



# **MALDIVES METEOROLOGICAL SERVICE (MMS)**

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**Hulhule' Republic of Maldives**

## **TERMS OF REFERENCE**

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### **SUPPLY AND DELIVERY OF A SERVER TO MMS**

**15<sup>th</sup> September 2019**

## 1) Introduction

Maldives Meteorological Services (MMS) has received assistance from Italian Ministry of Environment, Land and Sea towards strengthening Maldives' efforts to address the impacts of climate change and reduce climate vulnerabilities and associated impacts and risks. MMS intends to apply part of the proceeds to strengthen the capacity of MMS by implementing the project "Supply and delivery of a Server for MMS"

## 2) Objective

The main objective of the assignment is to supply and deliver a server to MMS as per the specification given under the technical requirements.

## 3) Scope and Methodology

Based on the above explanations and objectives of the project, MMS seeks to engage competent consultant to;

- a) Supply and deliver the server to MMS
- b) Provide the software licenses as per the requirement
- c) Provide other accessories listed under the section 7.5

## 4) Mandatory Documents and Requirements

- a) Financial Proposal
  - Form 1 – Proposal Submission Form
  - Form 2 – Financial Break down
- b) Form 3 – Work Schedule
- c) GST Registration Certificate (If applicable)
- d) Company Registration Certificate (If a proponent is a company or a firm)

## 5) Evaluation Criteria

### 5.1. Pre Evaluation

Pre Evaluation is a preliminary evaluation done based on the documentation requirement before moving on to the Technical Evaluation. Pre Evaluation determines if bidder is substantially responsive to the terms of this ToR as specified below;

- Bidder conforms to all requirements identified under Section 4. “Mandatory Documents and requirements.”

Substantially non-responsive bids at this pre evaluation stage will be rejected from further stages of evaluation.

Substantially responsive bids at this pre evaluation stage shall be qualified for further evaluation (Technical Evaluation).

## 5.2. Technical Evaluation

Technical evaluation is to confirm if the proposed server does comply with all the requirements listed under the technical requirements. MMS holds the authority to qualify any proposal technically based on their proposed features, only if the evaluation committee finds it acceptable and would achieve the objective fully. Technically non responsive bids from this stage would not be qualified to the financial evaluation.

## 5.3. Final Evaluation

The proposal would be qualified to this stage after being assessed in pre evaluation and technical evaluation. In this evaluation, the proposals would be compared to their proposed price, duration and experience to complete the project. Point system set for the final evaluation is:

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#	Detail	Point
1	Pricing	85 %
2	Duration	05 %
3	Experience	10 %

Experience would be considered to all submitted letters which is addressed to relevant works completed within the past 5 years. Each valid letter would carry 2 points.

## 6) Payment Schedule

### **Payment**

The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

**(a) Advance Payment:** Fifteen (15) percent of the Contract Price shall be paid on the request of the Supplier and subject to the Approval of the Ministry of Finance of the Republic of Maldives.

The Payments succeeding the Advance Payment shall be paid after the deduction of the 15% against the Advance Payment and up to the total amount of the Advance Payment according to the to the Public Procurement Regulation (February 2017) of the Republic of Maldives.

**(b) Retention:** Retention will be deducted accordingly to the Public Procurement Regulation (February 2017) of the Republic of Maldives.

#	Payment Description and Requirements	Allocation
	Supply and delivery of the Blade server – This payment would be released after the technical team assess the delivered goods to check if they comply with the requirements.	100%

## 7) Technical Requirements:

### **7.1 Blade Chassis**

<b>Name</b>	<b>Required</b>
Chase Enclosure	Maximum 10U Rack Enclosure
Server Nodes	Minimum 2 Server Nodes
Power Supplies	<ul style="list-style-type: none"><li>• Minimum 4 Power Supplies</li><li>• 3+1 power supply redundancy support</li></ul>
RAID controller	<ul style="list-style-type: none"><li>• Shared storage with additional redundant controller</li><li>• Support SAS, SAS SSD and SEDs drives</li><li>• Support for mixing different speeds (7200,10000,15000 rpm)</li><li>• Support for 0,1,5,6,10,50 and 60 raid levels</li><li>• Battery backup</li><li>• Nonvolatile cache</li><li>• Cache memory of 1GB DDR3, 1333MHZ (minimum)</li><li>• Cache policies: Write Back, Forced Write-Back, Write Through and Read Ahead</li><li>• Hot swappable devices supported</li></ul>
Drive bays and hard drives	<ul style="list-style-type: none"><li>• Up to 12 x 3.5” SAS or SAS SSD hot-plug drives or</li><li>• up to 25 x 2.5” SAS or SAS SSD hot-plug drives</li></ul>
Storage	<ul style="list-style-type: none"><li>• 6x 300GB 2.5” SAS SSD</li><li>• 10x 500GB 10K 2.5” SAS HDD</li></ul>
JBOD expansion options	Yes using supportable disk arrays
Integrated networking – Ethernet	<ul style="list-style-type: none"><li>• 1GbE switch module</li><li>• 10GbE switch Module</li></ul>
Systems management	<ul style="list-style-type: none"><li>• Delivers comprehensive functionality yet simple and easy to use</li><li>• Manage all resources (server nodes, storage, networking and power) with a unified management tool</li><li>• Offers both local and remote management</li></ul>

