

Evaluation Report

1	Name of Procuring Agency	National Disaster Risk Management Fund (NDRMF)
2	Method of Procurement	Single Stage Two Envelope Procedure as per ADB's Guidelines
3	Title of Procurement	Procurement, Supply & Installation of IT hardware, Software including Goods and Related Services
4	Tender Inquiry No	002/20/Proc-I
5	PPRA Reference No (TSE)	TS515298E
6	Date & Time for Bid Closing	17 th August, 2023 at 1100 hours
7	Date & Time for Bid Opening	17 th August, 2023 at 1130 hours
8	No of Bids Received	Two (02)
9	Criteria for Bid Evaluation	<p>Evaluation Criteria</p> <p>1- Nationality in accordance with ITB Subclause 4.2.</p> <p>2- No conflicts of interest in accordance with ITB Subclause 4.3.</p> <p>3- ADB Eligibility :- Not having been declared ineligible by ADB, as described in ITB Subclause 4.4.</p> <p>4- Government-Owned Enterprise:- Bidder required to meet conditions of ITB Subclause 4.5.</p> <p>5- United Nations Eligibility:- Not having been excluded by an act of compliance with a United Nations Security Council resolution in accordance with ITB Subclause 4.7.</p> <p>6- Firms' Registration Status and Registration with relevant Tax Authorities (Income & Sales tax For National Bidders Only*) Firms Registration and Registration with Income & Sales Tax Authorities as per Taxation Laws of Pakistan and Active Taxpayer</p> <p>7- Blacklisting Status:- An Affidavit on judicial stamp paper that bidder is not Blacklisted by any Public Sector Organization</p> <p>8- Bid Validity 90 Days</p> <p>9- Bid Declaration required</p> <p>10- Pending Litigation and Arbitration :- All pending litigation and arbitration, initiated against Bidder if any, shall be treated as resolved against the Bidder and so shall in total not represent more than 50% percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.</p> <p>11- Contractual Experience:- Successful completion as main supplier within the last three (03) Years, of at least Two (02) contracts each valued at Rs. 200 Million with nature, and complexity similar to the scope of supply described in Section 6 (Schedule of Supply).</p>



		<p>12- Technical Experience:- The Bidder shall demonstrate that the goods offered have been in production for at least two (02) years, and been sold a minimum of One (01) unit of similar type and specification over the last Two (02) years; been in operation for a minimum of Two (02) years.</p> <p>13- Production Capacity:- The Bidder or manufacturer shall demonstrate that it can supply the type, size, and quantity of the goods as required by Purchaser in accordance with the Delivery and Completion Schedule in Section 6 (Schedule of Supply).</p> <p>14- Historical Financial Performance:- Submission of audited financial statements, for the years 2022, 2021, and 2020 (or the latest three (03) years) last to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year calculated as the difference between total assets and total liabilities should be positive.</p> <p>15- Size of Operation:- (Average Annual Turnover) Minimum average annual turnover of Rs. 450 Million calculated as total payments received by the Bidder for contracts completed or under execution over the last three (03) years.</p> <p>16- Compliance to the technical specification as mentioned in Section 6 of Bidding Document.</p>
10	Details of Bids Evaluated	Two (02)
Name of Bidder		Rule/Regulations/SBD/Policy/Basis for Rejection
M/s DWP Technologies Pvt Ltd		Declared non responsive due to non-compliance of the Technical Specifications as per details attached at Annex- I
M/s National Engineers		Technically qualified and responsive

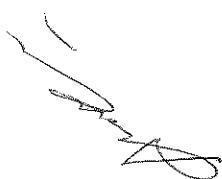
Technically Qualified Bidder(s):-

Procurement Evaluation Committee recommended that based on the results of the technical evaluation, M/s National Engineers is technically qualified and their Financial Bid shall be opened publically on pre-fixed date in the presence of Committee members and the representative of technically qualified Firm.



		DWP	NETS	Remarks
Compute Nodes	Compute Node should be SAP Certified	NC	C	Model is not mentioned by DWP, No response received.
	2U, Rack Mount	C	C	
	Dual Intel Xeon Gold 4th Gen processor with 24C/48T with 45M Cache	C	C	
	Trusted Platform Module 2.0	C	C	
	2.5" Chassis with up to 28 HDDs with dual CPU support	C	C	
	512 GB Memory, RDIMM 3200MT/s, Dual Rank. At least 50% of Memory slots must be available for the future	C	C	
	BOSS controller card + with 2 M.2 960GB HotPlug (RAID 1)	C	C	
	2x 1.6TB SSD SAS Mix Use 12Gbps 512 2.5in Flex Bay Drive, 3 DWPD for Cache	C	C	
	10x 3.84TB SSD RI 6Gbps 512 2.5in Hot-plug Drive			
	Network Ports:			
	2x 1G Base-T Ports with 5M Cables	NC	C	Cables Missing, No response received.
	4x 10G SFP+ Ports with Transivers & 5M Cables	C	C	
	Security Bezel	C	C	
	Power Supply: Hot-plug, Redundant Power Supply (1+1) with power cords, mini PS should be 2400W or higher	C	C	
	GPU Enablement Kit with power should be installed at Compute Nodes	C	C	
	Compatible Power Cords, Sliding Rails with CMA, and other standard accessories	C	C	
	Vmware vSphere enterprise plus and Vmware vRealize Log Insight with 3years Prosupport SnS.	C	C	
	Vmware vCenter Standard with 3years (Total Qty Q2 for whole solution)	C	C	
	Vmware vSAN Advance with 3 years with Prosupport SnS	C	C	
	3 years 24*7 missional critical support with 4 hours	C	C	
	• Solution must be jointly engineered with VMware for a unified extension of VMware environment			
	• Solution must support preloaded factory installed hypervisor in order to minimize launch times.			
Compute Node (PR+DR)	<ul style="list-style-type: none"> • Software Defined Storage Capabilities should be embedded in Hypervisor Kernel with Advance level licenses. • Solution should provide point in Time Replication (CDP) for VM. • Solution should support external Storage. • Solution should support Asymmetrically scale of compute independent of storage. 			
	<ul style="list-style-type: none"> • Solution must seamlessly integrate into VMware software experience, including the vSphere ecosystem of supported configurations, partner solutions, and reference architectures. As such, it must be designed to integrate into the VMware ecosystem and utilize the M&O tools of which VMware administrators are already familiar. • Solution Must Support Data at Rest encryption natively for data security. • Solution must include Artificial intelligent base best practices support without any extra cost. • Solution must provide quality of service (QoS) on a per-VM (Object) basis, meaning IOPS threshold limits can be set as a part of the VM level policies that can be dynamically changed. • Solution must support storage-based policy management per VM (object basis) 	NC	C	No response received.
	<ul style="list-style-type: none"> • Manufacturer should be present in country with Local Spare depots and Local sales, presales and Post Sale Support. (Letter from OEM) • OEM should be responsible for the deployment and onward support. 			

