

### Question 1:

1. Considering the amount of work required in putting the response together and multiple stakeholders involved, can UNISA please extend the date of submission by at least two weeks?
  - a. **SCM to advise...ICT supports 1-week extension, rationale being that responses may be inaccurate**
  
2. Should a bidder has an alternative technology or better solution that is different from what is requested in the tender specification document, will UNISA accept two responses to the bid broken down as a) A primary response that will be in line with UNISA tender specification document, b) An alternative / recommended better solution that will be included as an Annexure to the tender response documents?
  - a. **UNISA required one response as per the mandatory requirements, the specification document provides a guideline of the required solution and service providers are at liberty to propose a solution that would meet the requirements.**
  
3. Can you please advise what will be the duration of this contract?
  - a. **5 years**
  
4. Please can you share the physical address and GPS coordinates of the Honeydew site?
  - a. **183 Raft street, LaserPark Rooderpoort**

### Question 2:

1. The connectivity across the Datacenters is mentioned as being 10Gb L2 , are these redundant links ? **SANREN ring, which has dual links**
  - a. What type of service is this:
    - i. Dark fiber
    - ii. **DWDM**
    - iii. L2 VPN
  
2. What type of leaf switches should be provisioned, transceiver based switches or copper based devices ?
  - a. **Transceiver based switch**
  
3. Could some clarity be provided around the requirement around the use of modular spines, considering low leaf count we could address this use case with more cost effective platforms, would Unisa be open to this ?
  - a. **Please provide a solution as per tender requirements**
  
4. Is there a requirement for out of band management ?
  - a. **The requirement should be implemented according to OEM best practices for the proposed solution.**
  
5. Is there a requirement to allow the ability to extend on premise networking into the cloud providers ? **cloud platforms will always be welcomed but UNISA will require dedicated hardware resources**
  - a. If so which cloud providers and should this be part of the solution?
    - i. **Cloud services that your solution is compatible with**

- b. Should the extensibility of on-prem to the Hyperscalers be catered for as part of the solution ? **Not applicable**
  - c. Which Hyperscalers ? **Not applicable**
  - d. Could you provide details of connectivity medium to Hyperscalers ? Direct Connect / Express Router / IPSEC VPN over Internet ? **Not applicable**
6. What type of interfaces are required on the Data center leafs: Please refer to the tender documents A,B,C and D
  7. Is the fiber cabling plant within the Datacenter Single mode or Multimode ? **Both**
  8. What is the longest run of Fiber within the datacenter ?
    - a. Are the runs less than 150m ? **Yes**
  9. What type of 40Gb transceiver interfaces are required to interface with the Checkpoint firewalls. **10GE SFP+**
  10. Will a scaled down set of services be hosted in the secondary datacenter, we noticed that the fabric size is half the size ? **Please refer to tender document page 36**
  11. Could you confirm the leaf modularity that you are being referenced in the RFP – “The leaf node must support modularity with a redundant configuration of 1+1 and cooling fans need to support a 3+1 redundant modular configuration”. Is this referring to power supply and fan modularity ? **It must be based on the proposed solution**
  12. The RFP mentions to 2 Leafs and 2 Spines for the Florida DC , but in the later part of the document there is the following statement made “The proposed Network Data Centre solution should cater for a minimum of 60 \* 40GB modules, 270 \* 10GB Modules for both Muckleneuk and Florida datacentres”, this would imply that you would need 6 Leaf nodes – could you kindly confirm this ?  
**The specification document provided a guideline of the data center environment as follows however service providers must ensure that all elements within the specification document are taken into account when proposing a solution**

**Example:**

**If a service provider proposes 2 blade enclosures with dual 40Gb interface uplinks the leaf nodes have to cater for this accordingly.**

**Main Campus = 2 spine + 4 leafs**

**Florida = 2 spine + 2 leafs**

**The 40Gb interfaces are only required currently to connect the spine/leaf layer and service providers must propose the required numbers with high availability taken into consideration. Must also cater for future expansions**

13. What type of interfaces does the CPE device provide for inter DC connectivity between Muckleneuk and Florida ? **Third party provider excluded from the scope**

**Question 3:**

**General:**

- For us to accurately design and size the solution we need to run our assessment tools in your environment – Will UNISA allow us to run our assessment tools for 24 – 72hrs? these tools have no impact on your systems – they just collect capacity and performance metrics of your IT infrastructure?

