Bid for the Selection of Agency for Supply, Installation, Commissioning, Warranty Support and Operation & Management of IT Infrastructure for GSFC University, Vadodara (Tender No. HWT061119592)

(05.12.2019)

#	Page No./ Sr. No.	Parameter	Description	Change Required	Final Clarification
1.	25 of 46/ 3 (Server)	CPU	1* Intel® Xeon S- 4110 Processor 2.1 GHz, 8 Core CPU or higher/Latest	1* Intel® Xeon S- 4110 Processor 2.1 GHz, 8 Core CPU or AMD EPYC 7251 2.1GHz 8 Cores higher/Latest **Remarks / Justification**: AMD EPYC can provide the equal specifications to Intel with SPEC ratings better than Intel. AMD can provide equal or better performance of Intel.	Please see the Corrigendum
2.	25 of 46/3 (Server)	Memory	64 GB DDR4 Registered (RDIMM) memory upgradeable up to 128 GB or more	64 GB DDR4 Registered (RDIMM) memory in balanced configuration with all channels populated; upgradeable up to 128 GB or more. **Remarks / Justification**: Balanced configuration is optimum from the perspective of performance. CPUs tend to perform maximum when all the channels are equally populated which gives maximum bandwidth.	As per RFP
3.	32 of 46/ 21 (Desktop for monitoring and management)	CPU	Intel® Core™ i5 Processor (6M Cache, 2.8 GHz) or higher	Intel® Core™ i5 Processor (6M Cache, 2.8 GHz) or AMD Ryzen or higher **Remarks / Justification**: AMD has CPUs with equal and better performance to offer.	Please see the Corrigendum
4.	8	LAN between Hyper-Converged and Core switch	The core switch must be redundant L3 in established network.	As per the description in tender & BoM, it is asked for single L3 switch, wherein for redundancy, it requires another one more switch. Kindly clarify & modify the BoM also.	It is requirement of Single Modular Chassis along with Redundancy in Power supply, in Management Module and I/O Module Cards etc. as per the requirement of the scope mentioned in the RFP.
5.	8	SECTION II Installation & Configuration Requirement	Successful bidder has to use existing laid/installed fiber optical cable to set up end to end network connectivit	Provide details of Existing fiber details like SM/MM & like OM4 / OS2 etc. category of fiber.	The building to building within the campus connectivity is using single mode fiber. Within building multiple floor will be

		LAN Config uration/Set up	y across the sites.		connected through MM fiber. Fiber ready infrastructure will be provided by GSFC University. Bidder may visit the site before submitting their bid.
6.	17	Project Imp lementatio n Timelines	Project Implementation Time lines Time line Milestone total time =17 week define in Tender	As per project size & requirements, it requires minimum of 24 weeks time for SITC till training.	Request not accepted. As per RFP.
7.	22	SECTION IV Bill of Mate rial 1. Central IT I nfrastructu re at GSFC Data Center	**1.10.** Fiber Patch Cord Single mode OM 4 (LC-LC) - 3 feet/1 Mtr **2.9.** Fiber Patch Cord Single mode OM 4 (LC-LC) - 3 feet/1 Mtr	*Assuming that OM4 is a typo mistake, Kindly Clarify existing SM Fiber category OS1 or OS2 ?	As per RFP BoQ (Page no. 22), Item no. 1.9, 1.12 & 1.13 are required to connect L3 and L2 Switches within DC environment so there is required MM OM4 fiber Patch cord. 1.10 & 2.9 are Single Mode Fiber patch cord. See the corrigendum for revised specifications.
8.	22	SECTION IV Bill of Mate rial <u>Note:</u>	SI may add additional mat erial/hardware/software/ser vices as may be required to be supplied to meet the solu tion requirement and bid obj ectives	No Provision for Additional item in Financial bid *No row in Financial Bid to Quote for additional Supply & Labour Item. Also this need to be clear with quantity. Few of the additional line item works like--LIU, Conceilied Conduiting in Wall, Splicing of Existing fiber cable etc.	Bidder has to consider the components defined in RFP along with its required accessories, services and its installation and quote the consolidated price accordingly.
9.	27	SECTION V - Minimum T echnical Sp ecification	Item No. 5: Core L3 Switch T he interface required from D ay 1 16 Port x 10G SFP+ Port 16 Port x 10G base-T Ethernet Port,	Please clarify that do you need the switch with 16 Port copper and 16 fort Fiber together in Single unit or Chasis.	Please refer Sr. No. 4. Further, Switch shall be configured with minimum two Nos of I/O Module cards of 8 Port 10G SFP+ or

