

Bangladesh Telecommunication Regulatory Commission

IEB Bhaban, Ramna, Dhaka- 1000.

Memo No.14.32.0000.400.07.024.22.577

.

è

Date: 03.05.2023

Addendum of the Tender Document

This is for the the information of all concerned Tenderer that the following amendments has been made for the tender doument for "Supply & Installation of Plant & Equipment of BTRC Network and Server Co-Location Center (National)" for Bangladesh Telecommunication Regularoty Commission (BTRC), Vide issue No. 14.32.0000.400.07.024.22.484, Dated: 09/04/2023.

Tender	А	s in Tender Document	Amended as
Document		¢	
Referance		-	
ITT 14.1(b) (ii)	Maintenance Contract (AMC) of Data Center infrastructure, Active ((networking for at least three years in Government C Organization/Telco/Bank with 24X7 support and minimum work order y value of 2 (two) Crore. The tenderer must submit the contract In documents. v		The Tenderer must have experience of holding at least 01 (one) Annual Maintenance Contract (AMC) of Data Center infrastructure, Active networking for at least three years in Government Organization/Telco/Bank/Financial Institution with 24X7 support and minimum work order value of 2 (two) Crore. The tenderer must submit the contract documents.
TT 14.1(b) (iii)	commissioning with at least one Tier-III/Rated-3 Data Center I		The bidder must have work experience in Supply & Installation, testing, commissioning with at least one Tier- III/Rated-3 Data Center.
ITT 37.1	In addition to the original of the Tender, 03 (Three) hard copies and 1 set of soft copy (In Word and Interactive PDF Format) through Pen Drive shall be submitted.		In addition to the original of the Tender, 03 (Three) hard copies and 1 set of soft copy (In Word and Interactive PDF Format) through Pen Drive shall be submitted. The tender documents must be submitted in english format including Product Brochure , Manufacturer's Authorization letter, Certification, Approvals and others.
Enclosure-2	Raised Floor Works		
Item No: 1	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Air Grommet		
	Feature	pressure. Improve cooling efficiencies. Removable dual brush section for easy cable release. Rectangular Shape, Color black.	Reduce air loss and increase under-floor static pressure. Improve cooling efficiencies. Removable dual brush section for easy cable release. Rectangular Shape, Color black. Installation facilities at the panel edge or within the panel. Installation should be done by TIA 942 or equivalent Standard.
Enclosure-2	Automatic Fire Protection	n & Suppression System	
Item No: 5	Heat Detector		
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Smoke Detector		
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Suppression Agent		
	Brand	NOVEC	
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Suppression Module	NOVEC 1230 Suppression Agent (GAS)	
	Alarm Bell with strobe		
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Response Indicator		
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Very Early Smoke Detect		
	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	CAT-6 UTP CABLE 305 I		
Item No: 6	Jacket	, , , , , , , , , , , , , , , , , , , ,	LSZH jacket complying to: Fire rating IEC 60332-3-22, Acid gas IEC 60754-2, Smoke density IEC 61034-2 or equivalent



Tender	A	s in Tender Document	Amended as
Document			
Referance			
Enclosure-2	Access Control System		с
Item No: 7	Fingerprint, Card & Pass	word reader	
	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Controller with License S	oftware	
	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	Phase Correction Device	(PCD)	е — — — — — — — — — — — — — — — — — — —
Item No: 11	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	Main Distribution Board	(MDB)	
Item No: 12	Features	Supply, Installation, testing & commissioning of following Distribution Boards of components from ABB (Swiss)/Eaton(EU)/Schneider (France) /Siemens (Germany) having ISO9001 certificate housing the following rated MCB/ MCCB & bus bars and all other accessories as per drawing, specifications and direction of	
		the Engineer-in-charge.	
Enclosure-2	ISO Tx Output DB		
Item No: 15	Features	of following Distribution Boards of components from ABB (Swiss)/Eaton(EU)/Schneider (France)	
Enclosure-2	Surge Protection Device	(SPD)	
Item No: 23	Brand	Any International Reputed Brand like Vertiv/ Asco/ Eaton or equivalent	International Reputed Brand
	Standards Compliance	UL 1449	UL 1449 or equivalent
Enclosure-2	Static Transfer Switch (S	STS)	1
Item No: 24	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	Automatic Voltage Regu	1	To be mendoned by blader
	Country of Origin	USA/UK/EU	To be mentioned by hidder
Item No: 25			To be mentioned by bidder
Enclosure-2	True Modular Online U		
Item No: 26	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Battery Cabinet Brand	Same Brand as UPS	To be mentioned by bidder
Enclosure-2	Server Rack	Luc. second	
Item No: 30	Country of Origin Feture & Standards	USA/UK/EU Rack should have Approvals like UL 2416 /UL 60950-1, EIA-310E	To be mentioned by bidder Rack should have Approvals like UL 2416 UL 60950-1, EIA-310E or equivalent
Enclosure-2	Network rack		
Item No: 31	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Feture & Standards	Rack should have Approvals like UL 2416 UL 60950-1, EIA-310E	Rack should have Approvals like UL 2416 UL 60950-1, EIA-310E or equivalent
Enclosure-2	Cold Aisle Containment		
Item No: 33	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Lighting & Motion Sensor	UL484, CSA C22.2 No.236, EN 55022:2006, EN 55024:1998, EN 61000-3-2:2006, EN 61000-3-	UL Listing: Lighting system complies to UL484, C C22.2 No.236, EN 55022:2006, EN 55024:1998, EN 6100 2:2006, EN 61000-3-3:1995, EN 60950-1:2006, CFR 47 F Part 15:2011, ANSI C63.4-2003, ICES-003:2004, AS/N
			Bidder should provide each Server and Network Rack 32A Metered Rack PDU and PDU will be

