SCHEDULE OF TENDER

FOR

PLM APPLICATION SOFTWARE

AND

RELATED HARDWARE, STORAGE & BACKUP SOLUTIONS

Central Manufacturing Technology Institute
Tumkur Road, Bangalore – 560 022. INDIA

Central Manufacturing Technology Institute
Tumkur Road, Bangalore 560 022
Schedule of Tender

(To be filled in by the tenderer and returned and duly signed along with enclosure to the Schedule of Tender)

1. Name of Purchaser	Central Manufacturing Technology Institute Tumkur Road, Bangalore 560 022
2. Place of delivery	Central Manufacturing Technology Institute Tumkur Road, Bangalore 560 022
3. Delivery & Commissioning of the system	Within 4 months after placing the purchase order
4. Date of receipt of the Tender	On or before 07- Feb - 2009
5. Earnest Money Deposit	Rs.25,000/- as EMD is payable by Demand Draft drawn in favor of Central Manufacturing Technology Institute, payable at Bangalore.
6. Validity of the tender	Tender should be valid for a period of not less than 3 months from the date of offer and unless otherwise specified by the tenderer, the tender shall be treated as valid even thereafter.
7. Technical details/ Requirements for which the tender is invited.	a. As per specification enclosed. b. All details that are required in the specification must be included in the offer. Incomplete tenders are liable to be rejected. c. Wherever numerical values are specified, tenderer shall respond with numerical values that actually correspond to his product. Any additional features/ details pertaining to the product should be enclosed separately.

8. Price offered	a. The quotation should be furnished in Two parts in different sealed covers in the following manner. b. The first part should contain complete technical details of the item offered along with name and address of the supplier, full name and address of the authorised agent, guaranteed delivery period and 2 sets of the latest catalogues/ brochures. This part should not contain the price details. The EMD as indicated should also be enclosed along with the technical details. The cover should be sealed and superscribed with " Tender Enquiry Reference and Date" and "**Technical Bid for PLM Application Software / Hardware**" c.The second part should contain the Price and other commercial terms. The price should be quoted F-O-R, Bangalore. The cover should be sealed and superscribed with "Tender Enquiry Reference and Date" and "**Price and Commercial Bid for PLM Application Software / Hardware**" d. Both these covers should be put together in an outer cover sealed and superscribed with "Tender Enquiry Reference and Date" and "**PLM Application Software / Hardware**" **d. Break up cost for each individual item to be clearly indicated**
9. Payment Terms	To be indicated
10. Transit Insurance	To be arranged by the supplier from supplier's warehouse to the place of delivery and to be billed at actuals.
11. Notes	a. Late offers will not be entertained or accepted. b. The Director of the Institute reserves the right to reject any tender / all tenders without assigning any reason. c. In case of unsuccessful tender, the EMD will be refunded only after finalisation of contract. d. In case of the tenderer whose offer is accepted, the EMD will be refunded only after receipt, inspection and acceptance of the equipment at CMTI, treating it as a security deposit.

	e. If the supplier fails to fulfill the terms of purchase order or when the purchaser is satisfied that it is not in the interest of the purchaser to persist with the defaulting supplier, the EMD stands forfeited. Further the purchaser is at liberty to place the order on another supplier at the risk and cost of original supplier.
12 General Terms and Conditions	• **All application software components of the total system, including upgrades shall be supplied through a single vendor / window agency** who will be responsible for supply, installation, maintenance, enhancement and support. • Latest software release version to be given at the time of installation. • Vendor is required to quote for at least one Section in full and can quote for more than one Section - A,B,C,D & E. Partial quote in a section is not acceptable. • The application software have to be installed on the server and workstation network system at CMTI, the details of which are given in Section-E of the Specifications. The software shall also be compatible with the storage & backup system as mentioned in the above Section • All modules supplied shall be network version, scalable and integrable into the Total PLM System • All software should be floating perpetual license. • All modules of the Application Bundle necessary for the implementation and operation of the Total system shall be quoted. Breakup cost for each and every component of the system shall be furnished with detailed specifications and catalogues • Comprehensive and full fledged Corporate training and support to be provided for ➢ All application bundles ➢ Hardware & System Software operations Post installation support and handholding to be provided by Experts in the respective stream • Maintenance, Enhancement, automatic up-gradation, and Support for 1 year for all software • User manual & all necessary training material to be provided. • Original Software to be supplied on CD-ROM / DVD-ROM media.

