



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF BUDGET AND MANAGEMENT
 GENERAL SOLANO STREET, SAN MIGUEL, MANILA

SUPPLEMENTAL/BID BULLETIN (SBB) NO. 1

This SBB No. 1 dated July 14, 2020 for the Project, “Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure,” is issued to clarify, modify or amend items in the Bidding Documents. Accordingly, this shall form an integral part of said documents.

PARTICULARS	CLARIFICATION/AMENDMENTS																
<p style="text-align: center;">Section I. Invitation to Bid</p> <p style="text-align: center;">XXXX</p> <p>2. The DBM now invites bids for the Project, “Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure.” Delivery of the Goods shall be in accordance with the Delivery Schedule under Section VI. Schedule of Requirements. Bidders should have completed, within two (2) years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.</p> <p style="text-align: center;">XXXX</p>	<p style="text-align: center;">Section I. Invitation to Bid</p> <p style="text-align: center;">XXXX</p> <p>2. The DBM now invites bids for the Project, “Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure.” Delivery of the Goods shall be in accordance with the Delivery Schedule under Section VI. Schedule of Requirements. Bidders should have completed, within two (2) three (3) years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.</p> <p style="text-align: center;">XXXX</p>																
<p style="text-align: center;">Section III. Bid Data Sheet</p> <p style="text-align: center;">XXXX</p> <p>12.1(a)(ii) The bidder’s SLCC similar to the contract to be bid should have been completed within two (2) years prior to the deadline for the submission and receipt of bids.</p> <p style="text-align: center;">XXXX</p>	<p style="text-align: center;">Section III. Bid Data Sheet</p> <p style="text-align: center;">XXXX</p> <p>12.1(a)(ii) The bidder’s SLCC similar to the contract to be bid should have been completed within two (2) three (3) years prior to the deadline for the submission and receipt of bids.</p> <p style="text-align: center;">XXXX</p>																
<p style="text-align: center;">Section VII. Technical Specification</p> <p style="text-align: center;">XXXX</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Specifications</th> <th style="width: 30%;">Bidder's Statement of Compliance</th> </tr> </thead> <tbody> <tr> <td>I. Objective (<i>see attached Annex A, item II</i>)</td> <td></td> </tr> <tr> <td>II. Delivery Period (<i>see attached Annex A, item III</i>)</td> <td></td> </tr> <tr> <td>III. Specifications (<i>see attached Annex A, item IV</i>)</td> <td></td> </tr> </tbody> </table>	Specifications	Bidder's Statement of Compliance	I. Objective (<i>see attached Annex A, item II</i>)		II. Delivery Period (<i>see attached Annex A, item III</i>)		III. Specifications (<i>see attached Annex A, item IV</i>)		<p style="text-align: center;">Section VII. Technical Specification</p> <p style="text-align: center;">XXXX</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Specifications</th> <th style="width: 30%;">Bidder's Statement of Compliance</th> </tr> </thead> <tbody> <tr> <td>I. Objective (<i>see attached Revised Annex A, item II</i>)</td> <td></td> </tr> <tr> <td>II. Delivery Period (<i>see attached Revised Annex A, item III</i>)</td> <td></td> </tr> <tr> <td>III. Specifications (<i>see attached Revised Annex A, item IV</i>)</td> <td></td> </tr> </tbody> </table>	Specifications	Bidder's Statement of Compliance	I. Objective (<i>see attached Revised Annex A, item II</i>)		II. Delivery Period (<i>see attached Revised Annex A, item III</i>)		III. Specifications (<i>see attached Revised Annex A, item IV</i>)	
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<p>IV. Scope of Work (<i>see attached Annex A, item V</i>)</p> <p>V. Service Level Agreement (<i>see attached Annex A, item VI</i>)</p> <p>VI. Warranties of the Contractor (<i>see attached Annex A, item VII</i>)</p> <p>VII. Confidentiality of Data (<i>see attached Annex A, item VIII</i>)</p> <p>VIII. Terms of Payment (<i>see attached Annex A, item IX</i>)</p> <p>IX. Pre-Termination of Contract (<i>see attached Annex A, item X</i>)</p>	<p>IV. Scope of Work (<i>see attached Revised Annex A, item V</i>)</p> <p>V. Service Level Agreement (<i>see attached Revised Annex A, item VI</i>)</p> <p>VI. Warranties of the Contractor (<i>see attached Revised Annex A, item VII</i>)</p> <p>VII. Confidentiality of Data (<i>see attached Revised Annex A, item VIII</i>)</p> <p>VIII. Terms of Payment (<i>see attached Revised Annex A, item IX</i>)</p> <p>IX. Pre-Termination of Contract (<i>see Revised attached Annex A, item X</i>)</p>
<p style="text-align: center;">xxxx</p>	<p style="text-align: center;">xxxx</p> <p>Attached are the Revised Section VII. Technical Specifications and the Revised Annex “A.”</p>
<p>Questions from the Bidders on Annex “A”</p> <p>1. On 4.9.1 and 4.9.3: Just to clarify, will we use Cisco's QSFP+ Bidi 40GB & Palo Alto's PAN 40G BiDi transceivers as a medium for the connection of the Cisco and Palo Alto networking appliance?</p> <p>2. On 4.9.3: Per checking, the PAN-40GBASE BiDi transceiver of Palo Alto is only compatible with PA-7000 and PA-5200 series. May we request for your Palo Alto's existing model so we could check the compatibility of the required transceiver?</p> <p>3. On 4.9.1 to 4.9.2: Can you please share the model of your existing Cisco networking appliance as well so we could check that the transceiver we will offer will be compatible with your existing Cisco device.</p> <p>4. On 4.9.8: Can we offer two (2) units of 24 Ports CAT6 Patch Panel (1U)?</p>	<p>BAC Responses</p> <p>1. Yes, the requirement refers to CISCO and Palo Alto connectivity. Please see attached Revised Annex “A,” item IV, 4.9.14.9.3.</p> <p>2. The existing Palo Alto model is PA-3260.</p> <p>3. The existing CISCO networking appliance is CISCO C6807-XL.</p> <p>4. Yes, two (2) units of 24 Ports CAT6 Patch Panel (1U) are equivalent to the requirement specified in item 4.9.8. Please see attached Revised Annex “A,” item IV, 4.9.8.</p>

