



DIGITAL MALAWI PROGRAM PHASE I: DIGITAL FOUNDATIONS PROJECT

CREDIT NUMBER: 60500 MW
PROJECT NUMBER: P160533

Purchaser:	The Public Private Partnership Commission
Project:	Digital Malawi Program Phase I: Digital foundations Project
Contract title:	Design, Installation and Commissioning of a data Centre in Malawi
Country:	Malawi
Credit No.:	60500 MW
RFB No:	MW-PPPC-174450-GO-RFB
Issued on:	14 th October 2020

Responses to Queries – 1

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1	We have lines on the drawing with red dashed lines and red/purple solid lines? What's the meaning of those lines ... please, provide legend!	Solid purple lines are grid for of the building; Red dotted lines represent works that require demolitions.
2	What are you going to use the following rooms for? i. Accredited CA Room. ii. CA Room. iii. Network & WAS Room. iv. MTL Equipment Room.	No need to consider these rooms in your design as these are reserved for other uses complementary to the data centre.

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3	<p>If you plan using the rooms for storing active equipment/hardware what are the requirements for the cooling system for above rooms?</p> <p>Pls ensure that the cooling and power systems are extensible, that is the systems will be extended with addition of equipment</p> <p>The general cooling system to be used or cooling system per single room to be build ... which is not effective and expensive</p> <p>Whose responsibility is to supply doors for the data part? what about the rest of the building? Are they supposed to be fire doors?</p>	<p>Civil works contractor is responsible and data centre contractor is expected to provide input</p>
4	<p>Does the transport elevator exists or it has to be supplied? Who's responsibility for this?</p>	<p>Civil works contractor</p>
5	<p>Who is going to build firewalls at the data center?</p>	<p>As per bid document, data centre contractor</p>
6	<p>Any windows at the data part, power room, MTL cables room and battery room are not needed. Moreover, this will make cooling tricky</p>	<p>No windows</p>
7	<p>Please assist with the following documents except the policy documents:</p> <ol style="list-style-type: none"> 1. Digital Government Strategy. 2. Cybersecurity Strategy 3. E-Waste Strategy 4. Data Protection 5. Malawi Enterprise Architecture and Interoperability Framework (MEAIF) reports and other standards 	<p>Please follow the link below:</p> <p>https://drive.google.com/drive/folders/14Q4oy3szhxEC52vlg2q2AUK3VYQOVbYn?usp=sharing</p> <p>https://drive.google.com/drive/folders/1-Ha2JsbTpQtnlRbbyyAze_pkVyzL6qF7?usp=sharing</p>

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	<i>“1.2.1.2 The contractor shall be informed by the Digital Government Strategy, Cybersecurity Strategy, e-Waste Strategy, Data Protection, the Malawi Enterprise Architecture and Interoperability Framework (MEAIF) reports and other standards and policy documents. These documents will be provided upon request.”</i>	
8	As per the tender document it is required to have Fire Rated environment. Kindly clarify if the civil contractor will be able to implement the 12mm thick fire rated gypsum boards?	Civil Works contractor will be responsible for the construction of the fire-resistant walls
9	How many Locations we are building the data center? Primary and secondary (DR) or any more kindly provide the size of the individual data center room and utility room	One production site for primary where DR equipment will be collocated at a different Tier 3 Data Centre in Blantyre. For size of the rooms, please refer to drawings
10	Please clarify if the civil contractor will implement the Acoustic Fire Rated Ceiling in the data center	Yes, they will under the supervision of the data centre contractor
11	Please clarify if the civil contractor will implement / apply the fire rated paints (Jotun or equivalent) for walls and 10mm thick Epoxy paint for flooring within data center and utility rooms	Yes, they will under the supervision of the data centre contractor
12	Is the data center having emergency exit area - how many doors in the data center area (as per the standard main room door, equipment	Each floor has an emergency door. Please refer to the drawing (link in the RFB document)
13	Provide the Room size - height, length and width for the data center and NoC room how many people are sitting in the NoC room	Please refer to the drawings

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14	Please provide the room size for utility room UPS, Power, staging area, testing area etc.	Please refer to the drawings
15	NOC room furniture will it be purchased by PPPC-MW or it is the scope of data center contractor	PPPC-MW
16	As we are installing the heavy equipment's in the floor's customer (PPPC-MW) must ensure that test load capacity of the floors with the test report	That will be done
17	Is customer (PPPC-MW) build the house for generator or it is the scope of the data center contractor	It is already available on site.
18	What is the current capacity of the Generator	700KVA Diesel generator
19	It is recommended that the Gas Cylinder must be outside the data center	It may be inside the utility room but there is plenty of space outside building that may also be used for gas cylinders
20	It is mandatory that there should not be any open area and glass partition or windows with glass doors within data center the data center must be fully closed environment	The data center will be a fully closed environment
21	Customer required to clearly state the number of racks required to be installed in the data center	Required number of racks will be provided as per solution dimensioning described in the RFB document- minimum 42U enclosure
22	Any suggestion for Raised floor from customer brand or model etc.	Brand or model free and installation done by Civil contractor under the supervision of Data Centre vendor
23	What is the size of the electrical room (Height, Length, and Width)	Please refer to the building drawings
24	What is the distance of the electrical main room to data center (Length of cable required)	Please refer to the building drawings. Site visit was done for additional information.
25	Provision of pulling cables from Main Electrical room to Data Center (Customer required to confirm the pathway for pulling power cables)	Please refer to the drawings as generic pathway opening across floors are available. Basing on your assessment during site visit, you may propose optimal solution

