TECHNICAL EVALUATION REPORT OF GNSS RTK SYSTEM

S. No.	TENDER SPECIFICATIONS		KBS	SETC	Public Surveying System	Sunder Trading Company	REMARKS
			South Galaxy G-4	SINO GNSS N3 Base + Mars Rovers	Hi Target GPS model V200	SATLAB Model SL7 GNSS	
1	**SPECIFICATIONS OF BASE & ROVER RECEIVER**		Compliance	Compliance	Compliance	Compliance	
	Positioning Accuracies						
	a. Static and Fast Static	2.5mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical	a. yes	a. yes	a. yes	a. yes	**Note: "The Technical Evaluation Committee has critically examined the quoted specifications provided by the bidder against the tender specifications. During this evaluation, certain specifications were identified that require further clarification, which can only be addressed through a physical demonstration of the quoted instrument. In light of this, the above-mentioned bidders are recommended to present a physical demonstration of their quoted instruments to facilitate the final evaluation by the Technical Evaluation Committee."**
	b. Long Observation Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical	b. yes	b. yes	b. yes	b. yes	
	c. Real Time Kinematic	8 mm + 1 ppm Horizontal 15mm + 1 ppm Vertical	c. yes	c. yes	c. yes	c. yes	
	d. DGPS	<0.4 m RMS	d. yes	d. yes	d. yes	**d. not mentioned in broacher**	
	e. Standalone	1.5m 3D RMS	**e. typically <5m 3DRMS**	e. yes	**e. Not explicitly mentioned**	e. yes	
	f. PPP	10cm Horizontal and 20cm Vertical	f. yes	f. yes	f	f. yes	
	Signal Tracking						
	a. Channels	> 1000	a. yes	a. yes	a. yes	a. yes	
	b. GPS	L1 C/A, L2C, L2P L5	b. yes	b. yes	b. yes	b. yes	
	c. BeiDou:	B1, B2, B3	c. yes	c. yes	c. yes	c. yes	
	d. BeiDou Global Signal:	B1C, B2a, B2b	d. yes	d. yes	d. yes	d. yes	
	e. GLONASS:	L1 C/A, L1P, L2 C/A, L2P	e.yes	e.yes	e.yes	e.yes	
	f. Galileo:	E1, E5a, E5b,E6, E5 AltBOC,	**f. E5 AltBOC (missing)**	f. yes	**f. E5 AltBOC (missing)**	**f. E5 AltBOC (missing)**	
	Communications						
	a. 1 serial Port		**a. 5PIN LEMO**	**a. 7 PIN LEMO**	a. yes	a. yes	
	b. USB Type C		b. yes	b. yes	b. yes	b. yes	
	c. UHF modem:	Tx/Rx with full frequency range from 410-470 MHz	c. yes	c. yes	c. yes	c. yes	
	d. Transmit Power:	2 W Internal / 35 Watt external	d. yes	d. yes	d. yes	d. yes	
	e. RTK Range:	> 08 Km with Internal Radio in Optimal Conditions	**e.Typically 5 Km with fairlink protocol, upto 12 Km**	**e. yes**	**e. yes**	**e. yes**	
	f. External Radio for Extended range	> 20 Km	f. yes	f. yes	f. yes	f. yes	
	g. Position data output rates:	> 10 Hz	g. yes	g. yes	g. yes	**g. 1-10 Hz**	
	h. Bluetooth®:	V5.0 protocol, compatible with Windows OS and Android OS	h. yes	**h. V4.0 protocol**	h. yes	h. yes	
	i. Calibration-free IMU integrated for Tilt Survey up to 60° tilt with 2.5 cm accuracy		i. yes	i. yes	i. yes	i. yes	
	j. LED for Indication of Satellite Tracking & RTK data Corrections		j. yes	j. yes	j. yes	j. yes	
	k. PTA approved		k. No information provided	k. yes	k. yes	k. yes	
	Data Format						
	a. Correction data I/O	RTCM 2.x, 3.x formats CMR, CMR + (GPS Only) Trim Talk, Satel	**a. Trim Talk, Satel, CMR + (missing)**	**a. Trim Talk, Satel, (missing)**	a CMR+ (missing)	**a. Trim Talk, Satel, CMR+ (missing)**	
	Environmental						
	a. Operating temperature	-40 °C to + 65 °C (-40 °F to 149 °F)	**a. -25°C to +65°C,**	a. yes	a. yes	a. yes	
	b. Storage temperature	-40 °C to + 85 °C (-40 °F to 185 °F)	**b. -35°C to +80°C**	b. yes	b. yes	b. yes	
	c. Humidity:	100 % non-condensing	c. yes	c. yes	c. yes	c. yes	
	d. Water and dust IP67 protected from temporary immersion to depth of 1m		d. yes	d. yes	d. yes	d. yes	
	e. Shock: Designed to Survive a 2 m drop onto concrete		e. yes	e. yes	e. yes	e. yes	
	Electric & Memory						
	a. Li-ion battery capacity:	> 20 Hrs working & > 3000 mAh	a. yes	a. yes	a. yes	a. yes	
	b. Memory	> 6 GB	**b. 4 GB (Standard), expndable to 128 GB**	b. yes	b. yes	b. yes	
	c. Hot Swapable	Dual batteries must be capable to interchange during operation	**c. In built battery**	c. yes	c. yes	c. yes	