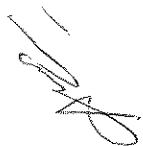
Compute Nodes		DWP	NETS	Remarks
Training:				
• Product Administration OEM ILT online/classroom Training for 2x persons	NC	C	Not mentioned by DWP, No response received.	
• VMware VCP-DCV official training with exam voucher for 2x persons	NC	C	Not mentioned by DWP, No response received.	
• VMware optimize and scale official training with exam voucher 2x persons	NC	C	Not mentioned by DWP, No response received.	
Note: Manufacturing Authorization Letter (MAL) of Dell is not attached by DWP	C	C	MAL is provided	
Note: Line wise compliance is not done by DWP				



		DWP	NETS	Remarks
	Windows 11 Pro licensed for Workstations (6 cores plus) with the latest Microsoft Office license or equivalent	NC	C	Office license is not mentioned by DWP, No response received.
	Intel® Xeon® Gold 6234 (24.75 MB cache, 8 cores, 16 threads, 3.30 GHz to 4.00 GHz Turbo) or equivalent	C	C	
	32 GB, 4 x 8 GB, DDR4, 2933 MHz, ECC	C	C	
	Rack Chassis CL	C	C	
	SATA HDD/SSD Drives (2 Integrated Intel SATA Controllers)	C	C	
	960 GB, 2.5-inch, SATA, SSD, AG-Enterprise Class	C	C	
	2 TB, 7200 RPM, 3.5-inch, SATA, HDD	C	C	
	NVIDIA® T1000, 8 GB GDDR6, 4 mDP to DP adapters	C	C	
	Quad Port Network adapter Card (2x10GbE, 2x1GbE)	C	C	
	Dual, Hot-plug, Redundant Power Supply (1+1), 1100W with Power Cord	C	C	
	2x1 Integrated Intel 4 port SATA controllers (8 ports @ 6.0Gbps), SW RAID 0,1,5,10 (on 4 ports only)	C	C	
	Independent remote management through graphical user interfaces	C	C	
	Multi-Device Wireless Keyboard, Mouse, and 27" Monitor	C	C	
	Precision Optimizer with AI	C	C	
	Bezel:	C	C	
	Trusted Platform Module 2.0	C	C	
	3 years 24*7*NBD support + Warranty	C	C	
	Workstation should be as the same Brand as compute node.	C	C	
	OEM Should have local presence with sale, presales and postsales team.	C	C	
	OEM should have spare parts available at Lahore/Karachi/Islamabad.	C	C	
	12th Gen Intel® Core™ i7-12700 (25 MB cache, 12 cores, 20 threads, 2.10 GHz to 4.90 GHz Turbo, 65 W) (Equivalent or Higher)	C	C	
	16 GB (2x 8 GB), DDR5 Memory (Equivalent or Higher)	C	C	
	512 GB, M.2 2230, PCIe NVMe, SSD, Class 35 (Equivalent or Higher)	C	C	
	AMD Radeon™ RX 640, 4 GB GDDR5 (Equivalent or Higher)	C	C	
	260 W internal power supply unit (PSU) (Equivalent or Higher)	C	C	
	WiFi-6, Bluetooth 5.2 Wireless Card with Internal Antenna (Equivalent or Higher)	C	C	
	USB Keyboard, Mouse, and 27" Monitor	C	C	
	Windows 11 Pro	NC	C	Windows license is not mentioned by DWP, No response received.
	Microsoft Office Home and Business 2021 + Adobe Acrobat Standard 2020 (Equivalent or Higher)	NC	C	Office and Adobe license is not mentioned by DWP, No response received.
	3 years 24*7*NBD support + Warranty	C	C	
	Desktop should be as the same Brand as Workstation.	C	C	
	OEM Should have local presence with sale, presales and postsales team.	C	C	
	OEM should have spare parts available at Lahore/Karachi/Islamabad.	C	C	
	Note: Manufacturing Authorization Letter (MAL) of Dell is not attached by DWP	C	C	MAL is provided
	Note: Line wise compliance is not done by DWP			

		DWP	NETS	Remarks
Virtual Tape Library				
Architecture	VTL and Backup software should be SAP Certified and should be of the same brand as compute node.	C	C	
Capacity	Purpose built disk-based backup appliance with native capability of data deduplication.	C	C	
Scalability	24TB usable capacity (post-Raid capacity ignoring dedupe factor)	C	C	
Protection and Fault Tolerance	Should provide data in place upgrade and scalability to 150TB proposed post-Raid capacity and can use object storage as external tier for long term retention.	C	C	
Cleanup/Housekeeping	Must have robust FT and self healing mechanism. E.g. RAID with hotspare, end-to-end verification without performance degradation, NVRAM, snapshots to protect against physical and logical failures. System should be able to survive double disk failure.	C	C	
Deduplication Technology	System should have seamless self-maintenance and housekeeping mechanism (e.g. cleanup, garbage collection) without affecting routine backup/recovery and replication operations.	C	C	
Connectivity	Solution should offer In-line variable length deduplication. Solution must also support source side deduplication and any required deduplication license(s) must be included for target and source-side deduplication.	C	C	
Protocols	Should have 10G/1GbE, 2x 10G SFP+, and 2x 16G FC interfaces. Should support 25GbE as well. Must support IPv4 and IPv6 both.	C	C	
Throughput	Should support multiple backup protocols (NFS, CIFS and any other recommended proprietary protocol)	C	C	
Backup Software Support	Can handle 25TB/hr or more throughput using the proposed protocol(s)	C	C	
Platforms Compatibility	Should support integration with industry leading backup softwares and native utilities (Netbackup, CommVault, TSM/Spectrum Protect, Networker, Avamar, Veeam etc. and native utilities like Oracle RMAN, BR*Tools, MSSQL backup) with and without source side deduplication	C	C	
Security and Encryption	Should support integration with open systems, and any other specialized platforms.	C	C	
Replication	Should support strong encryption of data-at-rest/in replication. Required license should be included. Solution must meet compliance standards for data, including SEC 17a-4. Solution must support secure-multi-tenancy. Should also support locking the data from deletion and forging to make it immutable.	C	C	
	Network optimized replication with capability of bandwidth throttling. Solution must support 1:1, many: 1, 1:many, and cascaded replication. Required replication license(s) should be included for entire capacity. Solution should support immediate replication of backups to maximize DR readiness and minimize lag between production and DR.	C	C	

