How Cray HPC Can Help

The financial services industry operates under ever-intensifying pressure. From meeting new regulatory demands to battling cyberattacks to capitalizing on big data opportunities, firms face increasingly complex problems. And they must respond quickly to manage risk and stay ahead of the competition.

While the industry has long relied on large compute grids, these commodity systems can’t cope with today’s expanding workloads. Solving problems such as whole portfolio counterparty credit exposure calculations or detecting fraud using big data requires new techniques and a transition from commodity grid to high performance computing (HPC) technology.

Arming yourself with a proven HPC partner is the first step in adapting to a changing business environment. Cray bring over 40 years of HPC leadership to every product and solution. Since day one, we’ve been honing tools, platforms and operational efficiencies in the HPC marketplace. This experience uniquely positions us to help you realize the benefits of high performance computing and data analytics quickly and cost efficiently.

We offer a complete range of computing and data analytics platforms coupled with acclaimed customer support, making it seamless to integrate high quality HPC into your organization.
Industries solutions

Shrinking time to value and low total cost of ownership are crucial. Features such as the high performance Aries interconnect, a tightly integrated hardware and software stack, and a highly adaptive system design translate to industry-leading productivity and value. A standout feature for financial services is the XC40 system’s outstanding GPU flexibility. The system accommodates Intel® Xeon Phi™ coprocessors or NVIDIA® GPU accelerators so you can readily run mixed workloads and meet service-level agreements (SLA).

Cray® CS™ Series Cluster Supercomputers

For capacity computing needs, the Cray® CS™ series cluster supercomputers offer industry standards-based, highly customizable and reliable high performance computing designed to handle the broadest range of medium- to large-scale workloads.

All CS components have been selected, optimized and integrated to create a powerful HPC environment. Flexible node configurations featuring the latest processor and interconnect technologies are easily tailored to specific needs — from an all-purpose cluster to one suited for shared memory, large memory or accelerator-based tasks. Innovations in packaging, power, cooling and density translate to superior energy efficiency and compelling price/performance. Expertly engineered system management software instantly boosts productivity by simplifying system administration and maintenance.

The Cray CS-Storm cluster is our high-density accelerator compute system. Designed for massively parallel computing workloads, it consists of multiple high-density multi-GPU server nodes. Featuring up to eight NVIDIA® Tesla® GPU accelerators and a peak performance of more than 11 teraflops per node, the CS-Storm system brings the most dense GPU configurations available today. With an integrated hardware and software stack, productive developer tools, and efficient power and cooling all proven at scale, the CS-Storm system delivers immediate time to value.

Data Analytics Solutions

Big data holds limitless potential for financial services. New techniques in graph and real-time streaming analytics mean firms can realize immediate benefits from data analytics solutions on problems such as cybersecurity, trader surveillance, tick data storage and analytics, and claim fraud. But adopting data analytics technology today can also put firms ahead of the competition on tomorrow’s big data challenges such as modeling the impact of news on securities.

Cray® Urika-XA™ Extreme Analytics Platform

The Urika-XA extreme analytics platform gives you unmatched flexibility and performance on the most advanced analytics workloads. This turnkey architecture comes pre-integrated with Apache Hadoop® and Apache Spark™ frameworks to bring instant analytic value to streaming financial data. At the same time, the platform is versatile enough to support next-generation environments. Optimized for compute-heavy, memory-centric analytics, the Urika-XA platform delivers excellent performance on the widest range of analytics applications.

Cray® Urika-GD™ Data Discovery Appliance

Our Urika-GD data discovery appliance can find hidden and unknown relationships within massive amounts of financial data. This ability can protect you from fraud and cyberattack or reveal profitable new opportunities. Featuring a massive shared memory, the Urika-GD platform enables highly complex graphs with unparalleled real-world performance. It delivers this power of real-time data discovery in an enterprise-ready package that delivers rapid time-to-value on big data solutions.