



## REQUEST FOR QUOTATION (RFQ) NOTICE

Tenderers are invited from suppliers / contractors registered with Ministry of Finance (MOF) / Construction Industry Development Board Malaysia (CIDB) / Tenaga Nasional Berhad (TNB) and/or Allo Technology Sdn. Bhd. (Allo) for supply / work as follows:

Description: **Hyperconverged Infrastructure for Allo Technology Sdn Bhd**

Category of Works/Supplies: **Information Communication Technology**

Floatation Start Date and Time: **22<sup>nd</sup> June 2022, Wednesday (4.00 p.m.)**

Closing Date and Time: **30<sup>th</sup> June 2022, Friday (5.00 p.m.)**

Submission of documents: Email: [procurementallo@allo.my](mailto:procurementallo@allo.my)

**Please find BOQ below for reference.**

Qualifications:

- a) Sdn. Bhd. or Enterprise Companies
- b) Registered with Tenaga Nasional Berhad (TNB) and/or Allo Technology Sdn. Bhd. (Allo)
- c) Registered with Ministry of Finance (MOF) with Kod Bidang:  
210101/210102/210103/210104/210105/210106/210107/210108/210109/  
210110/210111/210199,  
210201/210202/210203/210299

### **A. CONTACT INFORMATION FOR GENERAL ENQUIRIES**

Contact Person: Nurul Syahira Binti Mohd Nafiah

Email: [procurementallo@allo.my](mailto:procurementallo@allo.my) / [syahira@allo.my](mailto:syahira@allo.my)

**Technical Compliance Specification**

NO	QUESTION / REQUIREMENT	COMPLIANCE (Y/N)	REMARKS
2.0	<b>RACK MOUNTED HYPERCONVERGED SYSTEM</b>		
2.1	<b>GENERAL REQUIREMENTS</b>		
2.1.1	Tenderer shall deliver, setup, install and configure all hardware, software and licenses for the proposed HyperConverged system and its requirements.		
2.1.2	Tenderer shall state make and model of the new proposed HyperConverged system.		
2.1.3	The new proposed HyperConverged system architecture shall be a distributed system consisting of common modular building blocks that scale linearly from 3 to 64 2U nodes appliances in a cluster. Multiple compute, memory, and storage options deliver configurations to match any use case.		
2.1.4	The new proposed HyperConverged system shall be jointly engineered and seamlessly integrate into VMWare software experience, including the vSphere ecosystem of support configurations, partner solutions and reference architectures for a unified extension of existing VMWare environment and shall provide single graphical user interface from management, operation and reporting perspective leveraging only VMWare vCenter.		
2.1.5	The new proposed HyperConverged system shall come with complete integrated GLOBAL 24/7 support and shall have integrated 24x7 callhome support with proactive monitoring capability from single vendor.  Tenderer shall provide a single point of contact direct telephone and issue resolution service delivered and shall assist with all issues associated with network, hardware, storage and virtualization components.		
2.1.6	The new proposed HyperConverged system shall come with at least 1 year support coverage.		
2.1.7	The new proposed HyperConverged system shall come from the factory with the hypervisor preloaded in order to minimize launch times.		
2.1.8	The new proposed HyperConverged system shall be able to handle expected and unexpected growth easily, cost-effectively, and with minimal disruption to business activities by adding nodes and drives without taking the cluster offline.		
2.1.9	The new proposed HyperConverged system shall include the following storage services from the factory pre-loaded or be installed through an integrated portal on the system: replication, public cloud hierarchical storage management.		
2.1.10	Solution shall be flexible to address a wide range of application and business needs, including both structured data (such as databases) and unstructured data (such as e-mails, documents, and video).		
2.1.11	The components of the Solution shall be newly manufactured, and have no remanufactured, repaired, or restored parts.		
2.1.12	The Solution must be supported by single principal vendor. Hardware (HCI and network switch), software and support must be provided by single vendor for ease of operations		
2.1.13	The appliance must automatically discover and non-disruptively, adds each new node or appliance and rebalances resources and workloads across the cluster.		
2.1.14	The solution must have capability to integrate network switches automated setup and delivery. Please describe how this is implemented		
2.1.15	Must support call home support feature		

