The 5 biggest misconceptions regarding low latency trading technology

STAC Fall NYC

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1. Only HFTs need FPGAs

FPGA technology is not only for latency.

- FPGA tech is great for latency when applicable -- also alleviates issues with data volumes & determinism
- Leverage FPGAs to extend your infrastructure capacity & limit your maximums
- Reduce overall footprint (ie power consumption & server rack usage)
- Requires less servers to digest the equivalent amount of data compared to pure software solutions

Be smarter and faster.

2. I've only used software, so FPGA technology is too difficult

Upgrading your technology doesn't have to be overwhelming or high risk

- Benefit from using FPGAs without necessarily having hardware expertise
- Use a stepwise approach - only move what is necessary into FPGA
- Scale to multiple venues with a team of one or two hardware engineers

Don't reinvent the wheel, focus on what makes you different in the market

3. All market data solutions are created equal

Different strategies need different level of market data processing

- Pattern matcher looking into raw data for ULL
- Ticker plants for fully normalized & aggregated view of the market
- Predictive signals for market trends & analytics

Use the right tool for the right job

4. Using a vendor solution is giving up control

The vendor model has changed -- partners in technology, allowing for **both** flexible time-to-market & control

- **Solutions are no longer black boxes:** Open the box when needed -- technology needs to adapt to customer needs, not the reverse.
- **Buy to Build model:** Ability to give your teams what they need -- from technology components to full bespoke solutions.
- **Vendor engagement models have evolved:** Get the help you need where you need it -- from technology consultants to fully managed services.

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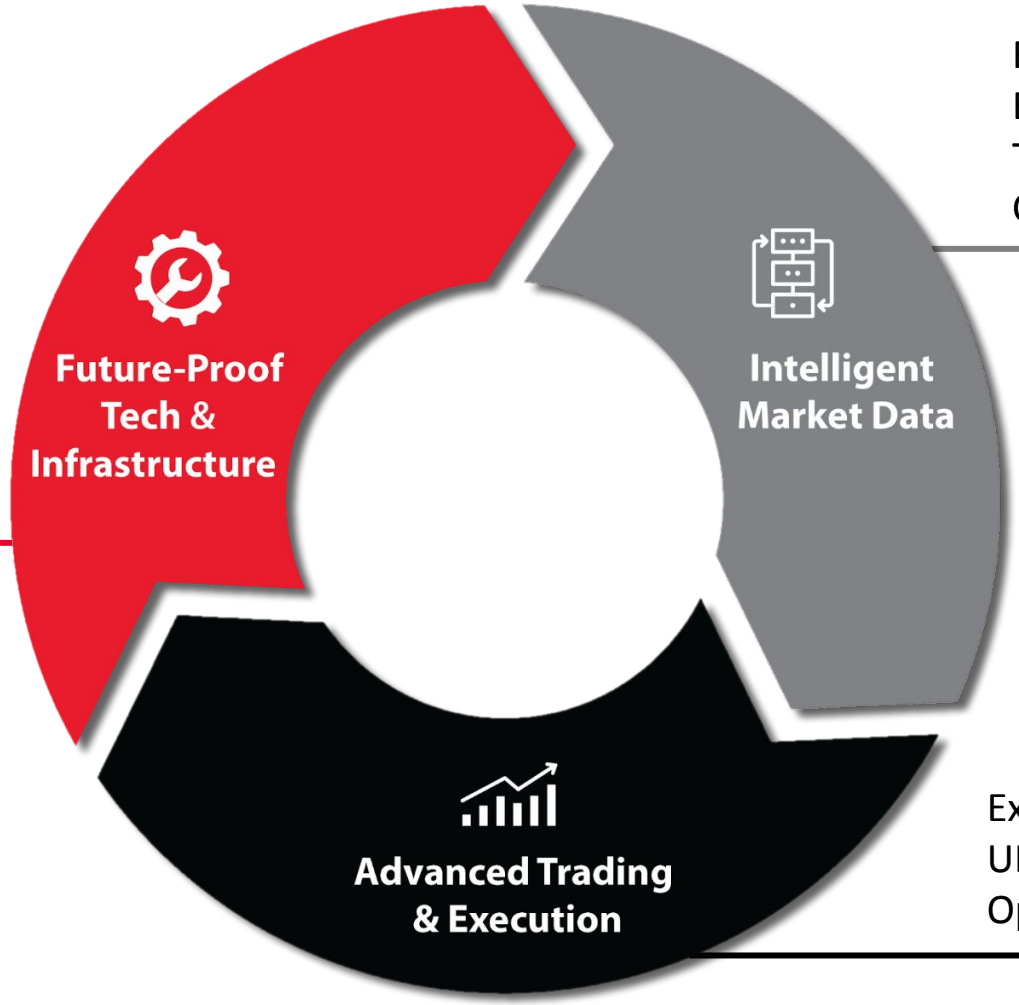
5. Choose a partner not a vendor

