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Press Release

Comcores announces commercial availability of a complete Radio-Over-Ethernet and L1 offload solution for fronthaul enabling easy bring up of Ethernet based connectivity in radio systems

Copenhagen, Denmark, Mar 15, 2017 – Denmark Headquartered Comcores ApS, a specialized supplier of silicon intellectual property (SIP) today launched a complete IP solution enabling Radio-Over-Ethernet. The solution to be used in wireless fronthaul is a complete end-to-end Radio-Over-Ethernet (RoE) solution including features like L1 offload and time-sensitive-network (TSN) MAC targeting FPGA and ASIC devices.

“What we’ve created is the culmination of years of research, engineering and development. It’s the ultimate realization of our long-held vision for fronthaul connectivity in the wireless network,” said Thomas Nørgaard, CTO, Comcores. “What we have is a solution for the beginning of a new era for the network fronthaul that enables much more freedom in transporting your data to a centralized site.”

The IP solution enables Ethernet connectivity between Radio- and Baseband side with the option to use a variety of mapping options and signals. Mapping a mix of Ethernet and CPRI signals onto a single high speed Ethernet link is enabled with the option to enable a L1 intra PHY split that brings down the required bandwidth. The required bandwidth can be reduced by more than a factor 4 by adopting a L1 offload scheme where resource mapping and de-mapping is taking place at the RRH side.

The solution do as well include a 10G/25G TSN MAC supporting features like Frame Pre-emption (IEEE 802.3 br and IEEE 802.1 Qbu) and Timing and Synchronization (IEEE 802.1 AS) which enables high precision delivery of I/Q data across the Ethernet link.

The IP solution comes fully hardware verified and with a solid simulation and hardware environment for easy integration. The CPRI connectivity across the Ethernet link connecting the two boards has been validated with a Sarokal X-Step tester that analyzes delay and signal integrity across the link. Likewise the functioning of the L1 offload scheme has been demonstrated by successful recreation of the 64 QAM constellation diagram locally on the output of the RRH representing the 20 MHz LTE carrier transmitted across the Ethernet link.

“Having a partner that understand the complexity of the fronthaul solution at network scale is paramount to enable any new technology like Radio Over Ethernet and L1 offload”, said Thomas Noergaard, Founder of Comcores. “Bringing a robust and proven solution to market enables easy adoption of the connectivity features that this new technology is offering”.

About Comcores

Comcores is a leading provider of silicon agnostic IP-cores for communication systems. State of the art know how and practical experience enabling connectivity in communication systems are key elements in Comcores’s delivery of unique, high quality, production-proven IP-cores. Comcores solutions not only accelerate development and cut costs, they increase overall design reliability and project predictability.

To learn more about IP-core offerings from Comcores please visit www.comcores.com or contact us at info@comcores.com

Privately held Comcores is headquartered in Greater Copenhagen Area, Denmark.