

Flexible, Precise Network Instrumentation

Solarflare SolarCapture + Arista 7150S

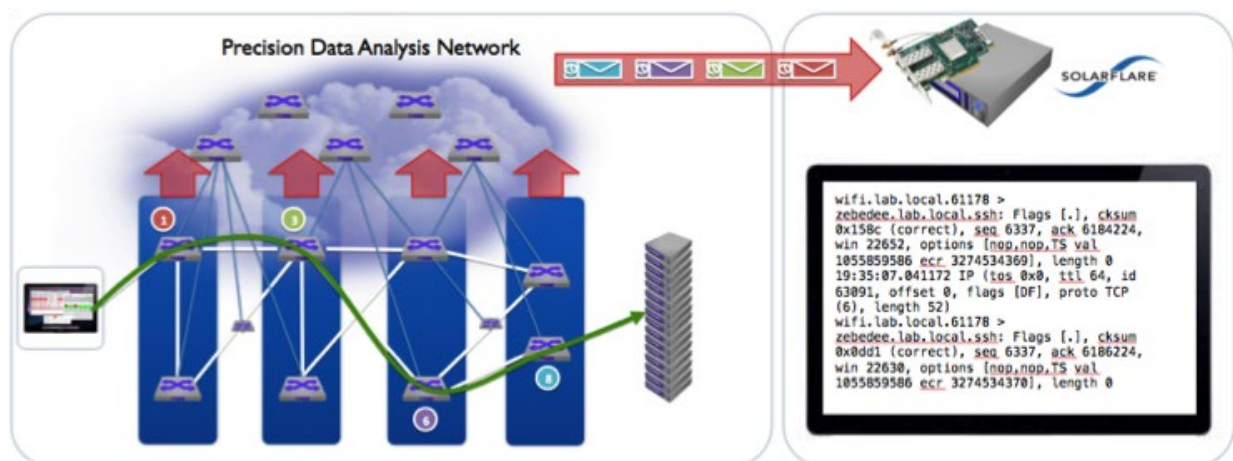


With rapid increases in both data rates and volumes, implementing a scalable monitoring solution is a priority for business critical applications in finance, HPC and cloud environments. Traditional solutions require dedicated proprietary infrastructures and expensive appliances, which often limit the scale and therefore effectiveness of an organization's deployment.

Solarflare's SolarCapture™ and Arista's 7150S with Data Analyzer (DANZ) provide a winning combination for network analysis and packet capture, delivering high-resolution PTP-synchronized timing at a fraction of the cost of proprietary hardware. Together SolarCapture and DANZ make wide scale monitoring and accurate timing accessible to all enterprises.

The Arista 7150S' DANZ feature set provides a comprehensive range of mirroring and tap aggregation capabilities for both in-band and overlay deployment.

As the first line in the packet capture chain, the 7150 enables data collection from sources ranging in performance from 100M to 40G. It then applies granular filtering and steering of flows to ensure only the desired traffic is sent to each analyzer, maximizing capture efficiency.

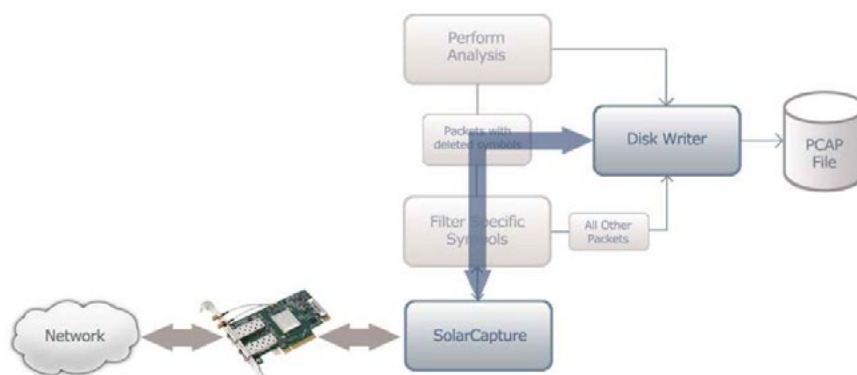


Combining SolarCapture with standard server hardware and Arista's Data Analyzer functionality deployments are not limited by the location of an appliance or the need to provision an overlay infrastructure. Integrating high-value technology directly into ubiquitous devices ensures any infrastructure can benefit from high rate, precise data capture and deep visibility while driving a variety of applications.

The 7150 also has the unique capability to be configured to add a precise 3ns resolution time-stamp to every packet traversing the device. This enables the upstream Solarflare adapter with SolarCapture to determine the actual timing of packets to a high degree of accuracy.

By leveraging Solarflare's OpenOnload application acceleration technology, Solarflare's SolarCapture enables real-time packet capture with any Solarflare 10GbE Onload server adapter. This enables every server to become a precision network tap, significantly simplifying deployment of network instrumentation and performance analysis using a single Solarflare adapter for accelerating applications, PTP time synchronization, and packet capture. SolarCapture captures packets from the wire at greater than 10 times the packet rate of tcpdump and writes them to disk. It also sustains millions of packets-per-second with appropriate disk configuration. SolarCapture can isolate operation to specific cores, which can increase precision and performance.

SolarCapture is a real-time, in-line packet capture application, where any stream, anywhere can be captured. Featuring an extensible application programming interface (API) and framework to customize real-time packet processing of in-flight data prior to writing to disk, SolarCapture extends the packet capture environment by passing captured packets to commercial or home-grown user-supplied application software, which enables additional packet processing functions. Users create customized processing nodes, which are integrated into SolarCapture's packet processing pipeline, as illustrated below:



SolarCapture's scalable multi-threaded model optimizes host performance by assigning packet capture and packet processing threads to individual cores: capture threads manage the network interface, write-out threads write captured packets to disk while custom packet processing threads may be written by users to extend the SolarCapture extensible API.

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Arista's Data Analyzer functionality is available across the 7150 series.

SolarCapture works with all Solarflare Onload adapters, including: SFN6832F, SFN6322F, SFN6122F, SFN5814F, SFN5812F, SFN5802K, SFN5322F, SFN5122F, SFN5121T.

Santa Clara—Corporate Headquarters

5453 Great America Parkway,
Santa Clara, CA 95054

Phone: +1-408-547-5500

Fax: +1-408-538-8920

Email: info@arista.com

Ireland—International Headquarters

3130 Atlantic Avenue
Westpark Business Campus
Shannon, Co. Clare
Ireland

Vancouver—R&D Office

9200 Glenlyon Pkwy, Unit 300
Burnaby, British Columbia
Canada V5J 5J8

San Francisco—R&D and Sales Office

1390 Market Street, Suite 800
San Francisco, CA 94102

India—R&D Office

Global Tech Park, Tower A & B, 11th Floor
Marathahalli Outer Ring Road
Devarabeesanahalli Village, Varthur Hobli
Bangalore, India 560103

Singapore—APAC Administrative Office

9 Temasek Boulevard
#29-01, Suntec Tower Two
Singapore 038989

Nashua—R&D Office

10 Tara Boulevard
Nashua, NH 03062



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