CRAY

QUOTATION

Cray Inc.
Cray Cluster Solutions (CCS)
446 South Abbott Ave.
Milpitas, CA 95035
Tel: (408)-941-8100   Fax: (408)-941-8111
email: sdean@cray.com

QUOTATION NO: **CCS DUKE-4P AMD 09162013-SD05 RevB**
DATE: September 16, 2013
CUSTOMER ID:

TO: Duke University

EXPIRATION DATE FOR THIS QUOTATION: October 11, 2013

Notes: **Rev.B: Shipping charges added.**   Combined
Quote for Nodes & Rack Infrastructure with On-site Installation service &
3 Years NBD On-Site Support added

The terms and conditions applicable to the purchase, license and support of Cray Inc.
computer equipment and software can be found at:
http://www.cray.com/Assets/PDF/about/legal/StandardSalesLicenseAndService.pdf

ACCOUNT EXECUTIVE	PROJECT NAME - SYSTEM ID	PAYMENT TERMS	INSTALL DATE
Scott Dean (512) 657-9415	Duke CCS 2013-4P AMD (Nodes, Racks, and On-Site)	Net30	TBD

LINE NO.	PRODUCT CODE	DESCRIPTION	QTY	Column1	Unit Price	Extended Price
1	CCS 1U 4P AMD	Cray Cluster Solutions, 1U 4-socket AMD Compute Nodes - see below for configuration details	123		$ 6,387.22	$ 785,628.06
2	CCS Racks and Infrastructure	Cray Cluster Solutions, 42U Rack Cabinet with Infrastructure Equip required for supporting 123x 1U AMD 4P Compute Nodes - see below for configuration details	1		$ 25,898.00	$ 25,898.00
3	CCS 3-Years 24x7 NBD On-Site Support Service	Cray Professional Services -- 3 Years 24x7 NBD On-Site Support Service	1		$ 25,000.00	$ 25,000.00
4	CCS Recommended On-Site Spares	Spares required to support NBD On-Site Support Service - see below for included parts	1		$ 9,650.94	$ 9,650.94
5	CCS On-Site Installation Service	Cray Professional Services -- On-Site Installation	1		$ 5,823.00	$ 5,823.00

SUBTOTAL:	$	852,000.00
Any applicable sales tax		Not included
Shipping	$	7,500.00
TOTAL	$	859,500.00

Quotation prepared by: Grace Coleman

To accept this quotation, sign here and return: _____

SERVICE COVERAGE	SERVICE TERM
Cray CCS 24x7 NBD On-Site	Annual
Number of years service included in quote	3

THANK YOU FOR YOUR INTEREST IN CRAY!

Item	Description	Qty	Part Number
1	**1U Quad-Socket AMD G34 Compute Nodes**	**123**	
	Server, 1U, H8QGL-iF+ MB, Four AMD Opteron 6000/6300 Series Processors, 16x DIMM Slots, 1x PCIe2.0 x16, 3x Hotswap 3.5" drive bays, Single 1400W High-efficiency PSU.	1	1543H
	AMD Abu Dhabi, 6378, 2.4 GHz, 16 cores, 115W, G34 Socket	4	AMD 6378
	16GB, DDR3-1600, REG.ECC, 2-Rank, 1.5V	16	
	Seagate 500GB 3.5in SATA 6Gb/s 7200 RPM HDD	1	ST500NM0011
2	**Compute Node Rack**	**4**	
	APC SX Enclosure 42Ux600x1200 black	1	AR3300
	APC Rack PDU, Basic, Zero U, 12.5kW, 208V 3-Phase Input, 35A, (30)C13,(6)C19 with 10' Cord	4	AP7598
3	**Operations Ethernet Network**	**3**	
	Brocade 1U, 48-port 1G Ethernet Switch w/4 x 1G SFP Uplink/Stacking Ports	1	ICX6430-48
	Brocade Direct Attached 1G SFP Copper stacking cable, 5M	1	1G-SFP-TWX-0501
4	**Cables**	**1**	
	Cat6 Ethernet Cables (Assorted lengths 3-10 ft, as needed)	123	
	AC Power Cord, C13-C14, 1.2m	126	
5	**Recommended On-Site Spares**	**1**	
	1U Quad Socket AMD G34 Compute Node (complete hot spare server)	1	
	1400W 1U Power Supply	1	
	AMD Abu Dhabi, 6378, 2.4 GHz, 16 cores, 115W, G34 Socket	2	
	16GB, DDR3-1600, REG.ECC, 2-Rank, 1.5V	8	
	Seagate 500GB 3.5in SATA 6Gb/s 7200 RPM HDD	2	
	APC Rack PDU, Basic, Zero U, 12.5kW, 208V 3-Phase Input, 35A, (30)C13,(6)C19 with 10' Cord	1	
	Brocade Direct Attached 1G SFP Copper stacking cable, 5M	1	
	Cat6 Ethernet Cable (longest length used in cluster installation)	2	
6	**Cray Professional Services**	**1**	
	3 Years 24x7, NBD On-Site Support Service	1	CRAY-SS-3
	On-Site Installation	1	CRAY-INSTALL