<p>5. On 4.9.9: Please advise on the following:</p> <ul style="list-style-type: none"> - Can we offer 2U instead of 1U? - Please advise type of connector, SC or LC? - Do you require Multimode or Singlemode? - Do you require fiber optic termination? <p>6. On 4.9.11: Please advise on the following:</p> <ul style="list-style-type: none"> - Length? - Connector type on both ends? - Multimode or Singlemode? 	<p>5. In accordance with item 4.9.9, the requirements are as follows:</p> <ul style="list-style-type: none"> - 2U - LC Connector - Multimode - With fiber optic termination <p>6. In accordance with item 4.9.11, the requirements are as follows:</p> <ul style="list-style-type: none"> - At least 3 meters - LC to LC /RJ 45 to RJ 45 -Multimode
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Other matters:

- The “No Contact Rule” shall be strictly observed. Bidders are not allowed to call or talk to any member of the Bids and Awards Committee, Technical Working Group or Secretariat effective July 21, 2020 right after the opening of bids.
- For guidance and information of all concerned.

X 

Signed by: Janet B. Abuel

JANET B. ABUEL

Undersecretary

Chairperson, DBM-BAC

Section VII. Technical Specifications

(Revised)

Bidders must state here either “Comply” or any equivalent term in the column “Bidder’s Statement of Compliance” against each of the individual parameters of each “Specification.”

Specifications	Bidder's Statement of Compliance
<p>I. Objective <i>(see attached Revised Annex A, item II)</i></p> <p>II. Delivery Period <i>(see attached Revised Annex A, item III)</i></p> <p>III. Specifications <i>(see attached Revised Annex A, item IV)</i></p> <p>IV. Scope of Work <i>(see attached Revised Annex A, item V)</i></p> <p>V. Service Level Agreement <i>(see attached Revised Annex A, item VI)</i></p> <p>VI. Warranties of the Contractor <i>(see attached Revised Annex A, item VII)</i></p> <p>VII. Confidentiality of Data <i>(see attached Revised Annex A, item VIII)</i></p> <p>VIII. Terms of Payment <i>(see attached Revised Annex A, item IX)</i></p> <p>IX. Pre-Termination of Contract <i>(see attached Revised Annex A, item X)</i></p>	

I hereby certify to comply with all the above Technical Specifications.

