Inno Route®

We create networks of tomorrow

TIME-SENSITIVE NETWORKING WITH THE TRUSTNODE PLATFORM

High accuracy packet control and traffic measurement

Comfortable software control and easily extensible FPGA design

Expert level support and customer service

Line speed packet processing with Xilinx FPGA

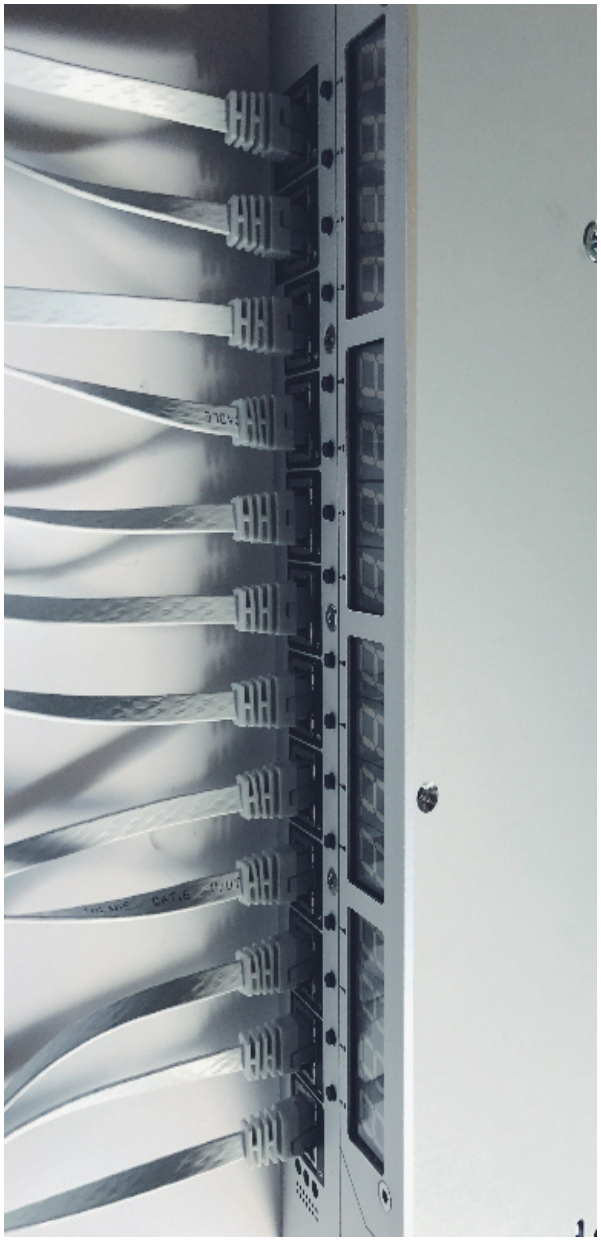
Ultra-low latency network processing platform

TrustNode, a licensable TSN IP and an FPGA platform, is the enabling platform for R&D in the domain of Time-Sensitive Networking, enabling system integrators to flexibly implement, validate, and explore network nodes. Its combination of TSN and OpenFlow-based Software-defined Networking is unique in the market.

The key value lies in TrustNode's ultra-low latency of 2.5 µs port-to-port for Gigabit speeds and the easy setup and installation process alongside the various customization possibilities enabled by its software-defined networking architecture.

Hardware and software can be adapted to your needs using free processing ressources (CPU) and free hardware ressources (FPGA). It allows for extensions like monitoring ports, partial reconfiguration, and custom processor modules.

Based on a field-proven data-flow architecture equiped with a robust aluminium casing, and fulfilling industrial EMV requirements, it is ready for demanding industrial environments.



Technical description

- Atom processor (1.9 GHz Quad-Core with 4 GB of RAM)
- Xilinx FPGA (134.6 kLUTs, 269.2 kFFs, 12.8 Mb BRAM)
- Ultra-low latency of 2.5 µs (cut-through) and jitter below 1 µs
- Ready for clock distribution via Synchronous Ethernet
- Interfaces: 12 Gigabit Ethernet interfaces, Console port, USB3.0 and USB2.0 ports, and SD-Card interface to the Atom processor
- Size: 19", 1.5U (W 440mm, H 69mm, D 228mm), 2.5 kg

Gateway

Bridging and routing between various networking technologies using own or third-party protocol processing IP, e.g. field busses as upside potential

Software

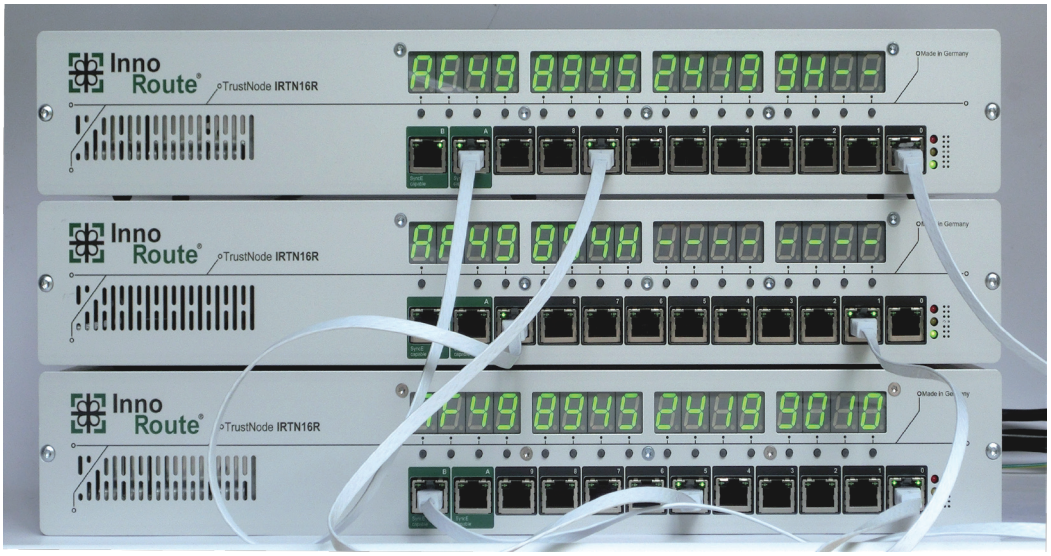
- Virtualization on integrated Quad-Core Atom processor via KVM
- REST interface for easy configuration
- Full access to FPGA IP and driver sources

Standards

TSN ready:

- IEEE 802.1AS(rev)
- IEEE 802.1Qbv
- IEEE 802.1Qbu
- IEEE 802.1CB
- IEEE 802.3br

About Us: Our mission is improving network efficiency and building the networks of tomorrow. We are a Munich-based, leading edge engineering company focused on software-defined networking, having highly specialized teams with a focus on hardware and software design, offering turnkey solutions for both industry and research institutes. We offer prototyping devices and development services for hardware and software in IoT, Industry 4.0, and telecommunication environments.



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