S. No.	TENDER SPECIFICATIONS	KBS South Galaxy G-4	SETC SINO GNSS N3 Base + Mars Rovers	Public Surveying System Hi Target GPS model V200	Sunder Trading Company SATLAB Model SL7 GNSS	REMARKS
2	**Rugged Field Data Controller**	**South H6 Rugged data Controller**	**Rugged controller R60 by Sino GNSS**	**HT Tablet Model X9 Pro without externel Antenna**	**SPHEREFIX C500 (Not Same Brand)**	
	a. Android 12.0 Operating System (Sunlight readable)	a. yes	a. yes	a. yes	a. yes	
	b. Must be able to store Static Data with Attributes	**b. No information provided**	b. yes	b. yes	b. yes	
	c. Google GMS Certification	c. yes	c. yes	c. yes	c. yes	
	d. Full QWERTY with 10 key number pads, directional buttons and 4 programmable buttons	d. yes	d. yes	d. yes	d. yes	
	e. 5"captive Touch panel Capacitive screen, support glove/wet hand	e. yes	e. yes	e. yes	e. yes	
	f. Qualcom 8 core processor or better	f. yes	f. yes	f. yes	f. yes	
	g. Survive from a 1.6m drop	g. yes	g. yes	g. yes	g. yes	
	h. Water and Dust resistant IP 67 or better	h. yes	h. yes	h. yes	h. yes	
	i. -20 C to + 60 C working temperature	i. yes	i. yes	i. yes	i. yes	
	j. Qualcomm 8953 2.2GHz Android CPU or Better	j. yes	j. yes	j. yes	j. yes	
	k. 8000 mAh, working time > 22 hours with Wifi and BT On.	k. yes	k. yes	k. yes	k. yes	
	l. ROM 64 GB, RAM 4 GB	l. yes	l. yes	l. yes	l. yes	
	m. Camera Rear > 12 Mega pixel with auto focus	m. yes	m. yes	m. yes	m. yes	
	n. Blue Tooth Dual Mode 5.0	n. yes	n. yes	n. yes	n. yes	
	o. Holder for pole	o. yes	o. yes	o. yes	o. yes	
	Field Software	**South SGO Data Prtocessing Software**	**compass solution by Sino GNSS**	**Hi target Business Center**	**Satlab Geobiz Solution**	
	a. Compatible with most of Android devices	a. yes	a. yes	a. yes	a. yes	
	b. Easier survey workflow via Wizard function	b. yes	b. yes	b. yes	b. yes	
	c. Support > 60° tilt compensation	c. yes	c. yes	c. yes	c. yes	
	d. Support all survey modes, including Static, PPK and RTK	d. yes	d. yes	d. yes	d. yes	
	e. Able to Import & Export	e. yes	e. yes	e. yes	e. yes	
	f. Shape Files	f. yes	f. yes	f. yes	f. yes	
	g. CAD Files	g. yes	g. yes	g. yes	g. yes	
	h. CSV Data	h. yes	h. yes	h. yes	h. yes	
	Post Processing Software					
	a. Provides the complete GPS/GLONASS/ BeiDou / GALILEO Processing Solution	a. yes	a. yes	a. yes	a. yes	
	b. Support GNSS observation data in RINEX and Raw Binary Data formats	b. yes	b. yes	b. yes	b. yes	
	c. Support different post-processing in static and kinematic modes	c. yes	c. yes	c. yes	c. yes	
	d. Outputs analysis reports in various formats (web format, DXF, TXT, KML)	d. yes	d. yes	d. yes	d. yes	
	Field Training 1 week					
	a. Complete Field Training on use of GNSS equipment for use in GIS and Construction Surveying	a. yes	a. yes	a. yes	a. yes	
	b. Static Data Processing, Network Adjustment	b. yes	b. yes	b. yes	b. yes	
	c. Field Transformation	c. yes	c. yes	c. yes	c. yes	
	d. Construction Layout, Volume Calculation	d. yes	d. yes	d. yes	d. yes	
	e. GIS Data upload & Download	e. yes	e. yes	e. yes	e. yes	

PROFORMA FOR TECHNICAL EVALUATION OF GNSS ON PHYSICAL INSPECTION AND FIELD DEMONSTRATION

Bidder/ Equipment / Brand	General (25 Marks)				OEM Experience (Max 10 Marks)	After sale services/ Workshop (20 Marks)			Performance (45 Marks)						Total (100 Marks)
	Receiver Controller (10 Marks)		Build Quality & Specs of receiver/ controller (Rugged/ Non-Rugged (10 Marks)	Quality Standards of Accessories (5 Marks)	More than 10 Years Experience (10 Marks)	Within Pakistan (10 Marks) Outside Pakistan (5 Marks)	Qualified staff (5 Marks)	Repairing Lab (5 Marks)	H&V Accuracy Static DGNSS, IMU tilt Test (10 Marks)	RTK DGNSS (10 Marks)	Layout (5 Marks)	Radio Connectivity/ Range/ Coverage (5 Marks)	Processing Software (15 Marks)		Score
	User Interface (5 Marks)	Connectivity with Receiver (5 Marks)											GNSS data processing/ adjustment Performance (10 Marks)	Controller Software Performance (5 Marks)	
SETC SINO GNSS N3 Base + Mars Rovers	4	4	10	4	10	5	4	4	6	6	3	4	5	3	72 Technically Qualified
KBS Enterprises South Galaxy G-4	4	4	9	4	10	5	4	4	6	6	3	4	5	3	71 Technically Qualified
Public Surveying System Hi Target GPS model V200	Did not Participate in the Demonstration														
Sunder Trading Company SATLAB Model SL7 GNSS	Did not Participate in the Demonstration														

Recommendations: M/s Sandhu Engineering and Trading Company & KBS enterprises has successfully qualified technical evaluation stage.

