

المواصفات الفنية الخاصة بالمناقصة العامة

رقم المناقصة : (٢٠١١/٧٠)

الخاصة بشراء وتوريد وتركيب وتشغيل Bandwidth

Manager مع التدريب

المؤسسة العامة للاتصالات السلكية واللاسلكية

الإدارة العامة للمشتريات والمخازن

إدارة المشتريات - قسم العقود والمناقصات

Introduction:

The Public Telecommunication Corporation – Yemen Telecom (YT) is the leading incumbent telecommunications operator in Yemen. It provides telecommunication services, broadband Internet and data transmission.

We are looking for a solution that provides a Bandwidth Management as a key component of the network control strategy for broadband service.

It shall be designed to perform stateful application and session-based classification and to manage application-level IP traffic per subscriber or link.

High Level Requirement:

ITEMS	Quantity	Comments
Modules Chassis	2	
Controller Cards	1	For each device (Chassis)
Operating System	2	Latest For each device (Chassis)
License	Sufficient License	For traffic monitor and control.
Traffic Ports	2 links 10G 4 links 1G	<ul style="list-style-type: none">• For each device.• 1G ports based on SFPs.• MM and SM SFP and XFPs should be provided.
Optical Bypass	For 1GE and 10GE	With all required SFP, XFP and fiber cables. MM and SM should be quoted.
Installation & commissioning	Two Chassis	
Warranty	At least one year	
Technical support	Option1:one year Option 2:two years (Main option) Option 3:five years	offer should contain price list for Bronze support ,Gold and Silver if any .
Training	6 trainees	
Management/Reporting software and Hardware	---	To provide Policy Editing, traffic monitoring and reporting.
Web Filter Function	---	Compatible With web filtering solution from Netsweeperandsimilar product.
Additional Requirement	---	Rack , cables , cable Manager.
Spare Parts (optional)	-----	For Both devices.



Technical Specification:

The following table is a detailed description for each device:

Item	Description	Comment
Max Throughput	Supports at least 30Gbps per Chassis	
Needed Throughput	At least 15 Gbps per Chassis	
Number of Concurrent Subscribers	1,000,000	
Simultaneous Unidirectional Flows	32,000,000	
flow open rate	At least 15 million flows per second	
General	<ul style="list-style-type: none"> This solution shall provide a programmable application detection and subscriber awareness. supports application level classification of IP traffic for the real-time management and control of content-based services Stateful Deep Packet Inspection Support shaping, Teeing, diverting and mirroring for data and diverting to external portal . 	
Traffic Handling Programmable Protocol Detection	<ul style="list-style-type: none"> Extensible to emerging protocols Adaptive peer-to-peer (P2P) recognition Support Asymmetric traffic classification. 	
Differentiated Classes of Service (CoS)	Support: <ul style="list-style-type: none"> Differentiated Services (DiffServ) Type-of-service (ToS) 	
High availability	<ul style="list-style-type: none"> Support redundancy and Failover. 	
Power & Fan redundancy	<ul style="list-style-type: none"> DC Power supply. (Optional) AC Power Supply. Redundant power supplies Redundant fans 	
Management Interface	10/100/1000 Mbps Ethernet RJ-45	
Console Interface	RS-232	
Optical Bypass Interface	<ul style="list-style-type: none"> Should be Provided for the equipped line cards. Options are required for Multimode and Single Mode. 	
Operating environment	Nominal 32 to 104°F (0 to 40°C), Storage: -4 to 149 °F (-20 to 65°C)	
Management/Reporting software and Hardware	<ul style="list-style-type: none"> - GUI-based interfaces for service management - Command-line interface (CLI) and Simple Network Managementfor configuration, monitoring, and fault Management. - Reporter interface support (scheduled reports, bandwidth by protocol reports, top usage protocol, spam reports, ip and subscribers report, chart 	

	reports, reports by connections, reports by category and custom reports). - Support reports in Pdf,CSV,tabular data and etc.	
Interface	10 Gigabit Ethernet supporting the following XFP optics: <ul style="list-style-type: none"> • Single-mode fiber long-reach (LR) 1310nm • Single-mode fiber extended-reach (ER) 1550nm • Single-mode fiber long-haul (ZR) 1550nm • Multimode fiber 850nm Gigabit Ethernet supporting the following SFP optics: <ul style="list-style-type: none"> • Single-mode fiber 1310nm • Single-mode fiber 1550nm • Multimode fiber 850nm • Electrical Copper Rj45. 	
Others	The offered product shall support: <ul style="list-style-type: none"> • URL Filtering and forwarding. • Subscribers awareness using Radius, DHCP...etc 	

Main Protocols and applications:

System should control the protocols and applications related to these Categories but not limited to:

Protocol Category
Anonymity
Database
Email
File Access
Instant Messaging
Network Admin
Network Storage
News Groups
Online Games
Peer to Peer
Peercasting
Remote Connectivity
Software Updates
Streaming Protocols
Tunneling
VoIP
Web Browsing
Web video
Wireless

Note : provider shall describe in details the protocols and applications that is supported.

Additional Requirement:

ITEMS	Quantity	Description
Rack	1	42 U open frame Guaranteed Compatibility w/Dell, HP, SUN & IBM Heavy duty framework holds 1300lbs Unit Markings at front & Rear
Cables	According to the needs	Data Cables Cat 6 Fiber Cables :at least 20 Meters Power cables: at least 30 Meters
Cable Manager	2	
management Servers	If required in your solution	Brand name Licensed OS
Power Distribution Unit	According to the needs	

General requirement Description

ITEMS	Comments
Equipment:	<ul style="list-style-type: none"> The proposed equipment (including every single card) must be original and new and they are not in the out-of-sale or out-of-life phase and they must be in the market for at least the coming five years before they become out-of-sale and seven years before they become out of life. The bidder has to provide a proof from the manufacturer. All firmware have to be the latest version.
Delivery	<ul style="list-style-type: none"> The bidder has to provide the necessary time required for delivering the proposed equipment.
License	<ul style="list-style-type: none"> The bidder has to provide a fully licensed system that ensures all services and functions to operate.
Installation and commissioning	<ul style="list-style-type: none"> The bidder has to provide the following: The installation, and commissioning of these equipment Technical support, and warranty of the above mentioned elements
Support	The bidder has to propose a support to all of the proposed equipment
Training	<p>6 trainees , not less than 10 working days in licensed institute All expenses shall be included such as (accommodation , tickets , Visa , insurance ...etc) The bidder shall provide the Location , institute name. Please provide two options : Option 1: 6 trainees as one group. Option 2 :6 trainees divided into two groups.</p>

P. T. Adh

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Other important Technical Conditions:

- In the offer ,The bidder shall include SOW for the proposed equipment and the software, describing but not limited to the (clustering , connectivity between devices ,cards with ports , cables ...etc ,illustrate the model no , how It will be connect and how it will work (Mandatory).
- The bidder shall offer list of responsibility regarding to installation .
- Once the tender is awarded, the winner shall prepare a site survey, present installation plan with any requirement that should be provided by PTC and power calculation.
- Any cables , accessories , additional cards or modules are bidder responsibility at provided equipment, that guarantee the operation of the provided equipment
- Any additional equipment or software that are required and not mentioned in the tender specs , shall be provided as optional items , describing the importance/effect of provide the items
- The bidder should provide SoC that describe the compliance for each technical item in the tables above(Mandatory)
- The bidder shall provide searchable softcopy of the offer.