- No, see Information provided
- Will UNISA consider Trade-In or Buy Backs of their old IT infrastructure to fund part of the procurement of the new solution? **No**
- Does the UNISA require the implementation services of the solutions after hours? (yes/no)
  - Yes, please refer to specification document
- Will the installation be 100% on UNISA datacenters? **No; Data centers and national footprint**
- What is the estimated yearly growth (in terms of percentage) of the utilization of UNISA's IT infrastructure? **Expected network growth is very minimal and unexpected growth would be managed as part of the contract. There is an estimated 10% expected data center growth annually, this will vary according to business requirements**
- Is there maximum threshold in terms of IT resources utilization that must be maintained all the time? **Network and Data center should be 70%**
- Does UNISA plan to repurpose or re-use some of their existing datacenter infrastructure, if yes please specify the equipment and its purpose? **No**

#### **Services Requirements:**

- Please provide a brief summary of the services requirement: **This is detailed in the technical specification document**
- Should we also provide IAAS cloud services **Refer to tender specification**
- Is the IAAS a hybrid model **Refer to tender specification**
- For HPC – so you require support for existing infrastructure or should we proposed new HPC ? **New**
- Do we need to provide all infrastructure? **Refer to tender specifications**
- Should all workloads (E.g. VMs, Physical servers, applications) be migrated? **Refer to tender specifications**
- **Software Requirements:**
  - Should the bidders include all OS and Hypervisor Configuration: **Please refer to the tender documents**
  - Please specify Hypervisor / OS required/preferred: **Please refer to tender specification**
  - Specify any other software requirements: **Please refer to tender specification**
- **Is Data Migration required: (Yes / No)**
  - If Yes:
    - Is it a P2V, V2V, mixed Migration? **Mixed**
    - How much Data needs to be Migrated? **~1.7 PB**
    - Hypervisor Type
      - **The requirement should be implemented according to OEM best practices for the proposed solution.**
    - How many VM's/ physical servers need to be Migrated? **~1200**
    - From what Platform will the Migration take place? (Specify Vendor and Hypervisor where applicable) **(VMWare Esxi 6, HPC, IBM AIX LPAR, KVM, OVM and Physical)**

- Current Network Infrastructure? (if Migrating over Network) refer to tender documents
- Will the migration happen between two remote sites? Refer to tender documents
- **Managed service**
  - Will this be 24/7 services - Yes
  - Can we have a mixed services requirement onsite and remote support – Yes, as detailed in the specification and response documents.

#### **Backup Requirements:**

- What is the current backup software and version of the software? Comvault, Storesimple
- Will UNISA consider a disk to disk backup solution? The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.
- Will there be a requirement for migrating tapes to the new solution? The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.
- What is the front-end capacity to be backed up? 110TB and the service provider should calculate based on their solution
- What is the current backup policy in terms of retentions? 7 years for finance; student data = lifetime and 5 Years for Normal applications
- What is UNISA's requirements for RTO and RPO? The proposed solution should be designed according to high availability.
- What types of applications is UNISA looking to backup? VMs, data bases, physical servers- see attached
- How many sites will the backup solution be required for? Both sites

#### **Question 4:**

- Can they provide CPU, RAM, DISK provisioned and disks used for all the VM's, RVtools export if possible of the entire environment will be ideal? – See attached
- Specify RPO and RTO for the servers, is geographical separation required and the distance? The proposed solution should be designed according to high availability. The remote site is already in place.
- Current network diagram with devices in the current infrastructure and indicating networking cabling media/type with estimated distance? Refer to tender documents
- List of all network equipment with model and support expiry dates? Refer to tender specification
- Current LAN infrastructure cabling cat 5/6/7 ? Cat 5e and 6

#### **Question 5:**

- Please advise whether the existing Unisa Data Centre Facility has adequate space to host the new required solution? Yes
- If not please advise if provision needs to be made for any Data Centre Facilities upgrades and/or expansions to accommodate the upgrade of/ new equipment requirements i.e. Data Centre white space, Racks, UPS's, Air-conditioning, fire suppression, Environmental Monitoring, Generator etc. N/A

### **Question 6:**

We would like to find out if the below annexures form part of the tender response, and if so may you kindly share them as they were not on the list provided on the website.

