Enyx launches an ultra-low latency development framework for building standardized, FPGA-based trading systems


Based on 10 years of research and development, nxFramework is the foundation for all Enyx off-the-shelf solutions and provides users with the toolchain to create and manage a large portfolio of applications, such as pre-trade risk check gateways, smart order routers, and tick-to-trade electronic trading platforms.

Aimed at reducing development time through standardizing the core IP blocks needed to build any FPGA-based trading platform, nxFramework enables developers to focus on optimizing their business logic. Included are the following Enyx ultra-low latency IP cores, for which full latency reports can be found on our website:

- 1G/10G MAC/PCS
- 1G/10G full TCP stack
- 1G/10G full UDP stack
- PCIe streaming DMA

In addition to providing a complete development environment, nxFramework is equipped with 60+ IP cores for MMIO, streaming manipulation, math functions, cache and memory management. This library of building blocks further reduces time-to-market through a standardized set of functions that further aids in building FPGA-based trading systems.

nxFramework is bundled with Python scripts to manage development flow from synthesis to bitstream and includes a simulation environment for streamlining the overall FPGA development process. Also included are C/C++ libraries for communication with the FPGA and management of the IP cores, as well as drivers which support various Linux distributions -- simplifying integration efforts.

A platform agnostic solution, nxFramework supports the latest hardware platforms through our certified partners to ensure flexibility when deploying and scaling nxFramework based business applications. nxFramework supports the following FPGA-enabled platforms:

- Arista 7130L/LB series
Christophe Demouliers, CTO at Enyx, commented: “nxFramework is the first production-ready solution that enables an FPGA developer to design cross chip, cross platform applications using either Xilinx® or Intel® FPGAs, allowing developers to focus on business logic rather than vendor specific hardware requirements. Adding, “The addition of a standardized library of more than 60 IP cores, facilitates the rapid build of any low latency project -- allowing any HDL developer to focus on the elements that differentiate their business. Our early access clients using this product have been able to significantly reduce their time-to-production to weeks rather than months.”

Arnaud Derasse, Enyx Co-founder and CEO, said: “Today we are proud to make available the internal technology building blocks that we’ve leveraged to build trading products for the low latency trading community. Now developers can take advantage of our 10+ years of experience with FPGA within their own solutions. Derasse continued, “By collaborating with acclaimed FPGA hardware vendors, we make it easier for firms to adopt FPGA technology as an accelerator for their trading systems. nxFramework can lower both time-to-market and cost of building any FPGA-enabled, low latency trading solution”.

About Enyx

Enyx is a leading developer and provider of ultra-low latency FPGA-enabled technologies and solutions for the financial, telecommunications, and high performance computing industries.

Focused on delivering higher performance with a lower datacenter footprint, Enyx provides off-the-shelf, end-to-end solutions for the finance industry. The Enyx stack includes ultra low
latency market data normalization and distribution, order execution and in-hardware algo acceleration. Additionally, the Enyx product range features wireless network solutions and a complete FPGA development framework compatible with a range of FPGA platforms.

With a passion for customer service and transparency, Enyx designs products made to deliver the next generation of technology, while maintaining accessibility and flexibility. Among our clients are financial service providers, exchanges, market data vendors, investment banks, brokers and investment funds.

Enyx offers global support to our clients worldwide with locations in Paris, New York, London and Hong Kong.

Full latency reports for our solutions are available at www.enyx.com/performance.

For more information, please visit www.enyx.com or visit our LinkedIn page.

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