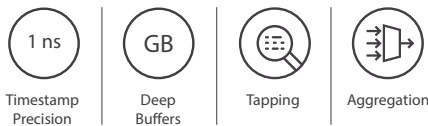


MetaWatch

Integrated tapping, high-resolution timestamping and aggregation – get insight into your network like never before.



MetaWatch is a powerful network application designed for the Arista 7130 K-Series devices.

It simplifies tapping networks, enables traffic capture with high-resolution timestamping, allows for advanced network monitoring and detailed network analytics. MetaWatch combines several components of a traditional network monitoring solution into one powerful device:

- Tapping with negligible latency impact
- Flow-control of aggregated captured traffic
- Time synchronisation
- Nanosecond-precise timestamping
- Deep buffering
- Multi-port capture

MetaWatch provides all features with virtually no impact on the monitored network performance and enables a seamless stream of timestamped frames to storage and analytics tools.

FEATURES	BENEFITS
Built in tapping	Eliminate the need for optical taps. Save rack space and remove unreliable, expensive and complex cabling.
Stream aggregation	Aggregate streams from multiple sources into a single stream for efficient hand off to data capture and analytics devices.
High-resolution ingress timestamping	Timestamp each incoming frame with a precision of 1 ns by a clock disciplined via NTP or PTP, optionally coupled with PPS.
Industry standard timestamp formats	Leverage standard absolute timestamp formats, not requiring keyframes, making development and integration easier. Also supported by major capture and analytics playforms.
Deep buffering	Smooth out traffic peaks to prevent frame loss via MetaWatch's large 8GB or 32GB buffers.
Ultra-low latency	Patch devices through the on-board matrix switch with 5 ns of pass-through latency —equivalent to a metre of fibre!
Upgradable	Include high-stability OCXO or Rubidium Atomic clock modules for improved oscillator accuracy and extended holdover stability.
Detailed per-port Ethernet statistics	Monitor the quality of the source interface directly for light levels and frame statistics.
Physical interface abstraction	Configure the relationship between physical ports and internal capture and aggregation ports for complete flexibility.
Capture device, port information and other metadata	Track device ID and incoming port ID included in the appended trailer for every captured frame or configure with customizable identifiers. Other metadata such as sequence number can also be configured.
Optional frame truncation	Reduce the bandwidth required for aggregated streams when frame payloads are not needed for analysis.
Flow control and traffic shaping	Allow capture/analytics platforms to ingest the output from MetaWatch at a rate the application can sustain.

MetaWatch is a pre-packaged, qualified, calibrated solution, giving customers confidence that they are capturing and timestamping all data on the network.

MetaWatch replaces:

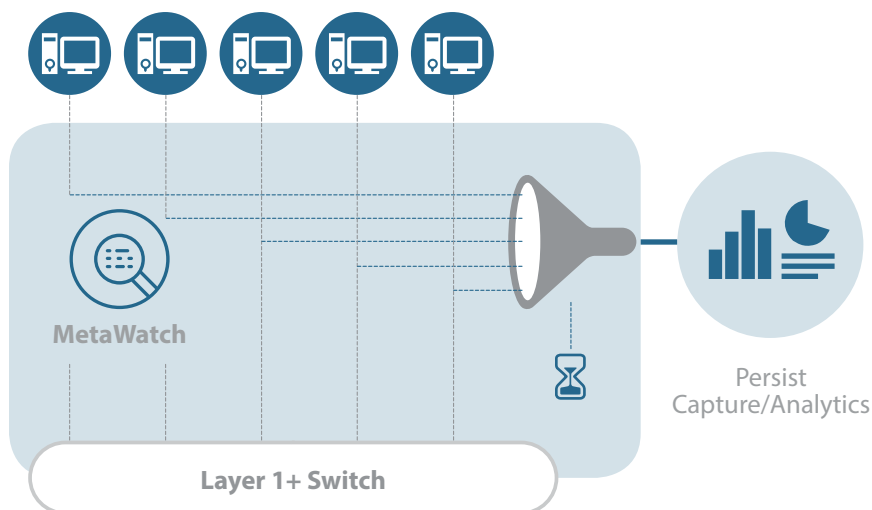
- 30 passive optical taps
- a packet broker/tap aggregation switch
- network timestamping cards
- media converters, patch panels, and all other Layer 1 switch use cases.

Compatible with

Metamako K-Series with embedded Xilinx Virtex 7 FPGA.

Partner applications

MetaWatch adds information to each packet to record time and other metadata. Several analytics and capture products can ingest these timestamps off the shelf.



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