6. <u>Requirements & BOQ</u>

	Technical Requirement of Proxy Appliance	(YES/NO) Mandatory Required features	Bidder Remarks
1.1	USER AUTHENTICATION AND MANAGEMENT		
1.11	The solution shall support user identify base on IP Address, MAC Address, hostname, as well as user binding based on IP and MAC.	YES	
1.12	The solution shall support user account import via CSV file, and support synchronize users with LDAP, database and H3C CAMS Server.	YES	
1.13	The solution shall support authentication method such as password based, SMS, Webchat, QR code, Facebook, LDAP, RADIUS, Pop3, CAS, H3C CAMS authentication.	YES	
1.14	The solution shall support single sign-on (SSO) authentication base on Active Directory, Radius, POP3, Proxy, Web Server, HTTP API, and Database Server.	YES	
1.2	PROXY		
1.2.1	Solution Shall supported 1 Gbps or above throughput on application layer at IBA University Campus and 600 Mbps or above throughput on application later at IBA City Campus.	YES	
1.2.2	Solution must 5000 concurrent uses support at IBA University Campus and 3000 concurrent users support at IBA City Campus.	YES	
1.2.3	The solution shall support to deploy as an explicit proxy server: HTTP transparent, Socks4/Socks5 proxy, PAC Script; support ICAP protocol to integrate with Data Leak Protection Server (DLP); as well as cascading proxy servers.	YES	
1.3	ACCESS CONTROL		
1.3.1	The solution shall support audit function, which use to record user internet behaviors such as Application/URL access, online duration, traffic statistics, Source/Destination IP Address, and others.	YES	

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1.3.2	The solution shall consists minimum 2900 or above application signature in both local/cloud database, must include categories such as P2P, Download Tools, Streaming Media, Social Media, Games, Mobile Application, and others.	YES
1.3.3	The solution shall support access management based on services and port number, such as: http (80), https (443), telnet (23), ssh (22), ftp (21), SMTP (25), POP3 (110), and others.	YES
1.3.4	The solution shall dynamically categorizes millions URLs into the predefine categories, must include sub categories such as pornographic, gambling, games, illegal drugs, counteraction, social media, education, malware, and others in URL database.	YES
1.3.5	The solution shall support URL filtering based on URL Categories and apply based on username, IP Address, location, endpoint device, and schedule.	YES
1.3.6	The solution shall prompt out notification and warning page to users. Such as: Access Denied or restricted, Flow Quota Used Up, User Locked, Connection Sharing Detected, and others.	YES
1.3.7	The solution shall support to custom notification and warning page as IT administrator requirements.	YES
1.3.8	The solution shall support to control and monitor HTTP and FTP upload/download activity based on file type categories: Movie, Music, Image, Text, Compressed File, Application Program, Microsoft Office, and Engineering.	YES
1.3.9	The solution shall support quota control in bandwidth/flow/time/session/endpoints by daily/monthly, based on Application/URL, username, Source/Destination IP Address, and schedule.	YES
1.3.10	The solution shall support anti-proxy function, able to identification and control proxy tool application. Such as: FreeGate, Ultrasurf, Psiphon, TOR, FreeVPN, Green VPN, Opera Turbo, TunaProxy, Waysonline, Zenmate, AdNet, VPN123, secure vpn.	YES
1.3.11	The solution shall support Intelligent P2P Identification, identifies popular P2P application protocols with deep packet inspection.	YES

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1.3.12	The solution shall support to customize on self-define application/URL, which is not listed in local/cloud database.	YES	
1.4	**BANDWIDTH MANAGEMENT**	YES	
1.4.1	The solution shall support bandwidth management feature, which able to guarantee/limit the outbound/inbound bandwidth, based on single user, Application/URL, file types, source/Destination IP, and schedule.	YES	
1.4.2	The solution shall support minimum 10 Child Channels based on a Parent Channel Bandwidth Management Policy.	YES	
1.4.3	The solution shall support accurately bandwidth management on P2P behaviors. Support application at least Xunlei P2P, eMule, Ares, BitTorrent, FlashGet, and others.	YES	
1.4.6	The solution shall support to identify domestics (Pakistan) and oversea traffic.	YES	
1.4.5	The solution shall support Virtualizes physical link into multiples virtual links and each link can be applied with independent traffic shaping policy.	YES	
1.5	**REPORTING REQUIRMENT**		
1.5.1	The solution shall come with Internal/External Report feature with no additional license.	YES	
1.5.2	The solution shall support various kinds of reports, including scheduled statistics, behaviors trend, and real-time utilization, visibility of bandwidth and bandwidth statistics reports. Able to create customized reports of traffic statistics, queries, ranking, times and behavior of users and user groups.	YES	
1.5.3	The equipment shall support Real-time monitoring of online user information, traffic ranking and connection ranking, as well as real-time usage visibility of bandwidth channels/ CPU/hard disk usage.	YES	
1.5.4	The solution shall support real time monitoring on user Web-Access Connection Quality that state the overall network quality and user who is experiencing poor quality network access.	YES	
1.5.5	The solution shall support to generate Web-Access Connection Quality Report used for clear evaluation of the overall network quality; Users	YES	

1.6.6	A GUI-based troubleshooting tool is provided for administrators to identify issue such as policy wrong configuration.	YES	
1.6.7	The solution shall support hierarchical administrator privileges. Different function modules can be assigned to different administrators as needed, via a hierarchical management paradigm; Administration of different functions and modules can be delegated to different administrative groups.	YES	
1.6.8	The solution shall consist of local and cloud application/URL database, local database shall support auto and manual update from cloud database.	YES	
1.6.9	The solution must be in Gartner Report for category Web Secure Gateway Only.	YES	

Total	2,498,452
GST AND SST	379,834 AND 34,337
Total Amount	2,912,624

Grand Total Rupees (in words) <u>TWO MILLION NINE</u>

<u>HUNDRED TWELVE THOUSAND SIX HUNDRED TWENTY FOUR.</u>

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