

**KENYA ELECTRICITY GENERATING COMPANY**

**TENDER FOR CONSOLIDATION AND UPGRADE OF SERVERS, STORAGE AND  
AUTOMATION OF DISASTER RECOVERY SITE: KGN-IT-19-2016**

KenGen wishes make changes and clarification on the tender above to the issues raised by potential interested bidders through addendum 1.

**Addendum 1**

**1. VMware Licenses**

<b>REQUIREMENT</b>	<b>MINIMUM REQUIREMENTS/SPECIFICATIONS</b>	<b>TENDERER'S OFFER</b>
<b>Specifications</b>	<ul style="list-style-type: none"><li>• Latest VMware VSphere with Operations management enterprise Plus for the 32 Processors (8 Blade servers each with 4 processors)</li><li>• Latest VMware vCenter server Standard Edition for each site (PR &amp; DR)</li><li>• vCenter Site Recovery Manager enterprise (SRM) protecting 75 VMs</li><li>• Three (3) year Production Support and subscription for all Licenses from VMware.</li></ul>	

**2. SRM Server**

Processor specifications and number of cores required.

**Response:**

- **Intel Xeon processor E5-2600 v4 product family**
- **2 processor sockets**
- **Cache: 2.5 MB per core**

**The SRM server will also be used for management.**

**3. SAP HANA Appliance**

The SAP certified and validated configuration for a 2TB HANA Appliance for Business Suite on HANA was revised and now requires disk drives of 12 X 800 GB 12 Gbps SAS Solid State Drives and 6 X 1.2 TB 10K RPM 12 Gbps SAS HDDS in each appliance. Since a SAP certified appliance is the requirement by KENGEN, will you increase the minimum specification of the SAP appliance to reflect the above?

**Response: The SAP appliance should be SAP certified. Give specifications which comply.**

#### 4. General

What is the current infrastructure?

**Response: Virtual infrastructure.**

What hosts would need to be migrated (type and size)

**Response: The existing virtual servers (30 - windows 2008) in the current hardware.**

What Backup infrastructure is being replaced (they have mentioned several different backup environments to integrate with in the doc)

**Response: Netback-up**

Do they want to migrate all of the historic backups, or only start backing up the new environments – if historic to be migrated. We need details on the size and type of backups, as well as current retentions etc.

**Response: NO. Start backing up the new environment.**

Whether any long term management services will be required, such as Monitoring or reporting – it is not mentioned.

**Response: YES.**

No	Section	Clarification	Response
1	12. Section Page No 32 Solution Implementation & Commissioning	Does KENGEN require that bidders should configure and test storage level replication to ensure systems are ready to failover/fail back?	YES
2	12. Solution Implementation & Commissioning	Since the requirement is for an integrated solution, does KENGEN require unified management software to provide one version of the truth of the entire stack from server, network, backup and storage?	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify
3	2.SUPPLY, INSTALL & COMMISSION SERVERS & STORAGES	Chassis form factor- Since blade technology is presented in different form factors by different vendors, isn't the precise 10U requirement a lock-in?	Maximum 10U form factor

## 5. Solution Implementation & Commissioning

<b>Solution Implementation Clarification</b>	<b>KenGen response</b>
The tender document says that full factory integration of the kit and software is a mandatory requirement. Is KenGen therefore looking to procure a Converged Infrastructure/Integrated System as defined by Gartner?	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.

## 6. Storage

<b>Storage Clarification</b>	<b>KenGen response</b>
Having ability to mix disk doesn't mean that data is automatically tiered by the system and the system will not be able to respond to performance needs automatically thus the need to automate it	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
Tender request for Back-End Connectivity - Four (4) 6Gbp SAS ports with the compatible SAS cables. Due to changes in technology should the back end connectivity be 4 * 12 Gbps instead of the requested 4 * 6 Gbps.	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
Can KenGen consider requesting for an All Flash Array which eliminates all performance challenges	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
Should the system support VMWare VVOLS? As VMware VVOLS is an integration and management framework for external storage that provides finer control at the VM-level, streamlines storage operation and offers flexibility of choice.	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
Why should the SAN backup to SATA disk in the same system which isn't best practice and also KenGen has already requested for a backup appliance which is in line with best practice	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
What advanced drive technologies should the storage offer?	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.
Should the system support Point In Time Copies/ snapshots	KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.

**7. Blade Servers**

<b>Blade Server CLARIFICATIONS</b>	<b>KenGen response</b>
<p>“Intel has recently released a later generation of Broadwell processors (v4) with improved power consumption and better performance. Therefore, under Processor Requirement of the Blade Servers, can bidders instead quote for 2 x 22 core E5-2699 v4 processors for a total of 44 cores per server?”</p>	<p>KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.</p>
<p>“In tightly integrated, fully virtualized Converged Infrastructure, boot from SAN offers numerous benefits such as easier server replacement with retention of the old boot location, easier backup process by backing up system boot images in the SAN and use snapshots on the boot images, easier management when creating and managing OS image, and better reliability since you can access boot disk through multiple paths thus protecting the disk from being a single point of failure. Therefore, can bidder over boot from SAN as an equivalent, meaning no need for Hard drive, and RAID controllers?”</p>	<p>KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.</p>

**8. Blade Enclosure**

<b>Blade Enclosure Clarification</b>	<b>KenGen response</b>
<p>The iKVM is proprietary technology. Should vendors provide equivalent technology that supports remote connection and management of the blade infrastructure?</p>	<p>KenGen requirements/specifications are the minimum to be met. Any specifications over and above the minimum qualify.</p>

**9. ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED**

**ALL THE TERMS AND CONDITION IN THE TENDER REMAIN THE SAME**  
**ACKNOWLEDGEMENT OF ADDENDUM NO.1**

We, the undersigned hereby certify that the clarification is an integral part of the document and has been incorporated in the tender proposal.

Signed .....

Date .....

Tenderer .....