Response to queries - Replacement of Data Network and PABX

PABX System	
Analogue /Digital Ports	
Grateful to specify the Quantity / Number of Analogue Ports	45
Grateful to specify the purpose of the Analogue Ports – Example. FAX, Analogue Phones a. Number of Fax Machines through the FXS ports: b. Number of Analogue Phones for the FXS ports:	20 25
Grateful to specify the Quantity / Number of Digital Ports	230
Grateful to specify the purpose of these Digital Ports – Example. Cordless Phones / Hi-Tech Digital Phones a. Number of Cordless Phones through the FXS ports b. Number of Hi-Tech Digital Phones for the FXS ports	10 22
FAX Server – Fax Integration & Fax to Email	
Please mention the a. Number of FAX to E-mail users b. Number of simultaneous users for FAX to E-mail.	Vendor to propose Vendor to propose
Voicemail – Unity Connection	
Kindly specify the number of users who require Voicemails.	230
Kindly specify the number of simultaneous	

channels / ports (in other word concurrent users) Required	
a. for Voicemails	Vendor to propose
b. Auto-Attendant (Used for IVR)	Vendor to propose
GSM Gateway	
GSM Gateway comprises of various models and each model having various capacity to hold right from 4 Port GSM Gateway to a 120 Port – SIM Server. Kindly specify the required number of GSM Ports to be provisioned	4 port GSM Gateway
Call recording /Monitoring	
Pls specify if the recording are going to be done for	
a. Only Incoming and Outgoing External Calls that at PRI/BRI or GSM gateway level	External and Internal
b. Based on internal extension (recording of all incoming and outgoing calls) i. If this is the case please specify the number of extensions to be monitored and recorded	230
c. Any other scenario the Bank wish to have	Vendor to propose
Conferencing	
Kindly specify the required maximum number of concurrent participants in a conference session a. Ex. Three Party Conference, Four Party	6

Conference, etc...	
Kindly specify the maximum number of simultaneous conference sessions required. Ex. 4 x 3 party conference.	10
Cabling	
Grateful to provide with the Existing Cabling Details	
Date of Implementation	-
Structured Cabling for PoE IP Phones	-
Category Of Cabling	CAT6
Testing of Cable	-
Warranty of Cable	-
Certification Date of Cable	-
Data Network	
Core switch	
Appendix C, Table III: Technical compliance for Core Switch a. Uplink port 24X1 GB Port Please specify the type of port whether UTP or Fibber port required to connect to access switch	Fiber port
b. Virtualization service Please elaborate more on	It simplifies vlan provisioning over the existing IP backbone

Virtualization service that need to be supported by core switch.	
c. Expansion through cascading Grateful to clarify the meaning of Cascading for the Core Switch?	Cascading allows to add more ports to an existing network
Level/Access Switch	
a. Gigabit Uplink 2x1 GE Uplink Please specify the type of port whether UTP or Fiber port required to connect to access switch. In case Fiber port, how many transceiver per switch need to be proposed	Fiber port with at least 2 transceiver per switch.
b. IP phone and PC need to be connected on single port on the switch?	Vendor to propose
Firewall and IPS	
Can Firewall and IPS be proposed in single appliance while respecting the system capacity and features of both Firewall & IPS?	Bidder can propose multiple solutions.
Network Monitoring Tool	
Server (Hardware and OS) need to be proposed to install the Network monitoring application or will be provided by BOM?	May quote hardware and provide specifications as well
Data Network	
Cabling	
Page 9 under part 4 Approach and methodology of the RFP, the adequacy of the cabling is required to be assessed. Does that imply:	Both

a. Only Fiber Cabling b. Only UTP Cabling c. Or both Fiber and UTP Cabling	
How many servers are there?	As mentioned in the tender

What is the number of ports on each of the existing servers?
1. Per server
2. Total with (all servers)
 	
How are the servers connected to the
1. Server switches (if this is the case)
    1. Fibre
       1. Please provide the full specs for Fiber (Single Mode or multimode)
	Refer to page 18 of tender document
	
	multimode

2. Type of connectors (SC-SC, SC-LC, SC-FC, LC-LC etc..)
    2. UTP
      Category?
2. Core switches (if this is the case)
 	
    1. Fibre
      1. Please provide the full specs for Fiber (Single Mode or multimode)
      2. Type of connectors (SC-SC, SC-LC, SC-FC,LC-LC etc..)
	LC-LC
	
