

हाइड्रोकार्बन महानिदेशालय

(पेट्रोलियम और प्राकृतिक गैस मंत्रालय) प्लॉट नंबर 2, ओआईडीबी भवन, सेक्टर 73, नोएडा-201301 द्रभाष: 0120 - 247 2000. ई-मेल: mm@dghindia.gov.in

Corrigendum 1 to tender MM-11011(11)/5/2018-DGH/ENQ-145 for Supply, Installation and Commissioning of Storage Space & LTO 7 tape drives

This corrigendum is issued to amend technical specifications, bid evaluation criteria, extend bid closing/opening date and to provide DGH's response to pre-bid queries.

A: Extension of bid closing/opening date

	In lieu of	Revised
Bid Closing Date	14.02.2019	18.02.2019
Bid Opening Date	15.02.2019	19.02.2019

B: Amendment to Technical Specifications & Bid Evaluation Criteria

Tender Clause	Existing terms	Amended terms
Payment Schedule Pgno#57 9. (i)	70% of material cost including taxes after receipt of all the Items as per Scope of Supply (Annexure-I) by DGH as per the terms and conditions of DGH supply order	70% of material cost including taxes after receipt of all the Items as per Scope of Supply (Annexure-IV) by DGH as per the terms and conditions of DGH supply order
Payment Schedule Pgno#57 9. (iii)	Payment of balance 10% of material cost would be retained towards the warranty support and will be released @ 2.5 % of material cost in four instalments	Payment of balance 10% of material cost would be retained towards the warranty support and will be released @ 2.5 % of material cost in four equal instalments. For Tape R/W Software, the four equal instalments will be on a quarterly basis over a period of one(1) year from the date of commencement of warranty of this software item.
		For all items other than Tape R/W Software, the four equal instalments will be released every nine months over a period of three(3) years from the date of commencement of warranty of these items.
Installation and Commissioning Pgno#55 3. (iv)	It will be the responsibility of the bidder to install all the LTO-7 Tape Drives with the existing workstations of DGH. Necessary Interface Cards are to be provided by the bidder.	It will be the responsibility of the bidder to install all the LTO-7 Tape Drives with the existing workstations of DGH. Necessary Interface Cards are to be provided by the bidder. The offered Tape R/W software is to be tested on the newly supplied Tape Drives under the scope of this tender.
Terms and Conditions of Warranty and Support Services Pgno#56 5. (iv)	iv. Anytime remote support through telephone/mail/remote login etc. must be available with regard to all storage, LTO-7 Tape drive related issues etc.	iv. Anytime remote support through telephone/mail/remote login/online support portal etc. must be available with regard to all storage, LTO-7 Tape drive, Tape R/W Software related issues etc.
Eligibility & Experience of Bidder under Annexure-III	The bidder must be either OEM or authorized by OEM of the offered products. Incase the bidder is not OEM for the offered products, Tender specific authorization from OEM in original is	The bidder must be either OEM or authorized by OEM of the offered products. Incase the bidder is not OEM for the offered products, Tender specific authorization from OEM in original is to be submitted along with the offer for a)

