



Institute of
Business Administration
Karachi

Purchase Order

Leadership and Ideas for Tomorrow

Approval Status: Approved

IBA Karachi
IBA MAIN CAMPUS
KARACHI
Pakistan

Purchase Order IBA-0000001061	Issue Date 06, November, 2018
Payment Terms 30 Days	Ship Via ROAD
Buyer Purchase Department	Phone Currency PKR
Requestor Department ICT DEPARTMENT REQUESTER	

Supplier:

V00433
Dwp
Technologies
s (Pvt) Ltd
111st Floor,
Mandiwala
Chambers,
Talpur Road
Karachi
Pakistan

Ship To: Store, IBA Main Campus, University Road

Bill To: Purchase Department, IBA Main Campus
University Road, Karachi
Pakistan

S. No.	Item / Description	Qty. (UOM)	PO Price	Extended Amount	Delivery Date
1	WEB FILTERING APPLIANCE PROCUREMENT OF TWO APPLIANCE (ONE FOR EACH CAMPUS) SPECIFICATIONS & DRAFT TECHNICAL DOCUMENT IS ATTACHED TECHNICAL REQUIREMENT OF PROXY APPLIANCE 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. 1.12 THE SOLUTION SHALL SUPPORT USER ACCOUNT IMPORT VIA CSV FILE, AND SUPPORT SYNCHRONIZE USERS WITH LDAP, DATABASE AND H3C CAMS SERVER. 1.13 THE SOLUTION SHALL SUPPORT AUTHENTICATION METHOD SUCH AS PASSWORD BASED, SMS, WEBCHAT, QR CODE, FACEBOOK, LDAP, RADIUS, POP3, CAS, H3C CAMS AUTHENTICATION. 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. 1.2 PROXY	1.00 EA	2912623.00	2912623	30-Nov-18

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	<p>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 LAYER AT IBA CITY CAMPUS.</p> <p>1.2.2 SOLUTION MUST 5000 CONCURRENT USES SUPPORT AT IBA UNIVERSITY CAMPUS AND 3000 CONCURRENT USERS SUPPORT AT IBA CITY CAMPUS.</p> <p>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.</p> <p>1.3 ACCESS CONTROL</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>1.3.5 THE SOLUTION SHALL SUPPORT URL FILTERING BASED ON URL CATEGORIES AND APPLY BASED ON</p>				



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	<p>USERNAME, IP ADDRESS, LOCATION, ENDPOINT DEVICE, AND SCHEDULE.</p> <p>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.</p> <p>1.3.7 THE SOLUTION SHALL SUPPORT TO CUSTOM NOTIFICATION AND WARNING PAGE AS IT ADMINISTRATOR REQUIREMENTS.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>1.3.11 THE SOLUTION SHALL SUPPORT INTELLIGENT P2P IDENTIFICATION, IDENTIFIES POPULAR P2P APPLICATION PROTOCOLS WITH DEEP PACKET INSPECTION.</p> <p>1.3.12 THE SOLUTION SHALL SUPPORT TO CUSTOMIZE ON SELF-DEFINE APPLICATION/URL, WHICH IS NOT LISTED IN LOCAL/CLOUD DATABASE.</p> <p>1.4 BANDWIDTH MANAGEMENT</p> <p>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.</p> <p>1.4.2 THE SOLUTION SHALL SUPPORT</p>				



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	<p>MINIMUM 10 CHILD CHANNELS BASED ON A PARENT CHANNEL BANDWIDTH MANAGEMENT POLICY.</p> <p>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.</p> <p>1.4.6 THE SOLUTION SHALL SUPPORT TO IDENTIFY DOMESTICS (PAKISTAN) AND OVERSEA TRAFFIC.</p> <p>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.</p> <p>1.5 REPORTING REQUIRMENT</p> <p>1.5.1 THE SOLUTION SHALL COME WITH INTERNAL/EXTERNAL REPORT FEATURE WITH NO ADDITIONAL LICENSE.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>1.5.5 THE SOLUTION SHALL SUPPORT TO GENERATE WEB-ACCESS CONNECTION QUALITY REPORT USED FOR CLEAR EVALUATION OF THE OVERALL NETWORK QUALITY; USERS WHO HAS POOR INTERNET ACCESS QUALITY WILL BE LISTED DOWN.</p>				