		DWP	NETS	Remarks
Call Home Support	Appliance must have Call Home capability (system should generate an alert to the principal support to log a case in case of any critical error)	C	C	
Warranty/ Support	3 year comprehensive direct local on-site support from manufacturer with spare parts. Please enclose proposed support level details.	C	C	
	OEM should be responsible for the deployment and onward support.	C	C	
Industry Rating	Should be leading in backup appliance market space.	C	C	
Training	VTL + backup software Administration OEM classroom Training for 2x persons	NC	C	Trainings not mentioned, No response received
	(Backup Software)			
License	3TB front-end capacity license is required and should include DR entitlement for the same	C	C	
Features and clients	Licensing should include entitlement of all software features and unlimited number of backup servers and clients.	C	C	
OS/Platform Support	Must support physical and virtual servers backups. VMware, Windows, AIX, Red Hat Linux, Solaris, and NAS backup.	C	C	
Applications and DB	Should support application consistent backups of all major DBs and Apps including Oracle, MS SQL, Microsoft Exchange, DB2, SAP with granular recovery. Should also provide: - Integration with Oracle/RMAN including support for backups rollover from FRA is highly desired.	C	C	
Integration	- Block level backups of Microsoft Exchange and Hyper-V with consistency	C	C	
Mobility	Can move backups from one target to another e.g. from disk to disk and external tier (e.g. object storage or tape-out), and improves time-to-DR	C	C	
Replication	Continuous protection/continuous replication with any point-in-time recovery capability for VMs.	C	C	
	Must support both source and target based deduplication to meet specific workload demands.			
Efficiency	- Synthetic/Virtual Synthetic backups, direct backup data from client to backup storage without a mid hop, Immediate replication, Dense filesystem backups, Passive node backups in cluster configurations, LAN-Free backups. - Flexible and scalable image level backups with CBT for backup and recovery. Guest level backup/recovery for application consistency.	C	C	
Scalability	Proposed solution must be able handle growth and large scale for hundreds of clients under a single control server, and should be flexible to quickly add/remove roles and instances to meet demands.	C	C	
	Should have simple to define and use workflows for automation of data protection.	C	C	

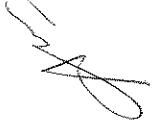


		DWP	NETS	Remarks
Management and Monitoring	<ul style="list-style-type: none"> - Can be readily deployed as a pre-configured virtual appliance as well as an installable physical/virtual server. - Should have intuitive user interface for managing and monitoring backup environment. - Advance/comprehensive monitoring and reporting capability is desirable with score cards and end-to-end visibility of environment and recoverability. 	C	C	
Self protection	<p>Must have a defined mechanism to recover backup server/nodes from failure</p> <p>3 year, 24x7 comprehensive direct manufacturer Support</p>	C C	C C	
Support	<p>OEM should be responsible for the deployment and onward support.</p>	C	C	
Industry Rating	<p>Should be leading in backup software market space.</p> <p>Note: Manufacturing Authorization Letter (MAL) of Dell is not attached by DWP</p> <p>Note: Line wise compliance is not done by DWP</p>	C C C	C C C	MAL is provided

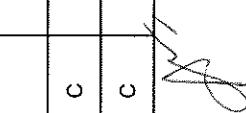


	D/W/P	NETS	Remarks
<ul style="list-style-type: none"> The proposed firewall must have at least below: 			
<ul style="list-style-type: none"> 1 x Console port 6 x Gigabit Ethernet copper ports 2x 10-Gigabit Ethernet fiber ports 			
Must Be Listed In 2021 Gartner Magic Quadrant for Next Generation Firewall			
Must Be Listed in 2021 ICSA Labs Certified Next Generation Firewall			
Must Be Listed in 2021 Cyber Ratings for Enterprise Firewall			
<ul style="list-style-type: none"> Must Support and quote Hot Swappable Redundant Power Supplies RAM 8GB Or Higher The firewall must have at least 2 expansion slots The firewall throughput should be at least 20 Gbps or higher The Next Generation Firewall throughput should be at least 8 Gbps or Higher The maximum number of concurrent sessions should be at least 2.5 Million or Higher The number of new connections per second should be at least 110K or Higher The proposed solution must include 1 x 128GB SSD for storage Must Support IPS signature over 9000+ entries on premise admin able to customized IPS signature, search based in CVEID, Vulnerability Name and threat level. Must Support Real-Time Vulnerability Scanner Must support a dedicated account protection module to identify the abnormal usage of user accounts and support detection of weak password, brute-force attack. General Specification: Should support Active/active and active/standby stateful failover, IKE state synchronization in IPsec VPN Should support configuration management at the CLI, Remote management through Web, Device management through NMS & SNMP 	C	C	
<ul style="list-style-type: none"> Must Include Intrusion Prevention System (IPS), Anti-Virus & Anti-Malware, Email Security Protection, Cloud-Based Security Sandbox, Web Filtering, Anti-Brute force attack Application Control, Bandwidth Management Must Include AI-Based Machine Learning Threat Detection, IP Geolocation, Data Leak Prevention, Brute Force Protection, HTTP Header Security, Custom Error Message, Error Code Handling and Local Report Center Must Include Application Attack Protection, OWASP Top 10 Protection, Cross Site Scripting, SQL Injection, Cross Site Request Forgery, Session Hijacking, Built-in Vulnerability Scanner, File Upload Scanning with Anti-Virus and Cloud-Based Sandbox WAF Solution must be supported by Firewall 			
The proposed product shall support IPsec based Remote Access VPNs.			
<ul style="list-style-type: none"> Firewall Must consist of 50 SSL VPN Licenses Bidder must quote End Point Detection and Response (EDR) for 50 end points and 10 servers. Must Support Integration with Quoted NGFW Solution. Must Support Centralized Endpoint Installation Via Active Directory Must Quote 60 Security Endpoint for PC/Workstation/Linux/Mac/Servers Must Support Ransomware File Protection Must Provide Protection against Brute Force attack for SMB, RDP session. Must Supports Endpoint CPU restriction to make scanning more lightweight 			