B.1 Technical Rejection Criteria Pgno#45 para 2.2	to be submitted along with the offer for a) Storage Hardware b) Tape Drives & c) Tape R/W Software. MAF format enclosed (as Annex-V) for both hardware and software OEM authorization.	Storage Hardware b) Tape Drives & c) Tape R/W Software. MAF format enclosed (as Annex-V) for both hardware and software OEM authorization. In case bidder is unable to submit the MAF in original along with other physical documents within the bid closing date and time, then, printed copy of the OEM signed MAF, duly certified and stamped by the bidder, can be submitted along with the bid. DGH reserves the right to verify the authenticity of the document with the OEM. The ink-signed original MAF in hard copy format should be submitted to DGH within a period of two (2) weeks from the date of Bid Closing.
Pgno#3 Slno#11 of 1.0	Performance Guarantee to be submitted only by the Successful Bidder: 7.5% of total order value valid for a period of 02 months beyond warranty period	Performance Guarantee to be submitted only by the Successful Bidder: i) The bidder has to submit two (2) Performance Guarantee, viz. (a) 7.5% of the value against Slno#2.2 of Annexure-V Price Format valid for a period of 02 months beyond warranty period of 1 year. (b) 7.5% of the value against all the other items (excluding Slno#2.2) of Annexure-V Price Format valid for a period of 02 months beyond warranty period of 3 years.
Price Schedule Page#61 and BOQ	SI No#2.2 of Annexure-V & BOQ: Item Description: "Associated Tape R/W – S/w like Troica, Diplomat etc with perpetual License with 1 year maintenance & upgrade support."	"Associated Tape R/W – S/w with perpetual License with 1 year maintenance & upgrade support."
Price Schedule Page#61 and BOQ	Sl No#2.3 of Annexure-V & BOQ : Item Description "LTO 7 Tape Drives"	To be read as "LTO 7 Tape Cartridges."
ANNEXURE- IV: 2.3: LTO-7(Qty- 4) Tape Drives for PDC, Noida Page#52	Associated software such as Troika etc. which can Read/Write data from the LTO Tapes is required to be supplied bundled with Tape Drives. Latest software version along with 4-(Four) No's of perpetual licenses (with 1-year upgrade & maintenance support) are required to be supplied. The vendor should provide all patch updates version upgrades to DGH during the period of upgrade/warranty support on No cost basis to DGH. >This software will be used to copy data from LTO tape to LTO tape/ storage disc & vice versa in industry standard format such as SEGD/SEGY/I-O SEGY/RODE /TIFF 8 pertaining to E&P seismic data.	Associated software which can Read/Write data from the LTO Tapes is required to be supplied bundled with Tape Drives. Latest software version along with 4-(Four) No's of perpetual licenses (with 1 year upgrade & maintenance support) are required to be supplied. The vendor should provide all patch updates version upgrades to DGH during the period of upgrade/warranty support on No cost basis to DGH. >This software will be used to copy data from LTO tape to LTO tape/ storage disc & vice versa in industry standard format such as SEGD/SEGY/I-O SEGY/RODE /TIFF 8 pertaining to E&P seismic data.
	>DGH is currently using the 3 modules, viz. Magma, Midi & Minima of Troika Software from Troika International Ltd. for this purpose. However, bidder may provide any other equivalent software such as Diplomat Software from Ovation Data Services having minimum equivalent features of these 3 modules of Troika software.	>DGH is currently using 3 modules, viz. Magma, Midi & Minima of Troika Software from Troika International Ltd. for this purpose. However, bidder may provide any other industry standard equivalent software (e.g. Diplomat from Ovation Data services etc.) having following minimum features to ensure compatibility with the existing transcription system.

C: DGH's Response to Pre Bid Queries

	ompany Name : M/s CCS Computers Pvt Ltd.					
		pacity Upgradation: 80 TB Usable Disk Space + 2 St		, Noida.		
S.	Parama ter	Functionality	Justification	Query	DGH's Response	
1	ter			Our understanding is that we can propose new storage for 80TB capacity.	The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements It has been clarified that expansion of existing LUN is a requirement in view of the tender being addition of storage capacity to the existing storage solution at DGH	
2	Cache	Storage Controller Array should be offered with 48GB of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual Controllers is 48GB. Total available cache after addition of new cache would be minimum 96GB		Our understanding is that the proposed storage should be proposed with 48GB cache across dual controller. Incase of upgrade to existing storage cache the total after upgrade of cache should be total 96GB. Please confirm if our understanding is correct.	Total available cache after addition of new cache should be minimum 96GB including existing cache of 48GB across Dual Controllers.	
3	ning and Space optimiz ation	1. Offered storage solution shall support Thin provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array supported raw capacity. 2. Offered storage solution shall support data reduction feature of in-line Deduplication and in-line Compression for volumes. Vendor shall support both in-line de-duplication and in-line compression on a given volume simultaneously.	On spinning disks there will not be much benefit by enabling De-Dup and compression because De-Dup and Conpression puts extra load on controllers. Usually it give more benefit on SSD disks.	Data Reduction works best on SSD disks as their response times are lower as compared to Spinning disks. We support Compression and Deduplication on All flash pools but not on pools containing spinning disks, trust same is okay with DGH.	Minimum requirement is specified in the tender. Compression and Deduplication on All flash pools is acceptable provided the same fulfills all other requirements specified in the tender.	
4	teness of Solutio n	"Any additional resource/ accessory, eg SAN Switch, SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etc. required for completeness of the solution must be provided by the vendor, at no additional cost to DGH. To ascertain the extent of additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner."		Kindly suggest Model of existing switches, Total ports and ports available for additional connectivity. Request you to also define distance of switches from the proposed location of new storage so that bidders can provision cable lengths. Also number of server on which the SAN storage to be made visible.	>PDC SAN Switch: HP SN 6000B No of SAN Switch: 2, configured in HA. Empty Ports: 5 & 8. >SDC SAN Switch: HP SN 6000B No of SAN Switch: 1. Empty Ports: 8. >Distance of SAN Switch from New Storage: Approx 4/5 metres >No of Servers in PDC:14 & No of Servers in SDC:10	
5	Replica tion	The storage system array should have hardware based data replication & should be able to replicate data from PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link. Existing replication license upgrade if any to be provided.		Please confirm if our understanding is correct that replication license should be provisioned with new arrays and this license shall be good to replicate upgraded capacity of 80TB to DR at storage level.	The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements. Replication of data between PDC and SDC is a necessary requirement. Additional licenses, if required, must be provided to fulfill this requirement.	

