

NAPATECH DELIVERS FIRST RECONFIGURABLE ACCELERATED RAN FOR 5G MOBILE NETWORK OPERATORS

COPENHAGEN, Denmark, Feb 22, 2018 – Today Napatech (OSLO: NAPA:OL), the leading provider of reconfigurable computing platforms, announced a solution for 5G mobile network operators that delivers more than 10 times the performance for software-based applications running on standard server platforms. The solution for 5G mobile radio access networks, which is a unique combination of Napatech SmartNICs based on Xilinx FPGAs, Radisys RAN software and Silex Inside crypto technology, enables software-based NodeB, Radio Network Controllers, Mobile Stations, gateways, testing equipment and other mobile network applications to scale from 1G to more than 10G on standard servers.

Mobile network operators are using standard server platforms to deliver 5G applications and services. In many cases, those systems struggle to meet network performance requirements due to the heavy CPU usage needs of networking and cryptography workloads. This smart, reconfigurable and virtual PDCP accelerator provides an optimized power and cost solution supporting long-term evolution (LTE) and 5G applications to address those needs. The solution will be at Napatech's Booth 6J21 at Mobile World Congress 2018 and will demonstrate:

- **Efficient use of CPU resources:** The solution offloads the heavy networking and cryptography tasks from host CPUs to Napatech's FPGA-based SmartNICs, freeing up general-purpose processors, thereby increasing the performance of the NFV infrastructure.
- **Increased throughput and lower latency:** With the Napatech SmartNICs offloading encryption and decryption of mobile traffic, as well as the Open vSwitch (OVS) dataplane for de-multiplexing traffic into the VMs hosting the PDCP application, the overall throughput is increased significantly, while lowering the latency of mobile applications. This is a major advantage over traditional NFV solutions that implement virtual switching and cryptography in software running on standard processors.
- **Cost and power optimization:** The solution provides telecom carriers with a smart, virtual, PDCP accelerator function that reduces power consumption while reducing CPU usage in addition to the increased system-level performance. Combined, this provides an optimized price-performance and performance-per-Watt solution for LTE and 5G applications, providing an attractive investment that scales with network requirements.

Jarrod J.S. Siket, CMO of Napatech, said:

"The current NFV deployment model for virtualized RANs uses x86 servers, but it is experiencing major performance bottlenecks in practice. By offloading the complex network and security tasks to FPGA-based SmartNICs, operators can maintain the NFV model of using commodity server infrastructure for VNF processing without compromising the performance, latency cost and power goals that LTE and 5G applications require."

Farhad Shafai, vice president, Communications Markets at Xilinx, said:

"Perpetual bandwidth explosion, continuous increase in system complexity and shrinking timelines are some of the constants in communications networks. On top of this, multifaceted 5G applications are adding new dimensions and challenges, including rapid service deployment and management; network slicing; and on-demand, scalable, extensible networks. The integration of the Xilinx FPGA-based Napatech SmartNIC and Radisys RAN Software into an NFV Accelerated RAN solution is the beginning of a new network paradigm that offers inherent adaptable-compute power to address these challenges and fully realize the potential of 5G."

Neeraj Patel, vice president and general manager, Software & Services Solutions of Radisys, said:

“By collaborating with Napatech and Xilinx to deliver an accelerated RAN offload solution that frees up valuable x86 CPU resources for other NFVi applications, we are meeting our customers’ goals for increased performance in a smaller footprint as required in the path to 5G. In addition, Radisys provides end-to-end software systems integration for our mobile operator customers to enable even faster time-to-market with reduced risk.”

Visit the Napatech booth in Hall 6, booth 6J21 at Mobile World Congress, Barcelona, for a demonstration of the solution.

ABOUT NAPATECH

Napatech helps companies to reimagine their business by bringing hyperscale computing benefits to IT organizations of every size. We enhance open and standard virtualized servers to boost innovation and release valuable computing resources that improve services and increase revenue. Our Reconfigurable Computing Platform™ is based on a broad set of FPGA software for leading IT compute, network and security applications that are supported on a wide array of FPGA hardware designs.

Additional information is available at www.napatech.com

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