



**SUPPLY, DELIVERY AND INSTALLATION OF HCI
SOLUTION FOR WASTE MANAGEMENT CORPORATION
LIMITED**

WAMCO-PRO/IUL/2023/01

Issued on: 10th January 2023

Issued by:

WASTE MANAGEMENT CORPORATION LIMITED

MALE', REPUBLIC OF MALDIVES

www.wamco.com.mv

SUPPLY, DELIVERY AND INSTALLATION OF HCI SOLUTION FOR WASTE MANAGEMENT CORPORATION WAMCO-PRO/IUL/2023/01

1. Project Details

Waste management Corporation limited invites interested parties to submit proposals for the supply, delivery and installation of HCI solution for Waste Management Corporation Limited.

a. HCI Solution

- i) Warranty and licensing for the whole solution
- ii) Installation, Configuration, Migration and Training

1.1. Minimum Technical Specifications

1. HCI solution based on hyper-converged software to deliver enterprise-class storage services using server infrastructure and without dependence on SAN Switches & HBAs.
2. The proposed HCI solution must include the latest VMware vSphere 7.x hypervisor license and VMware vCenter License
3. The proposed HCI solution should be 100% software defined without dependency on any proprietary hardware component
4. The proposed HCI solution should be appliance models and not custom configured
5. The proposed HCI solution must have minimum 2 nodes and a minimum of 8 drives per node
6. Each node must be proposed with a minimum 24 core Intel or AMD processor or higher.
7. The node must support 2 Intel or AMD processors. If the HCI software license is based on the number of processors or cores, then the bidder must propose license for 2 processors or 48 cores per node.
8. If the HCI software license is based on storage capacity or drives, then the bidder must propose the license for the maximum possible storage capacity or drives in the proposed node model.
9. Each node must be proposed with 256 GB minimum 3200 Mhz memory. Each node must have 32 DIMM slots in total
10. The proposed solution must provide a minimum of 15 TB of usable storage capacity. This capacity must be provided without including capacity benefits achieved using deduplication and compression. The capacity tier shall be based on enterprise class 10K

- RPM SAS SFF HDD or Mixed-Use SSD only.
11. The proposed HCI solution **must include inline deduplication and inline compression** and these features **must be turned on during the implementation. Necessary licenses for using these features must be included** and proposed by the bidder.
 Any additional CPU and memory overheads created by deduplication and compression must be factored in by the bidder.
 12. The proposed HCI solution must sustain one node failure and necessary provision for witness/tie-breaker must be proposed by the bidder.
 13. The proposed solution should not have any single point of failure
 14. Each node must have dedicated cache drive, boot drive and housekeeping drive
 15. Each server node must have dedicated redundant hot swap power supplies & cooling fans.
 16. Each node must have 10 Gbps or higher speed network ports in a redundant configuration. Each node shall be supplied with minimum 02 nos x PCIe Dual Port 10 GbE NIC
 17. All necessary cables and transceivers must be included in the proposal.
 18. The solution shall utilize the existing Dell N4032 for core networking.
 19. The solution must support one-click non-disruptive rolling upgrades of HCI software and system firmware.
 20. The solution must have automated call home and ticketing capability in the event of critical alerts/failures
 21. The solution should have a plugin in the Hypervisor for HCI management.
 Administrators should be able to view, provision, manage and monitor HCI solution from the hypervisor's management console.
 22. The HCI filesystem should be a scale-out distributed filesystem where the data is striped across multiple nodes where the read and write can happen across all the nodes for any given virtual machine.
 23. The HCI software must support native instant, space-optimized, point-in-time snapshots. The GUI must have the capability to schedule snapshots based on various times. If the HCI software does not support native snapshots, then the bidder must include 3rd party storage- level snapshot license for a minimum of 50 VMs. Hypervisor-level snapshots must be excluded to avoid any overheads on the guest VMs.