Name of Company/Bidder

Signature Over Printed Name of Representative

Date

TECHNICAL SPECIFICATION (Revised)

I. PROJECT TITLE

Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure

II. OBJECTIVE

DBM is in the process of refreshing and modernizing its current infrastructure with a next-generation hyper-converged infrastructure platform/systems to drive better IT responsiveness, improve operational efficiency and deliver better service. An enterprise-grade Hyper-Convergence Infrastructure system for BTMS that is compatible with the existing DBM Architecture and designed to provide high-availability (HA), redundancy, data protection and readiness for disaster recovery and automation.

III. DELIVERY PERIOD

The supply, delivery, installation, configuration, migration, and testing of Additional Servers for BTMS Infrastructure shall be from receipt of the Notice to Proceed (NTP) to on or before December 31, 2020.

IV. SPECIFICATIONS

- 4.1 The Hyper-Converge Infrastructure Solution should have the following features but not limited to:
 - 4.1.1 Must be based on a converged IT infrastructure platform that integrates storage, compute, networking, hypervisor, real-time deduplication, compression, and optimization along with powerful data management, data protection, and disaster recovery capabilities in a standard x86 server building block.
 - 4.1.2 Every Hyper-Converge Infrastructure Node must be capable to support the following:
 - 4.1.2.1 Intel Xeon Scalable Processors (Skylake) and DDR4 RAM at 2400 Mhz or above
 - 4.1.2.2 Minimum of 288 GB of memory supporting up to 1536 GB
 - 4.1.2.3 Configured all-flash storage with SSD drives a minimum of 1.92 TB per drive
 - 4.1.3 The in-line deduplication and compression shall not put any additional load on the CPU and memory of the node.
 - 4.1.4 Must be able to support multiple points of failure with no loss of function or data
 - 4.1.5 Should support stretch cluster deployment in a near-site metro DC deployment -
 - 4.1.6 Each node should have a dedicated redundant hot-swappable power supply unit to be able to sustain a single power supply failure.
 - 4.1.7 Must be able to sustain the following failures:
 - 4.1.7.1 SDD failure per node without Data Unavailability /Data Loss
 - 4.1.7.2 SDD failures in each node of a cluster and across nodes in the cluster without DU/DL
 - 4.1.7.3 One node failure in the cluster
 - 4.1.7.4 One NIC port failure
 - 4.1.8 The hyper-converged solution shall support VM-centric management through a single pane of glass via the virtualization manager of a given hypervisor.
 - 4.1.9 Hyper-converge shall have a programmatic interface for enabling automated tasks like failover/failback

- 4.1.10 Hyper-converge appliance shall have the ability to manage all aspects of the Hyper-convergence for all sites through Virtualization Manager.
- 4.1.11 Hyper-converge shall be able to expose/connect to existing customer servers for hosting VMs and applications while taking advantage of the functionality of the solution
- 4.1.12 Hyper-converge shall be able to globally manage Backup Policies per Datastore or per VM and shall be able to define the following:
 - 4.1.12.1 How many Backup copied needs to be created locally and globally
 - 4.1.12.2 How much retention is required for a copy locally and globally
- 4.1.13 The hyper-converged solution shall provide the complete flexibility for the following
 - 4.1.13.1 Selecting individual VMs for Backups.
 - 4.1.13.2 Move specific VMs between datacenter.
 - 4.1.13.3 Cloning specific VMs.
 - 4.1.13.4 VM-level backup instead of forcing protection at the datastore or protection domain level
- 4.1.14 VM Monitoring should have the following features:
 - 4.1.14.1 It must be accessible via a cloud-based dashboard (telemetry data only).
 - 4.1.14.2 Visibility to VM noisy neighbors and insights into VM storage utilization to identify high-consuming VMs and implement corrective actions
 - 4.1.14.3 Proactive wellness alerts
 - 4.1.14.4 Historical cluster capacity consumption and prediction to full
 - 4.1.14.5 System details at the federation, cluster, and node level, plus an “entitlement view,” which includes a node’s support contract status, a contract expiration notification banner.
- 4.1.15 Data Protection and Recovery
 - 4.1.15.1 Backup functionality shall be an integral feature of Hyper-Converge instead of a separate server/software license
 - 4.1.15.2 The backup must be an independent copy of source Virtual Server and must allow restoring of deleted/corrupted source Virtual Server
 - 4.1.15.3 Must be able to carry simultaneously out bi-directional replication between two data centers
 - 4.1.15.4 Must be able to replicate any-to-any in a Mesh Data Center deployment of more than 3 DC's
 - 4.1.15.5 Must be able to define backup policy per datastore, a group of VMs or specific VM
 - 4.1.15.6 Data Protection should have Recovery Point Objective (RPO) of 10 minutes for local backups
 - 4.1.15.7 Must be able to execute backup tasks during office hours without impact to production workloads
 - 4.1.15.8 Data loss protection against a minimum of 1 simultaneous local hard disk failures in all nodes of the cluster
 - 4.1.15.9 Data loss protection against single node failure in the cluster
 - 4.1.15.10 Must be able to provide backup reports for audit purpose
 - 4.1.15.11 Data recovery should be independent of source Virtual Server
 - 4.1.15.12 The solution should provide a backup catalog to allow any Virtual Server to be recovered to any specific point-in-time
 - 4.1.15.13 The data recovery process should be simple with a Recover Time Objective RTO in a minute
- 4.1.16 Must be capable of Disaster Recovery with the following features:
 - 4.1.16.1 The solution must provide a simple failover operation
 - 4.1.16.2 The solution must allow the creation of a Runbook to automate recovery of Virtual Servers
 - 4.1.16.3 The solution must allow changing of IP address of recovered Virtual Servers to match target datacenter
 - 4.1.16.4 The solution should allow changing VM settings (e.g. vCPU, vRAM, VMSwitch)
 - 4.1.16.5 The solution must allow the option to test DR failover to separate network with no impact to production workloads

