CAC and KLA-Tencor

CAC
we enable your success

Industry Standard Clusters: Reducing Product Development Costs and Cost-of-Ownership

How do you bring a less costly optical CD metrology product to market faster?

Finding an Answer

KLA-Tencor reduced its product engineering software development, hardware, and maintenance costs by using industry standard high-performance computing technologies recommended and operated by CAC.

Industry Standard Clusters

KLA-Tencor recognized that CAC was an early adopter of Windows-based high-performance computing platforms and decided to leverage CAC's expertise and experience for a competitive advantage.

Improved Engineering

Engineering Metrics

- Speed: Develop a new semiconductor inspection product faster using commercial software tools
- Cost: Reduce the cost of engineering and customer computing hardware
- Reliability: Improve product reliability
- Maintenance: Improve ease of product maintenance and cost-of-ownership

Engineering Challenge

KLA-Tencor engineers were developing a new CD metrology product that used light to measure chip quality. The product required computationally intensive algorithms and increased compute power. Adding more proprietary high-performance computing (HPC) hardware for engineering was cost prohibitive. KLA-Tencor needed to reduce their product development costs and, at the same, deliver a product to their customers that had an embedded HPC system with a smaller footprint and attractive pricing.

Solution

KLA-Tencor contacted CAC on a Friday. CAC quickly analyzed KLA-Tencor's needs and designed a HPC system architecture to meet their needs. Within one week, their application was up and running on a custom installed system at CAC. KLA-Tencor product engineers were able to get back on schedule with CAC's 24x7 operation, and, eventually, installed

their own Windows Server clusters in-house. Windows clusters were also embedded into the products that they delivered to their customers.

KLA-Tencor develops defect inspection tools used in all phases of chip manufacturing

The Client
KLA-Tencor Corporation
- Semi-conductor industry leader in wafer yield management
- Headquartered in San Jose, CA
- 6,000 employees worldwide
- Customers include Intel, Texas Instruments, AMD

The Collaborative Relationship
"As a leader in the rapid-paced semi-conductor industry, it's critical that we keep our software engineering development cycles on track. Thanks to CAC, Dell, Intel, and Microsoft, we've been able to install and operate high-performance cluster systems at a fraction of the cost of proprietary servers and with the kind of scale-out capabilities that we need to meet demanding production requirements. The decision to go with a Dell PowerEdge solution just made sense."

Bill Braymer
Senior Software Development Manager
KLA-Tencor Corporation