Gidel

Gidel Makes FPGA Accessible to Software as well as Hardware Teams

From data analytics to high frequency trading to real-time image and video processing, Field Programmable Gate Arrays (FPGAs) can provide highly reliable, effective, and efficient solutions for AI-based workflows. Growing competition and an increase in these types of workflows has led many companies to re-evaluate FPGA accelerators for tackling specific problems. A wide demand for solutions that are versatile and easily programmable has driven this trend.

For more than two decades, Gidel has been developing tools to support and reduce the development effort. In November 2017 Gidel debuted a set of developer tools that opened the door for software designers to work with FPGAs—once the domain of hardware engineers—and integrate intellectual property (IP) in a uniquely fast and effortless way. FPGAs are now an easily accessible option for both software and hardware teams.

Gidel is a 25-year technology leader in high performance, innovative, reconfigurable, FPGA-based acceleration platforms. Gidel's solutions accelerate compute algorithm performance via optimal application tailoring, while reducing development time, effort, and cost.

Using a combination of hardware, software, and IP, Gidel has been addressing its clients' most complex FPGA challenges. The company has brought a fresh approach to the development of FPGA acceleration boards, FPGA-based reconfigurable systems, and development tools for diverse applications.

"One of the main challenges in the market that Gidel is solving is to make FPGAs accessible to software engineers (as well as hardware engineers), so that they can accelerate diverse algorithms in an

Reuven Weintraub

optimized manner for their applications," says Reuven Weintraub, Founder & CTO, Gidel. The company empowers engineers to build and customize applications by mapping board resources according to their design specifications.

For those with FPGA design skills or systolic array design skills, Gidel provides automated FPGA tools, debugging, documentation, training, and tools to support their initiatives at maximum performance. For those without FPGA design skills, Gidel offers solutions with all the required FPGA codes that allow software developers access to FPGAs. "We spend a lot of time in engineering our tools and services to provide customers with end-to-end support and fulfill all of their FPGA needs," says Ofer Pravda, COO, Gidel.

A unique aspect of Gidel's approach is that its FPGA boards are automatically mapped to each customer's application and algorithm needs, rather than vice versa. Additionally, Gidel is the only company that offers the capability for separate applications or processes to operate simultaneously on a single FPGA.

Gidel has a longstanding reputation for solid technology, and the company's

knowledge base is backed by significant R&D research. Gidel prides itself on its ability to be innovative and work with customers on unique solutions, boasting rich in-house expertise in required libraries and other technology enhancements that are needed in a customer environment. Gidel's dedicated support and its products' performance, ease-of-use, and long lifecycles have been well appreciated by satisfied customers in diverse markets who continuously use Gidel's products, generation after generation.

Gidel offers FPGA boards and tools to optimize solution development and performance for a wide range of markets. Gidel solutions are ideal for applications that require massive computation of data and/or low latency, and innovative applications utilizing FPGAs such as medical, cybersecurity, finance, Automatic Optical Inspection, Artificial Intelligence, robotics, and surveillance.

Gidel has recently announced a renewed focus on compression and encryption algorithms—two different building blocks in the Gidel tools library. In June the company launched a new lossless compression IP that allows original data to be correctly reconstructed instantly from compressed data. The technology utilizes the best lossless compression algorithms to reduce a file's size, while requiring extremely low power and utilizing just 1 percent of the FPGA.

Gidel's sales and market presence have increased dramatically over the last several years, via a combination of new technology offerings, new clients, and larger deal sizes for more complex custom projects. As AI-based workflows, big data, and larger storage needs continue to dominate the market, FPGA use will continue to become more commonplace. Look for Gidel to be at the forefront of that trend. CR