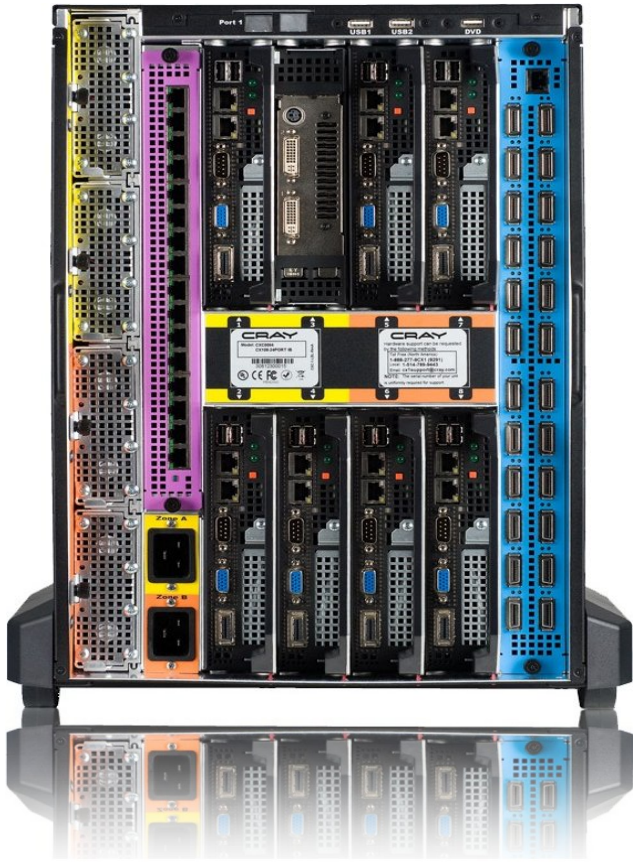
CX1

Each Cray CX1 system chassis can support up to eight blades for high performance computation, graphics and storage. Blades can include a variety of single– and dual– socket compute, graphic, storage, GPGPU blades. Mix and match blades as required.



The Cray CX1 supercomputer is a complete high performance product. This "super" computer is housed in a compact desk-side or rack-mount form factor. Users can connect up to 3 chassis with the system's internal switch infrastructure. Utilizing an integrated Linux or Microsoft operating environment, the CX1 delivers true "ease of everything" computing allowing any user to apply HPC power to challenging science, engineer, and design problems.

In addition to world-class Cray certified support, the CX1 has a system hardware warranty of three years parts and labor. Customers also have a variety of options for ongoing software support. Designed and priced for individuals and workgroups.

CRAY

Specifications

Chassis Enclosure	**Form Factor:** 7U modular enclosure (rackmount and/or pedestal) **Dimensions:** W 12.22" (31.04 cm) x H 17.5" (44.45 cm) x D 35.5" (90.42 cm) **Weight:** • Chassis with all I/O modules (Gigabit and InfiniBand) and power supplies - 62.2 lbs (28.3 kg) • Chassis fully loaded w/ blades and I/O modules - 136.6 lbs (62 kg)
Power Supplies	**1600 watt hot-plug power supplies** • Based on high efficiency and "power factor correction" ◦ 1600W @ 120V = 13.33A (92% efficiency: 14.40A) ◦ 1600W @ 220V = 6.66A (92% efficiency: 7.19A) • Redundant power supplies support 2+2 (fully pop., full redun.) or 1+1 (half pop., full redun.) or 1 or 2+0 (non-redun.) modes • Power supplies require 110 or 200+ volt AC input • Cray offers a wide range of power distribution options **Dimensions:** W 4.274" (108.56 mm) x H 1.543" (39.19 mm) x D 21.52" (546.61 mm) **Weight:** 5.9 lbs (2.68 kg)
Cooling Fans	Chassis comes standard with hot pluggable, redundant fan modules based on Smart Energy Technologies
Input Device	Front control panel with touch screen graphical LCD • Supports initial configuration wizard • Local server nodes, enclosure and module information Two USB "pass-throughs" in front and back
Enclosure I/O Modules	Up to two fabrics, featuring Ethernet switches providing uplink scalability and high speed InfiniBand modular switches (8 ports SDR, 12 or 24 ports DDR)
	Ethernet Switch **16 RJ-45 auto-sensing 10/100/1000 Mbps UTP ports** • Bandwidth: 32 Gbps (non-blocking) • Forwarding Mode: Store-and-forward • Forward rate: 10 Mbps port = 14,800 packets/sec; 100 Mbps port = 148,000 packets/sec; 1000 Mbps port = 1,488,000 packets/sec • Latency: 100 to 100 Mbps = 40 µ (max); 1000 to 1000 Mbps = 10 µ (max) • Queue buffer memory: 512 Kbytes per port • Status LED: Power, activity and link indicators for each port, link and speed indicators built into each RJ-45 port **IBS12DDR/IBS24DDR 12 or 24 Ports InfiniBand Switch** **IBS12DDR - 12-4X 10/20Gbps (SDR/DDR) CX4 ports with support for optical adapters and cables** • Subnet Management software • Embedded management with Linux OS with Ethernet and secure shell access • Ultra-low latency < 180ns • InfiniBand v1.2 compliant • Dual redundant auto-sensing • Status LED: Power, activity and link indicators for each port, link and speed indicators built into each CX4 port • IBS24DDR–Optional 12-4X 10/20Gbps CX4 ports daughter card (for a total of 24 ports) • 480Gb/s (SDR) or 960Gb/s (DDR)
Management	**Web-based Remote System Management** • Graphical Mode Console Redirection • Performance monitoring • System Management: Local System Management Application, Windows Management Instrumentation (WMI) • Reports: System Information, Health Log, Adminstration, Application for Local Management • Pager Alerts and E-mail Alerts • SNMP support • Health monitoring: CPU and System Temperatures, System Voltages, CPU and Chassis Fans, Power Failure

World's Most Versatile Cluster

- Up to Eight Blades per Chassis
- Mix-and-match Compute, Graphic, Storage and GPGPU blades