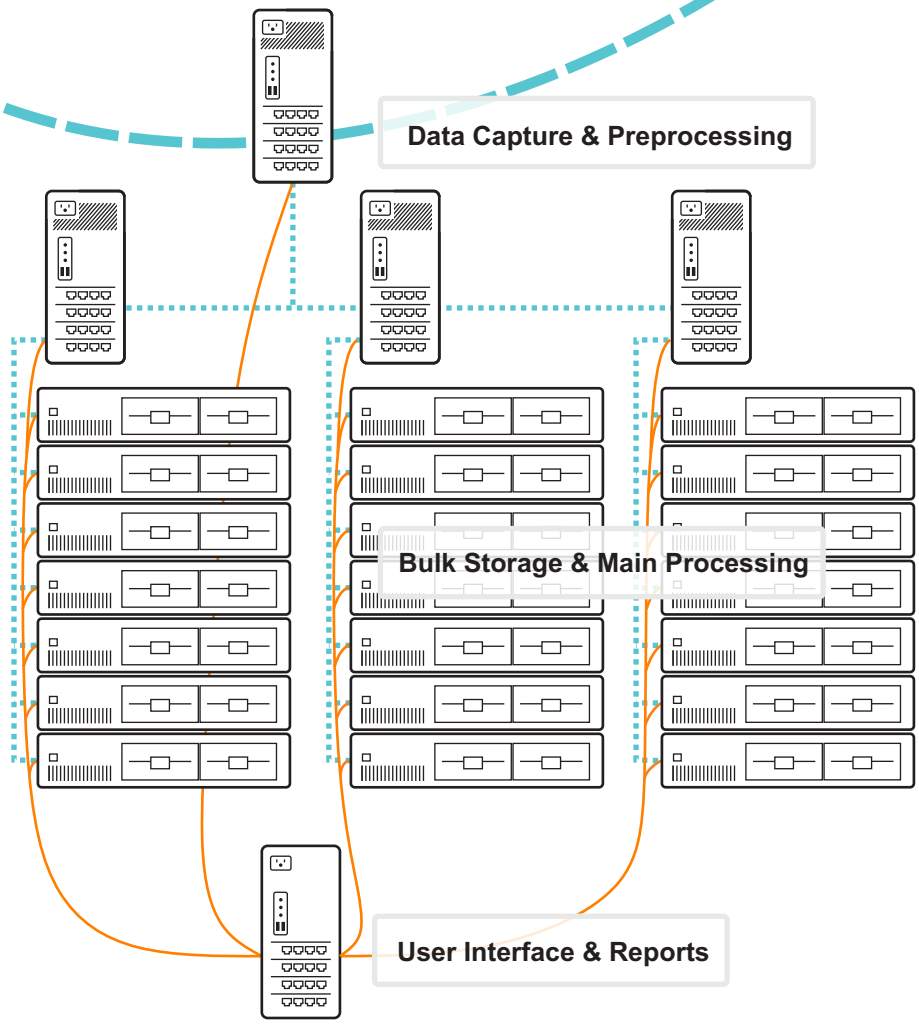
Distributed Packet Capture with Lateral Data Processing

Lateral Data Processing makes sense of the millions and billions of data packets traversing networks every day and the communications they embody. Whether you have software or machines not working right, bottlenecks on the network reducing productivity, sluggish industrial controls or unresponsive servers, the system provides data-fueled information based on the true, up-to-the-second state of network communications in the form of reports, aggregates and statistics, allowing the application of practical, relevant solutions to the problem at hand. But it goes beyond that with data-based actionable intelligence for technical and security assessments, troubleshooting and debugging, plus real-time monitoring of machines and applications. Lateral Data Processing leverages the information in the data packets and revealed by the patterns across the flow of packets and presents it practically, in a form people can use to make informed decisions. It's not just about data packets, it's about what they mean.

Through lack of visibility businesses pile on applications and appliances in hopes of fixing hazy problems. Lateral Data Processing makes what was opaque transparent, delivering the facts using its superior processing and capacity to examine and analyze every packet that is and was on the network going back a week, a month and even further.



- **Up to 40G capture**
- **Up to 100,000TB aggregate storage capacity**
- **Up to 10Tbps processing speed**
- **Link up to and over 1000 machines**
- **User controls hardware and speed**
- **Full packet examination**

- ✓ **Scalable storage capacity**. Scale up either incrementally or aggressively by uniformly changing or adding more HDDs or storage machines at will.
- ✓ **Scalable Processing Performance.** Control performance through choice of processor, with surprisingly fast speeds achievable with low-cost units.
- ✓ **Hardware Cost & Maintenance.** Use generic, commodity or even used hardware for the bulk of the machines, making management of the physical system much easier, with regards both to cost and maintenance. While using uniform components across the machines may be convenient, the system is able to deal effectively with disparate processors, HDDs and other hardware, allowing the recycling of equipment with no concern about usability.
- ✓ **Extended Life Cycle.** Both the processing speed and the storage capacity of the system can be upgraded as newer processors and better HDDs come on the market. As network speeds and utilization grow, your distributed system powered by Lateral Data Processing can grow with it.
- ✓ **Granular Data Tracking.** The Lateral Data Processing system is unique in its ability to fine-tune what and how data is tracked in real time, down to very granular levels. Pre-processed and organized data greatly increases data search and retrieval speeds, up to 10,000 times.
- ✓ **Multi-dimensional data.** Automatically store data in multiple forms: raw packets (headers and payloads, exactly as received), headers alone, aggregates and reports. This ability substantially increases data retrieval speeds and reliability.
- ✓ **Flexible, scalable backup.** Choose to backup the data or not, or double-back it up, by instructing the system to use some of the HDDs in each storage machine for backup.
- ✓ **Resilience.** Due to its distributed nature, if an individual machine becomes inoperable, it simply renders a particular block of data inaccessible, but the rest of the system continues operating as normal. If the inoperability is due to a hardware failure, simply replace the machine or failed component.
- ✓ **Autonomous Operation.** When adding a new machine, the system self-configures to accept it into the array. Simply notify the system about the addition and the system generates a USB key to plug into the new machine and boot up.
- ✓ **Database-Driven.** Lateral Data Processing is a state-of-the-art superfast database-driven system, affording the ability to configure it not just for packet capture and processing, but also data processing. The sophistication of the reports and data-tracking is only limited by your imagination.
- ✓ **Payload Decoding.** In addition to examining packet headers, the system can decode payloads and make sense of packet contents, including searching for keywords and signatures in real time, acting on the payload contents (for alerts, measurements and etc.) and presenting the discovered data in reports and aggregates, helping the user see the full picture.
- ✓ **Monitor Other Equipment.** Verify the performance of other network equipment, including servers, firewalls and routers through reports and aggregates, both historic and real time. In practical terms, without looking into the packets, it is difficult to determine whether networking equipment is working and to what degree or discover configurational problems. Lateral Data Processing resolves these questions through monitoring the packets over time to observe the degree of performance.
- ✓ **Data Visualization.** Configure the interface with custom data views to present operators with commonly used data in graph form for a visual, bird's-eye view over the network's health and operation.
- ✓ **Customization & Support.** The features and capabilities of any system are of little use unless they solve your problems, meaning you either modify your operations to fit the system or the system modifies its to fit yours. We designed Lateral Data Processing from the ground up, meaning we can provide customization in reasonable times and at reasonable costs, so the system can work for you, rather than you learning how to work the system.

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