

TERMS OF REFERENCE

Procurement of Bandwidth Manager

The Energy Regulatory Commission (ERC) intends to engage the services of a Contractor¹ duly authorized and with the necessary expertise, experience, and capacity to supply, delivery, installation, admin training and testing of Bandwidth Manager with the following detailed requirements:

I. BACKGROUND

Bandwidth managers are becoming fundamental components of any WAN network that needs to manage real-time traffic in the network. Business processes rely more and more on cloud-based applications and therefore need to utilize the limited internet resources wisely.

So what is a bandwidth manager? At a high level, bandwidth manager usually refers to the orchestration and resource allocation of the internet resources. Historically, bandwidth managers have been primarily used to traffic shape the outbound traffic (traffic generated in the local network and is in the egress direction) to cope with congestion. This helps with keeping certain service levels for users.

II. CONTRACT PERIOD

The contract period shall cover **thirty (30) working days** upon receipt of Notice to Proceed (NTP).

¹ IT Company refers to a business establishment that sells computing technology, such as networking, hardware, software, the Internet, or that provides IT solutions and/or services.



III. APPROVED BUDGET FOR THE CONTRACT (ABC)

1. The Fund for this engagement shall be sourced from the General Appropriations Act (GAA) for the fiscal year 2019 of the ERC.
2. The ABC for the project is **One Million Five Hundred Thousand Pesos (PhP1,500,000.00)** inclusive of all government taxes and other fees and charges.

IV. MODE OF PROCUREMENT

The Mode of Procurement shall be **Competitive Bidding**, as provided under Section 10, Rule IV of the 2016 Revised IRR of Republic Act (RA) No. 9184.

V. QUALIFICATIONS OF THE SERVICE PROVIDER

The Contractor should have the necessary eligibility, experience and expertise in providing the service, and the following:

1. At least fifteen (15) years experience in providing Network Solutions.
2. Must submit a Letter from the Principal Certifying Partnership, Experience and Capability.

VI. MINIMUM TRACK RECORD

The ERC desires a service Contractor who has completed, within the last five (5) years from the date of submission and receipt of bids, a single largest contract that is similar to the Contract to be bid. A similar contract must be a security contract the value of which must be at least fifty percent (50%) of the Approved Budget for the Contract (ABC).



VII. SCOPE OF WORK AND DELIVERABLES

Includes supply, delivery, installation, admin training and testing of Bandwidth Manager with the following requirements:

A. Activities:

Activities	Estimated Working Days
1. Delivery of the appliance	21 Days
2. Evaluation and discussion of the network setup	2 Days
3. Installation, configuration and testing of policies	5 Days
4. Transfer of knowledge to end-user	2 Days

B. Detailed Specifications:

HARDWARE	
No. of WAN Ports:	7 (GE)
No. of LAN Ports:	3 (GE)
No. of WAN USB Modem:	1 usb port
CORE FUNCTIONS	
Capable of Port based VLAN:	Yes
Load Balancing with Failover:	Yes
Drop-In Mode Deployment:	Yes
High Availability:	Yes
PERFORMANCE	
Recommended Users:	500 - 2000
Recommended PPTP/L2TP Users:	200
Firewall Throughput:	2.5 Gbps
VPN Throughput (256 AES):	400 Mbps



No. of VPN Peers Supported:	300
1U Rackmount:	Yes
POWER REQUIREMENTS	
Power Supply Input: Internal Auto-Ranging 110-240VAC:	Yes (Universal Input 100V – 240V AC)
Power consumption:	70 W
WAN	
Support for PPPoE, Static IP and DHCP:	Yes
Can check WAN Link Health: PING, DNS Lookup, HTTP:	Yes
Bandwidth Allowance Monitoring:	Yes
USB 3G/4G Modem Support:	Yes
Support for dynamic DNS such as changeip.com, dyndns.org, no-ip.org, tzo.com, DNS-O-Matic:	Yes
WAN convertible to LAN port:	Yes
LAN	
DHCP Server for LAN:	Yes
Extended DHCP Options:	Yes
DHCP Reservation:	Yes
DNS Proxy for LAN Clients:	Yes
LOAD BALANCING	
Intelligent Link Failover:	Yes
Persistent Session:	Yes
Load Distribution per Service:	Yes
Configurable Load Balancing Algorithms: Weighted, Priority, Overflow, Enforced, Lowest Latency, Least Used, Persistence. Fastest Response Time:	Yes
SECURITY	
Denial of Service Prevention:	Yes
Stateful firewall:	Yes
Web blocking:	Yes
VIRTUAL PRIVATE NETWORKING	