24. The HCI software must support native rapid clones of individual Virtual Machines. If the HCI software does not support native clones, then the bidder must include 3rd party storage-level clone license for a minimum of 50 VMs. Hypervisor-level clones must be excluded to avoid any overheads on the guest VMs.
25. The HCI software must support asynchronous native replication between 2 sites at the storage level. Necessary licenses must be included in the proposal. If the HCI software does not support native replication, then the bidder must include 3rd party storage-level replication license for a minimum of 50 VMs. Hypervisor-level replication must be excluded to avoid any overheads and performance issues on the guest VMs.
26. The solution must automatically rebalance data to maintain balanced utilization of storage across the HCI nodes when storage capacity is scaled up or scaled out. The HCI nodes must automatically redistribute data equally across all nodes without migrating VMs.
27. The proposed hardware shall include 3-Year manufacturer warranty and 3-Year local technical support
28. The proposed solution should include management features such as:
 - a. Monitoring of health and inventory status
 - b. Display the support contract status
 - c. Cross launch HW management console and HCI management console
 - d. User customizable views/tiles and searching and tagging of inventory
 - e. Remote management and vKVM
 - f. Rest API
 - g. Initiate service request in the event of critical failure/fault
 - h. Automatically collect the log/support files and attach it to the service ticket
 - i. Automatically raise RMA request in the event of memory failure and drive failure
 - j. Compliance with hardware compatibility list (HCL)
 - k. Centralized and remote firmware management and upgrade
 - l. Server graphic views including live health status
 - m. Mobile application for remote monitoring and management. Support for Android and IOS platforms
 - n. Role based access control for different administrators
 - o. IP level restrictions and whitelisting to limit access from external IP ranges

1.2. Installation, Configuration, Migration and Training

1. All professional services shall be delivered by manufacturer certified engineers only.
2. The engineer(s) shall be available onsite for the duration of the service.
3. The engineer(s) shall be available for technical support, 3 months post deployment either remote or onsite.
4. The proposed professional services delivery team engineer(s) shall be certified in Cisco, Vmware and the HCI proposed in the solution
5. The vendor MUST have at minimum the following full time OEM Certified Professional/Engineer under its payroll to provide all professional services. All relevant engineer(s) certificates and supporting documents shall be included with the proposal.

Required certificates of the engineer(s):

- Cisco CCNA Certified for Routing and Switching Certified
 - VMware Certified
 - HCI Certified for the proposed solution
6. Perform site readiness assessment ensuring environment is ready for project commencement
 7. Shall provide planning, deployment and user acceptance test details
 8. Rack mounting as per manufacturer recommendation(s).
 9. Check and ensure all installation pre-requisites are met
 10. Powerup, network and management cabling as per manufacturer guidelines
 11. Configure service segmentation on existing core network switches
 12. Configure and upgrade VMware vcenter server
 13. Initialize all nodes as per manufacturer best practice and upgrade to latest stable firmware
 14. Install any required licenses or options
 15. Migrate all existing workloads to the new infrastructure (up to 30 VMs)
 16. Role based access control for different administrators
 17. Configure VMware vcenter plugin for HCI management
 18. Configure centralized remote management
 19. OEM Certified Training on the proposed HCI for 03 Technical Engineer
 - Instructor LED classroom training (physical)
 - Official course materials and labs

2.8. Documents to be Submitted

Vendor may choose to quote either HCI or UPS or both. Therefore, submit the documents accordingly.

1. Proposal/Quotation (inclusive of the delivery period)
2. Bid Security
3. Form 1 – Bid Submission Form (HCI)
4. Form 2 – Bid Submission Form (UPS)
5. Form 3 – Bidder's Information Form
6. Company profile prepared by company/firm (Bidder)
7. Copy of Business Registration Certificate
8. Copy of Goods and Service Tax (GST) Registration certificate if applicable.
9. Goods and Service Tax clearance report if applicable (last 3 months from the date of bid submission / last quarter) - *If Tax clearance report is not submitted or any due payments in Tax clearance report shall be disqualified during/after evaluation criteria.*
10. Copy of Company Shareholder's Certificate (Ministry of Economic Development).
11. Proof of financial capability: Bank Statement with stamp from bank in the letterhead of respective Bank (last 3 months from the date of bid submission) or other financial proof of capability from a relevant authority.
12. Form 4 – Experience Information Form (HCI)
13. Form 5 – Experience Information Form (UPS)
14. Proof of experience documents / reference letters (Documents signed by previous clients indicating the project value, duration and completion date corresponding to and supporting the above). (Submit proof of experience to HCI related works and UPS related works separately).
15. Authorized Vendor Certificate (HCI)
16. Authorized Vendor Certificate (UPS)
17. Form 6- Technical Compliance Form (HCI)
18. Form 7- Technical Compliance Form (UPS)
19. Ethical Declaration Form

Note: Failure to submit the above-mentioned documents will be subject to rejection during/after evaluation stage and late submissions of any such documents will not be entertained.

FORM 1 – BID SUBMISSION FORM (HCI)

Description of Works: Supply, Delivery and Installation HCI Solution for Waste Management Corporation Limited (WAMCO).

Announcement Number:	WAMCO-PRO/IUL/2023/01
Bid to:	Waste Management Corporation Limited (WAMCO)
Address:	Male' Waste Transfer Station Boduthakurufaanu Magu, Maafannu Male' Republic of Maldives.