TECHNICAL SPECIFICATIONS

1. **SECTION – A**
   SIEMENS / UNIGRAPHICS FAMILY OF SOFTWARE

2. **SECTION – B**
   AUTODESK FAMILY OF SOFTWARE

3. **SECTION – C**
   HYPERMESH SOFTWARE

4. **SECTION – D**
   HYPERMILL CAM SOFTWARE

5. **SECTION – E**
   RELATED HARDWARE, STORAGE &
   BACKUP SOLUTION

1.0 SECTION - A

SIEMENS / UNIGRAPHICS FAMILY OF SOFTWARE

Sl. No.	Description of the requirements	Qty.
1.0	**SIEMENS/UNIGRAPHICS FAMILY OF SOFTWARE**	
1.1	**Enhancement to the latest version (NX6 or later) Maintenance and support for 1 year of the following legacy software at CMTI**	
1.1.1	UG NX4 Advanced Designer Bundle	2
1.1.2	UG NX Advanced Manufacturing Bundle	2
1.1.3	UG NX3 Advanced Manufacturing Bundle	2
1.2	**Fresh licenses of the latest version (NX6 or later) Maintenance and support for 1 year of the following software**	
1.2.1	NX 6 Advanced Designer Bundle	5
1.2.2	NX6 compatible Advanced Assemblies	2
1.2.3	NX6 compatible modules on Electro –mechanical Routing, Weld design, Sheet metal design, Geometric Tolerancing, Product & Manufacturing Information, Tolerance Stackup Validation, Motion simulation.	1 each
1.2.4	NX6 Advanced Manufacturing bundle	2
1.2.5	NX6 compatible Open Toolkit Author with execute	1
1.2.6	NX6 compatible Open Grip Author & Runtime	1
1.2.7	NX6 compatible Vericut Simulation Software	1

Salient specifications of software modules listed under (1.1.1 & 1.2.1)

NX Advanced Designer Bundle (NX6 or later version)

1. Software should be seamlessly integrated with CAD/CAM/CAE
2. It should be compatible with integrated PLM solutions.
3. Compatibility with older version of UG

It should also include the following functionalities:

- Gateway
- Integrated spreadsheet
- Shading
- Integrated, context-sensitive help
- User tools customization tool
- Plot generation and queuing
- CGM export (Web images, documentation)
- Unigraphics hybrid modeling
- Parametric solid modeling
- Associative sketcher
- Use of user-defined feature libraries
- Explicit solid modeling
- Drafting
- Bi-directional associability with solid model
- Automatic view layout and annotation
- Associative sectional views
- International drafting standards
- IGES, DXF & STEP translation
- Free form modeling i.e., ability to model advanced free form shape
- Assembly modeling
- User defined features
- Rapid prototyping interface

Salient Specs for the above software modules (1.1.2 & 1.1.3 &1.2.4) :

NX Advanced Manufacturing Bundle CAM software (NX6 or later)