Parama ter	The season of the season		orage Capacity Upgradation: 80 TB Usable Disk Space at SDC, BBSR, Odisha					
	Functionality	Justification	Query	DGH's Response				
			Our understanding is that we can propose new storage for 80TB capacity.	>The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements >It has been clarified that expansion of existing				
	of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual		Our understanding is that the proposed storage should be proposed with 48GB cache across dual controller. Incase of upgrade to existing storage cache the total after upgrade of cache should be total 96GB. Please confirm if our understanding is correct.	To be guided by tender requirements for SDC, BBSR, Odisha				
Provisio ning and Space optimiz ation	provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array supported raw capacity.2. Offered storage solution shall support data reduction feature of in-line Deduplication and in-line Compression for volumes. Vendor shall support both in-line de-duplication and in-line compression on a given volume	by enabling De-Dup and compression because De- Dup and Conpression puts extra load on	disks. We support Compression and Deduplication	To be guided by tender requirements for SDC, BBSR, Odisha				
teness of Solutio n offered	SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etc.required for completeness of the solution must be provided by the vendor, at no additional cost to DGH. To ascertain the extent of additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner."			>PDC SAN Switch: HP SN 6000B No of SAN Switch: 2, configured in HA. Empty Ports: 5 & 8. >SDC SAN Switch: HP SN 6000B No of SAN Switch: 1. Empty Ports: 8. >Distance of SAN Switch from New Storage: Approx 4/5 metres >No of Servers in PDC:14 & No of Servers in SDC:10				
Replica tion	based data replication & should be able to replicate data from PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link. Existing replication license		upgraded capacity of 80TB to DR at storage level.	The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements. Replication of data between PDC and SDC is a necessary requirement. Additional licenses, if required, must be provided to fulfill this requirement.				
	Thin Provisio ning and Space optimiz ation Comple teness of Solutio n offered Remote Replica tion	of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual Controllers is 48GB. Total available cache after addition of new cache would be minimum 96GB Thin Provision Ing and Space optimiz ation Comple "Any additional resource/ accessory, eg SAN Switch, SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etc. required for completeness of the solution must be provided by the vendor, at no additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner." Remote Replica tion of Data Cache across Pual Controller across existing Dual Controller additional replication and in-line deadred at Topical Power supply etc. Power supply etc. In a scertain the extent of additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner." Remote Replica tion The storage system array should have hardware based data replication & should be able to replicate data from PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link. Existing replication license upgrade if any to be provided.	of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual Controllers is 48GB. Total available cache after addition of new cache would be minimum 96GB Thin Provision in the composition of the provision of the provisi	of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual Controllers is 48GB. Total available cache after addition of new cache would be minimum 96GB Thin Provisio ming and Thin Re-claim to make the volume provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array and Space optimiz ation Space of which is a specific to the state of the complete array and in-line compression for volumes. Vendor shall support both in-line de-duplication and in-line compression for volumes. Vendor shall support both in-line de-duplication and in-line compression on a given volume simultaneously. Comple Any additional resource/ accessory, eg SAN Switch, SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etcredered by the vendor, at no additional resource of Gereaponsibility of the vendor to make the system operational in the desired manner.' Remote Replica for a specific and for the speciation of the sold responsibility of the vendor to make the system operational in the desired manner.' Remote Replica for a far for PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link, Existing replication in census with the provided. Should be proposed with 48GB cache across dual controllers. Incase of upgrade to existing storage cache the total after upgrade of eache should be total 96GB. Please confirm if our understanding is correct that response times are lower as compared to Spinning disks. We support Compression proposed in the best on SDD disks. We support Compression and Deduptication and in-line Compression for volumes. Kindly suggest Model of existing storage is obtained by the vendor of make the system operation of new storage so that bidders can provision cable lengths. Also number of server on which the SAN storage to be made visible. Please confirm if our understanding is correct that replication (iscense shall be good to replicate upgraded capa				