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26	Did the customer's contractor provision for the earthing Pit	Civil works contractor is to look into that, but DC contractor is expected to provide input
27	Electrical Cables, Breaker, MCCB's and MCB's Distribution Boards and Consumer Boards for the Data Center Generator Room and UPS. Confirm if the customer's contractor will provide for the Breaker in the electrical room for data center equipment's or it is scope of Data Center contractor	Confirmed. Civil works contractor is to look into that, but Data Centre contractor is expected to provide input
28	What is the capacity of the Generator	700KVA
29	Size of the UPS N+1 - any specific brand suggested by the customer any brand recommended by customer	The requirements are brand neutral
30	Can we provide better solution than having many batteries for backup for 72 hours	Yes, adding capacity will meet requested power autonomy for the HCI equipment
31	How is the power stability in data location	A generator set must be of sufficient size to be able to supply continuous operation power at the required load level without any time limitation.
32	Number of Racks	Please refer to RFB document
22	Did the customer's contractor provision for 3 phase electrical power for data center, utility room etc.	Available
24	As per the tender Data cables suggested CAT 6. Can we recommend CAT 6A UTP cables	CAT is minimum specifications. Anything higher and future proof is of added advantages.
35	What is the distance required for Fiber optic cables? It is important to have the distance used for fiber cables for designing purpose for multi optical or single optical fiber	Please use site drawings and own site surveys to design required cable distance
36	How many fiber nodes	minimum of 2
37	Will customer provide Internet connectivity in data center? Will customer engage the internet	Internet will be provided

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	service provider or it is the scope of data center main contractor?	
38	What is the technology customer prefer in cooling system? In-Row or Down blow units in the data center cooling and any specific brand suggested by the customer	Hot Aisle Containment. No specific brand
39	Is Wi-Fi Access Point required? Clarify if yes how many wi-Fi access points	Not required
40	How many core switches?	Depends on the SDN design
41	How many distribution/aggregation switches?	Depends on the SDN design
42	How many edge switches?	Depends on the SDN design
43	What is the storage size required model or brand etc. What is the technology customer prefer - mirror or shadow image kind of configuration	Please refer to RFB Section vii. No preference both
44	What is the storage usage space? Any particular brand/model recommend by the customer	Please refer to RFB (SECTION VII
45	What is Replication strategy? Please specify the business requirement of the replication strategy between the Primary and Secondary sites	Please refer to RFB section vii
46	What kind of Servers are used in the application requirement? Please specify the configuration required for the servers for application	Please refer to RFB section vii
47	What is the size of data need to migrate in the proposed setup? Kindly provide the current data size and mode of data to be migrated in the proposed setup	Please refer to RFB section vii
48	What is the current setup overall? Network, server storage, backup and other connectivity kindly provide architecture diagram	Please refer to RFB section vii
49	How will be the project need to be initiated? First consultancy -	Please refer to RFB section vii

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	design, and architect the solution overall, implementation and support for xx years	
50	What are the security aspects? Kindly provide the details of information security framework need to be include in the design	Please refer to RFB section vii
51	Kindly provide the details of the application need to install in the proposed setup	Please refer to RFB section vii
52	Is it the Data center main contractor scope to provide the dark fiber between Primary and DR	No
53	Kindly provide the detail of the monitoring mechanism required by the business	Please refer to RFB section vii
54	How many number of people need to be trained, please clarify training certification will be provided by the authorized training institute or OEM's directly	Please refer to RFB section vii
55	We are seeking clarification on the number of Ministries, Departments and Agents that will be connected to the data centre	200
56	We would like to know whether switches and routers installed in the data centre shall be shared among MDAs? The sharing referred to herein, is for example one switch with may be 48 ports shared by a Ministry, its departments and agents	Physical and/or virtual fabric should be designed as per SDN solution defined
57	What is the expected Visitor access to the data center handled? Biometric Access Magnetic Strip cards Smart Cards.	Biometric access is preferred
58	Any Considerations of Monitoring the Facilities CCTV- Monitoring 24/ 7 Security Officer	Both will be available
59	Business continuity Plan Is there currently an in-places business continuity plan in case	Required as per proposal