- ✓ Software should be seamlessly integrated with CAD/CAM/CAE.
- ✓ Software should be capable to handle various machining types like milling, turning, drilling, wire cut, hole milling,5 axis ,mill turn, multifunction machining ,machine simulation (G and M codes) etc in Single environment (UI).
- ✓ Software should be capable to handle High speed machining, plunge milling, trochoidal etc.
- ✓ Software should show the color plot of material left and same should be verified with both 2D and 3D so that part can be rotated/pan/zoom while doing the verification and know the material left out by dynamically picking while verifying and save the same for the advance analysis like sectioning etc.
- ✓ Tolerance and Facet machining has to available for the STL files.
- ✓ Ability to create the turning tools as per the standard available and program using step by step Teach mode.
- ✓ Program which consists of G Codes and M Codes has to be verified/checked along with different machine tools and different kinematics and ability to modify the kinematics seamlessly.
- ✓ Software should support NURBS output and advance 5 axis capabilities with provision to control the tool axis based on point, curve, surface, line etc.
- ✓ Capability to build & edit the post processor with simple UI has to be available for all standard controllers up to 5 axis.
- ✓ Software should be intelligent enough to recognize the standard feature like pockets holes either manually or automatically on non-parametric parts and do the machining as per industry best practice and ability to edit the knowledge/process as per the user requirement with simple UI.
- ✓ Provision should be provided for the On Machine Probing for any probe and check for the dimensions and deviations.
- ✓ Provision has to be provided to synchronize based on different channel for the mill turn / Multitasking machine and show the utilization chart of the different channel.
- ✓ Should be able to simulate the Manual written codes in the main program, subprogram, cycles along with machine and show the gouge if any.
- ✓ Template or wizard creation for the similar type of part and reuse the knowledge of tool parameters, federate, step over etc.

- ✓ Software should be able to copy & paste NC programs between part files. This facility should carry information such as tools & machining parameters along with it.
- ✓ Software should have Machining data library for automatic parameter assigned to NC programs. This should be based on Tool diameter, Tool length, Part materials, Cutting Tool material & method (roughing, finishing etc.)
- ✓ Software should have guided (controlled by cross & flow curves) tool path creation option both is 3Axes & 5Axes.
- ✓ Software should be able to create Machine kinematics for simulation comprising of solid models & kinematics definitions and editable as and when required.
- ✓ Software should have advance capabilities to create & edit rules driven automatic programming by defining the input & output shape of the feature.
- ✓ The simulation engine should be controller specific driven.
- ✓ All options to create NC codes in an operation should have graphically represented for programmers to understand what the software requires.
- ✓ Software should have PMI (product & manufacturing information) driven machining capabilities.

Salient specifications of the software module listed under (1.2.2)

NX6 compatible Advanced assemblies

- ✓ It should extend the toolset for building, editing, and evaluating assembly models. It should be useful for users working with large assemblies. It should also improve the productivity of users who work regularly in an assembly context.
- ✓ It should have Component filtering techniques to allow the user to quickly identify and load the components of relevance to their current task, avoiding unnecessary delays and screen clutter caused by loading irrelevant components.
- ✓ The module should also provide extra flexibility in the use of faceted representations to further improve the performance and memory efficiency of loading large assemblies. It should have Assembly enveloping techniques to enable the user to represent major subassemblies as simplified abstractions to further reduce assembly load times and avoid the display of unwanted or proprietary interior detail.
- ✓ It should have sophisticated clearance analysis and weight management tools for the analysis of very large assemblies, enabling users to keep a close eye on potential problems with fit, clearance and mass properties.

Salient specifications of the software modules listed under (1.2.3)

(i) NX Electro –mechanical Routing

- ✓ Software should provide tools for routing of tubes, pipes, conduits, raceways, electrical wiring in a product assembly.
- ✓ Should provide standard user interface for defining paths within an assembly, selecting standard parts, and placing standard parts along the paths.
- ✓ Should have user interface for running design rules and responding to design rule violations.
- ✓ Should provide customization tools for defining the types of stock (e.g. pipe, tube) to be routed along the paths and information to be associated with the stock such as material, pressure rating.
- ✓ Should have provision to add user created standard parts to the part library.
- ✓ Should have customized routing-mechanical by defining design rules.
- ✓ Software should capable to import a list of wiring descriptions for connections between electrical devices.
- ✓ Should be able to find path automatically, which has routed between the devices and assigns the wire descriptions to the path segments.
- ✓ Actual wire lengths and diameters should be automatically added to the connection list for feedback to upstream ECAD packages or downstream to manufacturing applications.
- ✓ Should be able identify minimum bend radius violations and produces design and manufacturing documentations such as form board drawings.

