

# Hitachi Data Systems Inc Systems by category 4.0b

Last Updated: August 12, 2012

| SAN Category: 4.0b | High-end enterprise fibre channel storage solution  | Client's should note that the Default Storage Platform configuration shown is specified for the purposes of financial and technical evaluation. | Proposed product |                                   |     | Prices and rates |                |                   |                     |
|--------------------|---|---|------------------|-----------------------------------|-----|------------------|----------------|-------------------|---------------------|
| ITEM               | Description   | Notes   | Manufacturer     | Model #                           | Qty | Unit Price       | Extended price | Enhanced Warranty | Installation (item) |
| 1.0                | Proposed SAN Storage Platform Category 4.0 (Default System) composed of the following:  | Default system  | Hitachi          | VSP-4                             | 1   |                  |                | \$0.00            | \$0.00              |
| 1.1                | Rackmount cabinet or enclosure including side panels, door and all ancillary hardware, cable management and required cabling          |   | Hitachi          | VSP Rack                          | 1   | \$3,980.58       | \$3,980.58     | \$0.00            | \$0.00              |
| 1.2                | Storage Platform including all items specified in the requirement:  | Includes documentation, microcode kit, cables; included in Item 1.3   | Hitachi          | VSP                               | 1   |                  |                | \$0.00            | \$0.00              |
| 1.3                | Storage controller (s)  | 1 VSD Pair  | Hitachi          | VSP VSD Base Pair                 | 1   | \$25,000.00      | \$25,000.00    | \$0.00            | \$0.00              |
| 1.4                | Cache (256G)  | 32G Cache module  | Hitachi          | DKC-F710I-C32G.P                  | 8   | \$3,500.00       | \$28,000.00    | \$0.00            | \$0.00              |
| 1.5                | Cooling system  | Included with Item 1.1  | Hitachi          | VSP COOLING                       | 1   |                  |                | \$0.00            | \$0.00              |
| 1.6                | Sufficient storage (disk) shelving including additional cooling   | Choice of SFF or LFF  | Hitachi          | DKC-F710I-xBX.P                   | 5   | \$13,300.00      | \$66,500.00    | \$0.00            | \$3,750.00          |
| 1.7                | FC 4Gbps 300GB / 15kRPM hard disk drives  | SFF 300GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-300JCM.P                | 256 | \$780.00         | \$199,680.00   | \$32,512.00       |                     |
| 1.8                | Power system as specified in the requirement  | Included with Item 1.1  | Hitachi          | VSP PS                            | 1   |                  |                | \$0.00            | \$0.00              |
| 1.9                | Power Distribution Units (if required)  | PDU for VSP rack  | Hitachi          | VSP PDU                           | 4   | \$474.54         | \$1,898.16     | \$0.00            | \$0.00              |
| 1.10               | Management software, fully licensed for the default storage system capacity and for 512 hosts (assume 4 processors per host) .        |   | Hitachi          | VSP HCS 10TB                      | 8   | \$22,000.00      | \$176,000.00   | \$0.00            | \$0.00              |
| 1.11               | LUN Masking software, fully licensed for the default storage system capacity and for 512 hosts (assume 4 processors per host) .       | Included in Item 1.10   | Hitachi          | VSP HSD                           | 1   |                  |                | \$0.00            | \$0.00              |
| 1.12               | Installation (Storage Platform) - LOT installation price includes any Other necessary components listed below.                        |   | Hitachi          | VSP-4-Install                     | LOT |                  | \$8,000.00     | N/ A              | N/ A                |
|                    | Other necessary components:   | Additional items needed to meet the specified requirement   |                  |                                   |     |                  |                |                   |                     |
| 1.13 - A           | 16-port FED   | Front-End Director (FED)  | Hitachi          | VSP 16-port FED                   | 2   | \$13,181.11      | \$26,362.22    | \$0.00            | \$0.00              |
| 1.13 - B           | Cache Adapter   |   | Hitachi          | VSP Cache Adapter                 | 1   | \$25,500.00      | \$25,500.00    | \$0.00            | \$0.00              |
| 1.13 - C           | Disk Adapter  |   | Hitachi          | DKC-F710I-SCA.P                   | 2   | \$4,811.61       | \$9,623.22     | \$0.00            | \$0.00              |
| 1.13 - D           | 128G Flash Cache  |   | Hitachi          | DKC-F710I-BM128.P                 | 1   | \$17,000.00      | \$17,000.00    | \$0.00            | \$0.00              |
| 1.13 - E           | 64G Flash Cache   |   | Hitachi          | DKC-F710I-BM64.P                  | 2   | \$9,000.00       | \$18,000.00    | \$0.00            | \$0.00              |
| 1.13 - F           |   |   | Hitachi          | VSP HTNM                          | 1   | \$800.00         | \$800.00       | \$0.00            | \$0.00              |
| 1.13 - G           |   |   | Hitachi          | VSP HTSM                          | 1   | \$4,200.00       | \$4,200.00     | \$0.00            | \$0.00              |