- 4.1.16.6 The solution should have a feature to assist in the failback process to Primary datacenter
- 4.1.17 The Hyper-Converge Infrastructure Solution must be included in the latest leader's quadrant in Gartner's Magic Quadrant.
- 4.2 Three (3) units of branded and brand new HPE Simplivity 380 Gen 10 with the following minimum specifications:
 - 4.2.1 3 x DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit
 - 4.2.2 3 x DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit
 - 4.2.3 6 x SimpliVity 768G 12 DIMM FIO Kit
 - 4.2.4 3 x SimpliVity 380 for 4000 Series Medium Storage Kit
 - 4.2.5 3 x DL38X Gen10 x8/x16/x8 PCIe NEBS Riser Kit
 - 4.2.6 3 x HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit
 - 4.2.7 3 x HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller
 - 4.2.8 3 x HPE Ethernet 10Gb 2-port 530SFP Adapter
 - 4.2.9 3 x HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
 - 4.2.10 6 x HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
 - 4.2.11 3 x HPE OmniStack 2P Medium SW
 - 4.2.12 3 x HPE 2U Cable Management Arm for Easy Install Rail Kit
 - 4.2.13 3 x HPE Trusted Platform Module 2.0 Gen10 Option
 - 4.2.14 3 x HPE Gen10 2U Bezel Kit
 - 4.2.15 3 x HPE DL380 Gen10 SFF Systems Insight Display Kit
 - 4.2.16 3 x HPE 2U Small Form Factor Easy Install Rail Kit
- 4.3 Three (3) units of branded and brand new HPE Simplivity 380 Gen 10 with the following minimum specifications:
 - 4.3.1 3 x HPE DL380 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) FIO Processor Kit
 - 4.3.2 3 x HPE DL380 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit
 - 4.3.3 6 x HPE SimpliVity 768G 12 DIMM FIO Kit
 - 4.3.4 3 x HPE SimpliVity 380 for 4000 Series Extra Large Storage Kit
 - 4.3.5 3 x HPE DL38X Gen10 x8/x16/x8 PCIe NEBS Riser Kit
 - 4.3.6 3 x HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit
 - 4.3.7 3 x HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller
 - 4.3.8 3 x HPE Ethernet 10Gb 2-port 530SFP Adapter
 - 4.3.9 3 x HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
 - 4.3.10 6 x HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
 - 4.3.11 3 x HPE OmniStack 2P Extra Large SW
 - 4.3.12 3 x HPE 2U Cable Management Arm for Easy Install Rail Kit
 - 4.3.13 3 x HPE Trusted Platform Module 2.0 Gen10 Option
 - 4.3.14 3 x HPE Gen10 2U Bezel Kit
 - 4.3.15 3 x HPE DL380 Gen10 SFF Systems Insight Display Kit
 - 4.3.16 3 x HPE 2U Small Form Factor Easy Install Rail Kit
- 4.4 Two (2) units of branded and brand new HPE Simplivity 380 Gen 10 with the following minimum specifications:
 - 4.4.1 2 x HPE SimpliVity 380 Gen10 VMware Solution
 - 4.4.2 2 x HPE DL380 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit
 - 4.4.3 2 x HPE DL380 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) Processor Kit