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	<p>1.5.6 THE SOLUTION SHALL SUPPORT TO RECORD A WIDE VARIETY OF AUDIT INFORMATION INCLUDING: URL, WEBPAGE TITLE, WEBPAGE CONTENT, DOWNLOAD/UPLOAD FILE TRANSMISSIONS VIA HTTP AND FTP, FILE NAMES AND CONTENT OF FILES DOWNLOADED, PLAIN TEXT THREAD POSTING AND EMAILS, CHAT SESSIONS ON MSN, MSN SHELL, SKYPE, YAHOO! MESSENGER, GOOGLE TALK, ETC.; AS WELL AS APPLICATION BEHAVIOR SUCH AS GAMES, GAMBLING, ENTERTAINMENT, P2P DOWNLOADS, AND OTHERS. TALLIES USER TRAFFIC AND ACCESS DURATION AND AUDITS WEBPAGE/FILE/EMAIL ACCESS OF EXTRANET USERS ON INTRANET SERVERS.</p> <p>1.5.7 THE SOLUTION SHALL SUPPORT TO EXPORT USER BEHAVIOR LOGS/REPORTS TO CSV AND PDF FILE FORMAT.</p> <p>1.5.8 REPORT CENTER SHALL SUPPORT TO GENERATE REPORT BASED ON APPLICATION TRAFFIC RANKING, URL CATEGORY TRAFFIC RANKING, URL TRAFFIC RANKING, APPLICATION DURATION, AND OTHERS BASED ON IT ADMINISTRATOR REQUIREMENTS.</p> <p>1.6 GENERAL SPECIFICATION</p> <p>1.6.1 THE SOLUTION SHALL SUPPORT BUILT-IN STATEFUL FIREWALL AND BUILT-IN IPSEC VPN OPTION.</p> <p>1.6.2 THE SOLUTION MUST SUPPORT FOLLOWING DEPLOYMENT MODE:</p> <ol style="list-style-type: none"> 1. GATEWAY/GATEWAY + PROXY 2. BRIDGE/BRIDGE + PROXY 3. BYPASS/ BYPASS + PROXY 4. SINGLE-ARM/SINGLE-ARM + PROXY <p>1.6.3 THE SOLUTION SHALL SUPPORT TO DEPLOY IN IPV6 ENVIRONMENT AND FULLY SUPPORT TO MONITOR AND CONTROL IPV6 TRAFFIC.</p> <p>1.6.4 THE SOLUTION SHALL SUPPORT SOFTWARE BYPASS FEATURE, USER WILL BYPASS ALL THE POLICIES AND RULE OF APPLICATION CONTROL, URL FILTERING, BANDWIDTH MANAGEMENT, AUTHENTICATION, AND OTHERS.</p> <p>1.6.5 MULTIPLE EQUIPMENT SHALL BE MONITOR AND MANAGE IN A SAME PLATFORM, IT ADMINISTRATOR ABLE TO HAVE A QUICK VIEW OF ALL ONLINE</p>				



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	<p>NODES POLICY CONFIGURATION, OVERALL NETWORK STATUS SUCH AS CPU/HARD DISK/MEMORY USAGE.</p> <p>1.6.6 A GUI-BASED TROUBLESHOOTING TOOL IS PROVIDED FOR ADMINISTRATORS TO IDENTIFY ISSUE SUCH AS POLICY WRONG CONFIGURATION.</p> <p>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.</p> <p>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.</p> <p>1.6.9 THE SOLUTION MUST BE IN GARTNER REPORT FOR CATEGORY WEB SECURE GATEWAY ONLY.</p>				

Total: 2912623.00

0% GST: Inclusive All Taxes

Total PO Amount: 2912623.00


Amount in Words: Twenty Nine Lakh Twelve Thousand Six Hundred Twenty Three Only.