Tender	A	s in Tender Document	Amended as
Document			
Referance			
Item No: 35	Approvals	UL listed and IEC 60603-7 compliant	UL listed and IEC 60603-7 compliant or equivalent
Enclosure-2	Face Plate Dual		
Item No: 36	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	Cat 6 UTP Patch Cord 1 M	Meter	
Item No: 38	Approval	Intertek – ETL 4 connector channel compliant.	Intertek – ETL 4 connector channel compliant or equivalent
Enclosure-2	Pre-terminated 24F SM F	an out Cable, LC – LC 5 Meter	
Item No: 43	Cable Qualification		ANSI/ICEA S-83-596, ANSI/TIA 568-C.3 and Telcordia
	Standards	Telcordia GR-409	GR-409 or equivalent
Enclosure-2		Fan out Cable, LC – LC- 5 Meter	
Item No: 46	Cable Qualification		ANSI/ICEA S-83-596, ANSI/TIA 568-C.3 and Telcordia
	Standards	Telcordia GR-409	GR-409 or equivalent
Enclosure-2	Environment Monitorin		
Item No: 47	Brand	Same as DCIM	To be mentioned by bidder
	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2		System (DCIM) with Server	
Item No: 48	Country of Origin	USA/UK/EU	To be mentioned by bidder
Enclosure-2	Next-Generation Firewa		
Item No: 53	Country of Origin	USA/UK/EU	To be mentioned by bidder
	Certifications (Safety,	CB, CE, UL, FCC, ISED, VCCI, KC, RCM,	CB, CE, UL, FCC, ISED, VCCI, KC, RCM, NOM, Anat
	EMC, Quality)	NOM, Anatel, CCC, BSMI, Checkmark, ICSA Labs, EAL4+, ISO 9000.	CCC, BSMI, Checkmark, ICSA Labs, EAL4+, ISO 9000.
	Environmental	Operating Temperature: 0°C to 40°C	Operating Temperature: 0°C to 40°C
		Storage Temperature: -20°C to 70°C	Storage Temperature: -20°C to 70°C
		Humidity (non-condensing): 10% to 90%	Humidity (non-condensing): 10% to 90%
	Part No	Bidder should submit BOQ of proposed device	Bidder should submit BOQ of proposed device includi
		including the detailed part numbers.	the detailed part numbers.
	Form Factor	1U Rack Mountable with sliding rails (incl.)	1U Rack Mountable with sliding rails (incl.)
	Hardware Architecture	Should have 64-bit Dual Processors based	Should have 64-bit Dual Processors based multico
		multicore architecture and should not be any	architecture and should not be any proprietary ASI
		proprietary ASIC-based in nature	based in nature
		Mimimum 64GB system memory	Mimimum 64GB system memory
		Mimimum 480GB SATA-III SSD from day 1	Mimimum 480GB SATA-III SSD from day 1
		Should have multi-function LCD display with navigation	Should have multi-function LCD display with navigation
		Should have Dual Internal redundant auto-	Should have Dual Internal redundant auto-ranging A
			DC 100-240VAC, 3.7-7.4A@50-60Hz power supply from
	Interface requirement	60Hz power supply from day 1.	day 1. Should have the following fixed ethernet ports from d
	1		
	(minimum)	from day 1: 8 x GbE copper, 8 x SFP+ 10 GbE fiber	1: 8 x GDE copper, 8 x SFI'+ 10 GDE nder
		Should have 2 + 1 for high-density module	Should have 2 + 1 for high-density module fixed bypa
		fixed bypass ports pair.	ports pair.
		SFP/SFP+ transceivers should be included from	SFP/SFP+ transceivers should be included from the same
	· · · · · · · · · · · · · · · · · · ·	the same OEM from day 1.	OEM from day 1.
		All interfaces should be freely configurable as LAN, WAN & DMZ ports without any	All interfaces should be freely configurable as LA WAN & DMZ ports without any limitation.
		limitation. Should not be any fixed WAN ports so that	Should not be any fixed WAN ports so that any port of
		any port can be configured as WAN for	be configured as WAN for multiple WAN load balancin
			Should have 2x Flexi Port bays for future extension
			Copper/SFP/SFP+. Max total port density (incl. optional modules): 48 nos.
		modules): 48 nos. Max PoE using Flexi Port Module: 2x Module,	Max PoE using Flexi Port Module: 2x Module, 4 Po
	1	4 Ports, 60W Max Each.	60W Max Each.

¥

.