Having examined with the project details; items, description of works, I/we the undersigned, offer to supply, deliver and complete the installation of the mentioned items in conformity with the said technical specifications.

Price quoted should be inclusive of GST if applicable.

Description	Total Price (MVR)
HCI Solution (Warranty and licensing for the whole solution with installation, configuration, migration and training)	

We undertake, if our Bid is accepted, to commence the works immediately upon signing of contract and to complete whole of the works comprise in the Contract within calendar days.

We agree to abide by this Bid for a period of 120 (hundred and twenty) days from the date of submission of the Bid and it shall remain binding upon us and may be accepted at any time before the expiration of that period. We understand that you are not bound to accept the lowest or any Bid you receive.

Unless and until a formal agreement is prepared and executed, this Bid together with our written acceptance thereof shall constitute a binding Contract between us.

Yours Faithfully,

Signed

In the capacity of (Position / Designation)

Dully authorized to sign bids for and on behalf of

..... (Company Name & Stamp)

Date:

Name & Address of Signatory

Name:

Address:

Tel No: Fax No:



FORM 2 – BID SUBMISSION FORM (HCI)

Description of Works: Supply, Delivery and Installation HCI Solution for Waste Management Corporation Limited (WAMCO).

Announcement Number:	WAMCO-PRO/IUL/2023/01
Bid to:	Waste Management Corporation Limited (WAMCO)
Address:	Male' Waste Transfer Station Boduthakurufaanu Magu, Maafannu Male' Republic of Maldives.

Having examined with the project details; items, description of works, I/we the undersigned, offer to supply, deliver and complete the installation of the mentioned items in conformity with the said technical specifications.

Price quoted should be inclusive of GST if applicable.

Description	Total Price (MVR)
UPS	

We undertake, if our Bid is accepted, to commence the works immediately upon signing of contract and to complete whole of the works comprise in the Contract within calendar days.

We agree to abide by this Bid for a period of 120 (hundred and twenty) days from the date of submission of the Bid and it shall remain binding upon us and may be accepted at any time before the expiration of that period. We understand that you are not bound to accept the lowest or any Bid you receive.

Unless and until a formal agreement is prepared and executed, this Bid together with our written acceptance thereof shall constitute a binding Contract between us.

Yours Faithfully,

Signed -----

In the capacity of (Position / Designation)

Dully authorized to sign bids for and on behalf of

..... (Company Name & Stamp)

Date: -----

Name & Address of Signatory

Name:

Address:

Tel No: Fax No:



FORM 3 – BIDDER'S INFORMATION FORM

1. Bidder's Name:		
2. Company Registration Number:		
3. Registered Address:		
4. GST Number:		
5. Contact Number:		
6. Email Address:		
7. Tenderer's Authorized Representative Information:		
Name:		
ID Card Number:		
Address:		
Contact Number:		
Email Address:		
8. Managing Director / CEO information:		
Name:		
ID Card Number:		
Address:		
Contact Number:		
Email Address:		
9. Name of shareholders:		
#	Name	ID Card No.
1.		
2.		
3.		
4.		
5.		
Attached are copies of original documents of [check the box(es) of the attached original documents]		

- Company Registration Copy
- GST Registration Copy
- National Identification Card (if Individual) Copy
- Shareholder's Certificate provided by Ministry of Economic Development.

Check List

#	Document	✓
1	Proposal/Quotation (inclusive of the delivery period)	
2	Bid Security	
3	Form 1 – Bid Submission Form - HCI	
4	Form 2 – Bid Submission Form - UPS	
5	Form 3 - Bidder's Information Form	
6	Company Profile prepared by the company/firm (Bidder)	
7	Copy of Business Registration Certificate	
8	Copy of Goods and Service Tax (GST) Registration certificates if applicable.	
9	Goods and Service Tax clearance report if applicable (last 3 months from the date of bid submission / last quarter) - <i>If Tax clearance report is not submitted or any due payments in Tax clearance report shall be disqualified during/after evaluation criteria.</i>	
10	Copy of Company Profile Information Sheet / Shareholder's Certificate (From Ministry of Economic Development)	
11	Proof of financial capability: last 3 (three) months Bank statement (with stamp from bank in letter head of the respective Bank) or other financial proof of capability from a relevant authority.	
12	Form 4 - Experience Information Form - HCI	
13	Form 5 - Experience Information Form - UPS	
14	Proof of experience documents / reference letters (Documents signed by previous clients indicating the project value, duration and completion date corresponding to and supporting).	
15	Authorize Vendor Certification - HCI	
16	Authorize Vendor Certification - UPS	
17	Form 06- Technical Compliance Form - HCI	
18	Form 06- Technical Compliance Form - UPS	
19	Ethical declaration	



