



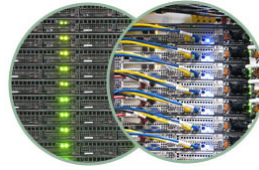
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 Burnsville, MN 55337
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Quoted To:
Nor-Tech Personal Cluster 1600
With CentOS & ROCKS Installed

Quote#
 GSA Contract Holder
 Contract GS-35F-133CA



Nor-Tech Clusters:
 TOTAL SOLUTIONS, INSIDE & OUT
 Visit nor-tech.com/why to find out what sets Nor-Tech apart in the HPC industry



The WorkGroup Cluster

Cluster	Custom Configured with Rocks Cluster Management Suite and Job Scheduler	1	\$ 21,999.00
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A.M. & S	Includes CentOS, Rocks loaded (call for additional)		
Chassis			

Chassis	25U 4 Post Open Frame Rack Cabinet	1	
PDU	Optional Power Distribution Unit	Optional	
Options	Optional upgrades: Enclosed 24U rolling chassis	Optional	

Head Node

Platform	Supermicro 6028TR-HTFR 2UTwin2, 12HS(0,1*5,10), 4xIB FDR, IPM	1	
Processors	Intel Eight Core Xeon E5-2620v4 2.1GHz CPU with 20M Cache	8 CPU Cores Total in Head Node	1
RAM	8GB 2133MHz DDR4-2133 ECC REG DIMM	32Gb Ram in the Head Node	4
Hard Drive	Enterprise 2TB 6Gb/s Hard Drive, 7200RPM, 128M Cache	4TB Net Storage (RAID 5)	3
Network Card	Integrated Dual-port Gigabit Ethernet Controller		1
Network Card	Integrated 56Gbps FDR Infiniband Controller		1

3 Compute Nodes

Processors	Intel Eight Core Xeon E5-2620v4 2.1GHz CPU with 20M Cache	48 CPU Cores In Compute Nodes	6	
RAM	8GB 2133MHz DDR4-2133 ECC REG DIMM	64Gb Ram per Compute Node	24	
Hard Drive	Enterprise 1TB 6Gb/s Hard Drive, 7200RPM, 128M Cache	1 TB Storage per compute node	3	
Network Card	Integrated Dual-port Gigabit Ethernet Controller		3	
Network Card	Integrated 56Gbps FDR Infiniband Controller		3	

UPS

UPS	Smart App Online 2200VA / 1800W Pure Sine Wave UPS	1	
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Networking

Switches	Mellanox 12-PORT FDR InfiniBand Switch	1	
Switches	16 Port Gigabit Managed Web-Smart Ethernet Switch	1	
Cables	Infiniband FDR Cables	4	
Cables	CAT-6 Cables	8	

Remote Testing / Operating System Install / Management Software & Configuration

Remote Testing	Free remote Testing of customer code prior to final order / shipment	1	
Software	Customer is responsible for any Software licensing costs for commercial applications added to base system		

Extra Features Included

Recovery	Includes Cluster Recovery DVD Disk		
Master Node	Bare Metal Restore for Head Node - Restores Head Node(s) back to original state		
Complete Setup	Rocks Recovery DVD Disk will restore complete setup including OS, Applications and User Settings Graceful Shutdown if room Air Conditioning fails Assistance with application scripts IPMI Management Of All Nodes		

3-Year Cluster Parts & Labor Warranty

Cluster Warranty	3-Year Parts & Labor Warranty on Cluster	1	
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Applications

Applications	Various Applications can be loaded - (call for details)		
Options	Call for Simulation and Modeling applications support options - multiple packages are available		

Freight	To Be Determined. Not Included in Total Cost.		
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<http://www.nor-tech.com/solutions/hpc/personal-cluster/>