			The switch should have minimum 1 slot reserved for future expansion		higher and 8 Ports of 10G Base-T or higher.
10.	32	SECTION V Minimum Technical Specification Item No. 16 :	SM Fiber Patch Cord (LC-LC), Duplex, 50/125um. Length- 1 mtr / 3 feet	Single mode Fiber Micron value is 9/125um, Pls check must be typo error.	See the Corrigendum
11.	8	LAN between Hyper-Converged and Core switch	The core switch must be redundant L3 in established network.	As per the description in tender & BoM, it is asked for single L3 switch, wherein for redundancy, it requires another one more switch. Kindly clarify & modify the BoM also.	Please refer point no 4 and 9
12.		Section - II, Scope of Work	Necessary Rack space, Power and Cooling requirements to be provided at GSFC Data Center. However, the required accessories (**including power cords, patch cords, sockets, converter etc.**) to be supplied by successful bidder for the necessary configuration. Bidder will have to quote the cost considering the same.	In place of "etc." We request you to please name all the item. This is required to prepare commercials according to necessary Line items.	GSFC will provide rack space, power and cooling; so all other required accessories to setup and installation of IT infrastructure mentioned in RFP to be considered. Bidder has to quote the price accordingly.
13.		Section - II, Scope of Work	The successful bidder will also have to provide the necessary handholding support to application developers of GSFCU for installation of Web Portal / software application.	Request you to clarify this clause as handholding of Webportal/Software application is not applicable to Hardware solution.	Bidder is expected to help related to hardware infrastructure of this RFP at the time of installation of application of GSFC University and will also help in migration of current servers from physical to virtual and from cloud server to virtual machine.
14.		Section - II, Scope of Work	Bidder should have a back-end support agreement/ arrangement for services	Back-end Agreement can be done but We request you to remove the clause of back-end spare parts. Please clarify.	This has been clarified during pre-bid. Bidder will have to provide

			including supply of spare parts		services as per the Scope of Work mentioned in RFP.
15.	**Item no. 1.1:**	**Hyper-Converged System Infrastructure**	Resiliency & DR: The solution should deliver zero data loss in case of disk, host or network failure. The HCI platform should have ability to replicate to DR site.	**Query:** Recovery Time Objective (RTO) and Recovery Point Objective (RPO) are not mentioned. What will be Connectivity between primary and DR site? Do we required to add DR server in this BOQ or customer is having existing infra which they use as DR?	This has been clarified during pre-bid. Currently, there is no DR Site, but in future the DR may be implemented on Cloud platform. Connectivity will not in the scope of this RFP.
16.	**Item no. 1.1:**	**Hyper-Converged System Infrastructure**	Proposed hypervisor should support standard features similar to vmotion, distributed switches, HA, DRS and replication.	**Query:** Ideally/Best Practices for 7-10 VMs requirement Distributed Switches and DRS functionality not optimally useful, so our suggestion is to remove this both required feature or make optional.	No change As per RFP.
17.				**Few more on HCI** 1. Which DB you are going to use on VM 2. Can we get details about Operating Systems which will be installed on top of Hypervisor 3. Is Distributed switch for HCI part of HCI requirement as mentioned by you on Page 24 4. Iops which are generally performance measurement are not mentioned in this requirement.	1. DB: MS SQL, 2. OS: Windows & Linux 3. Yes. 4.As per OEM Architecture
18.				**Layer 3 Switch** 1. No redundancy asked in L3 Switch as only single qty is mentioned in BoQ. Can we consider Redudancy 2. Why separate L3 Switch and L2 switch is asked. We assume The servers will be connected to L3 Switch only. What is the purpose of single L2 switch 3. We do not have switch with 16 SFP+ ports and 16 /10Gbase-T ports. Can we propose switch with 24 SFP+ ports? 4. Openflow is protocol used for SDN. We achieve SDN using Netconf, RESTconf. Will it suffice your requirement?	1. Please refer Sr. No. 4 & Sr. No. 9. 2. One L2 switch is required for local management & connectivity of the items within the rack in Data Center. 3. Please refer Sr. No. 9. 4. Bidder may offer the L3 switch which should support Openflow or equivalent protocol as per RFP requirements.

19.				**Layer 2 Switch** 1. Stacking is asked with stacking of up to 80KM. Is it required as in our case the Layer 2 switches will be in the same rack 2. In Layer 2 switch Layer 3 routing protocols are asked. Is it required?	1. As per RFP, staking distance is up to 10 KM and not 80 KM. The idea is to manage the network switches through single management console through virtual staking. 2. Please see the corrigendum.
20.				We are requesting you to keep redundancy for Layer 2 Switch and Also that switch should support law latency and QOS as critical workload connected to this switches.	As per RFP.
21.				Our request you to consider x86 Modular server for HCI underline Hardware from Gartner or IDC leader quadrant as you had also mentioned OEM of the proposed Hyper-Converged Solution, Firewall & Switches should be from companies featuring in latest Gartner Magic Quadrant OR should be amongst the top five positions in terms of worldwide market share as per latest IDC report.	As per RFP.
22.				Request you to consider latest CPUs from Intel which are cascade lake for HCI as well other server.	Bidder has to consider latest generation processor at the time of submission of their bid.
23.				Request you to help us to understand whyHCI solution should support scalability minimum 6nodes in a single cluster is required?	We have defined minimum requirements i.e. 6 nodes for the scalability point of view considering the project requirements. Hence, we appreciate better cluster scalability provided by respective OEM. As per RFP
24.	8	Installation & Configuration Requirement	Successful bidder will have to deploy the qualified professionals for the implementation and to provide the required services as defined under scope of work. However, GSFC	Request you to add separate line item for resident engineer in price bid offer however as of RFP it is not there	Please see the Corrigendum.