s	Parame	Functionality	Justification for	Query	DGH's Response
No	ter	<u> </u>	Amendments		
1	14.0 PERIO D OF VALIDI TY OF BIDS	The Bid shall be valid for 90 days after the date of bid opening for acceptance for the period as indicated in the "Invitation for Bid" (hereinafter referred to as validity period) and shall not be withdrawn on or after the opening of bids till the expiration of the validity period or any extension agreed thereof.		We request DGH to Confirm the Validity of Bid from the Date of Openining of Technical Bid or Commercial Bid!	Bid should be valid for 90 days from opening of Technical Bid
2	9.	i. 70% of material cost including taxes after receipt of		i. 80% of material cost including taxes after receipt	Refer to amendments
	Paymen t	all the Items as per Scope of Supply (Annexure-I) by DGH as per the terms and conditions of DGH supply order. The materials upon receipt will be jointly inspected by DGH & the vendor. If any hardware material received at specified delivery locations of PDC, Noida & SDC, BBSR, Odisha is found be in physically damaged condition and/or is found to have undergone water leakage, then the same will be considered dead on arrival & has to be replaced for delivery of materials to be considered complete for release of 70% payment. ii. 20% of material cost including taxes and 100% Installation/ commissioning charges including taxes will be released after (i) successful completion of installation & commissioning and (ii) completion of one month's testing period post commissioning date as per the scope of work. iii. Payment of balance 10% of material cost would be retained towards the warranty support and will be released @ 2.5 % of material cost in four installments.		of all the Items as per Scope of Supply (Annexure-I) by DGH as per the terms and conditions of DGH supply order. The materials upon receipt will be jointly inspected by DGH & the vendor. If any hardware material received at specified delivery locations of PDC, Noida & SDC, BBSR, Odisha is found be in physically damaged condition and/or is found to have undergone water leakage, then the same will be considered dead on arrival & has to be replaced for delivery of materials to be considered complete for release of 70% payment. ii. 10% of material cost including taxes and 100% Installation/ commissioning charges including taxes will be released after (i) successful completion of installation & commissioning and (ii) completion of one month's testing period post commissioning date as per the scope of work. iii. Payment of balance 10% of material cost would be released on submission of Performance Bank Gurantee of equivalent balance amount till completion of warranty period.	
3	7. Time lines for Deliver y, Installa tion, Configu ration & Commi ssionin g, and Testing:	Delivery of items against 2.1 & 2.3 will be at PDC, Noida. Delivery of items against 2.2 will be at SDC, BBSR, Odisha:Within 8 (Eight) weeks from date of LoA	We request DGH to Amend the Delivery Period from 8 weeks to 8-10 weeks as these enterprise level of products havig back to back Delivery arrangements min. 8-10 weeks from all leading OEMs.		Not Agreed; To be guided by relevant tender terms