2

Tender Document	A	s in Tender Document	Amended as
Referance			
Referance	Management I/O Ports	1 x RJ45 MGMT, 1 x COM RJ45, 1 x COM	1 x RJ45 MGMT, 1 x COM RJ45, 1 x COM Micro-U
		Micro-USB (w/cable), 2 x USB 3.0 (front), 1x	(w/cable), 2 x USB 3.0 (front), 1x USB 2.0 (rear).
		USB 2.0 (rear).	
		Optional Flexi Ports required for future	Optional Flexi Ports required for future expansion: 8 p
			GE copper, 8 port GE SFP Fiber, 4 port 10GE SFP+ Fibe
			For on orbital the firm of the set of the se
		copper bypass (2 pairs), 4 port GE copper PoE	
		+ 4 port GE copper, 4 port 2.5 GE copper PoE,	Module (VDSL2)
	Security Performance	SFP DSL Module (VDSL2) Firewall throughput – Minimum 100 Gbps	Firewall throughput – Minimum 100 Gbps
	(minimum)	Firewall IMIX throughput –50 Gbps	Firewall IMIX throughput –50 Gbps
	(NGFW throughput –Minimum 38 Gbps	NGFW throughput –Minimum 38 Gbps
		Firewall Latency (64 byte UDP): 5µs	Firewall Latency (64 byte UDP): 5µs
		IPS throughput – 40 Gbps	IPS throughput – 40 Gbps
			Threat Protection (combined FW, IPS, App Ctrl, & malv
			prevention enabled using HTTP 200 KB packet s
		KB packet size) throughput – 14 Gbps	throughput – 14 Gbps
		IPsec VPN throughput – 90 Gbps Xstream SSL/TLS Inspection throughput – 13	IPsec VPN throughput – 90 Gbps
		Gbps	55L/1L5 Inspection throughput – 15 Gops
		Xstream SSL/TLS concurrent connections – 512k	SSL/TLS concurrent connections – 512k
		Concurrent connections – 32 mil	Concurrent connections – 32 mil
		New connections/sec – 460k	New connections/sec – 460k
		Wireless Access Point Supported - 180	Wireless Access Point Supported - 180
		Maximum licensed users –	Maximum licensed users – unrestricted/unlimited
		unrestricted/unlimited	
	General Management		Purpose-built, streamlined user interface and firewall
			management for large rule sets with grouping with a
		0 1 0 0	glance rule feature and enforcement indicators
		and enforcement indicators	
		Two-factor authentication (One-time-	Two-factor authentication (One-time-password) sup
		password) support for administrator access,	for administrator access, user portal, IPsec and SSL VI
		user portal, IPsec and SSL VPN	
		Advanced troubleshooting tools in GUI (e.g.,	Advanced troubleshooting tools in GUI (e.g., Pa
		Packet Capture)	Capture)
			High Availability (HA) support clustering two device
			active-active or active-passive mode with plug-and-
		with plug-and-play Quick HA setup	Quick HA setup
			Full command line interface (CLI) accessible from GU
		from GUI	Dala basad a durinistration
		Role-based administration	Role-based administration Automated firmware update notification with
		-	automated update process and roll-back features
		features	automated update process and ron-back features
			Reusable system object definitions for networks, serv
			hosts, time periods, users and groups, clients, and serv
		Self-service user portal	Self-service user portal
		Configuration change tracking	Configuration change tracking
		Flexible device access control for services by	Flexible device access control for services by zones
		zones Email or SNMP trap notification options	Email or SNMP trap notification options
		SNMP v3 and NetFlow support	SNMP v3 and NetFlow support
			Backup and restore configurations: locally, via FTI
		FTP or email; on-demand, daily, weekly or	
		monthly	,
		API for third-party integration	API for third-party integration



,

e

Tender		As in Tender Document	Amended as
Document			
Referance		Remote access option for OEM Support	Remote access option for OEM Support
		Cloud-based license management via portal	Cloud-based license management via portal
	Central Management	Central cloud-based management and	Central cloud-based management and reporting
			multiple firewalls provides group policy manageme
			Group policy management allows objects, settings, a policies to be modified once and automatica synchronized to all firewalls in the group
		trail and status monitoring of group policy changes	
		Central Console stores the last five configuration backup files for each firewall with one that can be pinned for permanent	Backup firmware management in web-based Cent Console stores the last five configuration backup files each firewall with one that can be pinned for perman storage and easy access
		console offer one-click firmware updates to be applied to any device	one-ence initiwate updates to be applied to any device
		configuration to be performed in web-based Central Console and then exported for loading	Zero-touch deployment enables the initial configurat to be performed in web-based Central Console and th exported for loading onto the device from a flash drive startup, automatically connecting the device back Central Console
	Firewall, Networking,	Stateful deep packet inspection firewall	Stateful deep packet inspection firewall
	and Routing		Architecture to provide extreme levels of visibil
		levels of visibility, protection, and performance	protection, and performance through stream-bas
		performance, support for TLS 1.3 with no	TLS inspection with high performance, support for T 1.3 with no downgrading, port agnostic, enterprise-gra polices, unique dashboard visibility, and compatibi troubleshooting
		Xstream DPI Engine to provide stream scanning protection for IPS, AV, Web, App Control, and TLS Inspection in a single-high performance engine	DPI Engine to provide stream scanning protection IPS, AV, Web, App Control, and TLS Inspection in single-high performance engine
		XStream Network Flow FastPath to deliver policy-driven and intelligent acceleration of trusted traffic automatically	rection rubit and to deniver poincy driver t
	~ [~]	Access time polices per user/group	, User, group, time, or network-based policies, Access ti polices per user/group
		Enforce policy across zones, networks, or by service type	PEnforce policy across zones, networks, or by service type
		Zone isolation and zone-based policy support	Zone isolation and zone-based policy support
		Default zones for LAN, WAN, DMZ, LOCAL VPN, and WiFi. Custom zones on LAN or DMZ	, Default zones for LAN, WAN, DMZ, LOCAL, VPN, a WiFi. Custom zones on LAN or DMZ