- **Annexure A11:** Letter of authority from the OEM; OEM local presence and/or footprint, local capability to support the proposed solution, empowerment of local companies. **Service providers are expected to provide this information as annexure A11 of the submission/response.**
- **Annexure A14:** Bidders must provide a complete IaaS solution (inclusive of Section A – Network Infrastructure and B – data centre) partial solution will not be accepted. **Service providers are expected to provide this information as annexure A14 of the submission/response.**

### **Question 7:**

1. Does the customer want to run any Cloud Services on-prem Muckleneuk and Florida?
  - a. **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**
2. What are the totals for the following compute elements: - **See attached**  
Number of vCPUs.  
GB of RAM.  
Total Storage
3. Does the customer storage devices provide the same IOPs (different Tiers)? **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**  
If the customer has different Tiers, what are the IOPs across their Tiers? **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**  
How many Tiers? **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**
4. What is the total data capacity that Vodacom needs to protect from a Backup perspective? **We don't know about vodacom**
5. What is the required retention period for the customer data? **Dependent on the type of data, i.e. finance records (7 years), student data (keep forever) applications 5 years**
6. What data types must Vodacom include on the backup scope? **We don't know about Vodacom**  
This could include File Systems, Exchange, SQL or Other databases, Compressed media such as videos, etc.
7. Does the customer have an existing backup infrastructure and licenses? **Refer to tender documents**  
Dedicated appliances and backup software? **Comvault v11, no dedicated appliances. Currently using dedicated physical servers and storage**

If Yes is the answer does the customer own those and who is supplier of these? **Software is Comvault**

8. What is the customer's Cloud strategy? **Refer to tender documents**  
Are they considering consolidating moving some of the workloads and applications into the Cloud? **Refer to tender documents**
9. Any Cloud preference (AWS, Azure, Huawei Cloud, Google Cloud, etc.). **No, the requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution. The proposed cloud solution should be aligned to POPI act.**
10. For the disaster recovery requirement, does the customer require both production and DR to run at the same time? **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**  
Please also specify if the solution will be running on an Active (Production) and Passive (DR). **The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.**

#### **Question 8:**

1. From the RFP document the requirements for the Unisa network connectivity ask for the following in the Data Centre component:

60 x 40GB modules and 270 x 10GB Modules  
This should be for server connectivity

**Refer to the previous answer**

- a. For the 270 10GBps compute connectivity do we cater for both fibre and UTP copper connectivity? **Please refer to previous answer**
  - b. If so can Unisa please provide us with the specific 10Gb UTP copper and 10Gb fibre port count requirement? **Please refer to previous answer**
  - c. Do we need to cater for 1Gig copper or fibre connectivity for legacy systems? **Yes**
  - d. For legacy fibre connectivity using 1Gig is there any requirement for Long Range fibre? **Yes**
2. In section 12.6 the RFP states that the servers are connected using both short range and long range fibre, can Unisa please provide us with the port counts for short range and long range server connectivity? **See attached (Port count spreadsheet)**
  3. For network fibre connectivity can we assume 10Gb Multimode as a standard or do we cater for long range as well? **See previous answer**
    - a. If so in which parts of the network will use long range fibre?, Can Unisa please provide us with the specific port counts for both short range and long range fibre to connect network equipment. **N/A**