(ii) NX Weld design

- ✓ Should provide information on the welds and connections to help to perform finite element analysis of the assembled product.
- ✓ Should be able create automatically appropriate 2D drafting documentation and annotation based upon the 3D weld feature.
- ✓ It should have following features: 3D sketch, structural members, profile pierce point, trim extend, complex joints, gussets, end caps, fillet beads, custom profiles, sub-weldments, feature scope, cut lists, custom properties, ballooning and weld symbols.

Software should be capable to do:

- o Patterning Weldment Bodies
- o Inserting and Modifying objects,
- o Integration of Advanced Weldment and Sub-Weldments
- o Inserting Weld Symbols and Weld Bead Annotations
- o Creating Weld beds and carryout Machining operations after weld
- o Pre-weld surface treatments
- o Creating Automated BOM

(iii) NX Sheet metal design

- ✓ It should be able to Convert Form Features to Sheet Metal Features
- ✓ It should capable to create Sheet metal part modeling, bending, folding, drafting and automatic folding/unfolding
- ✓ It should have the details of:
  - o Sheet metal features catalog
  - o Automatic stress relief
  - o Product Manufacturing Information (PMI)
  - o Material bend table (i.e., bend allowances)
  - o Forming/Flattening

(iv) NX Geometric Tolerancing

- ✓ It should be able to apply 3D annotations such as dimensions, tolerances, geometric tolerances and other annotations to part design.
- ✓ It should have Key topics include: front view, section view, section cut, annotation plane, text, flag notes, attribute links, roughness symbol, cumulated dimension, stacked dimension, curvilinear dimension, threads, capture creation, capture management, connect, 3D grid, note object, limitations, and visualization tools.
- ✓ It should have:
  - o Annotation Planes
  - o Tolerancing Advisor
  - o Drafting and 3D Annotations
  - o Semantic vs. Non-Semantic
  - o GD&T Datum Features
  - o GD&T Assembly and Drafting
  - o Converting Non-Associated Tolerances
  - o Tolerance Features Project
  - o Master Model Tolerancing
  - o Tolerance Features - Adding to Drawings

(v) NX Product & Manufacturing Information (PMI)

- ✓ It should be able to digitally author 3D annotation and product data in a solid part or assembly.
- ✓ It should have 3D dimensions, 3D GD&T data such as datum and feature control frames, 3D notes and customizable non-geometric information that can be directly associated to an NX model.

(vi) NX Tolerance Stackup Validation

- ✓ It should have simplified 3D stack-up analysis application, yielding the minimum and maximum variation of a specified measurement and the major contributors to the measurement variation.

- ✓ It should provide tools to support successful, first time assembly, to reducing or eliminating engineering change orders and scrap parts.
- ✓ It should provide users with first level of design confidence by identifying tolerance contributors in the design process to allowing for better design assembly without the need for statistical knowledge and tolerance analysis expertise.

(vii) NX Motion simulation

- ✓ It should be an integrated, associative, intuitive motion simulation pre/post and solver for NX parts and assemblies.
- ✓ It should be able to model contact between bodies and include in the simulation
- ✓ It should have the motion objects such as joints, springs, dampers, motion drivers, forces, torques and bushings.
- ✓ Available result should include interference checking, graphs, animations, movie output, spreadsheet driven articulation.

Salient Specs for the software modules for NX open (1.2.5 & 1.2.6) are briefed below:

- ✓ Capable of creating User defined macros.
- ✓ Executing macros with graphic interface also for GRIP / NC.
- ✓ Compatibility with the latest version or older version of UG.
- ✓ Should be able to create and use the open API/GRIP function for the specific application including Post processor environment

Salient Specs for the VERICUT software (1.2.7):

- ✓ Tool Path Verification and Simulation.
- ✓ Auto verification of Gouging.
- ✓ Differentiation of left over material at corners while tool negotiation.
- ✓ Machine simulation with library of elements.
- ✓ Multi-axis support for simulation.
- ✓ UGV interface.