4	7. Time lines for Deliver y, Installa tion, Configuration & Commi ssionin g, and Testing:	Installation, Configuration & Commissioning. Within 10 (Ten) weeks from date of LoA	We request DGH to Amend the Installation time from 10 weeks from the date of LoA to 10-12 weeks from date of LoA as Scope of work is very vaste and Migration of DATA is also involve and to implement the solution in a effective manner we need additional time.		Not Agreed; To be guided by relevant tender terms	
5	15.0 BID SECUR ITY	15.2 MSEs eligible as per Ministry of MSME's guidelines, and Government Departments will be exempted from Bid Security, provided the bidder submits necessary evidence for eligibility, along with the bid.		We request for your kind intervention & consideration on below request; * As we are Registered Company with office of NSIC & MSME, Govt of India, New Delhi - your acceptance is requested to submit the valid NSIC and MSME certificate instead of & Bid Security (EMD) amount.	Exemtion for submission of EMD allowed as per prevailing Govt. Provisions	
Co	Company Name : M/s Pan India Consultants Pvt. Ltd					
s.i	No OF	Reference in Tender / Area of Concern.		Query	DGH's Response	
<u>S.f.</u> 1		Reference in Tender / Area of Concern. BID EVALUATION CRITERIA- Page 45 B.1 Technical rejection criteria 2.3 The bidder must have successfully executed at least 2 orders for the supply of storage solutions of 100 TB each or more to any Government Agency/PSU/listed company/etc in the past 3 years from the date of bid closing. Documentary evidences like purchase orders / equivalent documents showing operations of such jobs along with completion Certificate(s) or payment certificates or any other documents which substantiate completion of the jobs, issued by the client(s) with contact details of the issuing person/organization (e-mail address, Phone Number, Fax number etc.) must be submitted along with the bid.		Query This technical Rejection criteria is in favour of Hardware Vendor and in such case Software vendor will not be able to meet this criteria and will not able to participate in this tender. We request you to kindly remove this criterion or Similar appropriate criteria should be added to enable Software Vendors to participate in the tender.	DGH's Response Not Agreed; To be guided by relevant tender terms	
1		BID EVALUATION CRITERIA- Page 45 B.1 Technical rejection criteria 2.3 The bidder must have successfully executed at least 2 orders for the supply of storage solutions of 100 TB each or more to any Government Agency/PSU/listed company/etc in the past 3 years from the date of bid closing. Documentary evidences like purchase orders / equivalent documents showing operations of such jobs along with completion Certificate(s) or payment certificates or any other documents which substantiate completion of the jobs, issued by the client(s) with contact details of the issuing person/organization (e-mail address, Phone Number, Fax number etc.) must be		This technical Rejection criteria is in favour of Hardware Vendor and in such case Software vendor will not be able to meet this criteria and will not able to participate in this tender. We request you to kindly remove this criterion or Similar appropriate criteria should be added to enable Software Vendors to participate in the		