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	of a disaster or this will be required as per proposal.	
60	Which fiber route is closest to the data center facility? Outline the capacity for additional telecom vendors to enter the data center facility	OCL fiber already available on site, but ESCOM and other ISP fibers are close by. ESCOM, SimbaNet and telecom vendor under PPP Connectivity fibre will terminate at the site
61	What is your strategy for cloud? Next 5 Years or the Future	Government services to be cloud based in the coming 10 yrs
62	Do you have diverse entrances into the data center for telecom network providers for redundancy or Backbone?	Yes, a number of ISP to provide access to fiber services
63	Are there any plans for growth?	Please to refer to RFB section vii
63	Do you have on-site professional staff 24/7? Currently or will there be in the future for migration, deployment, and day-to-day operations	24x7 NOC planned once Data Centre is up
65	Are there incidents, service requests, and change requests managed response plans in place?	Not yet
66	Does the requirement for tier 3 Data center include conforming to the standard only or does it include certification which will be an additional cost for certifying?	Conforming to standards now but cr
67	Is this project classified as BOT (Build Operate Transfer or BOOT (Build Own Operate Transfer)? If contractors are financing the project, it makes sense for us to build and own it for an agreed number of years before we transfer? What is the duration of Operate before Transfer happens?	This is not a public private partnership but a traditional procurement. It is therefore neither a BOT or BOT or BOOT.
68	What is the expected Data Centre SLA agreement like uptime of services and performance. In the document it is not explicitly mentioned as there are many SLA components. Do we have a customer SLA?	Customer SLA will be defined in due course but performance level should tally with Uptime Tier III

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69	What is the Data Centre OLA agreement in respect of maintenance and other service offerings?	OLA will be based on Tier III operations level
70	Given the scope of the projects extends to training of staff; What is the recruitment process and who is responsible for hiring staff? What is the current hiring conversion ratio in Malawi i.e on average how many candidates are interviewed in order to hire 1 candidate given the current talent pool in the country?	Department of e-Government is responsible for hiring staff.
71	Given that there are specialist skills required, are you open to hiring outside Malawi and appointing ex-pats as 3 rd party contractors in areas that might require that? If so, who will assist in processing work permits?	Yes, as this is an international competitive bid.
72	What type of water source is in the area (borehole water / council treated water /water tank)	Piped portable water supplied by Lilongwe Water Board
73	We need to the current specification of the Electricity DB and power source (is there a substation nearby or 11kV line with a transformer)	High tension stepdown transformer available on site. DB available on site but may be replaced upon recommendation by civil works contractor
74	It is said that “The Data Centre MUST comply with the following laws and regulations: 1.1.1.1The National ICT Policy, Republic of Malawi PUBLIC SERVICE ICT STANDARDS and Electronic Transactions and Cyber Security Act, 2016. - can these be shared with us?	Link provided above
75	Does the architectural design need approval from a government department? Page 95: In accordance with ITB 11.1(j), Bidders must submit, as part of their bids, lists of all the Software included in the bid assigned to one of the following categories.	Department of eGovernment will approve

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76	Is there a requirement for this DC to inter connect with existing DCs and if so can they provide a general description of architectures & software/hardware appliances hosted in these DCS?	Not at the moment
77	<p>Appendix 9 Page 271 Supply, installation and commissioning of a counterpart server infrastructure with Disaster Recovery hosted remotely at a government Data Centre facility in Blantyre to provide data mirroring, disaster recovery and failover capabilities.</p> <p>On pg 272 it is written “The other buildings are used by small companies comprising a garage, a car hire and a media company.” What will happen to these companies during and post the construction of the DC? Who will be responsible for migrating them if it is a requirement to improve accessibility during re-wiring and renovation of the site. There might be a requirement to move them around to improve security or accommodate DC best practice.</p> <p>Does the scope of the project cover the rehabilitation of the areas surrounding the DC i.e underground cabling/ road infrastructure, street lighting if its a requirement to make the DC comply with best practices.</p>	<p>That was referred to in old RFB ESMP of 2020, please refer to new revised RFB ESMP of 2021 posted on PPPC.mw</p> <p>The scope of the data centre contractor does not include rehabilitation of the areas surrounding the data centre</p>
78	Can we get a clarification on the DR Site. Is it already prepared, where we will just come in and install the equipment, or it needs preparation like the Main Data Centre?	DR site is already under construction and only installation will be required
79	We assume the infrastructure at the MIX, DR Site and GWAN are	That is correct

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	already in place and that our mandate for the National Data Centre is to provide WAN services to the sites. Advise if otherwise?	
80	The requirement for two reference sites whose value is US\$1.5m, is the amount specific to infrastructure in the data centre or software solutions of similar nature or a mix of both?	A mix of both