

# the Exegy Ticker Plant's Unique Technology

» solving the need for speed and capacity



## The Exegy Ticker Plant delivers:

- » 80  $\mu$ s end-to-end latency
- » 2 million messages per second throughput
- » A variety of in-depth, consolidated order book views
- » Simultaneous calculations of NAV for 1,000 indexes/custom baskets
- » Extra headroom for client-specified applications
- » Fast, efficient object-oriented API in C and JAVA

## Moore's Law No More

Message rates are more than doubling ever year, with new peaks every month. There is no end to this explosion in sight.

Moore's Law, the guiding force behind the semiconductor industry, is no longer the prototype for increasing microprocessor performance.

Conventional CPU clock rates cannot keep up with this exponential growth. Adding servers simply does not solve the latency and throughput problem that today's – and tomorrow's – market data rates create.

## Colocation and the Exegy Ticker Plant

The breakthrough technology behind the Exegy Ticker Plant easily processes the flood of market data at record ultra-low latencies. Not only does it easily and consistently process the gyrating and growing volumes of market data, the Exegy Ticker Plant's single appliance provides extra headroom for a revolutionary Basket Calculation Engine, a new in-depth Virtual Order Book and clients' custom algorithms.

## How Does it Work?

The Exegy Ticker Plant is a massively parallel system that exploits a hardware-software combination to optimize processing. Exegy's patented hardware-acceleration technology incorporates the unique flexibility and adaptability of field programmable gate arrays (FPGAs).

Because it is hardware-accelerated, the Exegy Ticker Plant can process the exponentially growing volumes of data, maintain ultra-low latency, and continue to add the critical functionality required for colocated trading.

## Hybrid Solution

The hybrid hardware-software solution defines the physical structure of a reconfigurable hardware logic circuit, rather than a sequence of software instructions.

The Exegy solution provides a massive direct and pipelined parallelism that yields much higher overall performance when compared to other systems available today. Exegy's FPGA-based technology is dynamically reconfigurable, allowing many different processor systems to be instantiated as data and system needs change. Similar to the different subroutines of software, Exegy's technology provides 100 times the throughput and 1/10th the latency, according to the Securities Technology Analysis Center.

Because of the significantly greater performance, the Exegy Ticker Plant allows for more user-based applications to be placed directly into the data movement path, enabling richer analysis, and ultimately, faster trade execution. The Exegy Ticker Plant is a leading indicator of where the most advanced ticker plant technology is headed.

For more information, contact us at [sales@exegy.com](mailto:sales@exegy.com) or 877.247.5534.

## System Specifications

- » **Forward Compatibility** — The Exegy Ticker Plant 2.1 can easily integrate into existing systems through the use of its open API. The API is available in C or Java, and for the following operating systems:
  - **Windows:** Windows XP, Windows 2003 R2 Server
  - **Linux:** SLES 10, Centos 4.6, 5.1 or Red Hat 4.6, 5.1
- » Exegy can also customize the API for other operating systems.

The unique design of the API means that applications are able to achieve forward compatibility. Applications will work unchanged with all future versions of the Exegy Ticker Plant, even as data models evolve and the underlying wire formats change.

**Connectivity and Integration** — The Exegy Ticker Plant 2.1 supports a variety of network interconnects, including:

- » Multiple 10/100/1000BaseT copper RJ-45 Ethernet interfaces for exchange feeds
- » A single 10/100BaseT copper RJ-45 Ethernet interface for management support
- » A single 10/100BaseT copper RJ-45 Ethernet interface for on-site monitoring support
- » A choice of client network connectivity types:
  - InfiniBand 4X DDR
  - 10/100/1000BaseT RJ-45 Ethernet
  - 10GigE (fiber only)

## Technical Specifications

### Dimensions & Weight

- » 4U Form Factor
- » 445 x 178 x 762 mm (17.5 x 7 x 30 in)
- » 37kg (80 lbs)

### Power & Heat Dissipation

- » 110~220 VAC auto-sensing
- » 500 to 600 Watts
- » 2046 Max BTU

### Temperature & Cooling

- » Operating: 10°C-25°C
- » Storage: 70°C max