

Wits 1 Cluster Design

The cluster will consist of 1x headnode and 2x compute nodes connected by 10Gb ethernet directly.

HEADNODE	Part Number	Description	Price	Quantity	Total Price
Tower	210-ADLR-T430#M1C	PowerEdge T430 NO CPU, NO MEM, NO HDD H330 - 3Yr Pro NBD	R 15,153.00	1	R 15,153.00
Processor	338-BJFH	Intel Xeon E5-2630 v4 2.2GHz 25M Cache 8.0 GT/s QPI Turbo HT 10C/20T (85W) Max Mem 2133MHz	R 10,316.00	2	R 20,632.00
Heat Sink	412-AAFX	Heat Sink for PowerEdge T430	R 373.00	2	R 746.00
RAM	A7945704	8GB RDIMM DDR4 2133MT/s Dual Rank x8 Data Width	R 1,677.00	8	R 13,416.00
Storage	400-AFMX	120GB SSD SATA Boot MLC 6Gpbs 2.5in Hot-plug Drive 3.5in HYB CARR 13G CusKit	R 1,566.00	1	R 1,566.00
Networking	540-BBGS	Broadcom 57810 DP 10Gb DA/SFP+ Converged Network Adapter – Kit	R 4,471.00	1	R 4,471.00
Total (1 node)					R 55,984.00

COMPUTE NODE	Part Number	Description	Price	Quantity per Node	Total Price
Tower	210-ADLR-T430#M1C	PowerEdge T430 NO CPU, NO MEM, NO HDD H330 - 3Yr Pro NBD	R 15,153.00	1	R 15,153.00
Processor	338-BJFH	Intel Xeon E5-2630 v4 2.2GHz 25M Cache 8.0 GT/s QPI Turbo HT 10C/20T (85W) Max Mem 2133MHz	R 10,316.00	2	R 20,632.00
Heat Sink	412-AAFX	Heat Sink for PowerEdge T430	R 373.00	2	R 746.00
RAM	A7945704	8GB RDIMM DDR4 2133MT/s Dual Rank x8 Data Width	R 1,677.00	8	R 13,416.00
Storage	385-BBHX	16GB SD Card For IDSMD	R 627.00	1	R 627.00
SD Module	330-BBCN	Internal Dual SD Module	R 537.00	1	R 537.00
Networking	540-BBGS	Broadcom 57810 DP 10Gb DA/SFP+ Converged Network Adapter – Kit	R 4,471.00	1	R 4,471.00
Total per node					R 55,582.00
Total (2 nodes)					R 111,164.00

NETWORKING	Part Number	Description	Price	Quantity	Total Price
Cables	470-13572	Dell Networking Cable, SFP+ to SFP+, 10GbE, Copper Twinax Direct Attach Cable, 1 Meter - Kit	R 743.00	3	R 2,229.00
Total					R 2,229.00

SOFTWARE	Part Number	Description	Price	Quantity	Total Price
Operating System	n/a	Centos 7	R 0.00	n/a	R 0.00
Compiler	n/a	Intel® Parallel Studio XE (Student License)	R 0.00	n/a	R 0.00
Total					R 0.00

Nodes	R 167,148.00
Networking	R 2,229.00
Software	R 0.00
GRAND TOTAL	R 169,377.00