- 4.4.4 4 x HPE SimpliVity 768G 12 DIMM FIO Kit
- 4.4.5 2 x HPE SimpliVity 380 for 4000 Series Extra Large Storage Kit
- 4.4.6 2 x HPE DL38X Gen10 x8/x16/x8 PCIe NEBS Riser Kit
- 4.4.7 2 x HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit
- 4.4.8 2 x HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller
- 4.4.9 2 x HPE Ethernet 10Gb 2-port 530SFP Adapter
- 4.4.10 2 x HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- 4.4.11 4 x HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
- 4.4.12 2 x HPE OmniStack 2P Extra Large SW
- 4.4.13 2 x HPE 2U Cable Management Arm for Easy Install Rail Kit
- 4.4.14 2 x HPE Trusted Platform Module 2.0 Gen10 Option
- 4.4.15 2 x HPE Gen10 2U Bezel Kit
- 4.4.16 2 x HPE DL380 Gen10 SFF Systems Insight Display Kit
- 4.4.17 2 x HPE 2U Small Form Factor Easy Install Rail Kit

4.5 Two (2) units of branded and brand new HPE SimpliVity 380 Gen 10 with the following minimum specifications:

- 4.5.1 2 x HPE SimpliVity 380 Gen10 VMware Solution
- 4.5.2 2 x HPE DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit
- 4.5.3 2 x HPE DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit
- 4.5.4 4 x HPE SimpliVity 192G 6 DIMM FIO Kit
- 4.5.5 2 x HPE SimpliVity 380 for 6000 Series Small Storage Kit
- 4.5.6 2 x HPE DL38X Gen10 x8/x16/x8 PCIe NEBS Riser Kit
- 4.5.7 2 x HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit
- 4.5.8 2 x HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
- 4.5.9 2 x HPE Ethernet 10Gb 2-port 530SFP Adapter
- 4.5.10 2 x HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- 4.5.11 4 x HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
- 4.5.12 2 x HPE OmniStack 2P Small SW
- 4.5.13 2 x HPE 2U Cable Management Arm for Easy Install Rail Kit
- 4.5.14 2 x HPE Trusted Platform Module 2.0 Gen10 Option
- 4.5.15 2 x HPE Gen10 2U Bezel Kit
- 4.5.16 2 x HPE DL380 Gen10 SFF Systems Insight Display Kit
- 4.5.17 2 x HPE 2U Small Form Factor Easy Install Rail Kit

4.6 One (1) unit of branded and brand new HPE ProLiant DL360 Gen10 8SFF with the following minimum specifications:

- 4.6.1 1 x HPE DL360 Gen10 8SFF CTO Server
- 4.6.2 1 x HPE DL360 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit
- 4.6.3 1 x HPE DL360 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit
- 4.6.4 4 x HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit
- 4.6.5 2 x HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
- 4.6.6 1 x HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit
- 4.6.7 1 x HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller
- 4.6.8 1 x HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- 4.6.9 2 x HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
- 4.6.10 1 x Microsoft Windows Server 2019 (16-Core) Standard FIO Not Pre-installed
- 4.6.11 1 x HPE 1U Gen10 SFF Easy Install Rail Kit

