



نوعی و بیرونی مشموله - 1

نمبر سند No:	TES/2019/G-37-R01	
پراجیکٹ Project:	Supply and Delivery of 5 HPE Simplivity 380 Gen 10	
تاریخ Issued Date	July 4, 2020	
نمبر صفحات: -01	BoQ: -00	Drawings: -00

Please include this Clarification when submitting the bid.

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- Answers for the queries are attached with this Clarification

سر

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Signature:





Ministry of Finance

Male', Republic of Maldives

Supply and Delivery of 5 HPE Simplivity 380 Gen 10 CLARIFICATION 1

Compute Nodes:

1. We need to know details about the workload (number of VMs, RAM, CPU, IOPS, and Storage).

Machine	System Model	Memory	Hard disk size	Processor
Machine 01	Virtual Machine 01	16 GB	127 GB	4 Core(s), 4 Logical Processor(s)
Machine 02	Virtual Machine 02	12 GB	250 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 03	4 GB	100 GB	2 Core(s), 2 Logical Processor(s)
	Virtual Machine 04	6 GB	50 GB	2 Core(s), 2 Logical Processor(s)
	Virtual Machine 05	4 GB	10 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 06	8 GB	127 GB + 300 GB	1 Core(s), 1 Logical Processor(s)
Machine 03	Virtual Machine 07	2 GB	127 GB + 10 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 08	8 GB	127 GB	2 Core(s), 2 Logical Processor(s)
	Virtual Machine 09	4 GB	127 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 10	4 GB	50 GB	1 Core(s), 1 Logical Processor(s)
Machine 04	Virtual Machine 11	8 GB	110 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 12	4 GB	127 GB + 100 GB	2 Core(s), 2 Logical Processor(s)
Machine 05	Virtual Machine 13	1 GB	127 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 14	4 GB	127 GB	1 Core(s), 1 Logical Processor(s)
	Virtual Machine 15	4 GB	127 GB	3 Core(s), 3 Logical Processor(s)
Machine 06	Itanium	32 GB	820 GB	8 Core(s), 8 Logical Processor(s)

Note: There are 3 Physical machines running Ubuntu that needs to be migrated.

2. FC HBA interfaces were said to be used for existing SAN, will the Guest VMs be communicating to the rest of the network via the 4x 1GbE links on each node?
HPE recommends not to have the FC HBA, so we have removed it from the RFP
3. Requested useable storage capacity and RAM is a bit low considering the OmniStack RAM overhead, did they account for the OmniStack RAM overhead when considering RAM?
Please follow the recommendations given from HPE sizing tool and stick with the minimum required RAM



4. HPE recommends an Arbiter service (outside the SimpliVity cluster) for up to 4 nodes, will they be providing a machine (Physical or VM) to run Arbiter server (required at both Ministry and DR site).

We will provide a VM for the Arbiter server

5. DR site at NCIT has two nodes of similar specs as Ministry, can we assume the workloads will not exceed two-node resources both in production and failover scenarios?

Yes

Networking:

1. Tender mentions a single 10G capable switch, do they have existing infrastructure to support the recommended redundant 10G networking required for Federation and Storage networks?

We have added an additional 10G switch in the RFP

2. Available networking capacity, latency information between Ministry and NCIT (DR Site) is not clear, do they have similar connectivity required for DR site same as Ministry?

1Gbps dark fiber connection between MoF and NCIT

3. Virtual machine connectivity to the rest of the network requires redundancy, will the current infrastructure support the aggregated quad 1GbE links of all the nodes?

Yes

Migration:

1. How many HyperV VMs require migration, and what are their storage sizes?

Machine	System Model	Hard disk size
Machine 01	Virtual Machine 01	127 GB
Machine 02	Virtual Machine 02	250 GB
	Virtual Machine 03	100 GB
	Virtual Machine 04	50 GB
	Virtual Machine 05	10 GB
Machine 03	Virtual Machine 06	127 GB + 300 GB
	Virtual Machine 07	127 GB + 10 GB
	Virtual Machine 08	127 GB
	Virtual Machine 09	127 GB
Machine 04	Virtual Machine 10	50 GB
	Virtual Machine 11	110 GB
Machine 05	Virtual Machine 12	127 GB + 100 GB
	Virtual Machine 13	127 GB
	Virtual Machine 14	127 GB
	Virtual Machine 15	127 GB
Machine 06	Itanium	820 GB

Note: There are 3 Physical machines running Ubuntu that needs to be migrated.



2. How many physical hosts need virtualization and migrations, and what are their operating systems, storage sizes, and connectivity speeds?