Ň

2

Tender	As	in Tender Document	Amended as
Document			
Referance			
			Customizable NAT policies with IP masquerading a
			full object support to redirect or forward multij
		-	services in a single rule with a convenient NAT r
		~	wizard to quickly and easily create complex NAT rules
		to quickly and easily create complex NAT	just a few clicks
		rules in just a few clicks	
		Upstream proxy support	Upstream proxy support
		_	Protocol-independent multicast routing with IG
		IGMP snooping	snooping
			Bridging with STP support and ARP broadd
		forwarding VLAN DHCP support and tagging,	forwarding VLAN DHCP support and tagging,
		VLAN bridge support, Jumbo frame support	VLAN bridge support, Jumbo frame support
		U 11 2 11	
			WAN link balancing: multiple Internet connections, au link health check, automatic failover, automatic a
		connections, auto-link health check, automatic	weighted balancing, and granular multipath rules
		failover, automatic and weighted balancing,	weighted balancing, and granular multipath rules
		and granular multipath rules	
		Wireless WAN support	Wireless WAN support
		802.3ad interface link aggregation	802.3ad interface link aggregation
		Full configuration of DNS, DHCP, and NTP Dynamic DNS (DDNS)	Full configuration of DNS, DHCP, and NTP Dynamic DNS (DDNS)
		IPv6 Ready Logo Program Approval	
		Certification	IPv6 Ready Logo Program Approval Certification
		IPv6 tunneling support including 6in4, 6to4,	IPv6 tunneling support including 6in4, 6to4, 4in6, a
		4in6, and IPv6 rapid deployment (6rd) through	IPv6 rapid deployment (6rd) through IPsec
		IPsec Support for multiple WAN link options	Support for multiple WAN link options including VD
	SD-WAN	including VDSL DSL cable and 3C/4C/LTE	Support for multiple WAN link options including VD
		cellular with essential monitoring, balancing,	DSL, cable, and 3G/4G/LTE cellular with essen
		and failover	monitoring, balancing, and failover
			Application path selection and routing, used to ens
			quality and minimize latency for mission-crit
		mission-critical applications such as VoIP	applications such as VoIP
		**	
			Synchronized SD-WAN Security feature to leverage
			added clarity and reliability of application identifica
			that comes with the sharing of synchronized app con
			information between managed endpoints and firewall
		information between managed endpoints and	
		firewall	
			Application routing over preferred links via firewall r
		firewall rules or policy-based routing Affordable, flexible, and zero-touch or low-	or policy-based routing Affordable, flexible, and zero-touch or low-to
	N.	Robust VPN support including IPsec and SSL	Robust VPN support including IPsec and SSL VPN
		VPN	
		11041 E.	Encrypted HTML5 self-service portal with support
		support for RDP, HTTP, HTTPS, SSH, Telnet,	RDP, HTTP, HTTPS, SSH, Telnet, and VNC
		and VNC	
		Centralized VPN orchestration	Centralized VPN orchestration
- 1	Baco Traffic Charing and	Unique RED Layer 2 tunnel with routing	Unique RED Layer 2 tunnel with routing
	Base Traffic Shaping and		Flexible network or user-based traffic shaping (QoS)
	Quotas	(QoS) Set user-based traffic quotas on	Set user-based traffic quotas on upload/download or t
		upload/download or total traffic and cyclical	
		aproau/download or total traffic and cyclical	and cyclical of non-cyclical
		or non-cyclical	
		or non-cyclical Real-time VoIP optimization	Real-time VoIP optimization

2

/

,

Tender	A	s in Tender Document	Amended as
Document			
Referance			
	Secure Wireless		Central monitoring and management of APs and wirel
		and wireless clients through the built-in	clients through the built-in wireless controller
		wireless controller	
		Bridge APs to LAN, VLAN, or a separate zone	Bridge APs to LAN, VLAN, or a separate zone with cl
			isolation options
		Multiple SSID support per radio including	Multiple SSID support per radio including hidden SSI
		hidden SSIDs	
		Support for diverse security and encryption	Support for diverse security and encryption standa
		standards including WPA2 Personal and	including WPA2 Personal and Enterprise
		Enterprise	- ×
		Channel width selection option	Channel width selection option
		Support for HTTPS login	Support for HTTPS login
		Support for 802.11r (fast transition)	Support for 802.11r (fast transition)
			Hotspot support for (custom) vouchers, password of
			day, or T&C acceptance
			Wireless guest Internet access with walled garden opt
		garden options	g and a state of the state of t
			Wireless repeating and bridging meshed network m
	1	network mode with supported APs	with supported APs
			Support for the latest security and encryption stand
		standards including WPA2 Personal and	including with 2 reisonal and Enterprise
		Enterprise	Time-based wireless network access
		Time-based wireless network access Support for IEEE 802.1X (RADIUS	
		authentication) with primary and secondary	Support for IEEE 802.1X (RADIUS authentication)
		authentication) with primary and secondary	primary and secondary server support
		server support	
	Authentication		Synchronized User ID utilizes Synchronized Securit
		AND A REAL AND	share currently logged in Active Directory user
		Directory user ID between endpoints and the	between endpoints and the firewall without an agen
		firewall without an agent on the AD server or	the AD server or client
		client	
		Single sign-on: Active directory eDirectory	
			Single sign-on: Active directory, eDirectory, RAD
		RADIUS Accounting	Accounting
		HOLD A CARD & ARTIFICATION AND A DATE of BOARD ADDRESS PROVIDENT	Authentication via: Active Directory, eDirect
		eDirectory, RADIUS, LDAP and TACACS+	RADIUS, LDAP and TACACS+
		Server authentication agents for Active	Server authentication agents for Active Directory S
		Directory SSO, STAS, SATC	STAS, SATC
			Client authentication agents for Windows, Mac O
		Mac OS X, Linux 32/64	Linux 32/64
		Authentication certificates for iOS and	Authentication certificates for iOS and Android
		Android	
		Browser SSO authentication: Transparent,	Browser SSO authentication: Transparent, p
		proxy authentication (NTLM) and Kerberos	authentication (NTLM) and Kerberos
		Authentication services for IPsec, SSL, L2TP,	Authentication services for IPsec, SSL, L2TP, PPTP
		РРТР	
N.		Google Chromebook authentication support	
			environments with Active Directory and Google G Su
		Google G Suite	
		API-based authentication	API-based authentication
		Browser Captive Portal	Browser Captive Portal
	User Self-Service Portal	Download the Authentication Client	Download the Authentication Client
		Hotspot access information	Hotspot access information
		Change username and password	Change username and password
		View personal Internet usage	View personal Internet usage
			Access quarantined messages and manage user-b
		user-based block/allow sender lists	block/allow sender lists
			Download SSL remote access client (Windows)
	1	and configuration files (other OS)	configuration files (other OS)

١

.