			University has right to select the deputed professional [technical engineer] by successful bidder.		
25.	12	Manpower for Hand Holding Support	Successful bidder will have to depute one technical manpower to provide hand holding support for the contract period of 5 years. Contract period will start from the date of successful FAT completion.		
26.	20	For Operation & Management (Manpower) Services:	a) The System Integrator will be paid in 20 equated quarterly installments after completion of each quarter for manage, maintain and provide support services and Operation and Management Services as mentioned in the bid. Operation & Management will start after date of successful completion of installation and commissioning & Acceptance Test / Completion Certificate issued by GSFC University. The quarterly payment will be released after verification of the SLA and adjustment for penalties, if any		Please see the Corrigendum.--- Quarterly payment will be released after verification of the SLA and adjustment for penalties, if any
27.	12	Service Terms:	3. The successful bidder is free to deploy or to develop applications to facilitate the operation. Purchasing department will welcome the deployment	Please elabotate the scope however it is requirement to develop call management system/software may charges extra that may depends on SOW or else GSFCU should provide call report management solution as per their requirement	Clause deleted.

			such application in respect to improve Quality of Services.		
28.			4. For extending better services to the user, the bidder will be allowed to deploy & use own tested and proven solution in addition to the minimum requirements asked in the RFP, with prior permission from Purchasing department.		Clause deleted.
29.	18	38. Warranty	Warranty: The Successful Bidder shall provide a Comprehensive onsite warranty for a period 5 years which will starts from successful completion of Final Acceptance Test.	Request you to consider contract period from the date of supply/Inovice however OEM consider warranty start from the date of Invoice	As per RFP.
30.	25	Item No. 3: Rack base Server	CPU: 1* Intel® Xeon S- 4110 Processor 2.1 GHz, 8 Core CPU or higher/Latest	We request you to consider latest generation means Intel cascade Lake 4208 (2.1GHz, 8-core, 11 MB L3 Cache) CPU or AMD EPYC 7251 (2.1GHz, 8-core, 32 MB L3 Cache) CPU	See the Corrigendum
31.	25		Motherboard Intel® C620 Series Chipset or better on Intel or equivalent OEM motherboard	Request you to consider Intel Chipset/ AMD Chipset or equivalent OEM motherboard for above CPU and Motherboard should support up to 2 CPU Socket, 24 Memory DIMMs	See the Corrigendum
32.	25		Slots: Minimum 4 free PCI slots	Minimum 4 PCIe slots are supported by server however it is required to populate 2 CPU so we request you to consder minimum 3 free PCI slots in case of 1 CPU Populated	See the Corrigendum
33.	26		RAID Support: RAID controller for RAID 0, Raid 1, and RAID 5 configurations	Request you to clarify the RAID Controller Cache memory if required	As per RFP.
34.	27	Item No. 5: Core L3 Switch	The switch should have Redundant Supervisor Engine and Redundant power supply from day one	We request you to consider Redundant Supervisor Engine/Management module and Redundant power supply from day one however HPE Switches delivering same functionalities by Management Modules same like competition Brand with Supervisor engine	See the Corrigendum
35.	29	Item No. 6: 24 Port L2 Switch with	Switch should have switching capacity of 32 Gbps, 1GB SDRAM and 12	We request you to consider Routing table size of 2000 for (IPV4) and 1000 for (IPV6)	See the Corrigendum