TECHNICAL EVALUATION REPORT OF Total Station

S. No.	TENDER SPECIFICATIONS		KBS	SETC	Public Surveying System	REMARKS
			South N6+ Reflector less Total Station	Sokkia iM-100 Series (iM-105)	Hi-Target Andriod Total Station Model HTS-720	
1	SPECIFICATIONS OF BASE & ROVER RECEIVER		Compliance	Compliance	Compliance	
	On Board Operating System					**TOTAL STATION KBS: (South total station N6+)**
	a. Operating system	Linux/ Windows	a. yes	a. yes	**a. Andriod**	1. **Keyboard:** Required alphanumeric / 28 keys, but the bidder
	b. Display	Graphic LCD,	b.yes	b.yes	b.yes	provided alphabet keyboard / 24 keys.
	c. Keyboard	Alphanumeric keyboard / 28 keys with backlight	c. 24 Keys	c. yes	c. yes	2. **Resolving Power:** Required 2.5", but the bidder quoted 3".
	d. Memory	> 40,000 points	d. yes	d. yes	d. yes	3. **Reflector less Accuracy:** Required (2 + 2 PPM × D) mm, but the
		i. USB flash memory (max. 32GB)				bidder quoted (3 + 2 PPM × D) mm.
	e. Interfaces'	Serial RS-232C, USB2.0 (Type A for USB flash memory)	e. yes	e. yes	e. yes	4.P **rism Accuracy:** Required (1.5 + 2 PPM × D) mm, but the bidder
	f. **EGL Light**	For easy stake out	f. yes	f. yes	f. yes	quoted (2 + 2 PPM × D) mm.
	Telescope					5. **Dust & Water Protection:** Required IP66, but the bidder quoted IP55.
	a. Magnification	30x	a. yes	a. yes	a. yes	
	b. Resolving power	2.5"	**b. Resolving power 3"**	b. yers	b. yers	**TOTAL STATION SETC: (Sokkia iM-100 Series (iM-105)):**
		Erect Image, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.) Reticle illumination				Quoted euipment fullfilled the tender specifications
	Angle Measurement					**TOTAL STATION Public Surveying System: (Hi-Target Andriod Total**
	a. Minimum Display (selectable)	1"/5"	a. yes	a. yes	a. yes	**Station Model HTS-720):**
	b. Accuracy	5 second	b. yes	b. yes	b. yes	1. **Dust & Water Protection**: Required IP66, but the bidder quoted
	c. Dual-axis compensator	Dual-axis liquid tilt sensor, working range: ±6'	c. yes	c. yes	c. yes	IP65.
2	**Distance Measurement**					2. **Andriod OS** quoated instead of Linus/windows
	a. Laser Type	Reflectorless Class 3R. Prism/sheet class 1	a. yes	a. yes	a. yes	3. **Reflector less Accuracy**: Required (2 + 2 PPM × D) mm, but the
	b. RL Range	0.3 to 1000m (Optimal Condition)	b. yes	b. yes	b. yes	bidder quoted (3 + 2 PPM × D) mm.
	c. RL Accuracy	(2 + 2ppm x D) mm	**c. (3 + 2ppm x D) mm**	c. yes	**c. (3mm + 2ppm)**	4. **Levels Graphica**l not specified
	d. Sheet Accuracy	(2 + 2ppm x D) mm	d. yes	d. yes	d. yes	5. **Operating Temperature**: Required -20°C to +60°C, but the bidder
	e. Prism Accuracy	(1.5 + 2ppm x D) mm	**e. (2 + 2ppm x D) mm**	e. yes	e. yes	offered -20°C to +50°C,
	f. Trugger Key	Right Side for easy operation	f. yes	f. yes	f. yes	
	Standard					
	a. Laser-pointer	Coaxial red laser using EDM beam	a. yes	a. yes	a. yes	
	b. Levels Graphical	6' (Inner Circle)	b. yes	b. yes	**b. not specified**	
	c. Circular level (on tribrach)	10' / 2mm	c. yes	c. yes	c. yes	
	d. Plummet	Laser	d. yes	d. yes	d. yes	
	Environmental & Power					
	a. Dust and water protection	IP66 (IEC 60529:2001)	**a. IP 55**	a. yes	**a. IP 65**	
	b. Operating Temperature	-20 to +60ºC	**b. -20 to +50°C**	b. yes	**b. -20°C to +50°C**	
	c. Battery Li-ion rechargeable battery	Li-ion rechargeable battery > 7 V, 5000 mAH or better	c. yes	c. yes	c. yes	
	d. Operation Time	Approx. 14hours	d. yes	d. yes	d. yes	