	Cat6
	
	multimode
	
	LC-LC

Where are the servers located with regards to the Core Switch? Are they in the same room	Same room
Are they in the same rack	Different rack
If they are if in different rack within the same	Vendor to propose

room, what is the maximum length of cable to be catered for the inter-rack connection?	
How many ports are required for Servers?	-
No specifications have been provided for the server switches. 1. Please provide the technical specification of the Server Switch?	Uplink min of 1 Gigabit Vendor to propose alternatives
Bid Sumission Date	
Bid Submission Date	
The bid submission date for the Tender Reference Replacement of existing data network and PABX infrastructure is 31st of January 2014, which is a public holiday in Mauritius a. Grateful to advise if the submission date of 31st of January 2014 could be postponed to Monday 3rd of February 2014.	The closing date for the submission of bids for the tender "Replacement of existing data network and PABX infrastructure" has been postponed to Monday 3 February 2014 up to 15.00 hours (local time)
Data Network Section	
A total of six 10G port have been requested on the chassis, however there are five server switches on the network. Kindly advise if all server switches need 10G fiber connection, and also advise if the two firewall switches also each need one 10G fiber connection	Vendor to propose alternative
Two firewall switches are needed on the main site. Are same amount needed on the DR site?	Vendor to propose
Is the IPS needed as a separate physical component or it can be integrated on the external firewall	Separate

The RFP document (page 33) mentions the requirement for Network Admission Control on Level Switches. Is that needed as a physically dedicated layer to provide Network Admission Control for workstations on the network?	"Bidders are to provide features for the NAC supported by the level switch or NAC solution being proposed in addition if not supported on proposed switches."
How many workstations will be routed through the NAC?	All
IP Telephony Related queries for BoM	
What is the make and model of the current PaBX ?	Nortel Meridian CS1000
What are the current IP Phone models that are already in place?	i2001, i2002, i2004
What is the OS running on the PCs on which Desktop software will be installed	Multiple of Windows OS
What power sockets are currently available in BoM (Europe or UK)	Power socket standard / UPS – UK
How many concurrent GSM calls are required by BoM?	50
Will IP Phones also be required in the DR Facility? If yes, what category is required (Executive, lobby, etc)	Analogue Phones
Will Rodrigues branch also require IP Phones? If yes, please provide more details about IP Phone category required	Analogue Phones
Please clarify how many users in all will require voicemail feature	250 users
Is the Desktop Messaging software required to make voice and video calls also?	Yes
Concerning call recording, please provide us the following information	All users - 250

a. Number of users for which calls will be recorded (is it for all users or part of them)	
b. For how many years will BoM keep the recordings	7 years
c. What is the approximate number of incoming and outgoing calls per day at BoM	-
Please clarify whether the whole staff at BoM will need to be trained or it will be only part of them	Whole staff
Please specify if BoM already have access points for WiFi Phones connectivity or should we quote?	Please quote
Do the proposed IP Phones mandatorily need to support IAX to be able to integrate with Asterisk or it is possible to use SIP for the purpose?	Vendor to propose
Please specify how many analog fax machines will be integrated with the new PaBX. We will need to cater same amount of analog ports in the quote	20
Please clarify if attendant console software will be needed at the reception. Note that and attendant console software replaces a traditional switchboard for more effective handling of calls. If required please specify the number of user license required.	Attendant console required, 3 licenses
Site visits	No site visits will be entertained

PABX Infrastructure:	
Pg 44 C.9:	
Are digital ports required on the system?	Yes
Is External MOH required on the PABX System?	Yes
Pg 47 C.10	
Is communication protocol IAX (Inter-Asterix Exchange) a pre-requisite for the PABX System?	SIP(mandatory) *Bidders are invited to specify other supported Trunk protocols*

