

## الشروط والمواصفات الخاصة بدعوة العطاء (2019/3)

### Technical specifications

#### PART ONE: BACKUP SOLUTION

The proposed integrated backup solution appliance should cover all current infrastructure components mentioned in (Appendix 1) with below specifications:

#### 1. Business & Functional requirements

- To modernize the data-management & information life-cycle methodology of MOL.
- To provide layers of security, protection and encryption of all data sets.
- To utilize growth, trending, and forecast reports across all tenants and environment as a whole, as necessary.
- To decrease hardware, spend by reducing duplicate copies of data that exist within VMs, File Servers, and Applications across the environment.
- To ensure data is protected, and accessible by respective owners.
- Ability to provide Audit reports to track environment changes, recoveries, and data movement.

#### 2. BACKUP SOLUTION TECHNICAL REQUIREMENTS

- Single All-In-One platform (integrated appliance), which can provide integrated Data & Information Life-Cycle Management capabilities across the enterprise.
- Backup to disk and backup to tape.
- Ability to provide Hyper-visor and workload portability.
- Management and Operational Dashboard for Reporting for the Backed up Data.
- Capability to support Bare-metal recovery on dissimilar hardware, between physical and virtual platforms and vice versa devices.
- Solution license can be issues by CPU sockets, capacity, VM's \*\* and instance...etc.

*\*Backup to tape library must be included in the proposed solution licenses from day one.*

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#### 3. SCOPE OF WORK

- MOL is soliciting proposals from Bidders qualified to provide a bid to implement a scalable **Backup Solution** for the Datacenter enabling MOL to have efficient yet simple backup solution with enhanced recovery capabilities. The Solution shall be implemented at MOL headquarter.
- Bidders shall state other related services that can be provided, such as service agreements, warranties, training, etc. that offers the most attractive and beneficial proposal that will enable MOL to offer the best services to its employees.
- Bidder shall be responsible for the complete scope of work related to the **This Project** and to allocate all the necessary recourses to implement/integrate the proposed backup solution with existing MOL infrastructure HW & application.
- Bidder **MUST** comply with ALL **HW & SW solution specification**
- The Bidder is required to provide **Technical Support Services** with three years support from Mother Company & Partner.
- Provide mother company training for three related engineers for the software and hardware.
- Delivery and implementation within 8 weeks

Requirements
The bidder must deliver the solution as a <b>turnkey solution</b> , any missing items or component it's the bidder responsibility to mention and to including in his proposal .
The bidder must have at least three (3) deployments of complete proposed solution (both software and hardware) in local market
Bidder must have specialization/certification from the principal vendor on the bidding technologies.
Bidder must have at least 3 engineers certified on the proposed technologies and solution. (Submit CVs of the project team)
Proposed license must include source deduplication, target deduplication, encryption, replication, and compression.
The solution must provide basic and advanced reporting including but not limited to; charge

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back reporting, deduplication savings, backup statistics, failure reports, business level reporting for predictive forecast, backup and recovery SLA reporting
The bidder must install and configure the whole solution and provide any necessary cables and components.
The bidder must provide the required manuals and CD's that necessary for Backup Solution work
The bidder must clarify the maintenance percentage for three years after the warranty period including all software, licenses, and hardware.

4. Backup Appliance specifications

The backup appliance should contain the backup software with below HW specifications:

No.	Minimum Requirements	Compliance (Yes/No/Partial)	Remarks
1.	All in one Data Protection Appliance		
2.	<b>One</b> Backup Hardware (For Main site) with at least <b>10 TB</b> usable capacity, scalable up to 32TB		
3.	64GB Cache		
4.	<b><u>Connectivity:</u></b> - 3 x ETH1G (RJ45) - 4 x ETH10G (SFP)		
5.	<b><u>Appliance Function:</u></b> -Backup and Recovery -Compression and Deduplication to Disk -Replication -Tape attachment		
6.	Dual power supply		
7.	<b>Three (3)</b> Years Support and Warranty from mother company and partner		

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5. Backup software specifications

Item#	Requirements	Compliance (Yes/No/Partial)	Remarks
1	The solution must provide a Single unified browser for the administration, configuration, monitoring, and reporting of all data Backup & management tasks across physical servers, virtual machines		
2	The solution must be able to Compress and Encrypt, Deduplicated the backed up data.		
3	The solution must measure, analyze and plan storage utilization based on systems and applications priorities.		
4	The solution license must cover backup to disk and backup to Tape library.		
5	The provided License must cover 12 TB from day one and it's the bidder responsibility to provide a proof of licensing		
6	The solution must be capable to replicate data on scheduled bases, For both physical and virtual.		
7	The solution license must include application-aware backup for most popular applications such and not limited to: - Microsoft Exchange, SQL Server, -SharePoint, Active Directory. - Oracle Database. -SQL cluster, Oracle Cluster and must be included in the proposed solution license.		
8	The solution must support job prioritization based on the importance of the job and server performance		
9	The solution must be able to limit the amount of network bandwidth assigned for each data management job		