S. No.	TENDER SPECIFICATIONS		KBS	SETC	Public Surveying System	REMARKS
			South N6+ Reflector less Total Station	Sokkia iM-100 Series (iM-105)	Hi-Target Andriod Total Station Model HTS-720	
	Application for Survey **a.** Standard	• REM Measurement • 3D Coordinate Measurement • Resection • Stake Out • Topography Observation • Offset Measurement • Missing Line Measurement • Intersection • Surface Area Calculation • Route Surveying • Point to	a. yes	a. yes	a. yes	**Note: "The Technical Evaluation Committee has critically examined the quoted specifications provided by the bidder against the tender specifications. During this evaluation, certain specifications were identified that require further clarification, which can only be addressed through a physical demonstration of the quoted instrument. In light of this, the above-mentioned bidders are recommended to present a physical demonstration of their quoted instruments to facilitate the final evaluation by the Technical Evaluation Committee."**
	Accessories a. Original/ Branded Accessories with strong carrying case		a. yes	a. yes	a. yes	
	b. Rechargeable Batteries	2	b. yes	b. yes	b. yes	
	c. Dual Battery charger	1	c. yes	c. yes	c. yes	
	d. CD containing instruction manual	1	d. yes	d. yes	d. yes	
	e. Prism with target plate	2	e. yes	e. yes	e. yes	
	f. Prism Pole	2.6 meter with the covering bag	f. yes	f. yes	f. yes	
	g. Display	2	g. yes	g. yes	g. yes	
	h. Detachable tribrach	1	h. yes	h. yes	h. yes	
	i. lens cover set	1	i. yes	i. yes	i. yes	
	j. cleaning brush	1	j. yes	j. yes	j. yes	
	k. cover of durable plastic		k. yes	k. yes	k. yes	
	l. Shock absorbing carrying case with shoulder strap etc in complete		l. yes	l. yes	l. yes	
	m. Heavy duty wooden tripod/Fibre glass	1	m. yes	m. yes	m. yes	
	n. Bipod/Catcher for prism pole Aluminium	2	n. yes	n. yes	n. yes	
	o. Compass detachable tool	1	o. yes	o. yes	o. yes	
	p. Canvas Covers / **Bags**	For Total Station Box, Tripod, Prism, Prism pole, Bipod	p. yes	p. yes	p. yes	
	TRAINING **a.** Training for operation and preventive maintenance of equipment (Hardware and software) for 0 weeks free of charge.		a. yes	a. yes	a. yes	
	WARRANTY **a.** One year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period. After sales & services guaranty of 02 years.		a. yes	a. yes	a. yes	

PERFORMA FOR TECHNICAL EVALUATION OF TOTAL STATION ON PHYSICAL INSPECTION AND FIELD DEMONSTRATION

Bidder/ Equipment/ Brand	General (20 Marks)			OEM Experience (10 Marks)	After sale services/ Workshop (20 Marks)				Performance (50 Marks)							Total (100 Marks)
	User Interface (5 Marks)	Build Quality (Rugged/Non-Rugged) (5 Marks)	Quality Standards of Accessories (10 Marks)	More than 20 years Experience (10 Marks)	Within Pakistan (10 Marks) Outside Pakistan (5 Marks)	Qualified staff (5 Marks)	Repairing Lab (5 Marks)	Range with Prism (5 Marks)	Range With Laser (5 Marks)	Stakeout (5 Marks)	H & V Accuracy (10 Marks)	Observation Time (10 Marks)	Processing Software (15 Marks)			Score
														User Interface (5 Marks)	Downloading & Processing (10 Marks)	
SETC Sokkia iM-100 Series (iM-105)	4	4	7	10	5	3	2	4	4	4	7	7		3	7	71 Technically Qualified
KBS Enterprises South N6+ Reflectorless Total Station	4	4	7	10	5	3	2	3	3	3	6	6		3	7	66 Not Qualified
Public Surveying System Hi-Target Andriod Total Station Model HTS-720	Did not participate in the demonstration															

Note: Based on the evaluation of the **South N6+ reflectorless total statio**n provided by **KBS Enterprises**, the equipment does not meet the required technical specifications outlined in the tender document. The identified deficiencies in resolving power, reflectorless and prism accuracy, as well as dust and water protection, indicate that the instrument falls short of the required performance standards. Therefore, the equipment does not qualify technical evaluation stage.

Recommendations: M/s Sandhu Engineering has successfully qualified technical evaluation stage.

Technical Evalution for GIS Data Collection Android Tablet with High Precision GNSS