- 4.6.12 2 x HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable
- 4.7 Two (2) units of branded and brand new Top of the Rack Switch with the following minimum specifications per unit:
 - 4.7.1 Must have at least 48 SFP+ ports and 8 QSFP28 (supports up to 100Gbps) ports.
 - 4.7.2 Must have a redundant hot-swappable power supply.
 - 4.7.3 At least 40Gbps stacking/clustering cables must be included.
 - 4.7.4 At least 4 x 40Gbps uplink cables must be included with at least 15m lengths.
 - 4.7.5 Uplink cables from hosts to switches must be included.
 - 4.7.6 Must support up to 4Tbps of switching capacity.
 - 4.7.7 Must support latency as low as 300ns.
 - 4.7.8 Each switch must have a processing capacity of at least 5.5 Bpps.
 - 4.7.9 To ensure compatibility, the proposed switches must be of the same brand as the proposed servers and archive repository device.
 - 4.7.10 2 x HPE StoreFabric SN2410bM 10GbE 48SFP+ 8QSFP28 Switch
 - 4.7.11 40 x HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver
 - 4.7.12 2 x HPE Network Orchestrator E-LTU
 - 4.7.13 2 x HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable
- 4.8 Licenses and Support Services with the following minimum specifications:
 - 4.8.1 10 x Red Hat Enterprise Linux for Virtual Datacenters 2 Sockets 3 Year Subscription
 - 4.8.2 20 x VMware vSphere Standard 1 Processor 3yr E-LTU
 - 4.8.3 1 x VMware vCenter Server Standard for vSphere (per Instance) 3yr Software
 - 4.8.4 4 x MySQL Enterprise Edition Subscription
- 4.9 Other required materials but not limited to the following:
 - 4.9.1 Four (4) units of QSFP-40G-SR4-S Transceiver (Cisco – Palo Alto)
 - 4.9.2 Eight (8) units of 3 meters MPO to MPO fiber Cable (Cisco – Palo Alto)
 - 4.9.3 Eight (8) units of PAN-QSFP-40GBASESR4 Transceiver (Palo Alto facing HPE/Cisco)
 - 4.9.4 Forty (40) units of HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver
 - 4.9.5 Forty (40) units of HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable
 - 4.9.6 Four (4) units of HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable
 - 4.9.7 Twenty (20) units of HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord
 - 4.9.8 One (1) unit of 48 ports Cat6 Patch Panel (2U) or Two (2) units of 24 Ports CAT6 Patch Panel (1U)
 - 4.9.9 One (1) unit of 12 ports Fiber Patch Panel (2U)
 - 4.9.10 Cable Organizers and cable straps
 - 4.9.11 Patch Cords (CAT6 and Fiber)

V. SCOPE OF WORK

- 5.1 The CONTRACTOR shall conduct a pre-implementation meeting with DBM representatives so that all the necessary preparations, ideal set-up, contractor's familiarization, and other implementation matters are discussed and finalized;
- 5.2 The CONTRACTOR shall provide a work-plan of activities for the duration of the project and a Deployment and/or Solution Architecture within a week from the pre-implementation meeting with DBM representatives. Said work-plan shall be validated and subject for approval of the designated DBM official.
- 5.3 The CONTRACTOR shall supply, deliver, install, configure, migrate and test the Additional Servers for BTMS Infrastructure from receipt of the NTP to on or before December 31, 2020, including but not limited to the following:
 - 5.3.1 Mounting and power-up of all hardware components

- 5.3.2 Installation of single SimpliVity node in MK2 for migration purposes
- 5.3.3 Migration of existing BTMS VMs to SVT node mentioned above
- 5.3.4 Replication of VMs from single SVT node to SVT environment at DBM Data Center
- 5.3.5 Relocation of single SVT node from MK2 to DBM Data Center to join it to the main SVT environment
- 5.3.6 Migration of physical host environments for vSphere on SVT environment
- 5.3.7 Installation and configuration of Top of the Rack Switch including the network segmentation.
- 5.3.8 Integration of the BTMS Infrastructure to the DBM's existing Infrastructure
- 5.3.9 Any other item not mentioned but required to make the Hyper-Converge Infrastructure operational will be in the scope of work of contractor without any additional cost to DBM.

The CONTRACTOR must have the following Certified Professionals for the Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure: (certificates must be submitted in the submission of bid documents and subject for post-qualification)

- HP Accredited Solutions Expert;
- CISCO Certified Network Professional Enterprise

- 5.4 The CONTRACTOR shall provide/render twenty-four hours a day, seven days a week (24x7) technical support service during the warranty period, as specified in Section 7.9 of this TOR. Technical support can be delivered in the form of a telephone call, electronic mail, and/or on-site support.

The CONTRACTOR shall resolve every problem on hardware components within six (6) hours after it was reported during the warranty period. It shall refer to a condition wherein the reported problem is resolved by the CONTRACTOR to the satisfaction of the DBM. Problem and resolution shall be logged in the DBM Help Desk Facility.

- 5.5 The CONTRACTOR shall replace the defective parts/accessories of the same or better brand, the model features, quality and functionalities if not repaired within the allowable resolution time of six (6) hours during the warranty period at no additional cost to the DBM.
- 5.6 The CONTRACTOR shall provide a service unit of at least the same brand, model, features and functionalities or it is equivalent in case of equipment breakdown at no additional cost to the DBM. The service unit shall be made available and operational within six (6) hours from the time the problem has been reported by the DBM for the equipment undergoing repair during the warranty period.

However, mandatory replacement of defective unit with a brand new unit of the same or better brand or model shall be made, if not repaired beyond one (1) month from the time the service unit was provided, at no additional cost to the DBM.