DWP	NETS	Remarks
<ul style="list-style-type: none"> • Must Support USB Security Control for Unauthorized USB Devices • Must Include Cloud-Sandbox Capability for Realtime Security Detection • Must Support Deep Learning / Artificial Intelligence Malware Detection • Must Quote 3 Years Software Upgrade & 24x7 Technical Support • Quoted EDR must be preferably of same OEM as of firewall for full integration and operation • EDR must be integratable with quoted firewall for next generation Security operations 		
<p>Warranty Services & Local OEM Presence:</p> <ul style="list-style-type: none"> • Must Quote 3 Years Software Upgrade & OEM 24x7 Technical Support. • Must Quote 3 Years NBD Hardware Warranty Service • Must Provide OEM Manufacturer Authorization Letter. • Quoting vendor should have certified engineers and a Solution Architect. • Must Have Minimum 160Mbps Live Throughput (All Features Enabled) • Must Have Minimum 60,000 Concurrent Users • Must Have Minimum 128GB SSD Storage Capacity • Must Have Minimum 4x1G Ethernet Interface • Must have (Bypass) Copper 1 Pair • Must have extended slot x 1 (For Future Expansion) • Must Quote 3 Years Traffic Control Features Subscription License • Must Quote 3 Years Software Subscription & 24x7 Technical Support • Must Quote 3 Years Hardware Warranty Service • Must Quote Onsite Configuration & Installation • Must Have User Identification Base on IP Address, MAC Address, Hostname • Must Have User Binding Base on IP Address and MAC Address • Must Have Identification of Endpoint such as Mobile, PC and etc. • Must Have SMS Authentication, Captive Portal and etc. • Must Have Captive Portal Integration with Microsoft Active Directory • Must Have Customizable Captive Portal HTML Page • Must Have URL Redirection After Captive Portal Authentication • Must Have Single Sign-On (SSO) Authentication Base on Active Directory, Radius, POP3 and other Database Servers • Must Have QR Code Authentication with Self-Registration Capability • Must Have More Than 6500+ Application Signatures • Must Have to Block HTTPS Application and HTTPS Traffic without Install SSL Certificate • Must Have to Display Warning Message for Blocked URLs • Must Have Application Control Policy with Application Based, Service Based, User Based and Schedule Based Policy • Must Have Punishment Policy for User Internet Violation (Block Internet Access for Certain Period, Limit Bandwidth Speed for Certain Period and etc.) • Must Have Anti-Proxy Module Effectively Block Proxy Application / VPN Application such as TOR Browser, Browsec, Ultrasurf, FreeGate and etc. • Must Have ICAP server Integration 	C C	

		DWP	NETS	Remarks
	<ul style="list-style-type: none"> Must Have Quota Based Bandwidth Management (Daily and Monthly) Must Have Limited Bandwidth Channel and Priority Bandwidth Channel Must Have Dynamic Bandwidth Management Must Have Per User Based Bandwidth Management Must Have Bandwidth Management Policy with Application Based, Service Based, User Based and Schedule Based Must have Proxy functions: HTTP/HTTPPS Sockets 4/5, ICAP Must have HA support A/P, Hardware bypass Must have Deployment mode with Route, Bridge, Double Bridge, Bypass, Single arm Must Have Built-In Internal Report Center for Minimum 6 Months Logs Must Have External Report Center Hardware OR Software for Longer Report Logs Storage Must Have to Generate Overall Network Information such as Maximum Concurrent User, Maximum Bandwidth Utilization, Network Peak Hour and etc. Must Have to Record User Traffic Logs with Details such as URL, Source IP Address, Destination IP Address, DNS Server, MAC Address, Source Port, Destination Port, Protocol, Timeline and etc. Must Have to Generate Report with Different Timeline such as Yearly, Monthly, Weekly, Hourly, Minutely and Secondly Must Have to Log Incoming Email and Outgoing Email with Sender Address, Recipient Address, Email Title, Send Time, Receive Time, Email Attachment and etc. Must Have Big Data Report Analysis Capability such as Internet Addiction Risk Analysis, Electricity Waste Analysis and etc. 			
Web & Internet Security	Note: Line wise compliance is not done by DWP			

Item	Router	DWP	NETS	Remarks
Processor:	Proposed routers should have multi-core processors (Intel x86 CPU) for high-speed WAN Connections	C	C	
Ports:	Router should have minimum 4 x 1G WAN Ports and 2 x 10G SFP+ Ports with 10G SR transceivers	C	C	
Throughput:	Proposed router must support a throughput of 19 Gbps or higher. The proposed router should have 15 Gbps IPsec or higher throughput	C	C	
Expansion Slots:	Proposed router should have 2 Network Slots available for future expansion	C	C	
Flash Memory:	Must have an integrated on-board 8G flash	C	C	
Memory:	Proposed router should have at least an 8GB DRAM, with the option to upgrade up to 32GB	C	C	
Operating System:	The switch Operation System must be modular. The operating system should support hot and cold patching	C	C	
Serial Port:	RJ45	C	C	
Management:	CLI/GUI & SSH v2	C	C	
Power:	The proposed router must support redundant power supplies of both types i.e. AC and DC	C	C	
Features:				
o	The proposed router should support advanced networking protocols such as L2TPv2, BFD, LLDP, ACL, ARP, DHCP, NAT, LACP, CoPP, PAT, FHRP and Performance Monitoring.	C	C	
o	AAA, TACACS+, Zone-Based Firewall, IPS, PKI, PAP, CHAP/	C	C	
o	MACSec Key Agreement Protocol, MACSec on LAN (128bit), MACSec on WAN (256bit).	C	C	
o	Must support GRE Tunnel.	C	C	
o	Must support IPsec VPN and GRE Tunnel.	C	C	
o	Must support PPPoE and L2TPv2.	C	C	
o	Must support VRF.	C	C	
o	Must Support 802.1X, RADIUS integration, TACACS+	C	C	
IP Routing:	Router must have Layer 3 routing protocols including RIP, OSPF, IS-IS, BGP, IGRP	C	C	
Security:	The router should support security features such as Firewall, VPN etc. and any license required to run these features should be part of the proposal	C	C	
QoS:				
o	CBWFQ	C	C	
o	Performance Routing	C	C	