2

Tender		As in Tender Document	Amended as
Document			
Referance			
	Base VPN options		Site-to-site VPN: SSL, IPsec, 256- bit AES/3DES, PFS, RS
		AES/3DES, PFS, RSA, X.509 certificates, pre-	X.509 certificates, pre-shared key
		shared key	
			Robust and lightweight RED site-to-site VPN tunnel
		tunnel L2TP and PPTP	L2TP and PPTP
		Route-based VPN	Route-based VPN
			Remote access: SSL, IPsec, iPhone/iPad/Cisco /Andr
			VPN client support
		/Android VPN client support	vi i chent support
		IKEv2 Support	IKEv2 Support
		SSL client for Windows and configuration	SSL client for Windows and configuration download
		download via user portal	user portal
	VPN Client	Authentication: Pre-Shared Key (PSK),	Authentication: Pre-Shared Key (PSK),
		PKI (X.509), Token and XAUTH	PKI (X.509), Token and XAUTH
		Intelligent split-tunneling for optimum traffic	Intelligent split-tunneling for optimum traffic routing
		routing	
		NAT-traversal support	NAT-traversal support
		Client-monitor for graphical overview of	Client-monitor for graphical overview of connect
		connection status	status
		Mac and Windows Support	Mac and Windows Support
		Enables Synchronized Security and Security	Enables Synchronized Security and Security Heartbeat
		Heartbeat for remote connected users	remote connected users
	SD-RED VPN Device	Central management of all SD-RED (Remote	Central management of all SD-RED (Remote Ether
	Management	Ethernet) VPN Device Management	VPN Device Management
		No configuration: Automatically connects	No configuration: Automatically connects through
		through a cloud-based provisioning service	cloud-based provisioning service
			Secure encrypted tunnel using digital X.509 certifica
		certificates and AES 256-bit encryption	and AES 256-bit encryption
			Virtual Ethernet for reliable transfer of all traffic betw
		traffic between locations	locations
			IP address management with centrally defined DH
		DHCP and DNS Server configuration	and DNS Server configuration
		Remotely de-authorize SD-RED devices after a	Remotely de-authorize SD-RED devices after a se
		select period of inactivity	period of inactivity
		Compression of tunnel traffic	Compression of tunnel traffic
		VLAN port configuration options	VLAN port configuration options
	Clientless VPN	Encrypted HTML5 self-service portal with	Encrypted HTML5 self-service portal with support
		support for RDP, HTTP, HTTPS, SSH, Telnet,	RDP, HTTP, HTTPS, SSH, Telnet, and VNC
		and VNC	
	ATP and Security	Advanced Threat Protection (detect and block	Advanced Threat Protection (detect and block netw
	Heartbeat		traffic attempting to contact command and con
	XF -XXX,	1 8	servers using multi-layered DNS, AFC, and firewall)
`		layered DNS, AFC, and firewall)	a strain and the strain of the strain and the strain of the strain and the strain of t
			Security Heartbeat instantly identifies compromi
		compromised endpoints including the host,	endpoints including the host, user, process, incid
		user, process, incident count, and time of	count, and time of compromise
		compromise	, compromise
			Security Heartbeat policies can limit access to netw
			resources or completely isolate compromised syste
		compromised systems until they are cleaned	until they are cleaned
		Lateral Movement Protection further isolates	Lateral Movement Protection further isol
		compromised systems by having healthy	compromised systems by having healthy mana
		managed endpoints reject all traffic from	endpoints reject all traffic from unhealthy endpo
		unhealthy endpoints preventing the	preventing the movement of threats even on the sa
		movement of threats even on the same	broadcast domain

2

2

.

.

Tender Document		As in Tender Document	Amended as
Referance		1	
	Intrusion Prevention (IPS)	inspection engine with selective IPS patterns	High-performance, next-gen IPS deep packet inspection engine with selective IPS patterns that can be applied of a firewall rule basis for maximum performance and protection
			1
		Top rated by NSS Labs Support for custom IPS signatures	Top rated by NSS Labs
			Support for custom IPS signatures IPS Policy Smart Filters enable dynamic policies tl
			automatically update as new patterns are added
		Granular category selection	Granular category selection
	Web Protection and	Thousands of signatures	Thousands of signatures Fully transparent proxy for anti-malware and w
	Control	web filtering	filtering
		Enhanced Advanced Threat Protection	Enhanced Advanced Threat Protection
		URL Filter database with millions of sites	URL Filter database with millions of sites across 92 w
		across 92 web categories, backed by OEM Labs	categories, backed by OEM Labs
		Surfing quota time policies per user/group	Surfing quota time policies per user/group
		Access time polices per user/group	Access time polices per user/group
			Malware scanning: block all forms of viruses, w
		HTTP/S, FTP and web-based email	malware, trojans, and spyware on HTTP/S, FTP and w based email
			Advanced web malware protection with JavaSc
		JavaScript emulation	emulation
			Live Protection real-time, in-the-cloud lookups for
		for the latest threat intelligence	latest threat intelligence
		scanning (At least one AV vendor should be	Dual malware detection engine for dual scanning least one AV vendor should be Gartner Leader)
		Gartner Leader)	
		Real-time or batch mode scanning Pharming protection	Real-time or batch mode scanning
			Pharming protection HTTP and HTTPS scanning and enforcement on a
			network and user policy with fully customizable ru
		customizable rules and exceptions	and exceptions
			SSL protocol tunneling detection and enforcement
		enforcement Certificate validation	Cartificate validation
		High performance web content caching	Certificate validation High performance web content caching
		Forced caching for Endpoint updates	Forced caching for Endpoint updates
		File type filtering by mime-type, extension,	File type filtering by mime-type, extension, and ac
		and active content types (e.g. ActiveX, applets,	
		cookies, etc.)	
	Š.	YouTube for Schools enforcement per policy (user/group)	YouTube for Schools enforcement per policy (user/grou
			SafeSearch enforcement (DNS-based) for major sea
		search engines per policy (user/group)	engines per policy (user/group)
		Web keyword monitoring and enforcement to	Web keyword monitoring and enforcement to log, rep
		keyword lists with the option to upload	or block web content matching keyword lists with option to upload customs lists
		customs lists Block Potentially Unwanted Applications (PUAs)	Block Potentially Unwanted Applications (PUAs)
			Web policy override option for teachers or staff
			temporarily allow access to blocked sites or catego
			that are fully customizable and manageable by se
		and manageable by select users	users
	1		