		staking Module/DAC Cable	MB Packet buffer size and Switch should Provide graceful congestion management and Switch should support 32000 MAC address, Routing table size of 10000 entries (IPv4), 5000 entries (IPv6)		
36.	32	Item No. 21: Desktop for Monitoring & Management	Antivirus: Pre-loaded Antivirus with 5 years updates	Request to clarify that AV Software requirement however there is separate line item there, In BOM and price bid	Bidder will have to consider the AV / complete end node security solution as defined in the Scope of Work of RFP (Page no.11) However, AV requirements in PC (RFP line item no. 21) and RFP line item no 24 (End Point Antivirus Security Solution for 5 years Subscription) should be same. For features required for End point security are given in Corrigendum
37.			**Firewall**		
38.	7	Section II, Scope of Works	Configuration of Firewall in HA (Active-Passive)	Request you to clarify that Active-Passive Failover should be automated/seamless or Active/Standby with manually)	It should be automated seamless failover.
39.	22	SECTION IV, Bill of Material	Firewall: Qty 2 Nos	As per SOW Firewall is required in Active-Passive cluster so there is not required additional user licenses so request you to consider Qty 1 Set So it will be act as active/Passive and save the licenses cost of department	Bidder will quote the price considering two firewall in High Availability (Active-Passive)
40.	36	FINANCIAL BID FORMAT			
41.			L3 Switch		
42.	27	Item No. 5: Core L3 Switch	The switch should have Redundant Supervisor Engine and Redundant	Redundant Supervisor Engine is specific OEM terminology hence, we request to amend the clause as bellow 'The switch should have Redundant Multi processing unit / Dual management module and Redundant power	Please refer Sr. No. 34

			power supply from day one	supply from day one"	
43.			Shall be modular chassis based switch, 19" Rack Mountable and switch should support Hot-swappable modules	We request you to clarify and specify about requirement of switching performance like... 1) Switching capacity/Routing bandwidth in GBPS 2) minimum throughput in pps 3) 10Gbps performance latency	See the Corrigendum
44.			The interface required from Day 1 16 Port x 10G SFP+ Port 16 Port x 10G base-T Ethernet Port, The switch should have minimum 1 slot reserved for future expansion	This is requirement of modular switch hence the I/O Module card can be configured in redundancy. so we are requesting you to specify that how the I/O Module card configuration shall be consider?? For Example: 16 Port x 10G SFP+ Port or 10G Base -T Ethernet Port shall be given/consider. as 16Port (2* 8 Port) x 10G SFP+ or 10G Base -T Ethernet Port in redundancy.	Please refer point no 4 and 9
45.			**L2 Switch**		
46.	29	Item No. 6: 24 Port L2 Switch with staking Module/DAC Cable	Switch should have switching capacity of 32 Gbps, 1GB SDRAM and 12 MB Packet buffer size and Switch should Provide graceful congestion management and Switch should support 32000 MAC address, Routing table size of 10000 entries (IPv4), 5000 entries (IPv6)	32Gbps switching capacity is blocking architecture so we request you that switching capacity should be as 128Gbps to make non blocking architecture Also request you to consider Routing table size of 2000 for (IPV4) and 1000 for (IPV6).	Please refer Sr. No. 35
47.	-	-	-	Kindly add new following points for load balancing solution. Link Load Balancer along with below features • ISP level load balancer • Application availability over ISP link • Redundancy / failover	As per RFP.

48.		SECTION V, Page-23	The HCI solution should be proposed with N+1 design. The minimum CPU Cores, Memory and storage that should be available in the event of any one node failure is 32 Cores, 320 GB & 15TB storage.	We request GIL to clarify the disk types to be used for the capacity as SSD or SAS or NL-SAS drives.	Bidder will have to consider minimum 3 nodes for HCI. Bidder may consider any type of HDD for hybrid/all flash as per HCI OEM solution considering the scope defined in the RFP.
49.		SECTION V, Page-23	The proposed HCI solution should be Software defined with required Software or Hardware engine for Raid, Compression and De-duplication	**Current Sepcs are OEM specific,** we request GIL to modify the clause as "The proposed HCI solution should be Software defined with required Software or Hardware engine for Raid, **should support Compression and De-duplication on All Flash nodes."**	As per RFP. **The given specs are not OEM specific.**
50.		SECTION V, Page-24	The proposed solution must be configured with Compression and de-duplication from day 1.	**This is again OEM specific clause** and debars other OEM from participation. Request GIL to remove this clause as this has already been covered.	As per RFP. **The given specs are not OEM specific.**