Item	Router	DWP	NETS	Remarks
o WRED etc	C	C		
• Management:				
o SNMP (v1/v2/v3)	C	C		
o RADIUS	C	C		
o SSH	C	C		
• Standards	C	C		
o TIA-968-B	C	C		
o CS-03	C	C		
o ANSI T1.101	C	C		
o ITU-T G.823, G.824	C	C		
o IEEE 802.3	C	C		
• Installation/ Configuration				
o Installation, Configuration, and Integration with Existing Infrastructure will be responsibility of Vendor.	C	C		
o Router must be of same OEM as of ToR switch to avoid support and interoperational issues.	C	C		
• 03 Year NBD Service Agreement, 03-year Subscriptions License	C	C		
• Proposed Router MUST be in Gartner Magic Quadrant for WAN Edge or SD-WAN	C	C		
• Proposed Router must of Large Enterprise branch office grade.	C	C		
• Proposed router must support SDWAN feature for future use	C	C		
• Router must be of same OEM as ToR Switch and Access Switch to avoid interoperability and support issues.	C	C		MAL is not provided
Note: Manufacturing Authorization Letter (MAL) of Cisco is not attached by DWP				
Note: Line wise compliance is not done by DWP				

DC TOR Switches	DWP	NETS	Remarks
<ul style="list-style-type: none"> Switch must be equipped with 48x 1/10/25GE SFP+ ports and 6x100G QSFP28 ports having support of SDN 	C	C	
<ul style="list-style-type: none"> Switch must be declared as Data Center series in OEM literature and must support SDN feature. 	C	C	
<ul style="list-style-type: none"> Switch must be in Gartner Magic Quadrant for Data Center Switches 	C	C	
<ul style="list-style-type: none"> Redundant and hot-swappable AC power supplies and fan modules 	C	C	
<ul style="list-style-type: none"> Should support 3.6Tbps of switching capacity and 1.2Bpps packet forwarding capacity 	C	C	
<ul style="list-style-type: none"> Switch must have CPU of 6 Cores 	C	C	
<ul style="list-style-type: none"> Memory/Storage should be 24GB/128GB 	C	C	
<ul style="list-style-type: none"> Packet Buffers should be 40MB 	C	C	
<ul style="list-style-type: none"> Should support AAA, SSH v2, SNMPv3, Port Security and RADIUS support 	C	C	
<ul style="list-style-type: none"> Layer 2 features: 802.1D MAC Bridges, 802.1s Multiple Spanning Tree Protocol, 802.1w Rapid Spanning Tree Protocol, 802.1AE MAC Security (Link-Layer cryptography), 802.3ad Link aggregation with LACP, 802.1Q VLAN Tagging, 802.1p Class-of-Service (CoS) Tagging for Ethernet frames 	C	C	
<ul style="list-style-type: none"> Layer 3 features: BGP, GRE, IS-IS, MSDP, OSPF, PBR, PIM, SSM, VRF, VXLAN BGP EVPN, SRv6, SR-MPLS and VRRP 	C	C	
<ul style="list-style-type: none"> 100G interfaces should support IEEE 802.1ae MACSEC for security 	C	C	
<ul style="list-style-type: none"> Switch must have 3 years NBD support and warranty 	C	C	
<ul style="list-style-type: none"> Quantity of transceivers must be: 28 x 10G SR transceivers, 21 x 1G RJ45 Transceivers and 4 x 40G DAC cable. 	NC	C	<p>1G SFPs count is not as per RFP , minimum 80 are required and only 4 mentioned by DWP, No response received.</p>
Note: Manufacturing Authorization Letter (MAL) of Cisco is not attached by DWP	NC	C	MAL is not provided
Note: Line wise compliance is not done by DWP			

	Access Switches (PoE)	DWP	NETS	Remarks
· L2 access switches with 24 x 1G RJ45 ports and 4x10G SFP+ ports with 2 x 10G SR transceivers	C	C		
· Must be in Gartner Magic Quadrant for Wired and Wireless Networking MQ	C	C		
· Should support 128Gbps of switching capacity and 130Mpps packet forwarding capacity	C	C		
· Memory/Storage should be 2GB/4GB	C	C		
· Packet Buffers should be 6MB	C	C		
· Should support dedicated stacking port with 80Gbps stacking throughput	C	C		
· Should support AAA, SSH v2, SNMPv3, Port Security and RADIUS support	C	C		
· Layer 2 features: 802.1D MAC Bridges, 802.1s Multiple Spanning Tree Protocol, 802.1w Rapid Spanning Tree Protocol, 802.1AE MAC Security (Link-Layer cryptography), 802.3ad Link aggregation with LACP, 802.1Q VLAN Tagging, 802.1p Class-of-Service (CoS) Tagging for Ethernet frames	C	C		
· Proposed switch should scale to:				
· 16K MAC Entries	C	C		
· Flows 1600	C	C		
· 1500 RPVST instances	C	C		
· 4096 VLANs	C	C		
· Access Switch must be of same OEM as ToR Switch to avoid interoperability and support issues	C	C		
Note: Manufacturing Authorization Letter (MAL) of Cisco is not attached by DWP	NC	C	MAL is not provided	
Note: Line wise compliance is not done by DWP				<i>[Signature]</i>