Ň

5-

Tender Document	A	s in Tender Document	Amended as
Referance			
			User/Group policy enforcement on Google Chromeboo
	Cloud Application	Chromebooks Control Center widget displays amount of	Control Center widget displays amount of data upload
	Visibility		
	VISIDIIITY	applications categorized as new, sanctioned,	I I I I I I I I I I I I I I I I I I I
		unsanctioned or tolerated	new, salicioned, unsalicioned of tolerated
		Discover Shadow IT at a glance	Discover Shadow IT at a glance
		Drill down to obtain details on users, traffic,	Drill down to obtain details on users, traffic, and data
		and data	
		One-click access to traffic shaping policies	One-click access to traffic shaping policies
		Filter cloud application usage by category or	Filter cloud application usage by category or volume
		volume	
			Detailed customizable cloud application usage report
	Application Protoction	report for full historical reporting	full historical reporting Synchronized App Control to automatically, iden
	Application Protection and Control		classify, and control all unknown Windows and I
	and Control		applications on the network by sharing informa
		network by sharing information between	between managed endpoints and the mewan.
		managed endpoints and the firewall.	
		Signature-based application control with	Signature-based application control with patterns
		patterns for thousands of applications	thousands of applications
		Cloud Application Visibility and Control to	Cloud Application Visibility and Control to disc
		discover Shadow IT	Shadow IT
			App Control Smart Filters that enable dynamic pol
		policies which automatically update as new	which automatically update as new patterns are adde
		patterns are added	
		Micro app discovery and control	Micro app discovery and control
		100 2	Application control based on category, characteri
		characteristics (e.g., bandwidth and	(e.g., bandwidth and productivity consuming),
			Per-user or network rule application control po
	Web and App Traffic	policy enforcement Enhanced traffic shaping (QoS) options by	enforcement
	Shaping	web category or application to limit or	
	Shaping	guarantee upload/download or total traffic	
			total traffic priority and bitrate individually or shared
		priority and bitrate individually or shared.	total funce priority and private marviadanty of shared
	Zero-day Protection	Full integration into the security solution	
	(Dynamic Sandbox	dashboard	Full integration into the security solution dashboard
	Analysis)	Inspects executables and documents	Inspects executables and documents contai
	1.40 (1.4)	containing executable content (including .exe,	, executable content (including .exe, .com, and .dll, .
		.com, and .dll, .doc, .docx, docm, and .rtf and	l.docx, docm, and .rtf and PDF) and archives contai
		PDF) and archives containing any of the file	any of the file types listed above (including ZIP, B
		types listed above (including ZIP, BZIP, GZIP,	, GZIP, RAR, TAR, LHA/LZH, 7Z, Microsoft Cabinet)
		RAR, TAR, LHA/LZH, 7Z, Microsoft Cabinet)	
		Aggressive behavioral, network, and memory	× ×
		analysis	Aggressive behavioral, network, and memory analysi
		Detects sandbox evasion behavior	Detects sandbox evasion behavior
			Machine Learning technology with Deep Learning s
		Learning scans all dropped executable files	all dropped executable files
			In-depth malicious file reports with screen shots
		shots and dashboard file release capability	dashboard file release capability
		Includes exploit prevention and Cryptoguard	Includes exploit prevention and Cryptoguard Protect
		Protection technology	technology
			Optional data center selection and flexible user and gr
			policy options on file type, exclusions, and actions
		exclusions, and actions on analysis	analysis
	1	Supports one-time download links	Supports one-time download links

•

3

7

· .

Tender Document	As	in Tender Document	Amended as
Referance			
Kererance		via the web or coming into the firewall as email attachments such as executables and documents containing executable content (including .exe, .com, and .dll, .doc, .docx, docm, and .rtf and PDF) and archives	
		threat intelligence database and subjected to	Files are checked against OEM Labs' massive threa intelligence database and subjected to multiple machir learning models to identify new and unknown malware
		widget for analyzed files, a detailed list of the files that have been analyzed and the analysis	Extensive reporting includes a dashboard widget for analyzed files, a detailed list of the files that have bee analyzed and the analysis results, and a detailed repo outlining the outcome of each machine learning model.
	SD-WAN Orchestration	and automated wizard-based creation of site- to-site VPN tunnels between network locations	SD-WAN and VPN orchestration with easy an automated wizard-based creation of site-to-site VP tunnels between network locations using an optim architecture (hub-and-spoke, full mesh, or som combination).
		Integrates seamlessly with SD-WAN features for application prioritization, routing	Supports IPsec, SSL or RED VPN tunnels. Integrates seamlessly with SD-WAN features for application prioritization, routing optimization, ar leveraging multiple WAN links for resiliency ar performance.
	Advanced Firewall Reporting Storage		30-days of cloud data storage for historical fireware porting with advanced features to save, schedule ar export custom reports.
	XDR & MTR Connector	Ready to integrate with Extended Threat Detection and Response (XDR) for cross- product threat hunting and analysis Support for 24/7 Managed Threat Response (MTR) service	analysis
	Reporting (Central cloud)	Central cloud-based Firewall Reporting should be included at no additional cost	Central cloud-based Firewall Reporting should included at no additional cost Reporting features should be accessed from anywhere
		Administrators should drill down into the syslog data for a granular view that is	Administrators should drill down into the syslog data f a granular view that is presented in a visual format f Pre-defined reports with flexible customization options

. .