2.1.16	The HCI product must be tightly integrated with SDDC Manager to coordinate lifecycle management of hardware components such as server BIOS, Disk Firmware, Raid Controller Firmware, NIC Firmware, Expander Backplane Firmware, Remote Management Firmware (iDRAC).		
2.1.17	HCI must provide ability to automate updates and ability to automate roll back of the patches. The process must be executed through vCenter for ease of management and for us to meet compliance need		
<b>2.2</b>	<b>SYSTEM CONFIGURATIONS</b>		
2.2.1	Number of unit(s) to supply: a) Minimum THREE (3) units for main DC		
2.2.2	The new proposed HyperConverged system configuration shall be able to scale up to at least SIXTY FOUR (64) nodes per cluster.		
<b>2.3</b>	<b>SYSTEM CHASSIS</b>		
2.3.1	The new proposed HyperConverged system shall comes with the following system chassis configuration:		
2.3.1.1	Type: a) Rack-mountable		
2.3.1.2	System Dimension: a) 2U  (Please provide the details of new proposed hardware dimension)		
2.3.1.3	Per 2U Chassis Support: a) Minimum <b>256GB</b> memory		
2.3.1.4	Per 2U Chassis Support: a) Minimum TWENTY FOUR (24) x 2.5 hard drives b) Minimum 8.48TB raw flash storage		
2.3.1.5	Per 2U Chassis Support: a) Minimum FOUR (4) disk groups b) Minimum FOUR (4) cache disks c) Minimum TWENTY (20) capacity disks		
2.3.1.6	Tenderer to provide the power and heat dissipation required and generated by the system.  (Please provide the details of power and heat dissipation)		
<b>2.4</b>	<b>PROCESSOR</b>		
2.4.1	The new proposed HyperConverged system shall comes with the following processor configuration:		
2.4.1.1	Processor Family: a) Minimum <b>Intel Xeon Silver CPU</b>		
2.4.1.2	Processor: Minimum 3 sets a) Quantity Processor(s)/server: <b>Minimum TWO (2) Units for Intel</b> b) Clock Speed: 2.8GHz c) Minimum <b>8core (Intel)</b>		
2.4.1.3	Proposed system configuration shall have minimum <b>SIXTEEN (16) processor cores per node</b>		
2.4.1.5	Number of processor per node: Min TWO (2) units		
<b>2.5</b>	<b>MEMORY</b>		
2.5.1	The new proposed HyperConverged system shall comes with the following memory configuration:		
2.5.1.1	Memory Type: a) Minimum DDR4 RDIMM		
2.5.1.2	RAM: ECC DDR4 RDIMM a) Frequency: Minimum 3200MHz b) Capacity: Minimum 256GB c) Expandable: Maximum 4TGB d) Slots: Minimum THIRTY TWO (32) Slots		

2.5.1.3	The proposed memory for each nodes shall be minimum 256GB with 32GB DIMMS		
<b>2.6</b>	<b>DISK STORAGE SUBSYSTEM</b>		
2.6.1	The new proposed HyperConverged system shall come with the following disk storage configuration:		
2.6.1.1	SSD Type: a) Cache drive: 2.5 inch 800GB MU SSD b) Capacity drive: 2.5 inch 3.84TB SSD		
2.6.1.2	The new proposed HyperConverged system shall be optimized for all-flash node.		
2.6.1.3	Each HyperConverged system nodes shall come minimum with the following storage capacity: a) Node RAW capacity: 8.84TB d) Total Usable capacity: 7.5TiB		
2.6.1.4	The new proposed HyperConverged system shall support RAID 1, RAID 5 and RAID 6 Erasure Coding data protection on all flash node configurations. For this purpose, we require a minimum of 1 object failure protection ie: disk, nodes, etc		
2.6.1.5	The proposed disk storage cache for each nodes shall be at least 800GB SSD or higher with high endurance drive		
2.6.1.7	The proposed storage should only be utilized as data repository and not for any OS nor application. Separate boot drives (RAID1) is required and shall not take the 24 slots for capacity.		
2.6.2.2	The new proposed HyperConverged system shall be optimized for both hybrid and all-flash node.		
<b>2.7</b>	<b>NETWORK CONNECTIVITY</b>		
2.7.1	The new proposed HyperConverged system shall come with the following network connectivity configuration:		
2.7.1.1	Each HyperConverged system nodes shall come with the following network ports:  a) FOUR (4) x 10Gb Ethernet ports (Integrated or Add-but must be redundant b) ONE (1) x 1Gb out of band management ports.		
2.7.2.1	Must provide ToR switch as part of the deployment. Per switch (minimum): Minimum 28 ported switch with dual PSU 2 x SFP+ 10G for uplink to our network (we will provide the cable) Enough cables and SFP (if needed) to connect all hosts in redundant manner Gigabit management switch will be provided by our DC facility		
2.7.2.1	The switch must provide management integration from the HCI such as low touch day 1 setup and manageability from vCenter.  Minimum ports required per switch is 28 ports host side, out of which 2 will be used to connect to core (via 10G SFP+)  Switch must be managed switch and able to stack/cluster for redundancy. Please include software license/cables, etc to achieve this.		
2.7.2.1	Network cables: - provider to supply all cables from host to switch - provider to supply stacking/cluster switch cables - provider to supply SFP required as needed - we will provide UTP cables for management interface - we will provide uplink cables from our LAN to you ToR. Please provide the interface on the ToR for this purpose.		
<b>2.8</b>	<b>POWER SUPPLY</b>		
2.8.1	The new proposed HyperConverged system shall come with the following power supply configuration:		