SI No.	Peripherals	Specifications	Firms
			1
			M/s Sandhu Engineering & Trading Company (PVT.) Ltd.
1	Brand	Tablets DELL/HP/ or equivalent	SINO GNSS Tablet P8 High Precision
2	CPU	Qualcomm SDM4350 2.0GHz	Qualcomm SDM4350 2.0GHz
3	OS	Android 12	Android 12 GMS certified, compatible with popular GIS software
4	ROM	128 GB	128 GB + 256 GB Memory Card
5	RAM	6 GB	6 GB
6	Battery Duration	14 Hours +	10 Hours + 30,000mAh Battery Bank
7	Battery	8000mAH	8000mAH
8	Camera R/F	13 MP/ 5 MP	13 MP/ 5 MP
9	Memory Card	Trans Flash	Trans Flash
10	LCD	8" HD 1280*800 500Ntis Sunlight Readable	8" HD 1280*800 500Ntis Sunlight Readable
11	Touch Panel	Captive Screen, support glove/wet hand	Captive Screen, support glove/wet hand
12	Weight	700 g	630 g
13	Keypad	Power Volume, F1, F2, Home, Menu, Return	Power Volume, F1, F2, Home, Menu, Return
14	Bluetooth	BT 4.2	BT 5.1
15	USB	Type C	Type C
16	Environmental	Operating: -20°C to +60°C (-4°F to +140°F) Storage: -40°C to +70°C (-40°F to +158°F)	Operating: -20°C to +60°C (-4°F to +140°F) Storage: -40°C to +70°C (-40°F to +158°F)
17	Water & Dust	IP67 (according to IEC 60529) for water and dust resistance, protected against temporary immersion at a depth of up to 1 m.	IP67 (according to IEC 60529) for water and dust resistance, protected against temporary immersion at a depth of up to 1 m.
18	Humidity	95% no condensation	95% no condensation
19	Drop Test	1.2 m fall onto concrete	1.2 m fall onto concrete
20	Support for GIS Data Collection Software	Supports GIS Data Collection software.	Supports GIS Data Collection software.
21	High Precise GNSS Antenna Constellations	BDS: B1I, B2I, B3I, B1C, B2a, B2b GPS: L1C/A, L1C, L2P (Y), L2C, L5 GLONASS: L1, L2, Galileo: E1, E5a, E5b, E6* QZSS: L1, L2, L5, L6*	BDS: B1I, B2I, B3I, B1C, B2a, B2b GPS: L1C/A, L1C, L2P (Y), L2C, L5 GLONASS: L1, L2 Galileo: E1, E5a, E5b, E6 QZSS: L1, L2, L5, L6
22	Standalone Accuracy	< 2 m	< 2m (1.5 m 3D RMS)
23	Internal sensors	NFC; G-Sensor; Light Sensor; E-Compass; Gyroscope	NFC; G-Sensor; Light Sensor; E-Compass; Gyroscope
	Software Specification		
1	Data Collection	Offline and online geospatial data collection. Real-time GPS integration for accurate positioning. Support for custom forms and attributes for streamlined data entry.	Offline and online geospatial data collection. Real-time GPS integration for accurate positioning. Support for custom forms and attributes for streamlined data entry.
2	Data Editing	Capability to edit vector layers (points, lines, polygons). Attribute editing with support for dropdowns, checkboxes, and custom input fields. Geometry snapping and advanced digitizing tools.	Capability to edit vector layers (points, lines, polygons). Attribute editing with support for dropdowns, checkboxes, and custom input fields. Geometry snapping and advanced digitizing tools.
3	Data Visualization	Dynamic rendering of maps with support for symbology from QGIS projects. Layer filtering and classification for better focus. Base map support (e.g., OpenStreetMap, satellite imagery).	Dynamic rendering of maps with support for symbology from QGIS projects. Layer filtering and classification for better focus. Base map support (e.g., Open Street Map, satellite imagery).
4	Integration with Office Software:	Direct compatibility with office software project files (.qgz and .qgs). Easy data synchronization between Field and Office Software. Export and import of collected data in standard GIS formats (e.g., GeoPackage,	Direct compatibility with office software project files (.qgz and .qgs). Easy data synchronization between Field and Office Software. Export and import of collected data in standard GIS formats (e.g., Geo Package,
5	Customization	Configurable user interfaces tailored to specific workflows.	Configurable user interfaces tailored to specific workflows.
6	Offline Functionality	Support for offline maps and data storage. Sync capabilities for uploading collected data once back online.	Support for offline maps and data storage. Sync capabilities for uploading collected data once back online.
7	Collaboration	Multi-user support for collaborative fieldwork. Cloud synchronization options with third-party services (e.g., Nextcloud, Dropbox)	Multi-user support for collaborative fieldwork. Cloud synchronization options with third- party services (e.g., Nextcloud, Dropbox)
8	Supported File Formats	Vector: GeoPackage, shapefiles, GeoJSON, KML. Raster: GeoTIFF, JPEG, PNG. Others: CSV, SQLite.	Vector: GeoPackage, shapefiles, GeoJSON, KML. Raster: GeoTIFF, JPEG, PNG. Others: CSV, SQLite.
9	Coordinate Systems	Support for multiple coordinate reference systems (CRS), including on-the-fly reprojection.	Support for multiple coordinate reference systems (CRS), including on-the-fly reprojection.

10	Database Integration	Direct integration with PostGIS, SpatiaLite, and other spatial databases. Synchronization of data to remote databases.	Direct integration with PostGIS, SpatiaLite, and other spatial databases. Synchronization of data to remote databases.
11	GPS Integration	Supports NMEA protocol and high-accuracy GNSS devices. Configurable GPS settings (accuracy thresholds, logging intervals).	Supports NMEA protocol and high- accuracy GNSS devices. Configurable GPS settings (accuracy thresholds, logging intervals).
12	User Interface	Intuitive touch-optimized interface. Multilingual support	Intuitive touch-optimized interface. Multilingual support

Comments:

1. The only one, M/s Sandhu Engineering & Trading Company (PVT.) Ltd., Islamabad, has offered technical specifications of digital tablets (GNSS enabled). The firm quoted brand has the limitations of timings required at Sr. 6; however, firm has offered a separate battery bank (30,000mAh) for extended use that may mke the overall useable timing for 14hrs+.