5

2

e

Tender	As	in Tender Document	Amended as
Document			
Referance		1	
			Ability to configure flexible reports with a high degree
		5	customization - each report table, containing dozens
			column choices, allows administrators to add or remo
		administrators to add or remove columns of	columns of data, to make report more granu
		data, to make report more granular,	compressed, or enriched as desired
		compressed, or enriched as desired	· · · · · · · · · · · · · · · · · · ·
		Application bandwidth report that shows	Application bandwidth report that shows bandwi
		bandwidth usage by application and risk. The	usage by application and risk. The application and r
		application and risk columns can be removed	
		and replaced with source IP to provide a	condition cuit de reintoreu and replaceu mait doutor in
		_	provide a bandwidth usage report broken out by
		bandwidth usage report broken out by IP	address
		address Reporting for NC Firewalls hardware	Reporting for NG Firewalls - hardware, software, virt
		software, virtual, and cloud	and cloud Intuitive user interface provides graphical representa
			of data
		representation of data Report dashboard provides an at-a-glance	Report dashboard provides an at-a-glance view of evo
		view of events over the past 24 hours	over the past 24 hours
		Customizable chart options - can select	Customizable chart options - can select between a
		between a bar, pie, stacked area, and line chart	pie, stacked area, and line chart for any report
		for any report	pie, stacked area, and mie chart for any report
			Easily identify network activities, trends, and poter
		potential attacks	attacks
		Deep insight into user activity, application	
		usage, and security threats on the network	security threats on the network
			Easy backup of logs with quick retrieval for audit need
		audit needs	
			Simplified deployment without the need for techr
		technical expertise	expertise
			Managed Threat Response (MTR) Connector ena
		enables analysts to receive alerts from Firewall	
			·
	Reporting (On-appliance)	Firewall reporting should be included at no	Firewall reporting should be included at no extra cost
		extra cost (on-box reports) with custom report	box reports) with custom report options
		options	
		Dashboards (Traffic, Security, and User Threat	Dashboards (Traffic, Security, and User Threat Quotie
		Quotient)	
		Applications reports (App Risk, Blocked Apps,	Applications reports (App Risk, Blocked Applications)
			Synchronized Apps, Search Engines, Web Servers, M
		Servers, Web Keyword Match, FTP)	Keyword Match, FTP)
			Network and Threats reports (IPS, ATP, Wire
		Wireless, Security Heartbeat, Sandstorm)	Security Heartbeat, Sandstorm)
			User Threat Quotient (UTQ) reports to identify r
		risky users based on recent browsing behavior	users based on recent browsing behavior and
	2	and ATP triggers	triggers
		VPN reports	VPN reports
		Email reports	Email reports
			Compliance reports (HIPAA, GLBA, SOX, FISMA, I
		FISMA, PCI, NERC CIP v3, CIPA)	NERC CIP v3, CIPA)
		live users IPses connections are to user 1	Current Activity Monitoring: system health, live us
			IPsec connections, remote users, live connections
		connections, wireless clients, quarantine, and	wireless clients, quarantine, and DoS attacks
		DoS attacks Report anonymization	Report anonymization
		Report anonymization Report scheduling to multiple recipients by	Report anonymization Report scheduling to multiple recipients by report gr
		report group with flexible frequency options	Report scheduling to multiple recipients by report gr with flexible frequency options
	×	report Broup with nexture nequency options	whith hexible nequency options
		Export reports as HTML, PDF, Excel (XLS)	Export reports as HTML, PDF, Excel (XLS)
			, , , , , , , , , , , , , , , , , , , ,



