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RECONFIGURABLE COMPUTING

ROHDE&SCHWARZ
Cybersecurity

CASE STUDY

Plug-and-play DPI integration ensures faster time to market

Challenge
A leading network OEM needed a packet capture solution that would easily integrate with their DPI engine, R&S®PACE 2 from Rohde & Schwarz. They wanted to move functionalities from software to hardware - but were keen to avoid the added time and cost from a system integration.

Solution
Napatech delivered a high-performance lossless packet capture solution that was quickly and seamlessly integrated with the PACE 2 DPI engine.

Benefits
This integration limited the risks from the very outset, helping the OEM to curb any uncertainties, significantly reduce development costs and reduce time to market.

Industry pain points

Inherently, OEMs face the twofold challenge of accelerating performance while also ensuring a fast time to market. And with the continuous data surge and network speeds approaching multi-hundred gigabits, these challenges are only growing more pronounced. To accommodate client needs, OEMs now need solutions that will allow them to double or even triple capacity on a yearly basis.

Challenge

These were the concerns of a leading network OEM when they approached Napatech for support. To stay competitive, the OEM wanted to focus resources on their core capabilities of developing high-end QoS intelligence rather than building and sustaining the needed technology to accelerate performance. Like most other suppliers, the OEM was deploying standard servers but needed the technology to ensure that all data was delivered quickly and efficiently to their application. This required a high-performance packet capture solution.

The OEM was deploying Rohde & Schwarz's Deep Packet Inspection (DPI) engine R&S®PACE 2 to perform traffic classification and meta data extraction. As the OEM wanted to avoid any added overhead and frustration caused by a difficult integration process, a decisive factor in their choice of capture supplier was the capability to quickly and seamlessly integrate with PACE 2. Already a longtime Rohde & Schwarz partner, Napatech was a natural choice.

Solution

From previous projects, it had been verified that Napatech's FPGA-driven SmartNICs were fully compatible with PACE 2. The OEM therefore integrated the 100G Napatech SmartNICs. This would not only ensure that absolutely all data packets were delivered to the application, even at 100G. It would also ensure that the data was collated in the correct communication streams, and as such optimize the overall performance.

Through intelligent load balancing, the SmartNIC ensured outstanding real-time performance of the application. This was achieved by utilizing all CPU cores, thus removing bottlenecks in the server. That way, the OEM was afforded the needed capacity to focus on their software processing and ultimately deliver smarter and more efficient QoS analytics to their clients

Benefits

The plug-and-play integration of PACE 2 and Napatech's capture technology limited the integration risks from the very outset. It helped the OEM to curb any uncertainties, significantly reduce development costs and step up their time to market.

Key features
- Zero packet loss at sustained max traffic
- Intelligent load balancing

Added benefits
- Easy and risk-free integration
- Faster time to market
- High-quality technical documentation
- Specialist technical support

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