Recommendations:

2. Reference to Para-1 above, M/s Sandhu Engineering & Trading Company (PVT.) Ltd., Islamabad fulfills technical specifications except at sr. 6, However, the proposed solution will serve the desired purpose (14hrs +) and, therefore, recommended for further proceedings.

Comparative Statement for Scanner

Sl. No.	Functions / Peripherals	Specifications	Firms 1 M/s DWP Technologies.	Firms 2 M/s DMS, Islamabad	Firms 3 M/s Shirazi Trading Co.
1	Brand	HP/Contex/Vidar or equivalent	HP	Contex IQ Quattro X 4450 Compliance Contex, World Market Leader Brand from Denmark. SoP is also user.	Wide Tek 48 CL
2	Enhanced resolution	9600 dpi to 1200 dpi	1200 dpi	9600 dpi to 1200 dpi	9600 dpi (output, Interpolated)
3	Optical resolution	1200 x 1200 dpi	1200 x 1200 dpi	1200 x 1200 dpi	1200 x 1200 dpi
4	Document Thickness	max. 2.5 mm (0.1 inch) or more	0,.08 in	Max 2.0 to 3.0 flexible	Up to 2.5mm (0.1 inches)
5	Imaging technology	CIS (Contact image sensor) scanning technology	CIS technology	CIS scanning technology	4x CIS modules, 29,852 pixels, encapsulated and dust proof
6	Accuracy	± 0.1% ± 1 pixel	± 0.1% ± 1 pixel	± 0.1% ± 1 pixel	± 0.08%
7	Scan Speed Color	200 dpi - 7.5 inch/s or better	Color: 9 in/sec	8.9 inch/s (Superior)	7.5 inch/s
8	Scan Speed BW	200 dpi - 15 inch/s or better	Grayscale: up to 18 inch/sec	17.8 inch (Superior)	15 inch/s
9	Data capture(color/mono)	48-bit/16-bit grayscale	48-bit/16-bit grayscale	48-bit color/16-bit monochrome	48-bit/16-bit
10	Maximum scan width	44 in	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return.	44 inch (1118 mm)	1220mm (48 in)
11	Paper Path	Face up, Front Entry, Front or rear exit	Face up, Front Entry, Front or rear exit	Face up, Front entry, Front or rear exit	Face up, Front Entry, Front or rear exit
12	Scan direction	± 0.08% across 48-inch scanning width	44 Inch	± 0.08% across 44 inch scanning	upto 48 inch
13	Supported file formats	PDF, TIFF, JPEG, JPEG2000, DWF, multi-page PDF generation	PDF, TIFF, JPEG, JPEG2000, DWF, multi-page PDF generation	TIF, JPG, PDF, PDF/A, DWF, CALS, BMP, JPEG-2000(JP2), JPEG2000 Extended (JPX), TIF-G3, TIF-G4 and others	Multipage PDF (PDF/A) and TIFF, JPEG, 2000, PNM, PNG, BMP, TIFF, (Raw, G3, G4, :ZW, JPEG) AutoCAD DWF, JBIG, Djvu, DICOM, PCX, Postscript, EPS, Raw data
14	Scan to	File, email, USB, HDD, network folder, FTP, print	File, email, USB, HDD, network folder, FTP, print	File, email, USB, HDD, network folder, FTP, print	File, email, USB, HDD, network folder, FTP, print
15	Settings	Type of original-preset, color mode, resolution (dpi), batch, single/multi- page, file format, customizable file naming, customizable default settings, image crop and align preview, enlarge/reduce, blueprint, lightness, saturation and RGB controls, white point and black point adjust, sharpen/blur, background removal, invert, mirror, accounting	Print mode, output size, paper type, copies, page order, collate, printer output destination (folder, stacker, bin), folding style selection (only available when folder accessory is available and supported by the HP large-format printer),paneling, tiling, nesting, reprint.	Color mode, resolution (dpi), batch, single/multi-page, file format, Type of original-preset, customizable file naming, customizable default settings, image crop and align preview, enlarge/reduce, blueprint, lightness, saturation and RGB controls, white point and black point adjust, sharpen/blur,	Type of original-preset, color mode, resolution (dpi), batch, single/multi- page, file format, customizable file naming, customizable default settings, image crop and align preview, enlarge/reduce, blueprint, lightness, saturation and RGB controls, white point and black point adjust, sharpen/blur, background removal, invert, mirror, accounting
16	Copier specific settings	Print mode, for the printer output destination	Print mode, for the printer	Print mode, for printer output destination	Scan to Print feature available
17	Maximum scan size	0.91 x 26 m (36 x 1204 in); 0.6 x 37.9 m (24 x 1491 in); 0.3 x 75.8 m (12 x 2991 in)	46 inch	44 inch (1118 mm), Media width 47 inch	50 inches x 200 feet
18	Batch	Available with scan and copy	Available with scan and copy	Available with scan and copy	Batch scan wizard for high volume scanning
19	Preview	Scan, copy, and print after previewing the original in the advanced touch screen controller	15.6" (396-mm) large touchscreen to preview and enhance images	Scan, copy and print after previewing the original in the advanced Touch screen controller	Scan, copy, and print after previewing the original in the advanced touch screen controller
20	Size detection	Automatic length and width detection.	Automatic length and width detection.	Automatic length & width detection	detection & selection manually and Automatic also possible
21	Applications Media	GIS maps, Line drawings, other Maps, Office Graphics, Posters, Presentations	Line drawings; Renderings; Presentations; Maps; Orthophotos	Line drawings, Maps, Office Graphics, Posters, Presentations	GIS maps, Line drawings, other Maps, Office Graphics, Posters, Presentations
22	Handling	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return.	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return.	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return
23	Types	Non-abrasive paper, sepia, blueprints, plastic, plastic laminate, foam board, cardboard, newspaper	Non-abrasive paper, sepia, blueprints, plastic, plastic laminate, foam board, cardboard, newspaper	Non-abrasive paper, sepia, blueprints, plastic, plastic laminate, foam board, cardboard, newspaper	Non-abrasive paper, sepia, blueprints, plastic, plastic laminate, foam board, cardboard, newspaper
24	Integrated /attached computer system	Computer system integrated or attached	-	-	Integrated
25	Processor	Intel Core i7 or latest	Intel Core i5	Intel Core i7 or latest	64 bit Linux, Intel quad core processor, Intel CoreTM Gen 9 Processor Built in / integrated system standard specifications