Site-to-site VPN: Bandwidth Aggregation over VPN, 256-bit AES, Dynamic routing, pre-shared key:	Yes
IPSec VPN (Net to Net) with support to X.509 Certificate:	Yes
PPTP VPN Server with support on RADIUS and LDAP Authentication:	Yes
ADVANCED QUALITY OF SERVICES	
User Groups Bandwidth Reservation:	Yes
Individual Bandwidth Limit Policy:	Yes
Application Prioritization: User/Groups; SIP/HTTPS/VPN QoS; Custom Application:	Yes
NETWORKING	
Configurable Static Routing:	Yes
Port Forwarding:	Yes
NAT: Many to One and One to One NAT:	Yes
NAT Pooling:	Yes
Support on SIP ALG and H.323 ALG:	Yes
Support on UPnP, NAT-PMP:	Yes
WINS Server:	Yes
Dynamic Routing Support: BGP, OSPFv2 and RIPv2:	OSPF and RIPv2 Support
AP Controller: Auto AP Discovery Support:	Yes
AP Controller: Auto AP Firmware Management:	Yes
AP Controller: Configuration Profiling:	Yes
AP Controller: WiFi Usage Statics:	Yes
WAN Smoothing, Bandwidth Bonding, Hot Failover:	Yes
DNS: Built-In Authoritative DNS can support A, CNAME, NS, MX, PTR, SOA,SRV,TXT records:	Yes
DEVICE MANAGEMENT	

Secured Web Administration Interface:	Yes
Configurable SMTP configuration for Report Notification:	Yes
Active client and Session List:	Yes
Statistics for Bandwidth Usage:	Yes
SysLog Service:	Yes
Support SNMP v1 v2c and v3:	Yes
Command Line Interface via SSH with customizable access port:	Yes
Support for Cloud Management:	Yes
CAPTIVE PORTAL	
RADIUS and LDAP Support for User Authentication:	Yes
Time and Usage Quotas for Open Access:	Yes
Customizable Captive Portal:	Yes
WARRANTY AND SUPPORT	
1-Year Hardware standard warranty & RMA:	Yes
1-Year Standard Support: Unlimited Email 8x5 Email Support and Firmware Upgrade:	Yes
Knowledgebase/Support Forum/Updated Online Documentation:	Yes

VIII. WARRANTY AND MAINTENANCE

1. One (1) year warranty.
2. With parts and on-site service support for all equipment during the whole duration of the warranty.
3. One (1) year after-sales support services.

IX. PAYMENT SCHEME

Payment to the Contractor shall be made One-Time payment only upon submission of billing statement, duly accomplished service and inspection report forms and other documentary requirements.

X. LIQUIDATED DAMAGES

- a) Where the service provider refuses or fails to satisfactorily complete the work within the specified contract time, plus any extension time duly granted and is hereby in default under the contract, the service provider shall pay ERC for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of the contract, equal to one tenth (1/10) of one percent (1%) of the cost of the unperformed portion for every day of delay. The maximum deduction shall be ten percent (10%) of the amount of the contract, of which ERC shall have the discretion to terminate the contract without prejudice to any other action or remedy it may take to recover the losses incurred as a result of the service provider's failure/non-performance, including but not limited to forfeiture of performance security and/or blacklisting of the latter.
- b) Entitlement to such liquidated damages, ERC need not prove the damages actually incurred. Said damages in any amount shall be deducted from any money due or which may become due the service provider under the Contract and/or collect such liquidated damages from the retention money or other securities posted by the service provider at the ERC's convenience.



XI. RESERVATION CLAUSE

The Energy Regulatory Commission (ERC) reserves the right to reject any and all bids, declare a failure of bidding or not award the contract at any time prior to contract award in accordance with Section 41 of R.A. 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.