Voice Recorder:	
Is voice recording needed for all Extensions or only some Extensions	All
Is voice recording needed for all incoming and Outgoing Calls to the Bank or Extensions or only some Extensions.	All
DR SITE:	
Pg 20 - 'No PABX Hardware is required at the DR Site':	Yes
Do we need to quote for the DR equipment in this tender?	'No PABX Hardware is required at the DR Site'
Would the bank consider having a PABX from the same manufacturer or another manufacturer for the DR	Not applicable
Would the main site and DR site require interconnection (Voice, Video and Data)?	No
Do we need to quote for voice recording for the DR also?	No
Firewall/IPS:	
Do you require AC or DC Power Supplies?	AC
What is the actual Internet Connectivity for the main and DR sites?	Main – ADSL 4 Mb, DR – ADSL 2 Mb
Which interfaces should we propose, Copper, Fiber, 1GE or 10GE? Short Range or Long Range Fibres?	Vendor to propose
Should the APT and Zero-day protection cover web, email and file.	Yes
Should unknown, zero-day, polymorphic malware or even targeted attacks(like Cryptolocker) protection apply to machines whether they are in or outside the network? If so, which Windows OS version do you have across the 250 workstations?	Yes Windows Server 2008 r2, Windows 7, Windows XP
Web Application Firewall:	
How many web apps do we need to protect?	1 domain *.bom.mu including subdomains
What is the TPS (Transactions per Second) of application traffic do you see on the "pipes"? If TPS is unknown then:	
What is the throughput in Mbps on each link (specify how many links)	4 Mbps
What % of the Web Traffic is SSL?	80 – 100 %
Do you required Hardware or Virtual appliances	Hardware

Do you need HA / Test or DR appliances?				Vendor to propose
Are all of the servers in the same location? If not, please elaborate. (a network diagram showing the webservers will also help).				Yes
General Question				
in order to make the solution design perfect, especially for the cabling system, could we make a site survey to the site of this project?				No site visits will be entertained
Firewall				
Page No.		Original Statements	Questions	Answers
40	C.5. Intrusion Prevention System	No. of switches	Our IPS is a professional IPS device. Isn`t a SWITCH with Security blade. If the professional IPS device is OK?	Yes
40	C.5. Intrusion Prevention System	Inline simulation	Our IPS device support inline deployment mode and offline deployment mode. Are you asking for IPS device supporting inline deployment mode?	Yes, both
Switch				
Page No.		Original Statements	Questions	Answers
17	4.1. Data Network Infrastructure	An overview of how the new network infrastructure of the Bank can be is provided below	1 which switch is the distribution switch that currently be used at the bank? Is the switch which connects to management VLAN? 2 Management VLAN, does this mean that all the switches in this topology are in this same VLAN? All the switches are managed by in-band business ports VLAN, rather than by out-of-band management ports? 3 what is the fucntion of switches between	Yes

If propose firewall can support the |

			Internet routers and external firewall? generally, there are no such switch, router directly connecting to firewall.	number of connections, then no such switch would be required
18	4.1. Data Network Infrastructure	An overview of how the new network infrastructure of the Bank can be is provided below	The table lists the switches currently in use. Would you like to provide their types and names? How long has they been used? Which will be continuously used? Which will be took place of?	All are Nortel equipment
19	4.1. Data Network Infrastructure	Disaster Recovery site	Should we quote for the equipments of this site?	Yes
30	C.1. Core Switch	*Aggregate bandwidth capacity*	1 what is the "Aggregate bandwidth capacity" 2.what is the "Expansion through cascading " 3.what is the "Diagnostic LEDs" 4"uplink support(facing the server zone switches)" , how does core switch connect to server zone switches, though firewall, or directly?	Throughput Possible extension of no. of ports by connecting switches Indicating lights for errors Via firewall
30	Appendix C. - Technical Specifications		1 what is technical compliance for server zone switch? Does it use the old switches? 2 what about the storage in the server zone? How does server connect to storage, FC SAN or IP SAN?	Uplink min of 1Gigabit Vendor to propose alternatives Through FC switch
PBX				
Page No.		Original Statements	Questions	Answers
45	C.9 PABX Infrastructure	Personalised Voice mail Standard Voice mail	What is the difference between personalised and standard voice mail?	Personalised – customized Standard - default

			Would you please describe detailly.	
57	Appendix D. - IT Security Compliance	2.8 Call managing software must block IP Phones from downloading any binaries other than what IP Phones require to operate	Why do we need this feature? Would you please briefly describe the application scenario.	For security purpose
59	Appendix D. - IT Security Compliance	2.31 Simple TCP/IP services that enable unnecessary enticement information services to run must be removed	What's the meaning of this feature? Would you please briefly describe the application scenario.	System should be able to enable/disable TCP/Ip services
Commercial				
Page No.		Original Statements	Questions	Answers
7	1	For evaluation and comparison purposes, the bidder is required to convert all prices obtained in amounts in various currencies into an amount in a single currency which is the Mauritian Rupee (MUR). The successful bidder will be contracted to the stated amount in Mauritian Rupee only.	1. If the foreign bidder is qualified to take part in this tender? 2. what is the trade term for supplying in accordance with INCOTERMS? 2. 3. If it is possible to pay foreign qualified bider in a freely convertible currency such as USD?	Yes