26	Memory	4 GB memory, 512 SSD hard disk or more	8 GB DDR4,256 GB SSD	4 GB memory, 512 GB hard disk	128 GB SSD, 16 Gigiabyte RAM, for ery long scans Built in/ inegrated system standard speifications with (Extrenal 512 SSD for Additional data storage)
27	Connectivity	Dual Gigabit Ethernet1000 Base-T), Hi- Speed USB 3.0 certified	Gigabit Ethernet (1000Base-T), USB 3.1 gen 1 (3+1) and USB 2.0 (1) rear	Gigabit with xDTR2.5 ,USB 3.0 with xDTR3 Certified.	Dual Gigabit Ethernet1000 Base-T), with TCP/IP based Scan2 Net Interface, Hi- Speed USB 3.0 certified
28	Windows and Drivers	Windows 10 version or compatible with drivers	Windows 10 version or compatible with drivers	HP, Canon, Epson and Océ printers. See contex.com/next image-supported-printers for full list. Windows 10 drivers.	Print ScanWizard, Drivers included (compatible with other large format printers)
29	Integrated User Interface	15.6-inch (396-mm) large touch screen to preview and enhance images	15.6" (396-mm) large touchscreen to preview and enhance images	15.6-inch (396-mm) large touch screen to preview and enhance images	21" full HD 1920 *1080 multituch screen (included in the bundle), 7 inch color touchscreen
30	Scanning Software	Scanning software compatible with Windows 10 or as above	Scanning software compatible with Windows 10	Scanning software compatible with windows 10 & above	Virus Free OS 64 Bilt Linux compatible with all types of large fromat printers and devices
31	Calibration Sheet & Software	Calibration Sheet along with calibration software	Calibration Sheet along with calibration software	Calibration Sheet along with calibration software	Calibration Sheet along with calibration software
32	Stand	Standard brand-specific Stand	Standard brand-specific Stand	Built in stand	WideTek
33	Power Requirements	Input voltage: 220-240 Pakistan Compatible	Input voltage: 220-240 Pakistan Compatible	Input voltage: 220-240 Pakistan Compatible	100-24 V AC, 47 - 63 Hz (external power supp) 30 W / P(Active) 5C W (46% below ENERGY STAR requirements), Pakistan Compatible
34	Product Roadmap	At least 5-8 years for repair, replacement, and maintenance	At least 5-8 years for repair, replacement, and maintenance	01 Year on site comprehensive	8 to 10 years for repair, replacement, and maintenance and avialibility of parts
35	Operational Training	Complete onsite training	Complete onsite training	-	onsite complete training
36	Warranty	01 Year on-site comprehensive	01 Year on-site comprehensive	01 Year on-site comprehensive	01 Year on-site comprehensive
37	Dealership	Authorized Dealership Gold / Higher with a manufactual authorization letter	Yes	Yes	Yes

Comments:

1 Three firms M/s DWP Technologies, M/s DMS, Islamabad, and M/s Shirazi Trading Co. participated in tender for Scanner.

2 M/s DWP, Islamabad does not fulfill technical specifications at Sr. 2,4, 10, 12, 25 & 26.

3 M/s DMS, Islamabad does not fulfill technical specifications at Sr. 12, 17, 28 (misquoted user interface) 34 (only one year road map) & 35 (no training offered) (34 & 35 are both most critical for performance of equipment).

4 M/s Shirazi Trading Co has quoted the higher model in terms of size/dimenstion sr. 1 & 10 that may be not economical in terms of cost and management.

Recommendations:

The firms , M/s DWP Islamabad and M/s DMS, Islamabad do not fulfill techncial specifications for reasons recorded above whereas suitability of the higher brand scanner offered by M/s Shirazi Trading Co, Islamabad may be evualuated by the Purchase Committee.

