statistics	Receive per port counters from the MetaMux application and the Layer 1 switch; useful for accounting, statistics, diagnosis and troubleshooting for both ingress and egress
Support for BGP and PIM**	Exchanges may require a Layer 3 network device supporting BGP and PIM
Easy to monitor and manage	Arista provides a complete range of additional features including: <ul style="list-style-type: none"> • A comprehensive set of Ethernet counters on each port • An integrated Linux management processor • Streaming telemetry via a local InfluxDB tick database • Web-based Graphical User Interface (GUI) • Command-line interface (CLI) via secure shell (SSH), Telnet, serial connection • Local and remote logging via Syslog • JSON-RPC API • Simple network management protocol (SNMP) v1, v2, v3 • Support for NETCONF

Optimized for

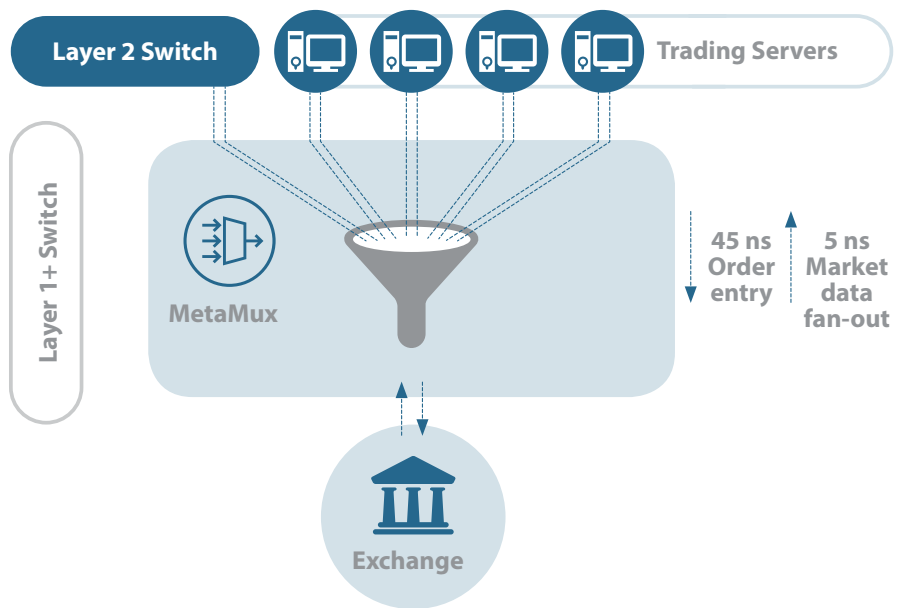
- Arista 7130 E-Series with embedded Xilinx Ultrascale or Ultrascale+ FPGA.

Compatible with

- Arista 7130 K-Series with embedded Xilinx Virtex 7 FPGA
- Arista 7130 E-Series with embedded Xilinx Ultrascale or Ultrascale+ FPGA.

**See product documentation for full latency profiles.*

Use it for low-latency exchange connectivity for trading



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