Terms & Conditions:

1. Material of this order is subject to final inspection at the time of delivery.
2. We reserve the right to cancel any or all the above items if material is not in accordance with our specification or if the delivery is delayed.
3. Payment will be made through crossed cheque after the receipt of the Invoice/Bill & delivery of above item(s).
4. General Sales Tax will be paid on applicable items only.
5. Liquidity damage at the rate of 2% per month on actual will be imposed on delayed delivery.
6. The rate / item cost is final and no change what so ever will be accepted.
7. Government tax(es), levi(es) and charge(s) will be charged at actual as per SRO.
8. Competent Authority reserves the right to change / alter / remove any item or article or reduce / enhance quantity without assigning any reason.
9. Invoice/Bill to be submitted to Purchase Department.
10. Advance Payment subject to Bank Guarantee.
11. All Government taxes (including Income tax and stamp duty), levies and charges will be charged as per applicable rates / denomination of Purchase Order.
12. Stamp Duty 0.25% for Goods against total value of Purchase Order will be levied accordingly.



Purchase Order



Senior Manager Purchase & Stores

15/06/18



General Manager Administration

Comparative Statement
Provide & Supply of Web Filtering Appliances
Tender # IT/07/18-19

		M/s DWP Technologies (Pvt.) Ltd
S#	Technical Requirement of Proxy Appliance	Mandatory Required features
1.1	USER AUTHENTICATION AND MANAGEMENT	
1.1.1	The solution shall support user identify base on IP Address, MAC Address, hostname, as well as user binding based on IP and MAC.	Yes
1.1.2	The solution shall support user account import via CSV file, and support synchronize users with LDAP, database and H3C CAMS Server.	Yes
1.1.3	The solution shall support authentication method such as password based, SMS, Webchat, QR code, Facebook, LDAP, RADIUS, Pop3, CAS, H3C CAMS authentication.	Yes
1.1.4	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
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

		M/s DWP Technologies (Pvt.) Ltd
S#	Technical Requirement of Proxy Appliance	Mandatory Required features
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
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 who has poor internet access quality will be listed down.	Yes
1.5.6	The solution shall support to record a wide variety of audit information including: URL, Webpage Title, webpage content, download/upload file transmissions via HTTP and FTP, file names and content of files downloaded, plain text thread posting and emails, chat sessions on MSN, MSN Shell, Skype, Yahoo! Messenger, Google Talk, etc.; As well as application behavior such as games, gambling, entertainment, P2P downloads, and others. tallies user traffic and access duration and audits Webpage/file/email access of extranet users on intranet servers.	Yes
1.5.7	The solution shall support to export user behavior logs/reports to CSV and PDF file format.	Yes

1.5.8	Report Center shall support to generate report based on application traffic ranking, URL category traffic ranking, URL traffic ranking, application duration, and others based on IT administrator requirements.	Yes
1.6	General Specification	

		M/s DWP Technologies (Pvt.) Ltd
S#	Technical Requirement of Proxy Appliance	Mandatory Required features
1.6.1	The solution shall support Built-in stateful Firewall and Built-in IPsec VPN option.	Yes
1.6.2	The solution must support following deployment mode: 1. Gateway/Gateway + Proxy 2. Bridge/Bridge + Proxy 3. Bypass/ Bypass + Proxy 4. Single-arm/Single-arm + Proxy	Yes
1.6.3	The solution shall support to deploy in IPv6 environment and fully support to monitor and control IPV6 traffic.	Yes
1.6.4	The solution shall support software bypass feature, user will bypass all the policies and rule of application control, URL filtering, bandwidth management, authentication, and others.	Yes
1.6.5	Multiple equipment shall be monitor and manage in a same platform, IT administrator able to have a quick view of all online nodes policy configuration, Overall Network Status such as CPU/Hard Disk/Memory Usage.	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		Rs. 2,498,452.00
GST & SST		Rs. 414,171.00
Total Amount		Rs. 2,912,623.00