All equipment should be delivered at Bank's premises. All cost to be borne by vendors (CIF and all taxes)

Payment may be made in USD but amount quoted in MUR will be converted to appropriate currency at date of payment rate |
| Service | | | | |
| Page No. | | Original Statements | Questions | Answers |

12	2.21. Implementation phases Paragraph "Installation and configuration:"	This includes the installation and configuration of the hardware and software needed for the successful running of the system, including all its components at the various locations where it is intended to be used.	After the implementation including installation and commission for the new equipment, is it in the scope of work for the bidder to do the service cutover from the existing system to the new one?	Yes
22	4.3. Other Requirements Paragraph "Training Delivery"	Participants must at the end of the course be able to train other users or new entrants in standard use of the system.	How many participants will be trained?	10 technical + 250 user phones
Will we be penalized if we only quote a singular brand.			No, provided all requirements are met	
Regarding the pen test how many IP addresses			50	
Concerning voice recording requirements how many users are targeted			250	
Can we have a site visit for the Local Area part and any necessary cabling works that needs to be done			No site visits will be entertained	
External Firewall:				
Does Bank of Mauritius have their existing External firewall? Does our company need to supply the external firewall?			Yes Yes	

As per diagram provided, connectivity is not within the new scope, but about what changes that are to be made on the external firewall?	Connectivity is within the scope and configuration of the firewall to be done by vendor as well as to ensure connectivity is maintained
VPN / Radius / Two-factor Authentication	

Does RSA, do bank of Mauritius require local authentication or centralized authentication using radius server?
For Remote access VPN,:
     How does the actual VPN works?
 	
     Model of the router/firewall being used for VPN (ipSEC/SSL)
 	
How to do VPN authentication? Integrate with AD? Do locally?
 	
Who gets access to VPN? Internal users? Other institutions? External users (not BoM users)?
 	
What does bank prefer - Soft tokens or hardware tokens?
	No
	
	Confidential
	
	Confidential
	
	Locally but in the future both are needed
	
	Internal/External/Other institutions

Server zone:	
How many physical servers do Bank of Mauritius have (how many physical connections to switches we required) Number of virtual machines etc..?	Refer to table page 18
Load balancing:	
Application load balancing and database load balancing connectivity (redundancy) Which applications	Please refer to page 16

Number of servers Redundancy Should solution take care of failover of applications itself?	
Management zone:	
Should management console only to be accessed in the management zone or also in server zone Is server and network management zone separate or consist of only one management zone? Application load balancing and database load balancing	Both Separate
Network monitoring:	
Will bank Provide server Storage of logs – file server? Is Redundancy on application required? Will run on VM clustered? What about database? Will we have a clustered MSSQL database? Does main site monitor DR and vice versa?	May quote hardware and provide specifications as well To be stored in same server Physical server
IPS	
Redundancy	Yes 25

Number of segments to protect Server provision	Vendor to propose
DR site:	
Does it have tiered architecture there too? Will need WAF/2-factor VPN access?	No Yes
WAF	
What applications should it be protecting? Any web servers for e.g.?	Any web applications
Internal Firewalls (our company to provide)	
Will it be running blades like URL filtering etc or is it done by other solution (for sizing)? What kind of reporting bank expects? (w.r.t licensing of Smart* applications)	Vendor to propose
How many hosts (internal/external) they require Vulnerability Management for If they require PCI/DSS or Web Application Scanning and If yes for 2: for how many websites/hosts.	50 Yes *.bom.mu Only one domain but could be multiple sub domains
Network and PABX Infrastructure	
What is the current team size to manage the Network?	3
Does Network hardware include device count for DR site as well? If not, how many devices we need there?	Please refer to Page 19
Which tool is currently used by Bank of Mauritius for monitoring?	Confidential
Is Bank of Mauritius looking for remote Assistance outside office	Yes, please propose as in given Maintenance Agreement

premises?	
Please provide us the SLA's defined by Bank of Mauritius for Networks?	-
Is there any penalty involved during the implementation and go-live stage?	Will be stipulated in contract to be signed with successful bidder