2.8.1.1	Redundant power supply support:  a) Dual, Hot-plug, Redundant Power Supply (1+1), with power cords		
<b>2.9</b>	<b>SYSTEM PLATFORM</b>		
2.9.1	The proposed system configuration shall run on VMWare Virtualization Platform with the extension to run on HyperConverged infrastructure.		
<b>2.11</b>	<b>SYSTEM CONSOLE / MANAGEMENT / REPLICATION / SECURITY / ALERTING / REPORTING</b>		
2.11.1	The new proposed HyperConverged system shall be managed by a single view comprehensive management console.  Management console must be accesible via browser and no additional software installation		
2.11.2	The new proposed HyperConverged system shall have an integrated graphical user interface (GUI) console that performs functions related to the hardware, such as the provisioning of new nodes, upgrading system patches, checking the status of the system and shutting down the system and rebooting up to cater any update process		
2.11.3	The new proposed HyperConverged system shall offer an integrated support application with recording or log functionality to provide a view of hardware and software events and report the status of the hardware to the manufacturer automatically.		
2.11.4	Solution shall support PCI compliance standards to maximize information security and minimize the risks of downtime, data loss/corruption, unauthorized access, and compliance failure.		
2.11.5	Solution shall have cloud based analytics for operations management that allows us to look at trends and overall status. Please include license if required		
2.11.6	The new proposed HyperConverged system shall have the capacity to replicate virtual machines to an external system based on the same hypervisor. The external system may or may not be HyperConverged, made by the same manufacturer or a third party.		
2.11.7	The replication features shall have the ability to record every write IO from the Host/Server in a DVR like fashion to enable rollback to any point in time (per IO or to a particular millisecond) and stored in lower cost storage to provide more granular and cost effective RPO.		
2.11.8	The replication shall enable discovery, provisioning, and orchestration of disaster recovery workflows, including testing, failing over, failing back, and recovering production of a single consistency group or a group of consistency groups to and from any point-in-time without requiring VMWare SRM for automated site failover.		
2.11.9	Tenderer shall propose the bandwidth required to perform replication from Primary Site to Secondary Site, the bandwidth efficiency technologies leading to reduced bandwidth usage will be a key evaluation criterion.		
2.11.10	The new proposed HyperConverged system shall be IPMI 2.0 compliant Out of Band Management		
<b>2.8</b>	<b>SERVICES</b>		
2.8.1	The new proposed HyperConverged system shall comes with the following Services configuration:		
2.8.1.1	All hardware delivered must be installed and configured to operational standards.		

**ALLO TECHNOLOGY SDN BHD**  
**PROCUREMENT UNIT**



Title: Hyperconverged Infrastructure Services for Allo Technology Sdn Bhd

No.	Description	Qty	U.O.M	RM	
				Unit Price	Total Price
1	Physical server-CPU: IntelCPUx2, RAM:32GBx8, storage: 4TBx2	3	Lot		
2	Network switch	2	Lot		
3	Professional service	1	Lot		
4	Hyperconverged virtualization licensed software	1	Lot		
<b>Grand Total</b>					-

	Compliance
Payment Term : Within forty five (45) days upon invoice submission, upon delivery, job completion and acceptance by Allo	Yes/No
Invoicing Term : 100% payment upon work completion and Allo Technology's acceptance	Yes/No
Able to mobile to Allo Technology office at below address for deliver, installation, deployment, migration & training (inclusive):  ALLO TECHNOLOGY SDN BHD (501001-A) CYBERVIEW GARDEN VILLAS, PERSIARAN MULTIMEDIA, CYBER 7, 63000 CYBERJAYA, SELANGOR	Yes/No
Delivery dateline: 14days upon PO issuance	Yes/No

Company Stamp  
Person in charge  
Date