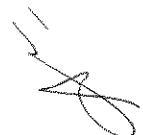
WLAN Controller		DWP	NETS	Remarks
General	<ul style="list-style-type: none"> Wireless LAN Controller to handle up to 100 Access Points and 2k+ Users with 10Gbps of max throughput 	C	C	
Ethernet Interfaces	<ul style="list-style-type: none"> 2 x SFP+ Loaded with 10G SR SFPs, 1 x SFP or Ethernet Based Redundancy Port. 1 x RJ45 OOB Port, 2 x USB Ports Or Higher 	NC	C	WLC Controller Transceivers are not mentioned by DWP in the RFP, No response received.
Analytics	<ul style="list-style-type: none"> Encrypted Traffic analytics Capability for identifying malware in encrypted traffic coming from the access layer 	C	C	
Application Recognition & Visibility	<ul style="list-style-type: none"> Must have advanced application classification techniques with predefined and well known application signatures 	C	C	
Wireless Standards	<ul style="list-style-type: none"> IEEE 802.11a, 802.11b, 802.11g, 802.11n, 802.11e, 802.11h, 802.11n, 802.11k, 802.11n, 802.11u, 802.11w, 802.11ac Wave1 and Wave2, 802.11ax or Higher IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, 1000BASE-T, 1000BASE-SX, 1000BASE-LH, IEEE 802.1Q VLAN tagging, 802.1AX Link Aggregation, VXLAN or higher The proposed OEM should be in Gartner's Quadrant for wired and wireless Infrastructure Wireless Controller must be of same OEM as ToR Switch and Access Switch to avoid interoperability and support issues. 	C	C	
Requirement	<ul style="list-style-type: none"> 03 Year NBD Service Agreement, 03-year Subscriptions License 	C	C	
Warranty and Services				
Wireless Access Points	<ul style="list-style-type: none"> Next Generation Access Point with integrated antennas and WiFi 6 supported. Must support 2x2 MU-MIMO Should support minimum 1Gbps or more throughput at 802.11ax Must be managed by proposed WLC Multi-gigabit support Must support PoE connectivity 1x Multigigabit Ethernet (RJ-45) Management console port (RJ-45) USB 2.0 	C	C	
General				
Interfaces				
Requirement	<ul style="list-style-type: none"> The proposed OEM should be in Gartner's Quadrant for wired and wireless Infrastructure and support issues Wireless Access Points must be of same OEM as ToR Switch and Access Switch to avoid interoperability 	C	C	
Warranty and Services	<ul style="list-style-type: none"> 03 Year NBD Service Agreement, 03 year Subscriptions License 	C	C	MAL is not provided <i>J</i>
	Note: Manufacturing Authorization Letter (MAL) of Cisco is not attached by DWP			
	Note: Line wise compliance is not done by DWP			

	Video Wall (2*2)	DW/P	NET/S	Remarks
Panel size: 55" diagonal		C	C	
Video Wall structure: Wall mount & floor standing		C	C	
Screen array support: Rows x Columns (2 x 2)		C	C	
Backlight: LED Backlight (Direct type)		C	C	
Resolution: Full HD (1920 x 1080)		C	C	
Bezel width: 1.8 mm or less		C	C	
Luminance: 500 cd/m2/ nits		C	C	
Color: 10 Bit, 1.06 Billion Colors		C	C	
Response time: 8 ms		C	C	
Contrast ratio (typical): 1200:1 or Higher.		C	C	
LCD backlight lifetime: 50,000hrs or more		C	C	
Ports: 1 x DVI, 1 x DP, 1 x HDMI, 1 x USB, 1 x RS232C 2.5mm Phone Jack, 1 x Ethernet RJ45 for control		C	C	
Audio: 1 x RCA L/R, Audio: 1 x 3.5mm Phone Jack, Speaker output 10W + 10W		C	C	
Video Wall Controller				
Form factor: Rackmount		C	C	
Design Modular Chassis Based		C	C	
Architecture: Server-based Architecture		NC	C	Server Base Architect is requested, proposed by DW/P is not Server Base Architecture, No response received.
Memory: 16 GB		NC	C	16 GB RAM is requested, no RAM is mentioned by DW/P in RFP and information also not available in data sheet, No response received.
Hard Drive: 1 TB (RAID Level 5 and Redundant)		NC	C	NO RAID Level 5 & Redundant, not mentioned in proposed solution, No response received.
Window Division: Supports 1/4/9/16 window division modes and full-screen switch of the window		C	C	
Window Roaming: Support cross-window video roaming, and support opening windows to display video signal, with the window location and size adjustable.		C	C	



Video Wall (2x2)		DWP	NETS	Remarks
2	Remote control: Remote control via iOS client server, Android client server and IE browser	C	C	No information is available in DWP proposal.
OS: Windows Server / Linux		NC	C	No response received.
Input support: Up to 8 kinds of signal sources are supported, including VGA, DVI, HDMI, BNC, SDI, YpbPr, HDBaseT and IP camera input		C	C	
Inputs: (Total 12 Ports)		C	C	
Output: Total 12 Ports)		C	C	
Network ports: Dual RJ45 Gigabit		C	C	
Decoding Capabilities: 2-ch@8 MP, 2-ch@6 MP, 2-ch@5 MP, 8-ch@1080P, 16-ch@720P and 32-ch@D1		C	C	
Power supply: 100-240 V A.C, Redundant (1+1), Hot Swappable		C	C	
LED indicators: Power, etc.		C	C	
Operating temperature: 0 to 40 degree celcius		C	C	
Certifications: FCC, and CE requirements		C	C	
Controller should be of same brand as of Video Wall.		C	C	
3 years warranty		C	C	
Note: MAL is not attached by DWP		NC	C	MAL is not provided by DWP
Note: Line wise compliance is not done by DWP				