2.0 SECTION – B

AUTODESK FAMILY OF SOFTWARE

Salient specifications of the software listed under (2.1):

2.1 Autodesk Inventor 2008 (upgrade from MDT2)

Software should contains following Drafting techniques

- Shaded drawing views
- User defined detail envelops
- Quicksheet templates
- Automatic drawing view creation
- Control VHL tolerance
- 3D angular dimensions
- Co ordinate dimensions to intersection
- Improved tangent dimensions
- User defined hatch style
- Inactive show/hide

Software should be capable to do:

- Modeling and Simulation
- Part design and design Accelerators
- Assembly design
- Drawing manager
- Sheet metal design
- Frame generator
- 3D navigation
- Dynamic edit of assembly sketches
- Distributed sketches (copy sketch)
- Import/Export Auto CAD dimensions as dimensions
- Dynamic simulation
- Interoperability
- Publishing
- Tube and pipe routing
- Library management
- User defined parts
- Entire assembly path finder while in place activated
- Support for user templates
- Re-order component with relationships
- Additional 2D & 3D file types
    - Mark-up documents (.pcf)
    - Parasolid documents
    - JT documents (.jt)
    - XML documents (.plmxml)
    - Micro station documents (.dgn)
    - Auto CAD documents (.dwg, .dxf)
    - CGM metafile documents (.cgm)
    - STL documents (.stl)
- Interactive physical analysis of assembly mechanism
- Assembly features/Assembly driven part features

3.0 SECTION – C

HYPERMESH SOFTWARE

Salient specifications of application software listed under (3.1):

3.1 Hypermesh - Meshing and Analysis software

- ✓ Application software is to be a complete FEA package of pre-processor, solver & post-processor.
- ✓ It should also offer capability for modeling, motion simulation & motion analysis of mechanical systems
- ✓ It should have following features
  1. Hypermesh (for mesh generation)
  2. RADIOSS (solver)
  3. Hyperview & HyperGraph (visualization, simulation, graphics & animation, XY & 3D plotting, data analysis, auto capture & presentation of post-processing results)
  4. Motion solve & Motion view (visualization, simulation & analysis of multi-body dynamics)

4.0 SECTION – D

HYPERMILL CAM SOFTWARE

Salient specifications of application software listed under (4.1)
HyperCAD / Hypermill – 5 axis CAD/CAM system

- ✓ Custom built post processor for KERN 5-axis machine.
- ✓ CAM system for manufacturing of complex parts like impellers, turbine blades, inducers, dies & moulds.
- ✓ High speed cutting functions.
- ✓ Feature – oriented solutions up to 5-axis machining.
- ✓ Wire frame and surface modeling & sketching capabilities.
- ✓ Translators IGES, STEP, VDA, DXF, STL, SAT
- ✓ CNC milling for simultaneous 5 - axis machining
- ✓ Solids based tool path verification and machine simulation.
- ✓ Library of 3-axis post processors.
- ✓ Multi blade machining module.
- ✓ Analytic functions like surface normal and entity information.
- ✓ Software for 5 axis machining of tool & die parts.
- ✓ Capability to handle mill-turn applications.
- ✓ Capability for 5 axis machine and control system combinations like HEAD-HEAD, TABLE – HEAD, TABLE – TABLE.
- ✓ Post processing capability for the above configurations.
- ✓ Capability to generate out put for tool vectors / probe vectors for 5 axis applications.
- ✓ Exclusive post processors for 5 axis machines like KERN, SUND STRAND, BOSTOMATIC, and BRETON.