51.		SECTION V, Page-24	The HCI solution should be a seamless scale-out Architecture with zero downtime.	This is gain OEM specifics, we request GIL to modify the clause as "The HCI solution should be a seamless, Scale up and scale-out Architecture with zero downtime. "This will enable GIL/GSFC to add disks, memory and CPU in the existing nodes too and achieve higher and better scalability.	To maintain complete seamless experience with zero downtime, we need scale out architecture. If solution supports scale up seamlessly without any downtime, it will be welcomed.
52.		Item No. 4: Backup Appliance Page no. 26	Integrated Backup Solution should be required usable storage capacity of 2 TB or higher.	Asked capacity for appliance is 2TB which is very less for 15TB of frontend data asked in HCI specification so request the following change. Proposed appliance should be sized appropriately for backup of 4TB (50% DB and 50% File System) data as per below backup policies a. Daily Incremental Backup – retained for 4 weeks in disk based appliance b. Weekly Full Backup for all data types – retained for 1 month in disk based appliance c. Monthly Full Backups – Retained for 3 Months in the same appliance d. Yearly Full Backups - Retained for 5 years. The solution should be quoted with a min. usable capacity of 8 TB and should be scalable to minimum 32TB usable. Any additional capacity required as per sizing needs to be proposed by the bidder.	As per RFP. Backup appliance of 2TB is asked for specific data backup and is enough as per GSFC University need.
53.		Section V Page 23	Bidder shall provide 15TB storage capacity considering either FTT=1 or RF=2 or equivalent method. Any HCI solution overheads required to achieve 15 TB usable storage capacity needs to be factored extra by bidder. Compression, deduplication and data optimization shall not be considered for calculating the usable storage capacity of 15 TB. The proposed solution must be configured with Compression and De-duplication from Day 1.	Bidder shall provide 15TB storage capacity considering either FTT=1 or RF=2 or equivalent method. Any HCI solution overheads required to achieve 15 TB usable storage capacity needs to be factored extra by bidder. Compression, deduplication and data optimization shall not be considered for calculating the usable storage capacity of 15 TB. The proposed solution can be **optionally** configured with Compression and De-duplication from Day 1. Justification same as above	Please refer Sr. no. 50.
54.		Section V Page 23	The HCI solution should be a seamless scale-out	The HCI solution should be a seamless **scale up and scale-out both** of these Architecture with zero downtime.	Please refer Sr. no. 51.

			Architecture with zero downtime.	For any future scalability requirement first approach for clients are generally scale up (for adding disk, memory etc.). Scale up does not have any software cost generally and is 1st option for client. Scale out shall be 2nd option since scale out involve cost of hardware, license etc so Scale up and Scale out both should be supported for seamless upgradation in future with zero downtime.	
55.		Section V Page 24	Virtualization software shall be able to dynamically allocate and balance computing capacity across collections of hardware resources aggregated into one unified resource pool with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts.	**Request to re-consider and remove this point** since this requirement is for very large environments. It may unnecessary add overhead for a small environment of 7 VMs with 15 TB storage requirement.	As per RFP.
56.				Incase this above referred point is required to continue for whatever reasons then please request change as aside. Virtualization software shall be able to dynamically allocate and balance compute and storage capacity both across collections of hardware resources aggregated into one unified resource pool with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts. Since it is HCI environment both compute and storage both is requested to be mentioned.	As per RFP.
57.		Section V Page 24	The solution should have inbuilt Distributed Switch to centralize network vlan provisioning across the cluster.	**Request to please re-consider this point** and request to remove it since it shall un-necessary load the environment and is not required for a small set-up of 10-15 VMs. Distributed switch is required is very large environments to manage standardized provisioning. For 7-10 VMs environment, it shall not help in any functional and technical aspect. Such feature is useful in State Datacenter kind of environments but not for a very small footprint of the referred RFP.	No change As per RFP
58.		Section V Page 24	Proposed hypervisor should support standard features similar to vmotion, distributed switches, HA, DRS and replication.	Proposed hypervisor should support standard features similar to vmotion, HA, and replication. Request to please remove distributed switch, DRS from this point.	Please refer Sr. No. 16.

59.		Section V Page 24	There must be two copies of data available in the cluster, if there is failure in one node	Request to reconsider as "There must be **one copy of data available in the cluster, if there is failure in one node".** RFP anyways require back-up appliance solution to be quoted. So after failure of 1 node, there shall be anyways 1 copy in the cluster and last backed up copy also. So maintaining 2 copies of data in the cluster after 1 node failure is going to add storage needs only for redundancy purpose. Request to please reconsider as 1 copy of data to be available in the cluster, if there is failure in one node.	Back up appliance is for some specific data and not for the complete HCI data backup. Revised clause as following: After 1 node failure, immediately there must be one copy of data available in the cluster. Also, the HCI solution must be able to rebuild second copy of data (to maintain FTT =1 / RF =2) after 1 node failure. Proposed HCI solution must comply to above clause.
60.		Additional Recomemn dation	The HCI solution must support and supplied with management software and with single Click rolling upgrades/updates to the system with NO Disruption to the cluster.	This will enable GSFC to have highest availability of the infrastructure.	As per RFP.
61.			The HCI solution should support hybrid and all-Flash nodes/cluster options	The HCI solution should support hybrid **or** all-Flash nodes/cluster options Incase all-flash is required for any specific workload, the same can be anyways accommodated in caching all flash disks, so there is no need to ask for all complete flash node separately. Client is requested to take a decision whether hybrid or all flash solution is required any one of this. Both in same cluster shall require its own complexity of maintaining redundancy of hybrid and all flash workloads.	Please read as below: The HCI solution should support hybrid **or** all-Flash nodes/cluster options.
62.			The proposed HCI solution should be Software defined with required Software or Hardware engine for Raid, Compression and De-duplication	The proposed HCI solution should be Software defined with required Software or Hardware engine for Raid. Compression and De-duplication can be optionally proposed. This is 15 TB requirement which is quite low to actually derive actually benefits of de-dup and compression. RFP has anyways asked for NAS box separately for file system so it is anyways not going to reside on HCI system. De-dup compression does not add any value on DB, App, Web applications, AD, AV etc. as such and it will add performance, storage and compute	See the corrigendum