	SMART Rack	DWP	NETS	Remarks
Smart Power System	<p>1) The UPS capacity is 10kVA Online UPS with Power Factor 1.0.</p> <p>2) The UPS mounting type is <u>Rack mount</u>, and height is <u>2U</u>.</p> <p>3) The UPS power input is <u>220V/1Ph/50Hz-60Hz</u>.</p> <p>4) The product includes a power management module. The power management module works as power distribution, protection, metering and management. It's built in with manual bypass for UPS system. Detail specification is referred within the wiring diagram.</p> <p>5) The PDU is basic type. The 2x32A power output sockets are C13*12Pcs + C19*4Pcs</p> <p>6) The battery module is <u>rack mount</u> type and height is <u>2U</u>. It includes VRLA type batteries of <u>12V/9AH * 16Pcs</u>.</p>	C C C C	C C C C	Line wise compliance is required from DWP, No response received.
Cooling System for Power Solution	<p>1) The cooling is <u>packaged/Split DX type</u>, and total cooling capacity is <u>3 kWN</u>.</p> <p>2) The cooling power input is <u>220V/1Ph/50Hz-60Hz</u>.</p> <p>3) The cooling system indoor unit is <u>Top mount Packaged/Split with evaporator and condenser</u>.</p> <p>4) The compressor system is <u>hermetic/rotary type</u>.</p> <p>5) The cooling capacity is adjustable by <u>HGBP (hot gas bypass) technology</u>.</p> <p>6) The evaporator fan is <u>EC fan type</u>. The condenser fan is <u>EC fan type</u>.</p> <p>7) The cooling unit shipped with <u>refrigerant charged</u>. The refrigerant is <u>R410A</u>.</p> <p>8) Emergency ventilation method is opening front door & rear door of cabinet during high temperature.</p>	C C C C C C C C	C C C C C C C C	
Monitoring System of Smart Power Solution	<p>1) The display of monitoring system is <u>10" touch type</u>.</p> <p>2) The monitoring is <u>wall mounted</u> on the front door no occupying IT space.</p> <p>3) The monitoring sensors include <u>smoke, water leaking, door status</u>.</p> <p>4) The management of UPS includes display of <u>UPS working mode, UPS alarms, UPS input power parameters, UPS output power parameters</u>.</p> <p>5) The management of cooling includes display of <u>cooling working mode, cooling alarms, and setting of target temperature and humidity, control by return or discharge, and ON/OFF unit</u>.</p> <p>6) Monitoring function supports calculation of power usage and calculation of system PUE.</p> <p>7) Alerts through Emails and SMS is required</p>	C C C C C C C C	C C C C C C C C	
FMS for System Smart Power Solution	<p>1) The fire system is <u>rack mount</u>, and height is <u>3U</u>.</p> <p>2) The extinguisher gas is <u>FM200</u>, and volume is <u>1kg</u>.</p> <p>3) The extinguishing trigger method is <u>temperature/smoke sensing and automatic release of fire fighting gas</u>.</p>	C C C	C C C	
Parameters for Smart Power Solution				



	SMART Rack	DWP	NETS	Remarks
	1) The overall dimension of micro data Center indoor unit is: 600mm(width) * 1100mm(depth) * 2000mm(height). 2) The power input is: 220V/1Phase/50Hz-60Hz. 3) The available space is: 23U. 4) The available power is: 10kVA. 5) The available cooling is: 3.5kW.	C C C C C	C C C C C	
Cabinet System for Smart Power Solution				
	1) The loading capacity of the cabinet is: 1500kg. 2) The size of each cabinet is: 600mm(width) * 1100mm(depth) * 33U(height). 3) The color is: RAL9005. 4) The cabinet system use 9 folded frame. 5) The cabinet is fully closed to protect equipment's from dust and harsh environment. The front door of cabinet is reinforced glass type and adopts insulation material on the back side of it to keep good thermal effect. The rear door the cabinet is double open steel type. 5) The locking of cabinet is 2 in 1 Access Control. 6) The cabinet comes with wheels and level feet.	C C C C C C C C C	C C C C C C C C C	
KVM and KVM Solution				
	KVM Console Switch 16-Ports. 16x KVM Console USB Interface Adapter USB Remote Access Key KVM Console Switches 6ft KVM CAT5 Cable (Qty: 16) 17" LCD 1U Rackmount Console Kit Keyboard Mouse Monitor Included	C C C C C C	C C C C C C	
Certification	Product should be CE Certified. OEM Should be ISO Certified. OEM Should attach Satisfactory Remarks letter from clients.	NC	C	Not Mentioned by DWP, No response received.
Deployment	Deployment of the Smart Power solution end to end with all required items should be included.	NC	C	Not Mentioned by DWP, No response received.
Training	OEM ILT online/classroom for 2 x persons should be included	NC	C	Not Mentioned by DWP, No response received.
Warranty	3 Year OEM Warranty, 4 Quarterly Maintenance to be included Per Annum	NC	C	Not Mentioned by DWP, No response received.
General Terms	Vendor should be Channel Partner with OEM with certified engineers Vendor should share MAL from OEM. OEM should have at least two Data Center Implementations. (Certificates required) OEM Should have local presence. (Letter required) Note: No specification sheet of the proposed model is attached for verification Note: MAL is not attached by DWP	NC NC NC NC C	C C C C C	Not Mentioned by DWP, No response received. Not Mentioned by DWP, No response received. Not Mentioned by DWP, No response received. Not Mentioned by DWP, No response received. MAL is provided

SMART Rack	DWP	NETS	Remarks
Note: Line wise compliance is not done by DWP			

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S.No	Software & Services	Type	Quantity	DWP	NETS	Remarks
1	SUSE for SAP application, x86 & x86-64, 1-2 Sockets or Unlimited Virtual Machines, Priority Subscription, 3 Year	Software	2	NC	C	Priority subscription is requested. DWP mentioned standard. No response received.
2	Microsoft Windows Server Standard Core 2022 OVL Perpetual License with 3 Years SA - 48 Core License	Software	5	C	C	
3	Microsoft Windows Server CAL 2022 OVL Perpetual License with 3 Years SA	Software	50	C	C	
4	VMware Site Recovery Manager 8 Standard (1-Pack (25 VM))	Software	2	C	C	
5	Production Support/Subscription for VMware Site Recovery Manager 8 Standard (25 VM Pack) for 3 years	Service	1	C	C	
6	Virtual Firewall Appliance License for vSphere with 03-Year Updates	Software	2	NC	C	Two are requested while DWP mentioned only one. No response received.
7	ERP (SAP S/4 Hana) data & app migration, Live, UP & running. Vendor will ensure that all modules and processes are running properly as it was running from previous service provider. Last running state must be ensured.	Service	1	NC	C	DWP quoted with a constraint which is not acceptable as the complete migration is the responsibility of the vendor. This query is also objected by other vendors in pre-bid meeting
8	SSL Certificate with 3 years subscription for Multi Domains/Sub domain from a reputable/well known service provider	Service	1	C	C	
9	Module for Unified Network Monitoring and inventory management platform, Custom Workflows Integration, Network Monitoring, Inventory Management, Auto Discovery, Physical Mapping and Dashboarding, Proactive Alerts and Notifications, 100 devices - 3-year support.	Service	1	NC	C	Custom workflows is not quoted by DWP which is not acceptable. They did not raise this query in pre-bid meeting.

