COMPANY PROFILE

# Unlock the value of IT with Appro High Performance Computing

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Experts on Enterprise HPC Cluster Solutions Optimized platforms with multiple HPC network connectivity solutions Innovative and balanced architecture Lower total cost of ownership



**HPC Cluster Solutions** 

# Corporate Overview

# **About Appro**

Appro is a leading developer of innovative workstations, density-managed servers, clusters and supercomputers. Appro is uniquely positioned to support High-Performance Computing Markets focusing on medium to large-scale deployments where lowest total cost of ownership is a primary consideration. Appro accelerates technical applications and business results unlocking the value of IT through outstanding price/performance, balanced architecture, open standards and engineering expertise.

Appro was founded in 1991 as a successful OEM rackmount computer systems manufacturer for Tier 1 suppliers. In 2001, Appro changed its business model by being among the first to market its own line of branded build-to-order x86 high-density servers and cluster solutions directly to end-users and datacenters. The technical computing markets for Appro's products include government, universities, petroleum, financial, electronic design automation, bio-informatics and manufacturing.

# What We Do

Appro applies new thinking and ideas to create simple, valuable and trusted experiences with an HPC technology focus. Appro delivers innovative product architecture with cluster solution integration for some of the largest Linux supercomputer installations. By providing best in class solutions, Appro helps scientists, engineers and financial analysts utilize supercomputing resources to power their highly computational, data intensive tasks such as scientific research discovery, data modeling, engineering simulations and seismic visualization.

with cluster solution integration where customers can build a consolidated and simplified infrastructure that is easy to implement and scale. As Appro continues to invest in HPC, its price/performance and innovative products along with integrated system management software could become Appro's 'silver bullet'."

Earl Joseph - IDC Research Vice President and HPC User Forum Executive Director

"Appro has a breadth of High

Performance Computing products

#### **Corporate Snapshot**

- > Appro was incorporated in 1991
- Headquarters in Milpitas, California
- Regional office in Houston, Texas
- Global presence via international resellers
- Manufacturing and R&D subsidiary in Asia



# Appro Advantages

# Differentiated Performance with a Balanced Architecture

Appro designs and manufacture its own products and provides integration services for large cluster environments. Appro offers manageability, flexibility and choice for customers to select high value products and solutions that meets their requirements at attractive price/performance. Appro delivers balanced hardware architecture that reduces bandwidth and bottlenecks to ensure performance optimization. Appro is focused on making sure that the managed solution delivers the processing, memory and networking performance needed to accomplish the task quickly, reliably and affordably. This provides a tremendous amount of added value for customers looking to accelerate their business results from an optimized infrastructure.

# **Open Standards**

Appro delivers innovative servers designed to work with existing IT environments. Appro's products are industry standards compliant, featuring multiple high performance network connectivity solutions, multiple I/O and disc options, with the choice of AMD or Intel® processors.

## **Engineering Expertise**

Appro has deep engineering resources that design hardware solutions based upon customer's requirements. Appro's experience and expertise enable the company to design industry leading products and management solutions that unlock the value of IT.

## System Management

Appro Cluster Engine<sup>™</sup> Software Management is built up in a carefully layered architecture offering a complete lights-out management system based on IPMI standards. It supports multiple Interconnect Topologies to achieve maximum reliability, performance and high availability.

"With the Appro cluster in place, our FLUENT simulations were fast and robust. The cluster delivered the horsepower we needed to get simulation results back to the customer in time to impact their engineering decision making'. Following the initial project, ANSYS plans to deploy the same cluster to address other engineering consulting needs."

Barbara Hutchings, Strategic Partnerships of ANSYS, Inc.

#### **Technology Partners**

Together, Appro and its partners create end-to-end industry-leading solutions for our customers. Our partnership model gives us the ability to be flexible and respond to your specific needs, regardless of whether you are a global enterprise or small business.

Our partner relationships help us create out-of-the-box and innovative solutions for end-users who are in need to achieve high performance, scalability and reliability at a very competitive cost. Appro partners include AMD, Intel, Mellanox, Microsoft, Novell and more.

# Computing Manageability, Performance and Choice

# Market Overview

Appro targets high-performance computing markets that need real-time, computationally intense processing. These include commercial, database, scientific, and engineering markets.

HPC Vertical markets

- > Electronic Design Automation
- > Entertainment / Gaming
- > Financial Services
- > Government / Defense
- > Manufacturing
- > Bio-Informatics
- > Oil and Gas

Appro's workstations, servers, clusters and supercomputers create simpler, higher-value, and trusted HPC experiences in compute-intensive applications such as:

- > Semi-conductor, IC Designs, Automotive, and Aerospace
- > Petroleum Exploration and Production
- > Scientific Visualization for Oil Discovery and Recovery
- Research in Seismic, Weather, and Environmental Sciences (See "Practical Application" Sidebar)
- > Defense and Classified Research/Production
- > Financial Modeling and Risk Management

#### Mission

Appro's mission is to provide high value HPC solutions through our commitment to product innovation, quality and customer service.

"The ability to provide a scalable unit in multiple scalable clusters to all three national Lab sites with a 30-50% lower TCO is of great value to NNSA's effort to apply high performance computing to time-urgent national security challenges. In the past, high-end Linux clusters were more expensive and difficult to integrate and deploy. By defining this Scalable Unit (SU) "building block" approach to structure these multiple cluster deployments using COTS parts, the tri-Labs are able to significantly reduce TCO, simplify the integration and deployment of multiple Linux clusters at all three Laboratories and put highly needed capacity clusters into production on an accelerated timeline."

Mark Seager, Advanced Computing Technology Lead for LLNL



# **Products & Solutions**

# **Supercomputers**

Appro Xtreme-X<sup>™</sup> Series Supercomputers are designed for medium to large-scale enterprise and HPC deployments. They are ideal to scale out datacenters from 6TF to >1000TF of computing power delivering significantly reduced TCO, energy-efficient (green) architecture and complete lights-out management system to meet the demands of high capacity and enterprise production system availability.

# **Blade Servers**

The Appro next generation blade server is designed for high performance, computational density, reliability, availability, power and cooling efficiency with an economical variety of system configurations. It offers a truly flexible, reliable and scalable blade computing system. They are ideal for datacenter consolidation to support small to medium cluster deployments for the High-Performance Computing markets.

# Servers

Appro offers a variety of servers ranging from high-density and performance optimized to multi-purpose server solutions. Our rackmounted HyperServers<sup>™</sup> and XtremeServers<sup>™</sup> series deliver leading-edge x86 server technology with outstanding performance, reliability and first class memory scalability. Appro's servers offer great performance and flexibility to meet the diverse and demanding needs of high-performance computing.

## **Workstations**

Entry-Level, mid and high-end workstations designed for speed, high-performance and efficiency when dealing with demanding compute and memory intensive applications. Appro Workstations combine the latest in processing capabilities, advancements in memory, power and I/O technologies, delivering a validated optimized platform that meets the demands of multi-core processing, all in a quiet package. These workstations help professionals increase project productivity for a great return on investment.

All products are available from both AMD and Intel® multi-processor technology.











446 South Abbott Avenue Milpitas, CA 95035

Toll Free (U.S. Only): 800.927.5464 Main Line: 408.941.8100 Fax: 408.941.8111

www.appro.com