

CASE STUDY

Per Vices Corporation integrates Napatech's Programmable SmartNIC into their Cyan Software-Defined Radio (SDR) Storage and Playback Solution

Challenge

As a leading radio frequency and digital systems innovator, Per Vices needed a programmable SmartNIC, which could capture up to 16 independent receive chains, each with 1 GHz of bandwidth and operation from near DC to 18 GHz.

Solution

Per Vices selected the Napatech NT200A02 SmartNIC with 2x100/40 Gbps ports and Link™ Capture software to ensure 100% throughput and lossless capture.

Benefits

The result is the powerful Cyan SDR Storage and Playback solution, which offers the best performance in a COTS platform.

"Our products are designed to support mission-critical applications that demand the highest performance. We have always achieved this with our radio products and are now able to offer the same high performance for our recording and playback solution thanks to the Napatech SmartNICs, which we found to be the only products available to meet these demanding requirements for throughput and lossless packet capture."

- Brandon Malatest COO, Per Vices Corporation

Challenges

Applications for software-defined radio (SDR), such as real-time spectrum monitoring and recording, require a high-bandwidth, lossless connection between the radio and the storage subsystem to ensure the integrity of the data captured in real-time across a wide spectrum.

The ability to deliver a high-performance configuration for spectrum monitoring and recording provides tremendous benefits for a wide range of use cases, including:

- Signal interception
- Spectrum policy enforcement
- Interference detection
- Monitoring restricted areas (e.g., military installations and airports)

Solution

Per Vices addressed these challenges by integrating Napatech's NT200A02 programmable SmartNIC with Link™ Capture software into their Cyan SDR Storage and Playback solution, thereby offering the best performance available in a COTS platform.

Benefits

- High-performance data capture, recording and storage at up to 160 Gbps
- 100% Probability of Intercept (POI) across 16 GHz of spectrum
- High-performance data processing and storage with 100% packet capture
- Application-optimized CPU, GPU and RAM configurations
- Easy integration within larger systems

About Per Vices

Headquartered in Toronto, Canada, Per Vices Corporation is a leading RF and digital systems innovator supplying multiple industries with wireless communication solutions.

Per Vices is an industry leader in developing and deploying high performance SDR platforms with the highest bandwidth and customer-focused designs.

Their solutions support a wide variety of applications within defense, civil, aerospace, medical, telecommunications, low latency networks, global positioning (GNSS/GPS), radar, test & measurement, spectrum monitoring, and broadcasting & wireless management industries.

www.pervices.com