## **7.2 Blade Server Node:**

Details	Requirement
Form Factor:	Compatible with the blade chassis
Processor	(2) x Intel® Xeon® 12-Core Processor 3.0GHz minimum
Memory	(4) x 32GB RDIMM DDR4-2666 Memory
Hard Drive	(2) x 300GB SAS SSD
Network	10Gbps Dual Port Card, 1GB Quad Port Card
RAID Controller	Support for 12 Gb/s SAS connectivity 2 GB of cache providing 0, 1, 5, 6 raid levels

## **7.3 Layer 2 Network Switch (48 Port PoE):**

Details	Requirement
Ethernet Technology	Gigabit Ethernet + PoE
Form Factor	Rack-mountable (mounting kit included)
Management	<ul style="list-style-type: none"><li>• Command Line Interface (CLI)</li><li>• Web-based Management</li><li>• Telnet</li><li>• SNMP 1, 2c and 3</li><li>• QoS</li><li>• DHCP</li><li>• VLAN</li><li>• RMON</li></ul>
Firmware upgrade	Web browser upgrade (HTTP/HTTPS) and FTP
Switch Capacity	90 Gbps minimum
Forwarding capacity	70 mbps (64-byte) minimum
Network Technology	10/100/1000Base-T
Port	<ul style="list-style-type: none"><li>• 44 x Gigabit Ethernet Network (minimum)</li><li>• 2 x 10GbE ports (minimum)</li><li>• Console Port: RJ45</li></ul>
VLAN	Port-based and 802.1Q tag-based VLANs, protocol-based VLAN, management VLAN, multicast TV VLAN

Link aggregation	Using IEEE 802.3ad LACP, up to 8 ports in up to 8 groups
Storm control	Broadcast, multicast, and unknown unicast
DoS prevention	DoS attack prevention
Spanning Tree	<ul style="list-style-type: none"> <li>• IEEE 802.1D Spanning Tree</li> <li>• IEEE 802.1w Rapid Spanning Tree</li> <li>• IEEE 802.1s Multiple Spanning Tree and Fast Linkover</li> </ul>

#### **7.4 Software Licenses:**

<b>License Details</b>	<b>Number Of Licenses</b>
VMware vSphere Essential Plus Kit	1
VMware 1 Year Support & Subscription	1
Windows Server 2012 R2 Standard (one or two processor)	1

#### **7.5 Accessories**

Sliding rails	For 4-post racks with square, round or threaded holes for the Blade chassis.
Cable management arm	For the chassis if available.
Horizontal cable organizer for rack	6
Vertical cable organizer for rack	4
cable strap rolls	75" L x 0.75" W (10 meter total in length)
Dell Quad Port 1 Gigabit Card for Dell PowerEdge R520 (Dell Part 540-BBDV)	x2

#### **7.6 Warranty**

Supplier is required to provide minimum 03 Years warranty to the hardware listed from **7.1 to 7.3** of this TOR.

## **ANNEX 1: STANDARD FORMS**



## FORM -1: PROPOSAL SUBMISSION FORM

To: .....

Dear Sirs:

We, the undersigned, offer to “SUPPLY AND DELIVERY OF A BLADE SERVER TO MMS” in accordance with your Term of Reference dated ..... and our Proposal. We are hereby submitting our Proposal; our financial offer is for the sum of ..... which is inclusive of the local taxes.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the services and fulfill the requirements of the terms of reference.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Firm: .....

Address: .....

## FORM-2: FINANCIAL BREAKDOWN

	<b>Description</b>	<b>MVR</b>
	Supply and delivery of the Blade server	
	Software Licenses	
	Accessories	
	GST	
	Total with GST:	

Indicate the total cost with detail cost to be paid in Maldivian Rufiyaa.

Note: The total contract price should be quoted inclusive of Goods and Services Tax (GST) as per the GST Legislation and Circulars.

FORM-3: WORK SCHEDULE

Task	Proposed Duration (Days)
Delivery of Proposed Equipment	
Duration for the entire Assignment	