4	General			Whether EC for concessional Custom Duty will be	No
				available for the supply under this tender.	
5		Scope of Work/ Technical Specification – Page48		For which Operating System , the Tape-R/W	Already Specified in Section 1.3 of Tender
				software will be required	Document under: "Existing System Details".
Con	npany N	ame : M/s CI Infotech Pvt Ltd			
S.N	0			Query	DGH's Response
1				The asked software for LTO Tape Drives are	Not Agreed; To be guided by relevant tender terms
				proprietary items of respective OEMs who have no	
				Office presence in India and neither do they have	
				any distribution network for sales, support and	
				training.	
				It would be difficult for the System Integrator to	
				maintain the required SLA, procure the item and	
				arrange OEM Training for the required software	
				hence we would request for the necessary	
				modification/changes in the Bill of Material and	
				would suggest DGH to buy the required Software of	
				their own.	
				then own.	
Con	npany N	ame: M/s Progression Infonet Pvt. Ltd.			
S.N		Reference in Tender / Area of Concern.		Query	DGH's Response
1		Payment Schedule		Since Supplier is providing PBG also, and hence	Refer to Amendments
		Payment of balance 10% of material cost would be		this clause should be removed and 10% should be	
		retained towards the warranty support and will be		added in Point (ii)	
		released @ 2.5 % of material cost in four			
		installments.			
Con	npany N	ame : M/s Dell EMC			
Stor	age Can	acity Upgradation: 80 TB Usable Disk Space + 2 Storage	Controllers at PDC Noida		
	Parama		Justification	Query	DGH's Response
О	ter	•		,	·
				Our understanding is that we can propose new	>The offered storage solution must be compatible
				storage for 80TB capacity.	with the existing system as an integrated solution
					& fulfill the tender requirements
1					>It has been clarified that expansion of existing
					LUN is a requirement in view of the tender being
					addition of storage capacity to the existing storage
					solution at DGH
	Cache	Storage Controller Array should be offered with 48GB		Our understanding is that the proposed storage	Total available cache after addition of new cache
		of Data Cache across Dual Controllers. 24 GB for		should be proposed with 48GB cache across dual	should be minimum 96GB including existing
2		each Controller. Existing Cache across existing Dual		controller. Incase of upgrade to existing storage	cache of 48GB across Dual Controllers.
-		Controllers is 48GB. Total available cache after		cache the total after upgrade of cache should be	
		addition of new cache would be minimum 96GB		total 96GB. Please confirm if our understanding is	
				correct.	
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3	Provisio ning and Space optimiz ation	1. Offered storage solution shall support Thin provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array supported raw capacity. 2. Offered storage solution shall support data reduction feature of in-line Deduplication and in-line Compression for volumes. Vendor shall support both in-line de-duplication and in-line compression on a given volume simultaneously.	will not be much benefit by enabling De-Dup and	Data Reduction works best on SSD disks as their response times are lower as compared to Spinning disks. We support Compression and Deduplication on All flash pools but not on pools containing spinning disks, trust same is okay with DGH.	Minimum requirement is specified in the tender. Compression and Deduplication on All flash pools is acceptable provided the same fulfills all other requirements specified in the tender.
4	teness of Solutio n offered	"Any additional resource/ accessory, eg SAN Switch, SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etc. required for completeness of the solution must be provided by the vendor, at no additional cost to DGH. To ascertain the extent of additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner."		Kindly suggest Model of existing switches, Total ports and ports available for additional connectivity. Request you to also define distance of switches from the proposed location of new storage so that bidders can provision cable lengths. Also number of server on which the SAN storage to be made visible.	Empty Ports: 5 & 8.
5	Replica tion	The storage system array should have hardware based data replication & should be able to replicate data from PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link. Existing replication license upgrade if any to be provided.		Please confirm if our understanding is correct that replication license should be provisioned with new arrays and this license shall be good to replicate upgraded capacity of 80TB to DR at storage level.	The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements. Replication of data between PDC and SDC is a necessary requirement. Additional licenses, if required, must be provided to fulfill this requirement.
Sto	rage Cap	│ acity Upgradation: 80 TB Usable Disk Space at SDC, BB	⊥ SR, Odisha		-
S.N	Parama ter	Functionality	Justification	Query	DGH's Response
1				Our understanding is that we can propose new storage for 80TB capacity.	>The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements >It has been clarified that expansion of existing LUN is a requirement in view of the tender being addition of storage capacity to the existing storage solution at DGH
2		Storage Controller Array should be offered with 48GB of Data Cache across Dual Controllers. 24 GB for each Controller. Existing Cache across existing Dual Controllers is 48GB. Total available cache after addition of new cache would be minimum 96GB		Our understanding is that the proposed storage should be proposed with 48GB cache across dual controller. Incase of upgrade to existing storage cache the total after upgrade of cache should be total 96GB. Please confirm if our understanding is correct.	To be guided by tender requirements for SDC, BBSR, Odisha

ning and Space	1. Offered storage solution shall support Thin provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array supported raw capacity.2. Offered storage solution shall support data reduction feature of in-line Deduplication and in-line Compression for volumes. Vendor shall support both in-line de-duplication and in-line compression on a given volume simultaneously.	will not be much benefit by enabling De-Dup and	Data Reduction works best on SSD disks as their response times are lower as compared to Spinning disks. We support Compression and Deduplication on All flash pools but not on pools containing spinning disks, trust same is okay with DGH.	To be guided by tender requirements for SDC, BBSR, Odisha
teness of Solutio n	"Any additional resource/ accessory, eg SAN Switch, SFP+ Module, Storage Controller, Server/ Storage Rack, FO Cable, LAN switch, adapters, power supply etc. required for completeness of the solution must be provided by the vendor, at no additional cost to DGH. To ascertain the extent of additional requirement, vendors may visit PDC site at DGH, OIDB, Noida & SDC site at STPI, Bhubaneswar accompanied by DGH IT personnel. It is the sole responsibility of the vendor to make the system operational in the desired manner."		Kindly suggest Model of existing switches, Total ports and ports available for additional connectivity. Request you to also define distance of switches from the proposed location of new storage so that bidders can provision cable lengths. Also number of server on which the SAN storage to be made visible.	Empty Ports : 5 & 8.
	The storage system array should have hardware based data replication & should be able to replicate data from PDC Storage at DGH, Noida to/from DR Storage, BBSR, Odisha through a dedicated 100 Mbps MPLS Link. Existing replication license upgrade if any to be provided.		upgraded capacity of 80TB to DR at storage level.	The offered storage solution must be compatible with the existing system as an integrated solution & fulfill the tender requirements. Replication of data between PDC and SDC is a necessary requirement. Additional licenses, if required, must be provided to fulfill this requirement.