Machine	System Model	Hard disk size	Operating System	Physical Memory
Machine 01	Virtual Machine 01	127 GB	Windows Server 2008 R2 Enterprise	32 GB
Machine 02	Virtual Machine 02	250 GB	Windows Server 2016 Standard	48 GB
	Virtual Machine 03	100 GB	Windows 10 Pro	
	Virtual Machine 04	50 GB	Ubuntu 18.04	
	Virtual Machine 05	10 GB	Ubuntu 18.04	
	Virtual Machine 06	127 GB + 300 GB	Windows 7 Pro	
Machine 03	Virtual Machine 07	127 GB + 10 GB	Windows 7 Pro	36 GB
	Virtual Machine 08	127 GB	Windows Server 2008 R2 Enterprise	
	Virtual Machine 09	127 GB	Windows Server 2008 R2 Enterprise	
	Virtual Machine 10	50 GB	Windows Server 2012 R2 Standard	
Machine 04	Virtual Machine 11	110 GB	Windows Server 2012 R2 Standard	24 GB
	Virtual Machine 12	127 GB + 100 GB	Windows Server 2008 R2 Enterprise	
Machine 05	Virtual Machine 13	127 GB	Windows Server 2003 R2 Standard	16 GB
	Virtual Machine 14	127 GB	Windows Server 2008 R2 Enterprise	
	Virtual Machine 15	127 GB	Windows Server 2008 R2 Enterprise	
	Virtual Machine 16	127 GB	Windows Server 2008 R2 Enterprise	
Machine 06	Itanium	820 GB	Windows Server 2008 for Itanium	30 GB

Note: There are 3 Physical machines running Ubuntu that needs to be migrated.

3. Licenses required for virtualized instances (for example Windows server) are available? Windows server is now licensed per core, and the current license might not be enough. Do we have to supply the required Windows DC license for the nodes?
Windows licenses are available. No need to supply the Windows DC license for the nodes

Training:

1. Attached is the HPE SimpliVity training curriculum, can you confirm which of these is required since there are pre-requisites and we don't know which of these training are already completed by Ministry IT techs.
No SimpliVity related training has been completed by MoF technical team



1. Existing VM layout

Machine	System Model	Memory	Hard disk size	Processor	Operating System	Physical Memory
Machine 01	Virtual Machine 01	16 GB	127 GB	4 Core(s), 4 Logical Processor(s)	Windows Server 2008 R2 Enterprise	32 GB
Machine 02	Virtual Machine 02	12 GB	250 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2016 Standard	48 GB
	Virtual Machine 03	4 GB	100 GB	2 Core(s), 2 Logical Processor(s)	Windows 10 Pro	
	Virtual Machine 04	6 GB	50 GB	2 Core(s), 2 Logical Processor(s)	Ubuntu 18.04	
	Virtual Machine 05	4 GB	10 GB	1 Core(s), 1 Logical Processor(s)	Ubuntu 18.04	
Machine 03	Virtual Machine 06	8 GB	127 GB + 300 GB	1 Core(s), 1 Logical Processor(s)	Windows 7 Pro	36 GB
	Virtual Machine 07	2 GB	127 GB + 10 GB	1 Core(s), 1 Logical Processor(s)	Windows 7 Pro	
	Virtual Machine 08	8 GB	127 GB	2 Core(s), 2 Logical Processor(s)	Windows Server 2008 R2 Enterprise	
	Virtual Machine 09	4 GB	127 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2008 R2 Enterprise	
Machine 04	Virtual Machine 10	4 GB	50 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2012 R2 Standard	24 GB
	Virtual Machine 11	8 GB	110 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2012 R2 Standard	
Machine 05	Virtual Machine 12	4 GB	127 GB + 100 GB	2 Core(s), 2 Logical Processor(s)	Windows Server 2008 R2 Enterprise	16 GB
	Virtual Machine 13	1 GB	127 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2003 R2 Standard	
	Virtual Machine 14	4 GB	127 GB	1 Core(s), 1 Logical Processor(s)	Windows Server 2008 R2 Enterprise	
	Virtual Machine 15	4 GB	127 GB	3 Core(s), 3 Logical Processor(s)	Windows Server 2008 R2 Enterprise	
Machine 06	Itanium	32 GB	820 GB	8 Core(s), 8 Logical Processor(s)	Windows Server 2008 for Itanium	30 GB

Note: There are 3 Physical machines running Ubuntu that needs to be migrated.

2. Detail Network Diagram / Low level Network diagram – DR and PR broth
Currently no DR site

3. Existing VM version

All are running on Microsoft HyperV

4. Could you clarify payment method, are we in a position to proposed our own payment method?

No. Refer to GCC 16.1 (Terms of Payment)

5. What are the services you are expecting to migrate this new environment?

Total migration of all machines and virtual Machines



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We would like to clarify on the matter of this Tender (TES/2019/G-037-R01) being locked to Single brand of a product (HPE SimpliVity HCI) thus narrowing the opportunity for other similar Brand to participate in the Tender.

As the Hyper Converge infrastructure is totally a new requirement to MOF and there is no existing HCI setup currently, we believe that tendering process should allow equal opportunity to all business and Brands in the Market.

Moreover, we believe that other vendors (Other than HPE) such as DellEMC has an extremely good product portfolio for Hyper converged infrastructure and is marked as a leader in both Gartner and IDC ranking.

However, since opportunity is locked and designed to only 1 brand in the Market, we believe it does not adhere to National Competitive Bidding policy and we request you to reconsider for opening up equal opportunity to competitive brands.

MoF Data center and DR site are currently running on HPE hardwares.
For compatibility, management and single point of support service reasons for mission critical hardware, MoF has decided to go for HPE products

1. For HPE SimpliVity deployment a separate server needs to host VMware vCenter and SimpliVity arbiter. Please confirm if we should include the necessary HW for this requirement (e.g: 1 server, 2x8Core CPU, 32GB RAM)

We will provide the required server

2. Do we need to submit full design diagram for primary and DR site based on the proposed configuration?

Yes



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