- 5.7 The CONTRACTOR shall resolve all reported issues encountered/unresolved under section 5.4 to 5.6 even the warranty ends.
- 5.8 The CONTRACTOR shall provide Technical Training at known Training Center based on the following schedule:

Technical Training	Schedule	No. of Participants	Duration
1. HPE SimpliVity System Administration	<ul style="list-style-type: none"> • Within two (2) months from the receipt of NTP. • Within three (3) months from the receipt of NTP. • Within four (4) months from the receipt of NTP. 	Five (5) participants per conduct.	Minimum of two(2) days

2. VMware vSphere: Install, Configure, and Manage	<ul style="list-style-type: none"> • Within two (2) months from the receipt of NTP. • Within three (3) months from the receipt of NTP. • Within four (4) months from the receipt of NTP 	Five (5) participants per conduct	Minimum of five (5) days
3. VMware vSphere: Optimize and Scale plus Troubleshooting Fast Track	<ul style="list-style-type: none"> • Within four (4) months from the receipt of NTP 	Five (5) participants per conduct	Minimum of five (5) days
4. Red Hat Enterprise Linux System Administration I	<ul style="list-style-type: none"> • Within two (2) months from the receipt of NTP. • Within three (3) months from the receipt of NTP. • Within four (4) months from the receipt of NTP. 	Five (5) participants per conduct.	Minimum of five (5) days
5. Red Hat Enterprise Linux System Administration II	<ul style="list-style-type: none"> • Within two (2) months from the receipt of NTP. • Within three (3) months from the receipt of NTP. • Within four (4) months from the receipt of NTP. 	Five (5) participants per conduct.	Minimum of five (5) days
6. MySQL Fundamentals Ed 1	<ul style="list-style-type: none"> • Within two (2) months from the receipt of NTP. 	Nine (9) participants per conduct.	Minimum of four (4) days

5.9 The CONTRACTOR shall provide as-built documentation of the Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure set-up/ diagram in both hard and soft copies including information in the deployment, system resource/overhead requirements of the software/IT equipment employed in the project as well as procedures for installation, configuration, migration, integration, usage, backup, and restoration on or before December 31, 2020.

5.10 A Certificate of Acceptance shall be issued by the Director of Information and Communication Technology Systems Service (ICTSS) after all the requirements are fully met by the CONTRACTOR.

VI. SERVICE LEVEL AGREEMENT

6.1 DBM shall maintain a Service Level Agreement (SLA) with the CONTRACTOR, with provisions for liquidated damages for their non-compliance.

Component	Description	Liquidated Damages
6.1.1 Supply, Delivery, Installation Testing, and Commissioning	The CONTRACTOR shall supply, deliver, install, and configure the Additional Servers for BTMS Infrastructure, as specified in item 5.3, from receipt of the NTP to on or before December 31, 2020.	One percent (1%) of the total contract price shall be imposed per day of delay.
6.1.2 Technical Support	The CONTRACTOR shall resolve every problem on software and hardware components within six (6) hours after it was reported during the warranty period. It shall refer to a condition wherein the	1/10 th of 1% of the total contract price shall be imposed for every hour of delay. Said penalty shall be

	reported problem is resolved by the CONTRACTOR to the satisfaction of the DBM.	deducted from the special bank guarantee.
6.1.3 Replacement of Parts	The CONTRACTOR shall replace the defective parts/accessories of the same or better brand, the model features, quality and functionalities if not repaired within the allowable resolution time of six (6) hours during the warranty period at no additional cost to the DBM.	1/10th of 1% of the total contract price shall be imposed for every hour of delay. Said penalty shall be deducted from the special bank guarantee.
6.1.4 Service Unit	The CONTRACTOR shall provide a service unit of at least the same brand, model, features and functionalities or it is equivalent in case of equipment breakdown at no additional cost to the DBM. The service unit shall be made available and operational within six (6) hours from the time the problem has been reported by the DBM for the equipment undergoing repair during the warranty period.	1/10 th of 1% of the total contract price shall be imposed for every hour of delay. Said penalty shall be deducted from the special bank guarantee.
6.1.5 Technical Training	The CONTRACTOR shall provide Technical Training for the Basic and Advanced Administration of Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure within the specified schedules.	1/10 th of 1% of the total contract price shall be imposed for every hour of delay. Said penalty shall be deducted from the special bank guarantee.
6.1.6 Documentation	The CONTRACTOR shall provide as-built documentation of Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure set-up/ diagram in both hard and soft copies including information in the deployment, system resource/overhead requirements of the software/IT equipment employed in the project as well as procedures for installation, uninstallation, configuration, integration, usage, backup and restoration on or before December 31, 2020.	1/10 th of 1% of the total contract price shall be imposed for every hour of delay. Said penalty shall be deducted from the special bank guarantee.