5.0 SECTION – E

RELATED HARDWARE, STORAGE & BACKUP SOLUTION

5.0 RELATED HARDWARE, STORAGE & BACKUP SOLUTION

5.1 HP high end Graphics Workstation: Quantity-16 Nos.

CMTI Specifications	
Operating System	**Microsoft Vista 64B Downgrade to XP64B OS. To be supplied in CD-Media**
Model	**HP xw4600 Workstation with Localisation kit**
Processor	**Intel Core 2 Quad Q9300 2.50Ghz 6M CPU**
Cache	**Pl. Specify**
System Bus	**Pl. give details**
Chipset	**Pl. give details**
Chassis	**Pl. give details**
Graphic subsystem	**NVIDIA Quadro FX 1700 512MB PCIe Graphics Card OR Equivalent certified Graphics Card**
Memory type	**HP 2GB DDR2-800 ECC RAM**
Memory slots	**Pl. give details**
Maximum Memory	**Pl. give details**
Hard Disk Drive	**1) HP 250GB SATA 3gb/s NCQ 7200 1st HDD 2) HP 250GB SATA 3gb/s NCQ 7200 2nd HDD**
Optical Drives	**HP DVD 16x +RW Super multi SATA**
Network Interface	**Gigabit PCIe LAN**
Internal Audio	**Integrated Audio**
I/O Port	**USB: 2 Front, 2 Back (Pl. specify No. of USB Ports) 1 Serial, 1 Parallel, 2 PS2 for KBD & Mouse, 1 RJ45 for Integrated LAN, Audio in & out and Microphone**
Keyboard	**HP Standard Keyboard**
Pointing Device	**3 Button Optical Mouse with HP Workstation Mouse Pad**
Expansion slots	**Pl. give details**
Power Requirement	**Pl. give details**
Dimension & Weight	**Pl. give details**
Display	**HP 20" LCD Monitor 1) With a resolution of 1600x1200 2) Higher Resolution monitor may also be quoted as an Option (Pl. mention the model number)**
Chassis	**HP xw4600 energy efficient chassis**
Warranty	**Unconditional warranty for 3 years**

Note:

1) **Additionally Vendors can give separate offer for other equivalent models also.**
2) **Vendor should mention compliance/ No compliance for each of the above items/category and also maintain the same format as mentioned in the specification above while offering quotation.**

5.2 HP SERVERS

Blade Servers, C3000 Enclosure and Licenses Specifications

C3000 Enclosure

Part #	Description	Qty	Remarks
437502-B21	HP BladeSystem Single-Phase c3000 (Rack Enclosure). Includes 2 Power Supplies, 4 Fans, a DVD drive, rail kit, and 8 Insight Control Environment 30 Day Trial Licenses	1	C300 Enclosure
437572-B21	HP 1200W AC Power Supply (Includes a C13 to C14 PDU power cord). For a full enclosure, order 2 additional power supplies (4 total) in a Power Supply Redundant (N+1) configuration; order 4 additional power supplies (6 total) in an AC Redundant (N+N) configuration. (for C3000)	4	4 additional Power Supplies
412140-B21	HP Active Cool Fan Option Kit for C3000 & C7000	2	Adiitional 2 extra Fans
403619-B21	QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem for BL460c/BL480c	3	Fibre Cards
436747-B22	HP Insight Control Environment for BladeSystem, No Media, 8-Server Licenses including 1 year of 24x7 Technical Support and Updates	1	Rapid Deployment and Blade Enclosure Licence

Options in Lieu of Virtual connect

403626-B21	**16 port FC Pass-thru Module for c-Class BladeSystem**	1	VC Module
410917-B21	**GbE2c Ethernet Blade Switch for HP c-Class BladeSystem**	1	VC Module