9	Each node must be proposed with 256 GB minimum 3200 Mhz memory. Each node must have 32 DIMM slots in total				
10	The proposed solution must provide a minimum of 15 TB of usable storage capacity. This capacity must be provided without including capacity benefits achieved using deduplication and compression. The capacity tier shall be based on enterprise class 10K RPM SAS SFF HDD or Mixed-Use SSD only.				
11	The proposed HCI solution must include inline deduplication and inline compression and these features must be turned on during the implementation. Necessary licenses for using these features must be included and proposed by the bidder. Any additional CPU and memory overheads created by deduplication and compression must be factored in by the bidder.				
12	The proposed HCI solution must sustain one node failure and necessary provision for witness/tie-breaker must be proposed by the bidder.				
13	The proposed solution should not have any single point of failure				
14	Each node must have dedicated cache drive, boot drive and housekeeping drive				
15	Each server node must have dedicated redundant hot swap power supplies & cooling fans.				
16	Each node must have 10 Gbps or higher speed network ports in a redundant configuration. Each node shall be supplied with minimum 02 nos x PCIe Dual Port 10 GbE NIC				

17	All necessary cables and transceivers must be included in the proposal.			
18	The solution shall utilize the existing Dell N4032 for core networking.			
19	The solution must support one-click non-disruptive rolling upgrades of HCI software and system firmware.			
20	The solution must have automated call home and ticketing capability in the event of critical alerts/failures			
21	The solution should have a plugin in the Hypervisor for HCI management. Administrators should be able to view, provision, manage and monitor HCI solution from the hypervisor's management console.			
22	The HCI filesystem should be a scale-out distributed filesystem where the data is striped across multiple nodes where the read and write can happen across all the nodes for any given virtual machine.			
23	The HCI software must support native instant, space-optimized, point-in-time snapshots. The GUI must have the capability to schedule snapshots based on various times. If the HCI software does not support native snapshots, then the bidder must include 3rd party storage-level snapshot license for a minimum of 50 VMs. Hypervisor-level snapshots must be excluded to avoid any overheads on the guest VMs.			
24	The HCI software must support native rapid clones of individual Virtual Machines. If the HCI software does not support native clones, then the bidder must include 3rd party storage-level clone license for a minimum of 50 VMs. Hypervisor-level clones must be excluded to avoid any overheads on the guest VMs.			

FORM 7 – TECHNICAL COMPLIANCE FORM - UPS

#	Minimum Technical Specifications	Brand/Model and Comments	Can Provide Service/Item as per Specs (Yes/No)	If NO, please mention the specification provided
1	Supply and install minimum 1x Network Manageable 6000VA UPS with extendable battery pack			
2	Install and configure UPS			



Bank Guarantee

.....*Bank's name and address of issuing branch or office*¹.....

Beneficiary:*Name and address of the employer*

Date:

Bid Security No.:

We have been informed that *name of the bidder*. (Hereinafter called "the Bidder") has submitted to you its bid dated (Hereinafter called "the Bid") for the execution of *Name of contract* under Invitation for Bids No. ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we *name of Bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *amount in words* (. *amount in figures*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement

This guarantee will expire (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 45 days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.²

..... *Authorized signature(s) and bank's seal (where appropriate)*



¹ All italicized text is for use in preparing this form and shall be deleted from the final document.

DECLARATION OF ETHICAL CONDUCT, FRAUD AND CORRUPTION (PRIVATE SECTOR)

[The Bidder shall fill in and submit this form with the Bid]

We the undersigned confirm in the preparation of our Bid that:

Neither we, nor any of our employees, associates, agents, shareholders, consultants, partners or their relatives or associates have any relationship that could be regarded as a conflict of interest as set out in the Bidding Documents.

Should we become aware of the potential for such a conflict, will report it immediately to Waste Management Corporation Limited.

That neither we, nor any of our employees, associates, agents, shareholders, partners, consultants or their relatives or associates have entered into corrupt, fraudulent, coercive or collusive practices in respect of our bid or proposal.

We understand our obligation to allow Waste Management Corporation Limited to inspect all records relating to the preparation of our bid and any contract that may result from such, irrespective of if we are awarded a contract or not.

That no payments in connection with this procurement exercise have been made by us or our associates, agents, shareholders, partners or their relatives or associates to any of the staff, associates, consultants, employees or relatives of such who are involved with the procurement process on behalf of Waste Management Corporation Limited, Client or Employer.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Phone Number: _____

Fax Number: _____