| 1.13 - H           |   |   | Hitachi          | VSP HDT                           | 1   | \$2,900.00       | \$2,900.00     | \$0.00            | \$0.00              |
| 1.13 - I           |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.13 - J           |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.13 - K           |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.13 - L           |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
|                    | Other Evaluated Options   |   |                  | Evaluated Total: Storage Platform |     |                  | \$613,444.18   |                   |                     |
| 1.14               | FC Drives, 4Gbps:   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.14 - A           | 146G SAS  | SFF 146GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-146KCM.P                | 1   | \$456.00         | \$456.00       | \$127.00          | \$0.00              |
| 1.14 - B           | 146G SAS  | SFF 146GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-146KCM.P                | 1   | \$456.00         | \$456.00       | \$127.00          | \$0.00              |
| 1.14 - C           | 600G SAS  | SFF 600GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-600JCM.P                | 1   | \$925.00         | \$925.00       | \$127.00          | \$0.00              |
| 1.15               | FC Drives, 2Gbps:   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.15 - A           | 146G SAS  | SFF 146GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-146KCM.P                | 1   | \$456.00         | \$552.00       | \$127.00          | \$0.00              |
| 1.15 - B           | 300G SAS  | SFF 300GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-300JCM.P                | 1   | \$780.00         | \$800.00       | \$127.00          | \$0.00              |
| 1.15 - C           | 900G SAS  | SFF 900GB Disk Drive 2.5inch SAS 6Gbs   | Hitachi          | DKC-F710I-900JCM.P                | 1   | \$1,250.00       | \$925.00       | \$127.00          | \$0.00              |
| 1.16               | LCFC or SATA:   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 1.16 A             | 2TB SATA  | LFF 2TB Disk Drive 3.5 inch SATA  | Hitachi          | DKC-F710I-2R0H2M.P                | 1   | \$987.00         | \$987.00       | \$127.00          | \$0.00              |
| 1.17               | 3TB SATA  | LFF 3TB Disk Drive 3.5 inch SATA  | Hitachi          | DKC-F710I-3R0H2M.P                | 1   | \$1,457.00       | \$1,457.00     | \$127.00          | \$0.00              |
|                    | Evaluated Software  | Price for one year license and warranty below (unevaluated)   |                  |                                   |     |                  |                |                   |                     |
| 1.18               | Load balancing and failover software, fully licensed at the specified minimum capacity for 512 hosts (assume 4 processors per host) . | \$914.00  | Hitachi          | VSP V-M HDLM                      | 1   | \$700.00         | \$700.00       | \$200.00          | \$250.00            |
| 1.19               |   | \$2946.84   | Hitachi          | CFSW HSSM MAP                     | 11  | \$12,000.00      | \$132,000.00   | \$0.00            | \$3,500.00          |
| 1.20               | Replication software, fully licensed at the specified minimum capacity  | \$147,003.82  | Hitachi          | VSP S4 DR Base Bundle             | 1   | \$125,038.00     | \$125,038.00   | \$53,029.00       | \$5,500.00          |
| 1.21               | Snapshot software, fully licensed at the specified minimum capacity.  | \$135,879.33  | Hitachi          | VSP S4 ISR Base Bundle            | 1   | \$126,008.00     | \$126,008.00   | \$51,389.00       | \$3,500.00          |
| 1.22               | Load balancing and failover software, fully licensed at the specified minimum capacity for 512 hosts (assume 4 processors per host) . | \$914.00  | Hitachi          | VSP V-M HDLM                      | 1   | \$700.00         | \$700.00       | \$200.00          | \$250.00            |
| 1.23               | Additional capacity: Management software license, firm per-terabyte cost for 512 hosts (assume 4 processors per host) .               | \$3,980.00  | Hitachi          | HCS Module                        | 1   | \$4,200.00       | \$4,200.00     | \$2,738.00        | \$250.00            |
| 1.24               |   | Included in Controller (Item 1.3)   | Hitachi          | HDS-HSD                           | 1   |                  |                | \$0.00            | \$0.00              |
| 1.25               |   | \$2946.84   | Hitachi          | CFSW HSSM MAP                     | 1   | \$12,000.00      | \$12,000.00    | \$0.00            | \$3,500.00          |
| 1.26               | Additional capacity Remote replication software license, firm per-terabyte cost for 512 hosts (assume 4 processors per host) .        | \$4,578.03  | Hitachi          | VSP DR Bundle additional 1TB      | 1   | \$4,389.00       | \$4,389.00     | \$0.00            | \$500.00            |
| 1.27               | Additional capacity: Snapshot software license, firm per-terabyte cost for 512 hosts (assume 4 processors per host) .                 | \$3,078.23  | Hitachi          | VSP ISR additional 1TB            | 1   | \$2,300.00       | \$2,300.00     | \$0.00            | \$500.00            |
| <b>2.0</b>         | <b>SAN Fabric (Fibre Switches)</b>  |   |                  |                                   |     |                  |                |                   |                     |