5.2.1 Application & Database Servers

Part #	Description	Qty	Remarks
459485-B21	Proliant BL460c / (1) Quad-core Intel Xeon Processor E5430 (2.66 GHz, 1333 FSB)/ 2x6 MB Level 2 cache / 2 GB (2 x 1 GB) PC2-5300, FBD DDR2-667 / (2) integrated single port NC373i Multifunction Gigabit NICs plus (1) additional 10/100 NIC dedicated to iLO 2	**2**	BL460c Server
459491-B21	Quad-core Intel Xeon Processor E5430 (2.66 GHz, 80 Watts, 1333 FSB) for BL 460c	2	additional processor
397411-B21	2 GB FBD PC2-5300 2X1GB Kit	2	2 GB additional memory
397413-B21	4 GB FBD PC2-5300 2X2GB Kit	2	4GB additional memory
431958-B21	HP 146GB 3G SAS 10K SFF SP HDD	4	2x146GB drive per server

5.2.2 License & Firewall Server

	Description	Qty	Remarks
464944-B21	HP ProLiant BL260C G5 / **Dual Processor Capable Model** / (1) **Quad-core** Intel® Xeon® Processor E5430 (2.66 GHz,1333 FSB, 80W) / 2 x 6 MB Level 2 cache / 2 GB (2 x 1 GB) PC2-5300 Registered DDR2-667 / One (1) embedded dual-port NC326i Gigabit Server Adapter network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management / Software SATA RAID	**2**	BL260C Server
408851-B21	2 GB PC2-5300 DDR2 (2 x 1GB) Kit for BL 260CG5	2	2GB additional memory
459357-B21	HP 120GB 1.5G SATA 5.4K NHP SFF ETY HDD for BL260C G5	4	2 Hard drives per server

Warranty

PART NO.	Warranty Uplift support	Qty	Remarks
UH309E	HP 3y Nbd c3000 Enclosure HW Support (covers 3 yr NBD support for Ethernet/FC Interconnects, Ethernet switch)	2	3 Years Support for Enclosure
UF532E	HP 3y 24x7 IC Env-BL 8-Svr SW Support	1	3 years for IC software
UK066E	HP 3y 4h 24x7 BL4xxc Svr Bld HW Support	3	24x7 Support for BL460 server
UK043E	HP 3y 24x7 BL2xxc Svr Bld HW Support	2	24x7 Support for BL260 server
UH311E	HP 3y 4h 24x7 c3000 Enclosure HW Supp	1	24x7 Support for the c3000 enclosure
U5368LU	HP BladeSystem Enhanced Network Installation and Startup Service	2	Network install and configuration support

5.3 HP Storage Solution Specification :

CONFIGURATION FOR DATA STORAGE

EVA 4400 SAN Storage Box.

Model	Description	Remarks	Qty
AG637A	HP EVA4400 Dual Controller Array	Storage device with controllers	1
221692-B21	Storage Works LC/LC 2m Cable	Fibre Cables to connect to Storage	4
AG638A	HP M6412 Fibre Channel Drive Enclosure	Storage Enclosure to house the HDDs	1
AG690A	HP 300GB 15K FC EVA M6412 Enc HDD	FCAL Harddrives	8
HA114A1 58D	HP Installation EVA 4400 SVC	Installation component	1
T5495A	HP Command View EVA 4400 1TB LTU	Command View per TB licence	3
HA110A3	HP 3y Support Plus 24 SVC	24 x 7 Support pack component	1
HA110A3 7W1	EVA4400 DualCtrl Encl Support	Support for Dual controllers	1
HA110A3 7W2	EVA4400 FC Drive Enc Support	Support for the Storage enclosure	1
HA110A3 7W3	EVA4400 146/300/400GB Support	Support for Harddrive	8
HA110A3 9AW	CV EVA4400 1TB LTU Support	Support for CV licence	3
T5505A	HP Smartstart EVA Storage Media Kit	Smartstart Media Kit	1
HA124A1	HP Technical Installation Startup SVC	General Install pack	1
HA124A1 5AS	HP Startup Command View EVA (CV EVA) Svc	Command View startup installation	1
A8000A	HP StorageWorks 4/8 SAN Switch	Two SAN Switches	2
A8000A ABB	Verify PriceEurope - English localization		2
HA110A3	HP 3y Support Plus 24 SVC	General 24 x 7 Support component	1
HA110A3 8FJ	HP FC Switch,Low End Support	Support for SAN Switch	2
HA113A1	HP Installation Service		1
HA113A1 5GA	LowEnd SAN/Edge Switch/HAFM Installation	Low end overall support for SAN and Switches	2
221692-B22	5m SW LC/LC FC Cable ALL	Fibre Cables to connect to Storage, SAN Switch and the servers. Total 8 cables per Switch	16
A7446B	HP 4GB SW Single Pack SFP Transceiver	Fibre Transceivers 8 nos per switch	16
HA124A1	HP Technical Installation Startup SVC	Installation support for the Switch with Transceiver	1
HA124A1 5B9	SAN Level 1 Tier 1 Implementation	Tier 1 SAN implementation component	1