VII. WARRANTIES OF THE CONTRACTOR

- 7.1 The CONTRACTOR warrants that it shall conform strictly to the terms and conditions of this TOR.
- 7.2 The CONTRACTOR warrants represent and undertake the reliability of the services and that their manpower complements are hardworking, qualified/reliable and dedicated to doing the service required

to the satisfaction of the DBM. It shall employ well-behaved and honest employees with ID displayed conspicuously while working within the compound. It shall not employ DBM employees to work in any category whatsoever.

- 7.3 The CONTRACTOR in the performance of its services shall secure, maintain at its own expense all registration, licenses or permits required by National or Local Laws and shall comply with the rules, regulations, and directives of Regulatory Authorities and Commissions. The CONTRACTOR undertakes to pay all fees or charges payable to any instrumentality of government or any other duly constituted authority relating to the use or operation of the installation.
- 7.4 The CONTRACTOR's personnel shall take all necessary precautions for the safety of all persons and properties at or near their area of work and shall comply with all the standard and established safety regulations, rules and practices.
- 7.5 The CONTRACTOR shall coordinate with the authorized and/or designated DBM personnel in the performance of their jobs.
- 7.6 The CONTRACTOR shall be liable for loss, damage or injury due directly or indirectly through the fault or negligence of its personnel. It shall assume full responsibility thereof and the DBM shall be specifically released from any liabilities arising therefrom.
- 7.7 The CONTRACTOR shall neither assign, transfer, pledge, nor sub-contract any part or interest therein.
- 7.8 The CONTRACTOR shall identify the technical support personnel that will be given authority to access and operate the Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure. DBM shall be informed through a formal notice on the change or replacement of technical personnel five (5) days before the actual rendering of technical support services.
- 7.9 The CONTRACTOR shall provide a three (3) - year comprehensive warranty which shall include support, provision of the service unit and parts replacement for the hardware/appliance which shall be covered by special bank guarantee equivalent to 10% of the total contract price. The said amount shall be released after the lapse of the warranty period. Provided, however, that the goods supplied are free from patent and latent defect and all conditions imposed under the contract have been fully met.

The warranty shall commence on the day the DBM issues the Certificate of Acceptance.

VIII. CONFIDENTIALITY OF DATA

- 8.1 All project personnel of the CONTRACTOR shall be required to sign a Non-Disclosure Agreement (NDA).
- 8.2 The CONTRACTOR agrees to hold the Proprietary Information in strict confidence. The CONTRACTOR furthermore agrees not to reproduce, translate or disclose the Proprietary Information to 3rd parties without the prior written approval of the DBM.

IX. TERMS OF PAYMENT

- 9.1 The CONTRACTOR shall be paid upon completion of supply, delivery, installation, testing and commissioning of the Supply, Delivery, Installation, Configuration, Migration, and Testing of Additional Servers for BTMS Infrastructure subject to the required Final Withholding VAT (Services) of five percent (5%) and Expanded Withholding Tax of two percent (2%).

9.2 Payment shall be made within a reasonable time from the submission of the documentary requirements such as, but not limited to the following, based on existing accounting and auditing laws, rules and regulations:

- 9.2.1 Delivery Receipts
- 9.2.2 Data Center Care Certificate/Contract for 3 years from HP
- 9.2.3 Sales Invoice/Billings
- 9.2.4 Certificate of Acceptance issued by the ICTSS Director
- 9.2.5 Non-Disclosure Agreement

9.3 No advance payment shall be made as provided for in Section 88 of PD 1445.

X. PRE-TERMINATION OF CONTRACT

10.1 The contract for the Procurement of Additional Servers for BTMS Infrastructure may be pre-terminated by the DBM for any violation of the terms of the contract. In the case of pre-termination, the CONTRACTOR shall be informed by the DBM thirty (30) days before such pre-termination.

10.2 In the case of pre-termination, the CONTRACTOR shall be liable to additional liquidated damage equivalent to one percent (1%) of the contract price as provided by the Government Accounting Manual (GAM) and forfeiture of the Performance Security.

10.3 The DBM shall have the right to blacklist the CONTRACTOR in case of pre-termination.