Tender Reference	Question
<p>5. Prequalification criteria Tenderer must subcontract maximum of 30% of the value and scope of the contract to at least 51% of the designated groups as defined by the B-BBEE codes of good practice in order to advance the designated groups. Unisa will use other means of validation to confirm the B-BBEE status. The sub-contracted tenderer should not be the subsidiary company of the tenderer. Tenderer that fail to meet this criterion will be disqualified. Unisa will provide the tenderer with the list of ESD entities for training and development and skills transfer. Tenderer must provide a B-BBEE certificate of sub-contracted Tenderer and shareholder certificates.</p> <p>The scope of subcontracting must cover the following areas:</p> <ul style="list-style-type: none"> <li>· Solution design,</li> <li>· Solution acquisition,</li> <li>· Solution implementation and</li> <li>· Solution maintenance and support</li> </ul>	<ol style="list-style-type: none"> <li>1. As it is expected that the majority of the total contract value will be procured from foreign OEMs, to which local SMME entities cannot procure from due to them not having the necessary OEM contracts and skills certifications in place, can UNISA verify that the 30% SMME spend requirement will only be on the local SA spend portion of the contract value. <b>Refer to mandatory requirements</b></li> <li>2. Please clarify the scope of subcontracting, must subcontracting be present for each area indicated? <b>Refer to specific requirements</b></li> </ol>
<p>13.3 Quality standards Due to the extensive requirements of this agreement all service providers must provide the quality standards they comply with, as well as proof thereof. Bidders must provide valid certificate(s) issued in the bidder's name containing accreditation Details and validity period.</p> <p>The following standards must be submitted as part of the tender response:</p> <ul style="list-style-type: none"> <li>· The bidder must be an accredited Cloud Service Provider and must have the ISO certification system of international standardization organizations.</li> <li>· ISO 9001:2015 Quality management system.</li> <li>· ISO 27001:2013 Information security management</li> <li>· ISO 27018:2014 Personnel data protection</li> </ul>	<ol style="list-style-type: none"> <li>1. Altron Nexus is an accredited partner of Huawei, can we submit Huawei's Cloud Service Provider accreditation and their ISO certification <b>Refer to mandatory specification</b></li> <li>2. Altron Nexus is part of the Altron Group, as such the various Altron Group companies are certified for the ISO standards which are relevant to their specific focus areas. Altron Nexus is currently ISO 9001 and 45001 certified. Would we be allowed to submit the following ISO certifications from other companies with our group, namely: <ol style="list-style-type: none"> <li>a. ISO 27001:2013 Information security management</li> <li>b. ISO 27018:2014 Personnel data protection</li> <li>c. ISO 22301:2012 Business continuity system standard <b>refer to mandatory requirements</b></li> </ol> </li> </ol>

ISO 22301:2012 Business continuity system standard	
Annexure 5 – Pricing Template	1. Should we include support and Maintenance pricing in the OPEX cost for Year 1 – <b>Refer to tender specification</b>
Annexure A9 BIDDER EXPERIENCE AND CAPABILITY REQUIREMENTS The Bidder must have previous experience in Cloud Hosting. a) The bidder must provide at least 2 reference letters from a client where cloud hosting services have been supplied, maintained and supported. The reference must not be older than thirty-six (36) months. The reference letter must be on an official letterhead of the entity giving reference to the bidder and duly signed, dated and containing the following details: b) The customer Company name and physical address; c) Customer contact person's name, telephone number and email address; d) For a Business customer: the Company Registration Number; e) Service scope of work."	1. Will Altron Nexus be allowed to use references of companies within the Altron Group, which specialise in Cloud Hosting solutions? <b>Refer to tender specifications</b>

**Question 9:**

Technical Questions:

1	please publish the specification for all the VMs – <b>See attached</b>
2	please publish the details of all the Software Applications <b>This is Infrastructure as a Service please refer to tender specifications</b>
3	please publish the details floor plan for the DCs? – <b>See attached</b>
4	please publish the distribution of the APs ? – <b>See attached</b>
5	“The solution must cater for an on-site mid-level qualified resource that will be responsible to provide support.”  ➤ Do we need to cater for an on-site resource for ALL campuses supporting LAN/WAN and Wireless? <b>Refer to tender specification</b>
6	Due to the nature and size of your requirement’s, please may we be an extension to respond to this tender. <b>See response to question 1 above</b>



**Question 10:**

No	Question	UNISA Feedback
1	Please supply current configuration item volumes by Type: Servers(Physical/Virtual), Switches, Routers, Firewalls, etc)	See attached
2	Is the service provider expected to provide the IT Service Management(ITSM) toolsets? Incident management Request Fulfilment Change Management Release Management Problem Management CMDB	For a managed service as per the specification document, the service provider should have this in place to provide services to UNISA. Please refer to SLA requirements as these are provided in the terms of engagement.
3	What are the current ITSM toolsets used by Unisa? Is there a master ITSM tool, and will service provider be required to integrate to this?	No solution in place
4	What ITSM processes are currently used by Unisa and who manages these?	ITIL Framework
5	What performance reporting and service levels are required?	Please refer to tender specification document
6	What “monitoring solution” does the client currently use to monitor the WAN and Lan landscape?	Please refer to tender documents
7	Is there any license that UNISA already own pertaining to a monitoring solution, and provide the “renewal date” and information pertaining to the license agreement in place?	Please refer to tender documents
8	Any hardware already procured for any existing monitoring solution?	Please refer to tender documents
9	Total of Servers being monitored and provide an inventory list of the servers to be monitored and being currently being monitored?	Please refer to tender documents
10	Total of network equipment grouped by “Type” to be monitored? Please provide an extract or list of the devices to be monitored or monitored?	Please refer to tender documents
11	Destinations / geographical destination of the devices to be monitored?	For a managed service as per the specification document, the service should have this to provide