* ,

Tender Document		As in Tender Document	Amended as	
Document Referance				
		Log retention customization by category	Log retention customization by category	
		Full-featured log viewer with column view	Full-featured log viewer with column view and detail	
		and detailed view with powerful filter and	view with powerful filter and search options, hyperlink	
		search options, hyperlinked rule ID, and data view customization	rule ID, and data view customization	
	Next-Gen Xstream	Base Firewall Protection includes:	Base Firewall Protection includes:	
	Protection from day 1	Networking and SD-WAN: Wireless, SD-	Networking and SD-WAN: Wireless, SD-WA	
		WAN, Application Aware Routing, Traffic Shaping.	Application Aware Routing, Traffic Shaping.	
			Protection and Performance: Architecture with Netwo	
		Architecture with Network Flow FastPath,	Flow FastPath, TLS 1.3 Inspection, Deep-Pac	
		TLS 1.3 Inspection, Deep-Packet Inspection.	Inspection.	
		VPN: IPsec/SSL Site-to-Site and Remote Access VPN (unlimited), SD-RED Site-to-Site VPN.	VPN: IPsec/SSL Site-to-Site and Remote Access VI (unlimited), SD-RED Site-to-Site VPN.	
		Central Management: Group firewall	Central Management: Group firewall manageme	
		management, backup management, firmware update scheduling.	backup management, firmware update scheduling.	
			Reporting: Historical on-box logging and reporting.	
		Central Firewall Reporting: Prepackaged and	Central Firewall Reporting: Prepackaged and custo	
		custom report tools with seven days cloud		
		storage for no extra charge.	charge.	
		Network Protection includes:	Network Protection includes:	
			TLS Inspection: TLS 1.3 inspection with pre-package	
		with pre-packaged exceptions.	exceptions.	
		inspection.	DPI engine: streaming deep-packet inspection.	
		IPS: Next-gen Intrusion Prevention.	IPS: Next-gen Intrusion Prevention.	
		ATP: Advanced Threat Protection.	ATP: Advanced Threat Protection.	
		Synchronized Security Heartbeat: Integration with Endpoints to identify and isolate threats.	Synchronized Security Heartbeat: Integration w Endpoints to identify and isolate threats.	
		Clientless VPN: HTML5.	Clientless VPN: HTML5.	
		SD-RED VPN: Manage SD-RED devices.	SD-RED VPN: Manage SD-RED devices.	
		Reporting: Extensive network and threat reporting.	Reporting: Extensive network and threat reporting.	
		Web Protection includes:	Web Protection includes:	
		Xstream TLS Inspection: TLS 1.3 inspection		
		with pre-packaged exceptions.	exceptions.	
		inspection.	DPI engine: Streaming deep-packet inspection.	
		Web Control: By user, group, category, URL, keyword.		
	x	Web Threat Protection: Malware, PUA, malicious JavaScript, Pharming.	Web Threat Protecțion: Malware, PUA, malicio JavaScript, Pharming.	
			App Control: By user, group, category, risk, and more.	
			Synchronized App Control: Integration with endpoints	
		endpoints to identify unknown apps.	identify unknown apps.	
		Synchronized App Control to route unknown	Synchronized SD-WAN: Utilizing Synchronized A	
		apps. Reporting: Extensive web and app reporting.	Reporting: Extensive web and app reporting.	
		Zero-day Protection includes:	Zero-day,Protection includes:	
		Xstream TLS Inspection: TLS 1.3 inspection with pre-packaged exceptions.	The metersion and an and construction the brand	
		Xstream DPI engine: Streaming deep-packet	exceptions. DPI engine: Streaming deep-packet inspection.	
	1	inspection.		

``

2

Tender	As	in Tender Document	Amended as
Oocument			
eferance			
			Zero-Day Threat Protection: Analyze all unknown fil
		unknown files using AI, ML, and sandboxing.	using AI, ML, and sandboxing.
			The table table of the line of
		a 100 M	Threat Labs Intelix: Cloud-based intelligence a
	1	and analysis.	analysis.
			Machine Learning: Using multiple deep learning model
		learning models.	
			Cloud Sandboxing: Dynamic run-time analysis
		of unknown files. Reporting: Extensive threat intelligence	unknown files. Reporting: Extensive threat intelligence analy
		analysis reporting.	
		Central Management includes:	reporting. Central Management includes:
			Group Firewall Management: Synchronized policy acro
		policy across firewall groups.	firewall groups.
			Backup and firmware updates: Storage and scheduling
		scheduling.	
		Zero-touch deployment: For new firewalls	Zero-touch deployment: For new firewalls from
		from the cloud.	cloud.
		Central Orchestration includes:	Central Orchestration includes:
		SD-WAN Orchestration: Point and click Site-to	SD-WAN Orchestration: Point and click Site-to-Site V
		Site VPN Orchestration.	Orchestration.
		Cloud Firewall Reporting: Multi-firewall	
			save, schedule and export reports (30-day data retentio
		reports (30-day data retention).	XDR and MDR Connector: Support for XDR and M
			1 400
		and MTR services Enhanced Plus Support includes:	services Enhanced Plus Support includes:
			24x7x365 technical support including statutory, pul
		statutory, public and bank holidays.	and bank holidays.
			Advance RMA replacement hardware warranty.
		warranty.	1
		Direct OEM technical support via portal	Direct OEM technical support via por
		/telephone/remote access.	/telephone/remote access.
			Online Support case management and reporting portal
		reporting portal.	
		Free security updates and patches.	Free security updates and patches.
		Free software download, updates, upgrades &	
		maintenance. VIP access to Senior Technical Resource Team	maintenance. VIP access to Senior Technical Resource Team (prior
			queues for support cases, routed to senior level engine
		senior level engineers, etc.).	etc.).
		Remote consulting engagement for 4 hours per	
			(proactive health check, basic troubleshooti
			demonstration on best practices for configuri
		practices for configuring, performance and	performance and feature optimization. etc.).
	x	feature optimization etc)	,
			Malware sample handling for priority malware analys
		malware analysis.	
	Warranty	36 months from the date of activation of the	36 months from the date of activation of
		subscriptions/device registration	subscriptions/device registration
	Installation	Product should be installed and commissioned	Product should be installed and commissioned by
		by the bidder.	bidder.
	Configuration Assurance		Configuration Assurance Check report directly fr
	Check	from OEM should be provided after successful	OEM should be provided after successful installation.
	CHECK	installation.	OLAN SHOULD DE PTOVIDED AITER SUCCESSIUL INSTALLATION.
	Professional Services		Professional Services directly from OEM should
			included for minimum of 16 hours. OEM part number
		OEM part numbers of such services should be	such services should be submitted.

2

*** ,

1

•

Tender	As in Tender Document		Amended as
Document			
Referance			
	Technical Training	8	OEM Certification Training with online exam voucher
		voucher should be included for minimum of	should be included for minimum of 03 (three) persons
		03 (three) persons. Course name, curriculum	Course name, curriculum with OEM part numbers
		with OEM part numbers should be submitted.	should be submitted.

Note:

, `

à

1. This Amendment shall be an integral part of the Tender Document.

2. All other terms & conditions of the Invitation for the Supply & Installation of Plant & Equipment of BTRC Network and Server Co-Location Center (National) published earlier shall remain unchanged.

(Abdullah Al Mamun) Director General Administation Division, BTRC.