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10	The solution must have the ability to convert a physical machine to a virtual machine.		
11	The solution architecture should allow adding of new backup infrastructure and clients without disrupting ongoing operations with Scale out concept		
12	The solution architecture should allow expanding provided backup infrastructure seamlessly.		
13	The unified data-management platform must be able to backup data from servers, applications .		
14	The unified solution should support granular restore of application data for: <ul style="list-style-type: none"> <li>• Active Directory Object-level restore</li> <li>• VMs</li> <li>• Files/Folders</li> </ul> The console should support one of: <ul style="list-style-type: none"> <li>• Java-based GUI</li> <li>• Web-based GUI</li> <li>• Command Line Interface</li> </ul>		
15	The solution must be listed in Gartner magic quadrant.		
16	The solution must be able to live mount corrupted servers (vm's) on the appliance and provide high performance and low response time during mounting		
17	The mounted machine must run in high performance and provide high IOPS and must be able to mount min (15) vm's on the same appliance at the same time		
18	The solution should be able to perform electronic client distribution for fast and easy solution update and installation to new and existing clients.		
19	The solution must provide full licensing visibility by providing licensing status and consumption.		
20	Come with standard reporting templates, not limited to the following reports: <ul style="list-style-type: none"> <li>• Storage Growth</li> <li>• Job Summary</li> <li>• Job Schedule</li> <li>• Resource Utilization</li> <li>• License Utilization</li> <li>• Client Readiness</li> </ul>		

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	<ul style="list-style-type: none"> <li>• Audit Trail</li> </ul> <p>Media Tracking</p>		
21	<p>Support the following report formats:</p> <ul style="list-style-type: none"> <li>• HTML</li> <li>• Text-based</li> <li>• PDF</li> </ul>		
22	<p>The solution should support alerting feature with the following criteria:</p> <ul style="list-style-type: none"> <li>• Email/SMS</li> <li>• SNMP</li> <li>• System Event Viewer</li> <li>• command script</li> </ul>		
23	<p>Classifying of alert messages.</p>		
24	<p>The solution should come with a scheduler to automate backup, reporting etc tasks.</p>		
25	<p>The solution should be able to schedule download of updates/patches from the web.</p>		
26	<p>The solution should support Simple Network Management Protocol (SNMP).</p>		
27	<p>The administrative console should be password protected to prevent unauthorized access to the system.</p>		
28	<p>The administrative console should automatically be disconnected when inactive for a certain period of time</p>		
29	<p>The solution must maintain an audit trail to track the operations of the users and the changes that they have made.</p>		
30	<p>Warranty for three years including (labor, spare parts, configuration, and software). Also the software must be supported for three years from mother company and local company</p>		
31	<p>Support Oracle Backup &amp; Oracle Cloning Feature</p>		
32	<p>OS support for Windows, AIX ,Solaris and Linux</p>		

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33	The solution must be highly available with no single point of failure and it's the responsibility of the bidder to elaborate high availability of the solution.		
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1: Infrastructure details

1. MOL CURRENT INFRASTRUCTURE

1.1. PHYSICAL SERVERS

Below the current physical servers that running most critical MOL applications:

SERVER#	CPU#	O.S	APPLICATION	DATA CAPACITY (GB)
1	1	WINDOWS SERVER 2012 R2	• ACTIVE DIRECTORY	200
2	2	RED HAT ENTERPRISE LINUX SERVER RELEASE 7.5	• ORACLE	300
3	2	WIN SERVER 2012 R2	• MS SQL	200

1.2. VIRTUAL SERVERS

Based on Microsoft Hyper-V hypervisor, the below guests, virtual machines details are running on **three** physical servers each configured with **two** physical CPU:

VM#	O.S	APPLICATION	DATA CAPACITY (GB)
1	WINDOWS SERVER 2012 R2	• Oracle DB • dewan	500
2	WINDOWS SERVER 2012 R2	• MS Sql  • dss	100
3	WINDOWS SERVER 2012 R2	• MS SQL • FOLLOW UP	100
4	WINDOWS 2008 R2 STANDARD	• ORACLE • FOREIGN WORKERS	500
5	WINDOWS SERVER 2012 R2	• oracle • inspc. Cam.	100
6	WINDOWS SERVER 2012 R2	• oracle • JSP	100
7	WINDOWS SERVER 2012 R2	• Sql	200

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		<ul style="list-style-type: none"><li>• NEES</li></ul>	
8	WINDOWS SERVER 2012 R2	<ul style="list-style-type: none"><li>• SQL</li><li>• portal</li></ul>	100
9	WINDOWS SERVER 2012 R2	<ul style="list-style-type: none"><li>• MS SQL</li><li>• Inspection sys.</li></ul>	400
10	WINDOWS SERVER 2012 R2	<ul style="list-style-type: none"><li>• Active Directory</li></ul>	250

AND ANY OTHER ADDED SERVER MAY NOT MENTION HERE.

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*Appendix 2: Infrastructure details*

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**HIGH LEVEL SOLUTION DESIGN**



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