5.4 HP BACKUP Solution Specification :

Configuration for BACKUP (OFFLINE) Storage

Storage server & MSL 2024 Library

Model	Description	Remarks	Qty
AG815A	HP DL380 G5 Base Storage Server	DL380 G5 for Backup server	1
HA114A1	HP Installation and Startup Service	Installation support for the DL380	1
HA114A1 5AM	HP Startup ProLiant Storage Server SVC		1
A8003A	HP FC2242SR PCI-e DC HBA	One Fibre Card for Backup Server connect to SAN switch	1
HA110A3 84N	HP DL380 G4 Base/SAN SS Support	Support required for Backup Server in coherence with SAN Storage	1
AJ034A	HP MSL2024 1 LTO-4 Ultrium1840 FC TP Lib	Backup Tape library support	1
HA110A3	HP 3y Support Plus 24 SVC	24 x7 Support for the Tape library	1
HA114A1	HP Installation and Startup Service	Install support for Tape library	1
HA110A3 80N	MSL2024 Library Support		1
221692-B22	5m SW LC/LC FC Cable ALL	Fibre cable to connect SAN Switch	1
HA114A1 5DS	HP Startup for 1 MSL5U Lib SVC	General Library Support	1
C7974A	HP LTO4 Ultrium 1.6TB RW Data Tape	LTO4 Ultrium cartridges	6
B6953AA	HP Data Prot One Drv UNIX/NAS/SAN LTU	Data Protector Backup Software Single Drive Licence	1
B6961AA	HP Data Prot Start Pk Windows DVD & LTU	Backup Software Windows Support	1
B6965BA	HP Data Prot On-line Backup Windows LTU	On-line Backup facility licence agent	1
HA107A3	HP 3y 24x7 SW Support	24x7 and other 3 years support for Backup Software	1
HA107A3 7RH	HP Software 7RH Supp		1
HA107A3 7RV	HP Software 7RV Supp		1
HA107A3 7TU	HP Software 7TU Supp		1
HA115A1	HP Implementation Service	Backup Software Implementation Services with Tier 1 level	1
HA115A1 5E1	B&R DP Lvl 2 Tier 1 Implementation		1
HP Rack			
AF002A	HP Universal Rack 10642 G2 Shock Rack	42 U Rack	1
AF002A 001	Verify PriceFactory Express Base Racking		1
252663-B31	HP 32A High Voltage Modular PDU	PDU	2
252663-B31 0D2	Factory horizontal mount of PDU		2
AF062A	HP 10K G2 600W Stabilizer Kit	Stabilizer kit	1
AF062A B01	Include with complete system		1
AF054A	HP 10642 G2 Sidepanel Kit	Sidepanel kit	1
AF054A 0D1	Factory integrated		1
HA113A1 5BY	Rack and Rack Options Installation		1

5.5 SERVER / WORKSTATION SOFTWARE LICENSES:

Specifications

Sl. No.	Descriptions	Quantity
1	Windows server 08, Enterprise Edition	5nos of License
2	Windows server Client access license for Workstation users (CAL)	16 users x 4 server = 64 CALS
3	Client access license for Windows Storage server	16 users x 1 storage server = 16 CALS
4	Antivirus license (Pl. give Full details)	6 License for server & 16 license for workstation users