| 2.1                | 4Gb 32 port fibre channel SAN switch including GBICS, as specified in the requirement   | Cisco Switch C9134 32 SFPs, webtools  | Cisco            | MDS 9134-32                       | 1   | \$8,000.00       | \$8,000.00     | \$3,750.00        | \$427.00            |
| 2.2                | 4Gb 64 port fibre channel SAN switch including GBICS, as specified in the requirement   | Cisco Switch C9134 64 SFPs, webtools  | Cisco            | MDS 9134-64                       | 1   | \$23,090.00      | \$23,090.00    | \$4,500.00        | \$427.00            |
| 2.3                | 4Gb 256 port fibre channel director class switch including GBICS, as specified in the requirement                                     | MDS9509Chassis+2Sprvrs+2Pwr Sup+SAN OS  | Cisco            | DS-C9509-2K9.P                    | 1   | \$27,785.00      | \$27,785.00    | \$4,200.00        | \$1,500.00          |
| 2.4                | 8Gb Single Port HBA   | Includes firmware, drivers, and cables where applicable   | Brocade          | HD-815-0010.P                     | 1   | \$1,100.00       | \$1,100.00     | \$0.00            | \$0.00              |
| 2.5                | 8Gb Dual Port HBA   | Includes firmware, drivers, and cables where applicable   | Brocade          | HD-825-0010.P                     | 1   | \$1,575.00       | \$1,575.00     | \$0.00            | \$0.00              |
| 2.6                | Installation (SAN Fabric) - LOT installation price includes any Other necessary components listed below.                              | Install   | Hitachi          | SAN-4-Install                     | LOT |                  | \$500.00       | N/ A              | N/ A                |
|                    | Other necessary components:   | Additional items needed to meet the specified requirement   |                  |                                   |     |                  |                |                   |                     |
| 2.7 - A            | MDS 9000 32-port 1/ 2/ 4/ Gbps FC Module, Spare   | 32 port Blade   | Cisco            | DS-X9032=.P                       | 8   | \$14,500.00      | \$116,000.00   | \$16,800.00       | \$0.00              |
| 2.7 - B            | 4Gbps Fibre Channel SW SFP, LC  | 4Gb SFP   | Cisco            | DS-SFP-FC4G-SW=.P                 | 256 | \$84.00          | \$21,504.00    | \$0.00            | \$0.00              |
| 2.7 - C            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - D            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - E            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - F            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - G            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - H            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - I            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
| 2.7 - J            |   |   |                  |                                   |     |                  |                | \$0.00            | \$0.00              |
|                    |   |   |                  | Evaluated Total: SAN Fabric       |     |                  | \$196,879.00   |                   |                     |
|                    | Other Related Options - Section 5 (max 10)  | Additional options may be proposed. All options proposed here must relate directly to SAN Fabric. Unevaluated.                                  |                  |                                   |     |                  |                |                   |                     |
| 2.8 - A            | MDS 9000 12-port 1/ 2/ 4/ Gbps FC Module, Spare   | 12 port Blade   | Cisco            | DS-X9112=.P                       | 2   | \$9,034.00       | \$18,068.00    | \$1,200.00        | \$0.00              |
| 2.8 - B            | MDS 9000 24-port 1/ 2/ 4/ Gbps FC Module, Spare   | 24 port Blade   | Cisco            | DS-X9124=.P                       | 2   | \$13,264.50      | \$26,529.00    | \$1,200.00        | \$0.00              |
| 2.8 - C            | Data Mobility module  | MDS9500 DDM License for one 18/ 4   | Cisco            | L-M95DDMM184K9=.P                 | 1   | \$34,999.47      | \$34,999.47    | \$0.00            | \$6,750.00          |
| 2.8 - D            | 18-port FC and 4-port GigE module   |   | Cisco            | DS-X9304-18K9=.P                  | 1   | \$21,639.46      | \$21,639.46    | \$3,124.92        | \$1,250.00          |
| 2.8 - E            | 24-port 8Gb module  |   | Cisco            | DS-X9224-96K9=.P                  | 1   | \$22,675.64      | \$22,675.64    | \$3,258.45        | \$1,250.00          |
| 2.8 - F            | 48-port 8Gb module  |   | Cisco            | DS-X9248-96K9=.P                  | 1   | \$33,445.19      | \$33,445.19    | \$5,395.14        | \$1,250.00          |
| 2.8 - G            | 4-44port host opt 8Gb FC module   |   | Cisco            | DS-X9248-48K9=.P                  | 1   | \$22,675.64      | \$22,675.64    | \$2,136.69        | \$1,250.00          |
| 2.8 - H            | 8Gb SW FC SFP   |   | Cisco            | DS-SFP-FC8G-SW=.P                 | 1   | \$213.26         | \$213.26       | \$0.00            | \$0.00              |
| 2.8 - I            | 1Gbps Ethernet - 2Gbps FC SW SFP  |   | Cisco            | DS-SFP-FCGE-SW=.P                 | 1   | \$476.69         | \$476.69       | \$0.00            | \$0.00              |
| 2.8 - J            | Storage Media Encryption package  | for one MSM 18/ 4-port module   | Cisco            | M9500SME1MK9=.P                   | 1   | \$9,659.36       | \$9,659.36     | \$0.00            | \$3,350.00          |
| <b>3.0</b>         | <b>NAS Gateway (Networked attached storage)</b>   |   |                  |                                   |     |                  |                |                   |                     |