				overhead. Hence request to keep De-dup and compression as optional.	
63.			Bidder shall provide 15TB storage capacity considering either FTT=1 or RF=2 or equivalent method. Any HCI solution overheads required to achieve 15 TB usable storage capacity needs to be factored extra by bidder. Compression, deduplication and data optimization shall not be considered for calculating the usable storage capacity of 15 TB. The proposed solution must be configured with Compression and De-duplication from Day 1.	Bidder shall provide 15TB storage capacity considering either FTT=1 or RF=2 or equivalent method. Any HCI solution overheads required to achieve 15 TB usable storage capacity needs to be factored extra by bidder. Compression, deduplication and data optimization shall not be considered for calculating the usable storage capacity of 15 TB. The proposed solution must be **optionally** configured with Compression and De-duplication from Day 1. Justification same as above	Please refer Sr. no. 50 & 59.
64.			The proposed HCI solution should be a factory shipped engineered & integrated system by the OEM. All the components of HCI should be factory installed and shipped ready for fast deployment. HCI solution should be from single OEM and not third party licensed/Non-Licensed	The solution should be able to work on latest x86 server hardware available from all the leading vendors in the industry and should not be restricted to a particular vendor. Future addition of HCI node in the same cluster should be possible from any certified hardware vendor and should not be restricted to specific OEM only. Appliance approach shall tie down with no other options but to go to same hardware OEM for future scalability.	As per RFP.
65.			The HCI solution should be a seamless scale-out Architecture with zero downtime.	For any future scalability requirement first approach for clients are generally scale up (for adding disk, memory etc.). Scale up does not have any software cost generally and is 1st option for client. Scale out shall be 2nd option since scale out involve cost of hardware, license etc so Scale up and Scale out both should be supported for seamless upgradation in future with zero downtime.	Please refer Sr. No. 51
66.			Virtualization software shall be able to dynamically allocate and balance computing capacity across	Request to keep this as optional point since this requirement is for very large environments. It may unnecessary add overhead for a small environment of 7 VMs with 15 TB storage requirement.	Please refer Sr. No. 55

			collections of hardware resources aggregated into one unified resource pool with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts.		
67.				Incase this above referred point is required to continue for whatever reasons then please request change as aside. Virtualization software shall be able to dynamically allocate and balance **compute and storage capacity both** across collections of hardware resources aggregated into one unified resource pool with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts. Since it is HCI environment both compute and storage both is requested to be mentioned.	Please refer Sr. No. 56
68.			The solution should have inbuilt Distributed Switch to centralize network vlan provisioning across the cluster.	Request to please re-consider this point to remove it. Distributed switch is required is very large environments to manage standardized provisioning. For 7-10 VMs environment, it shall not help in any functional and technical aspect. Such feature is useful in State Datacenter kind of environments but not for a very small footprint of the referred RFP.	Please refer Sr. No. 16.
69.			Proposed hypervisor should support standard features similar to vmotion, distributed switches, HA, DRS and replication.	Proposed hypervisor should support standard features similar to vmotion, HA, and replication. As requested above Distributed switch, DRS kind of features is not required for small environment of 10 VMs set-up. This is overkill and unnecessary add up environment overheads with no materialistic benefits.	Please refer Sr. No. 16.
70.			There must be two copies of data available in the cluster, if there is failure in one node	Request to reconsider as There must be one copy of data available in the cluster, if there is failure in one node. This is also creating contradiction with FTT=1 or RF=2 policy required as referred in the RFP requirement. RFP anyways require back-up appliance solution to be quoted. So after failure of 1 node, there shall be anyways 1 copy in the cluster and last backed up copy also. So maintaining 2 copies of data in the cluster after 1 node failure is un-necessarily going to add storage needs only for redundancy purpose. Request to please reconsider as 1 copy of data to be available in the cluster, if there is failure in one node.	Back up appliance is for some specific data and not for the complete HCI data backup. Revised clause as following: After 1 node failure, immediately there must be one copy of data available in the cluster. Also, the HCI solution must be able to rebuild second copy of data (to maintain FTT =1 / RF =2)

