Cray XT™ Supercomputer Family

The Cray XT6™ supercomputer is the next evolution in the Cray XT family that was first to break the petascale performance barrier on real-world applications with “Jaguar”, the world’s most powerful computer for open science. At over 2 petaflops (1,000 trillion floating-point operations per second), this Cray XT5 system is located at the National Center for Computational Sciences (NCCS) at Oak Ridge National Laboratory.

Cray XT systems combine unprecedented sustained application performance with exceptional manageability and reliability, and lower cost of ownership for customers. Engineered to meet the demanding needs of capability-class High Performance Computing (HPC) applications, each feature and function is selected to enable larger datasets, faster solutions and a greater return on investment. It features optional ECOphlex™ technology – packaging and design features that promote energy savings along two dimensions: by enabling greater system density and by reducing the need for expensive air cooling and air conditioners. Additionally, the Cray Linux Environment™ enables optimized performance across a broader range of applications. Using powerful AMD Opteron™ processors, Cray XT systems have been adopted worldwide at academic, government and commercial sites using advanced scientific and engineering applications.

The Cray XT product line also includes the Cray XT6m™ supercomputer. With starting prices at $500K, the Cray XT6m product builds on the reliability and efficiency of the Cray XT family but is optimized to support scalable application workloads in the midrange HPC market where applications require between 2,000 and 12,000 cores of processing power.

Cray CX™ Product Series

As our users’ high performance computing needs have evolved, so have our systems. The same real-world performance that defines Cray’s leadership in high-end supercomputing is also available in smaller systems that meet the needs of the expanding market for superior ease of implementation, sustained performance and reliability at lower costs with outstanding support for industry standards.

The Cray CX product family is purpose-built for users who want to focus on their mission, and not on managing the complexities of high performance computing. The Cray CX product family is designed to be easy to configure, easy to install and easy to manage over its productive life. These systems are designed to assist users to get the most out of powerful HPC systems, even though they may be constrained in access to budget, HPC expertise, or to sophisticated infrastructure.

The Cray CX1, for example, is designed to operate in an open office environment, moving the “supercomputer” out of the datacenter to the engineering office environment. It operates off standard office power, implements active noise suppression to significantly reduce ambient noise levels, and comes in a small footprint that allows you to deploy HPC wherever you need it. The Cray CX1 allows you to mix and match blade types including compute, storage and GPU accelerator blades such that the right configuration can be created for any requirement. It also comes with the Linux and/or HPC Server 2008 OS from Microsoft. Networking is handled by a Gigabit Ethernet switch that comes as standard, or additionally through a 12 or 24 port DDR InfiniBand switch.
Cray Product Overview

The Cray CX family provides the perfect upgrade path for the ANSYS users who have outgrown their workstations and need access to the power of parallel ANSYS applications. The Cray CX1-iWS (integrated workstation – available exclusively from Dell) is an ideal implementation of this capability, combining a Windows 7 based workstation with a 24 core scale out cluster in the same small CX1 footprint.

Custom Engineering

A third area of focus for Cray is Custom Engineering, which is dedicated to delivering technology focused solutions “where off-the-shelf does not compute”. Leveraging more than 25 years of broad supercomputing experience Cray Custom Engineering provides customized solutions utilizing its intellectual property and expert resources in Special Purpose Devices, Application Consulting, Site Engineering, and Data Management. In addition, Cray’s Knowledge Management practice delivers solutions targeting advanced data analysis, data mining, and predictive analysis, leveraging the Cray XMT™ supercomputer, a system developed in partnership with the U.S. government. The Cray XMT system is a massively multithreaded processing supercomputer designed to deliver over one million concurrent processing threads, providing levels of performance for data analysis that have never been achieved before.

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