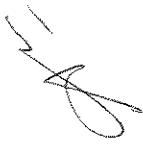


S. No	General Terms	DWP	NE	Remarks
1	Principle Presence in Pakistan	C	C	
2	Bidder must be channel partner with OEM.	C	C	
3	Bidders must ensure that proposed solution is not EoSale / EoS Support for next 3-years, share details.	C	C	
4	Bidder must have at least 10 years of experience in Operation and maintenance. Countywide SLAs of Services (at least 1x PO should be of more than USD 1.5M or above) with Bidder must have verifiable customer support desk 24/7 Call center.	C	C	
5	Bidder must have a dedicated (PMP Certified) Project Manager for this project. Complete Project Plan along with key deliverables and dependencies on NDRMF (if any) should be clearly mentioned.	C	C	
6	Bidder must provide project management methodology to execute and manage this project in how many working days after delivery of equipment.	C	C	
7	Bidder must have good technical knowledge and skillset on quoted technology with references of deployment of similar nature projects.	C	C	
8	Bidder should never under investigation for offences related to fraud, under-invoicing, tax evasion, concealment, money laundering etc. Bids from any bidder who is found or purported to be engaged in these offenses shall be rejected without assigning any reason.	C	C	
9	Bidder must provide an affidavit for not being blacklisted by any Public Sector organization (Federal, Provincial or Local) and/or not by any national/international organization or institution.	C	C	
10	Bidder should be certified ISO 20000-1:2018, ISO 9000:2015, ISO 45001:2015, and ISO 27001-2013 with valid certificates.	NC	C	No certifications are attached with DWP proposal, No response received.
11	Bidder must provide MAF/MAL from OEM	NC	C	CISCO MAL is not provided.
12	Bidder must have a verifiable customer support desk 24/7 Call center to support operations.	C	C	
13	Bidders will provide end of life and end of sale dates of each product	C	C	
14	Bidder will ensure successful DR drill practice after the deployment of all services and migrations.	C	C	

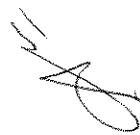
		DWP	NETS	Remarks
	Size 44 Inches	C	C	
	Color Printing with 6 colors	C	C	
	Virtual Memory 100 GB	C	C	
Plotter	Purpose GIS Mapping	C	C	
	Print Speed 20 second/D	C	C	
	Print Resolution 2400x1200 DPI	C	C	
	3 Years Warranty	C	C	

	Requirement	DWP	NETS	Remarks
Printer	A3			
Size		C	C	
Color	Color Printer	C	C	
Capabilities	Printing	C	C	
Duplex Printing	Yes	C	C	
Memory	1.5 GB Equivalent or Higher	C	C	
Print Speed	40 ppm Equivalent or Higher	C	C	
Processor	1.2 GHz Equivalent or Higher	C	C	
Duty Cycle	150000 pages Equivalent or Higher	C	C	
Warranty	3 Years	C	C	

	DWP	NETS	Remarks
Data Center Tools & Accessories	2. Folding Stair, Voltmeter, laser meter, Temperature gun, screwdriver kits Std, plaiur kit, L keys set, small screwdriver kit, Torch, Safety Clubs, 2 x Insulated Shoes, Tool Box	C	C



Access Control (Qty: 02)	DWP	NETS	Remarks
Access Control with Multi Verification Method Feature			
Features			
<ul style="list-style-type: none"> • Visible light facial recognition • Anti spoofing algorithm against print attack • Multiple verification methods: face/ fingerprint/ Card/ Password • TCP/IP network, Wifi support. <ul style="list-style-type: none"> • Built-in software. • Target recognition distance: 30cm to 50cm 	C	C	
Specifications:			
<ul style="list-style-type: none"> • Display: 2.8 inch • Face Recognition Capacity: 500 • Fingerprint Capacity: 500 • Transactions: 50,000 • Communication: TCP/IP, WiFi (Optional), USB Host • Hardware: 1GHz Dual Core CPU, 256MB RAM/256MB Flash, • Camera: 1 MP • Operating System: Linux • Access Control Interface: 3rd Party Electric Lock, Door Sensor, Exit Button • Facial Recognition Speed: ≤ 1sec • Functions: ADMS, DST, Self Service Query, Automatic Status Switch, T9 Input, Camera, 9-digit User ID, Multiple verification methods, Bell Scheduling. • Dimensions (WxHxD): 168x151.5x31.7 mm 	C	C	
NVR with Cameras	DWP	NETS	Remarks
A complete 5x 4MP IP cameras video recording solution for datacenter with required number of cameras, cams must be night vision and cover all areas of data center including outside room and Noc area. Cams must be PoE and implement with required network switch. system should have one month recording	C	C	



S. No	Scope of Work for Application Support Services	DWP	NETS	Remarks
1	Configuration and support of Firewall/Router/WLC/Switches/IAM/Proxy Server with all available features as per best industry practices.			
2	Configuration and support of Active Directory Services and all other related services as per requirement.			
3	Deployment and support of NMS as per industry's best practices for all devices and Applications.			
4	Support to provision of Network Accesses/Revocation as and when required.			
5	Patch management and installation.			
6	Support in regular review of network performance and take action to improve any issues found.			Application support services are not mentioned by DWP, No response received.
7	Support in documentation and regular updates to perform impact analysis before any changes if required.			
8	To Ensure the security of the complete IT Infrastructure to avoid any cyber-attacks.			
9	24/7 mission critical support with 4 hours.			
10	Configuration, managing and support of the virtualized infrastructure and ensure availability of all VMs.	NC	C	
11	Configuring, Implementing and support of the backup solution and ensure that backups are properly maintained.			
12	Data Center Management Services with 2 x resident engineers with rotational shifts as per requirement. 1. One should be Network & Security Engineer with 16 years of education, should have 2-3 years of experience with relevant certifications 2. Second one should be System administrator with 16 years of education, should have 2-3 years hands on experience of linux/windows and VMware. Should have relevant certifications.			Resident Engineers are not mentioned by DWP, No response received.
13	Implement and configure Single Sign on login solution for End Users machines, Wi-Fi and other related applications			
14	Support is required for both Primary & DR sites			
15	Any other configurations related to the solution on need basis.			