					after 1 node failure. Proposed HCI solution must comply to above clause.
71.	17	32	Kick Off Meeting - 2 week from issuance of LOI/Work Order	Please detail the readiness expectation in kick off meeting	As per RFP.
72.	17	32	A penalty of 0.5% of total value for delay/non-delivery components per week or part thereof.	Penalty should be only for non-delivered line items and not on entire contract value.	As per RFP.
73.	18	36	The successful Bidder will be required to co-ordinate with software vendor and/or do liasioning with other service provider to achieve the end-to-end connectivity. This also includes OS configuration with respect to LAN/WAN technologies implementation.	Request you to remove this clause. As Coordination with other agencies should not be part of bidder.	As per RFP.
74.	19	41-c	20 % payment will be made after successful Installation Testing, Integration and Completion of Work & Final Acceptance Test.	There is only 1 week difference between Final Acceptance testing and training part. Reqeust you to modify the clause as below. Remaining 30 % payment will be made after successful Installation Testing, Integration and Completion of Work, final acceptance test and training.	As per RFP.
75.	36	Section VI	Financial Bid format	There is no line item for quoting Manpower commercials. Please revise the financial bid format accordingly.	See the Corrigendum
76.	Firewall Specific ation	2	Firewall appliance should have at least 8 x 10/100/1000 GE interfaces along with 4 x GE SFP slots & 2 x 10 GE Ethernet/SFP+	You asked for 10G SFP+ interface for further expansion but asked firewall throughput is only 6 Gbps request to you consider 20Gbps Request you to add Threat Protection throughput including AV, IPS & App-control enabled in enterprise mix conditions is 1.4 Gbps	In RFP, we have asked L3 switch with 10G Ethernet and 10G SFP+ Port so UTM box and L3 Switch will be connect using 10G base T Ethernet Port or 10G SFP+ Port so UTM OEM/Bidder has to consider connectivity part accordingly.

					As per RFP.
77.	Firewall Specific ation	2	Device should have minimum firewall throughput of 6 Gbps		As per RFP.
78.	Firewall Specific ation	2	Should be SD WAN enable from day one	Request you to remove this clause as this is limiting options available for biding.	As per RFP.
79.	7	Section II, Scope of Works	Configuration of Firewall in HA (Active-Passive)	Request you to clarify that Active-Passive Failover should be automated/seamless or Active/Standby with manually)	Please refer point no 38
80.	22	SECTION IV, Bill of Material	Firewall: Qty 2 Nos	As per SOW Firewall is required in Active-Passive cluster so there is not required additional user licenses so request you to consider Qty 1 Set So it will be act as active/Passive and save the licenses cost of department	Please refer point no 39
81.	36	FINANCIAL BID FORMAT			Please refer point no 39
82.			NO Details on Threat Prevention Throughput	The proposed firewall should have Threat prevention throughput of minimum 2.5 Gbps.	As per RFP.
83.		The Hyperconv erged solution should be proposed with minimum 2 processors of 2.2 Ghz or higher clock speed in each node.	Intel has launched Cascade Lake CPU which is recent generation processor offers better performance. Please refer URL https://ark.intel.com/conten t/www/us/en/ark/products/ series/192283/2nd-generation-intel-xeon-scalable-processors.html	The Hyperconverged solution should be proposed with minimum 2 processors of Cascade lake CPU generation processors with 2.2 Ghz or higher clock speed in each node.	Please refer point no 22.
84.		Appliance should be supplied with minimum 4X 10G	Kindly let us know do we need to consider 10G BASE-T or SFP+ ports	We request you to provide clarification accordingly we shall consider 10G ports for proposed HCI	HCI OEM need to propose their solution as per the networking specifications mentioned in the RFP and propose 10G BASE-T or SFP+ ports and ensure solution

		BASE-T/SFP+ ports per node.			will integrate with proposed LAN environment.

Required ports needs to be factored by the bidder keeping in mind the network switches selected as part of the solution. |
85.		Additional request to consider	We request you to consider minimum 3 HCI nodes (with compute + storage distributed across all 3 nodes in identical fashion) which eliminates need of Witness server outside cluster as recommended for production environment	We request you to consider minimum 3 HCI nodes (with compute + storage distributed across all 3 nodes in identical fashion) which eliminates need of witness server outside cluster as recommended for production environment	Bidder will have to consider minimum 3 nodes for HCI.
86.		Additional request to consider	Proposed features will help GSFC University to get automated functionalities on mentioned parameters	Proposed solution must provide customized dashboards, reporting systems for Performance bottleneck detection, VM right sizing to determine the VM behavioral analysis, anomaly detection, capacity forecasting for future workload growth & provides remediation	As per RFP.
87.		Additional request to consider	Hypervisor shall have I/O prioritization for virtual workloads to ensure critical VM's are not affected due to congestion of other VM's on the same host.	Hypervisor shall have I/O prioritization for virtual workloads to ensure critical VM's are not affected due to congestion of other VM's on the same host.	As per RFP.
88.		Eligibility	No consortium will be allowed. The bidder must meet all the eligibility criteria by self. Bidders undertaking should be submitted	Allow consortium up to 3 parties	As per RFP
89.		Eligibility	**Bidder's past experience:** The bidder must have experience of executing at least TWO System Integration project each of value of minimum Rs. 1 Crore which includes supply	Relaxation of value of project up to Rs. 30 lakhs	As per RFP