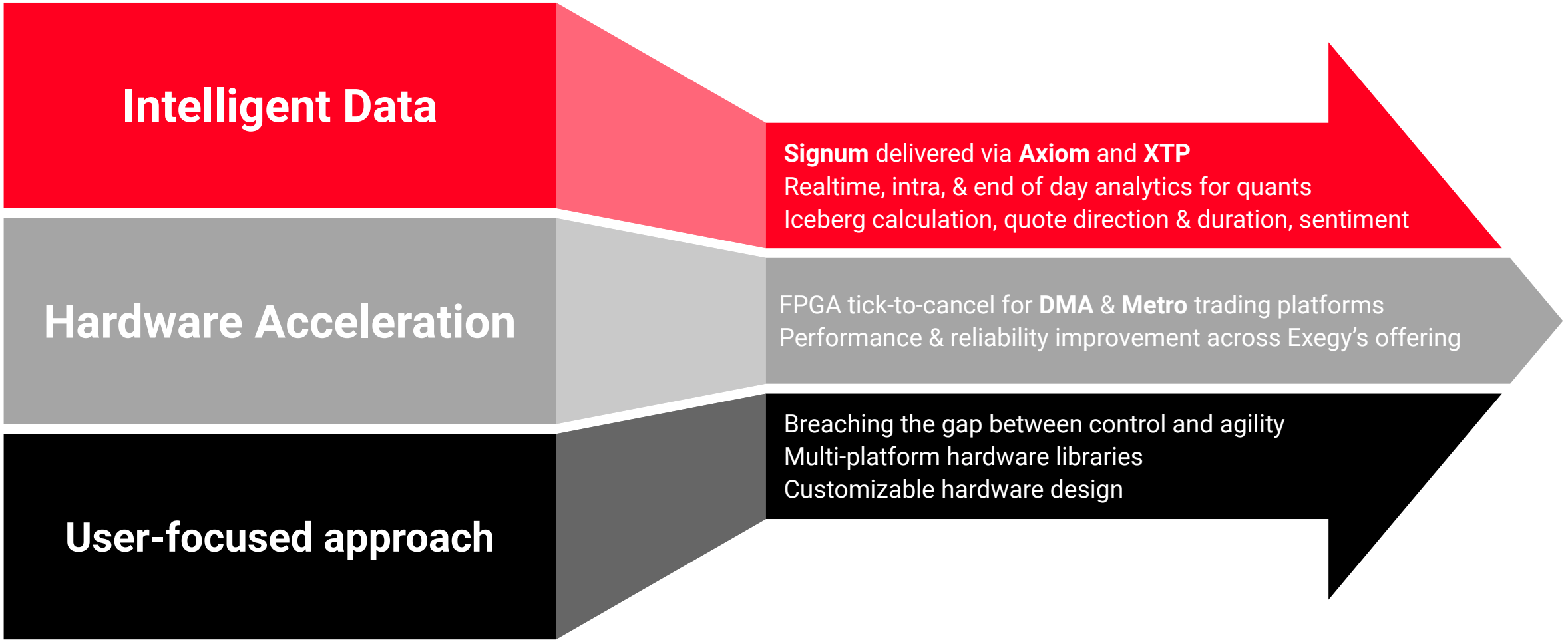
Feed handler (hardware/software)
Entitlements
Ticker plant
Consolidated feed



FPGA development framework
Bandwidth & redundancy management
Data center operations

Execution (hardware/software)
ULL trading engine
Options trading platform

Extension of your team & Partner in innovation



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