		<p>services to UNISA. Please refer to SLA requirements as these provide the terms of engagement.</p> <p>The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.</p>
12	Any integration to a “call logging” system and if the answer is Yes, what is the call logging system being used? If no, what event management is put in place?	IBM Control Desk
13	Is there a requirement to have event management and capacity management implemented for the monitoring solution?	Please refer to tender documents
14	Any special dashboards / reports in place and examples will be appreciated.	<p>For a managed service as per the specification document, the service should have this to provide services to UNISA. Please refer to tender documents.</p> <p>The requirement should be implemented according to OEM best practices for the proposed solution. The service provider is expected to manage and support the proposed solution.</p>
15	<p>Are the firewalls and load-balancers part of the scope of managed networks services or will these continue to be managed by UNISA?</p> <ul style="list-style-type: none"> <li>- Checkpoint Clusters</li> <li>- F5 load balancers</li> <li>- Dark Trace with Antigena</li> <li>- Cisco ISE/NAC solution</li> </ul>	Not in scope
16	If security and/or network security services are to be managed by the service provider, please provide a detailed BOM - hardware and software, as well as licensed features for the devices to be managed by the service provider	Not in scope
17	Please provide more information on the Network Access Control (NAC) solution which has been implemented at UNISA already, include any integrations with other solutions, for example, noted in the tender document	Please provide best fit solution for UNISA

	that it is used for wireless authentication and has been integrated with MS Active directory.	
18	Please provide more detailed information as to the desired Network Access Control (NAC) solution - 2nd factor authentication, wired NAC, integration with secure remote access? Is posturing a requirement? If so, what posturing integrations are required?	Please provide best fit solution for UNISA
19	What solution is used for secure remote access? Are any improvements required to this solution? If so, please supply the detailed requirements for this	Please provide best fit solution for UNISA
20	Would Unisa consider an alternate solution to DarkFace? If so, when does the current contract term end?	Out of scope
21	Any concerns with cloud based security solutions?	Out of scope
22	Any concerns with cloud based management of network and/or security solutions?	Out of scope
23	Can Unisa shared their security policy with us? As well as any other relevant security policies and standards, such as BYOD and Network Security Policy?	Out of scope
24	Does Unisa make use of any technologies within this list currently, and if so, please supply a detailed BOM - hardware and software, what licensed features: Network as a Service (NaaS), Network Security Analytics, Identity Services, Encrypted Traffic Analytics, Network as an Enforcer (NaaS), mDNS gateway, and MACsec-256 link encryption.	No, service providers must propose some or all of these technologies in their response
25	Does UNISA have a SOC which the security capabilities should be integrated with? If so, what level of response is offered by the SOC?	Out of scope
26	Does UNISA make use of any SIEM or SOAR technologies? If so, please provide more information	Out of scope
27	What endpoint security, anti-virus, remote working and/or SASE solutions are used by UNISA currently? (relevance is pertaining to compatability and integrating security solutions into network security defence)	Out of scope

28	Please supply VMs specification requirement, like XXX VM(XX vCPU, XXGB Memory, XXGB disk) in Muckleneuk, like XXX VM(XX vCPU, XXGB Memory, XXGB disk) in Florida.	See attached
29	Does the IT hardware resources(58 servers, 990TiB Capacity) in the tender book include disaster recovery resources?	All DR requirements should be catered for as detailed in the specification document
30	please supply us the details about the internal server storage in Muckleneuk and Florida?	See attached
31	Please provide the version of the database (mySql or Oracle etc) and VM specifications and quantities related?	Out of scope