			& installation of Data Center Equipment's like Servers, Storage, Switches, Backup device etc. in India during last five years as on bid submission date. Copies of PO & customer certificates to be submitted		
90.	4		The switch should have Redundant Supervisor Engine and Redundant power supply from day one	Redundant Supervisor Engine is specific OEM terminology hence, we request to amend the clause as bellow 'The switch should have Redundant Multi processing unit / Dual management module and Redundant power supply from day one"	Please refer Sr. no 34
91.	5	27 Item No. 5: Core L3 Switch	Shall be modular chassis based switch, 19" Rack Mountable and switch should support Hot-swappable modules	We request you to clarify and specify about requirement of switching performance like... 1) Switching capacity/Routing bandwidh in GBPS 2) minimum throughput in pps 3) 10Gbps performance latency	Please refer Sr. no 43
92.	6		Core L3 Switch The interface required from Day 1 16 Port x 10G SFP+ Port 16 Port x 10G base-T Ethernet Port, The switch should have mini mum 1 slot reserved for futu re expansion	This is requirement of modular switch hence the I/O Module card can be configured in redundancy. so we are requesting you to specify that how the I/O Module card configuration shall be consider?? For Example: 16 Port x 10G SFP+ Port or 10G Base -T Ethernet Port shall be given/consider as 16Port (2* 8 Port) x 10G SFP+ or 10G Base -T Ethernet Port in redundancy.	Please refer point no 4 and 9
93.	7	29 Item No. 6: 24 Port L2 Switch with staking Module/DAC Cable	Switch should have switching capacity of 32 Gbps, 1GB SDRAM and 12 MB Packet buffer size and Switch should Provide graceful congestion management and Switch should support 32000 MAC address, Routing table size of 10000 entries (IPv4), 5000 entries (IPv6)	Switch should have switching capacity of 32 Gbps, 1GB SDRAM and 12 MB Packet buffer size and Switch should Provide graceful congestion management and Switch should support 32000 MAC address, Routing table size of 10000 entries (IPv4), 5000 entries (IPv6)	Please refer Sr. No. 35

94.	8		The Switch should stack up to 8 member with stacking capacity of up to 80Gbps for support of stacking distance up to 10KM	The Switch should stack up to 8 member with stacking capacity of up to 80Gbps for support of stacking distance up to 10KM	Please refer Sr. No. 19
95.	9		The switch should support encapsulation (tunneling) protocol for overlay network that enables a more scalable virtual network deployment, minimum 256 static IP routing, Routing Information Protocol (RIP), RIPv1, RIPv2, and RIPng routing and support 10,000 RIP routes, OSPFv2 and OSPFv3 protocols for routing between access and the next layer on the LAN, Policy based routing, Access control lists (ACLs)	We request you to amend the clause as The switch should support encapsulation (tunneling) protocol for overlay network that enables a more scalable virtual network deployment, minimum 256 static IP routing, OSPFv2 and OSPFv3 protocols for routing between access and the next layer on the LAN, Policy]based routing, Access control lists (ACLs)	See the Corrigendum.
96.	-	Hyper-Converged System Infrastructure	Like discussed EnCloudEn (Invicto Software Solutions Pvt Ltd) is an indigenous solution in the Hyper Converged Infrastructure space. It's a complete virtualization platform with software defined compute, storage and network built in. The solution offers 3 core propositions –comprehensiveness, ease of consumption and zerotouch operations. Founded by IIT-IIM alumni and aided by an incredible set of technology industry leaders, EnCloudEn is a proud 'Make in India' offering in the market. We are receiving wide recognition in the Indian Market today. Just last year EnCloudEn was awarded as the "IT Innovation of the Year" at Express IT Awards by honourable IT Minister Mr Ravi Shankar Prasad. https://www.youtube.com/watch?v=GnK-JRuN52E Along with numerous large corporates, we are now powering IT in various Government institutions like HAL, ISRO, Corporation Bank, IIT Madras, NIT Surathkal, AIIMS. You can also visit our website : www.enclouden.com **While we are a young company with great potential, we do fall short on a stringent criterion laid out in the Eligibility Criteria of Section I.** *Page-5-Point 7:OEM of the proposed Hyper-Converged Solution should be from companies featuring in latest Gartner Magic Quadrant OR should be amongst the top five positions in terms of worldwide market share as per latest IDC Report.*	No change As per RFP

97.			We Magtech Security Systems Private Limited request to inform that our organization have MSME registration certificate and MSME memorandum. Kindly give us the exemption for EMD and Tender Fee.	No change As per RFP