Comparative Statement for Plotter

Sl. No.	Functions / Peripherals	Specifications	Firms	
			1	2
			M/s DWP Technologies.	M/s Shirazi Trading Co.
1	**Brand**	HP or equivalent	HP	Canon TX 5410
2	**Model size**	1118mm	279 to 1118-mm	1118mm
3	**Print speed**	180 A1/hr, 19.3 sec/A11	180 A1/hr, 19.3 sec/A11	18.18 sec/A1, 34 sec/A0
4	**Print resolution**	Up to 2400 x 1200 optimized dpi	Up to 2400 x 1200 optimized dpi	2400 x 1200
5	**PrintheadNozzles**	2112 each color	2112 each color	15 360 nozzles (MBK: 5,120 nozzles; BK, C, M, Y: 2560 nozzles each)
6	Technology	Thermal Inkjet	Thermal Inkjet	Inkjet
7	**Ink types**	Dye-based (C, M, Y, pK, G); Pigment-based (mK)	Dye-based (C, M, Y, pK, G); Pigment-based (mK)	Pigment ink 330 ml (MBK, BK, C, M, Y) Bundled
8	**Ink Droplet Size**	6pl or less	6pl	5pl
9	**Print heads**	3 universal printheads, 2 colors each	3 universal printheads, 2 colors each	only 01 universal printheads required (PF-06)
10	**Line accuracy**	±0.1% or less	±0.1%	±0.1% or less
11	**Minimum line width**	0.02 mm (PDF addressable at 1200 dpi);	0.02 mm (PDF addressable at 1200 dpi);	0.02 mm (PDF addressable at 1200 dpi);
12	**Handling**	Single-roll: Sheet feed, roll feed, automatic horizontal cutter dual-roll: manual sheet feed, two automatic roll feeds, automatic roll- switching, media bin, automatic horizontal cutter	Single-roll: Sheet feed, roll feed, automatic horizontal cutter dual-roll: manual sheet feed, two automatic roll feeds, automatic roll- switching, media bin, automatic horizontal cutter	Single-roll: Sheet feed, roll feed, automatic horizontal cutter dual-roll: manual sheet feed, two automatic roll feeds, automatic roll- switching, media bin, automatic horizontal cutter
13	**Standard sheets**	A4, A3, A2, A1, A0	A4, A3, A2, A1, A0	A4, A3, A2, A1, A0
14	**E-print Capability**	Yes	Yes	Yes
15	**Media Roll Outer**	170 mm	170 MM	170 mm
16	**Grammage**	60 to 328 g/m²	60 to 328 g/m²	60 to 500g/m²
17	**Thickness**	Up to 0.8 mm	Up to 0.8 mm	Up to 0.8 mm
18	**Memory**	128GB or more	128GB or more	128GB or more
19	**Hard disk**	512 GB self-encrypting	512 GB self-encrypting	512 GB self-encrypting
20	**Media Type**	Bond And coated paper (bond, coated, heavy weight coated, super heavy weight plus matte) Technical Paper(natural tracing, translucent bond) film(clear comma matte), photographic paper(satin, gloss, semi-gloss, matte, high gloss), backlit, self-adhesive(polypropylene, vinyl), blueprint	Bond And coated paper (bond, coated, heavy weight coated, super heavy weight plus matte) Technical Paper(natural tracing, translucent bond) film(clear comma matte), photographic paper(satin, gloss, semi-gloss, matte, high gloss), backlit, self-adhesive(polypropylene, vinyl), blueprint	Plain Paper Coated Paper Bond Satian Gloss Semi Gloss Heavy Weight Adhesive
21	**Interfaces**	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, Boot IP/DHCP (IPv4 only), DHCPv6, TFTP (IPv4 only), SNMP (v1, v2c, v3), Apple Bonjour Compatible, WS Discovery, line printing daemon, Inter printing protocol, NTLM v2, SMBv3, authentication (LEAP, PEAP, EAP-TLS), and wifi.	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, Boot IP/DHCP (IPv4 only), DHCPv6, TFTP (IPv4 only), SNMP (v1, v2c, v3), Apple Bonjour Compatible, WS Discovery, line printing daemon, Inter printing protocol, NTLM v2, SMBv3, authentication (LEAP, PEAP, EAP-TLS), and wifi.	High-Speed USB, Full Speed (12 Mbit per second), Hi-Speed (480 Mbit per second), Bulk transfer, Series B (4pins), USB Memory (Direct Print) IEEE 802.3 10 base-T IEEE 802.3u 100base-TX/Auto-Negotiation, IEEE 802.3ab 1000base-T/Auto-Negotiation, IEEE 802.3x Full Duplex SNMP, HTTP, FTP, TCP/IP (IPv4/IPv6) IEEE802.11 b/g/n, WEP (64/128bit), WPA-PSK (TKIP/AES), WPA2-PSK (TKIP/AES)
22	**Print languages (standard)**	PostScript Printer: Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, DWG, CALS G4; Non-PostScript Printer, TIFF, JPEG, CALS G4	Basic printer: HP-GL/2, TIFF, JPEG, URF, CALS G4 PostScript printer: Adobe PostScript 3, Adobe PDF 1.7 ext 3, HP-GL/2, TIFF, JPEG, URF, CALS G4	SG Raster (Swift Graphic Raster), HP-GL/2, HP RTL, PDF (Ver. 1.7), JPEG)Ver. JFIF1.02

#				
23	**Print languages (optional)**	Non-PostScript Printer: Adobe PostScript 3, Adobe PDF 1.7	Non-PostScript Printer: Adobe PostScript 3, Adobe PDF 1.7	SG Raster (Swift Graphic Raster), HP-GL/2, HP RTL, PDF (Ver. 1.7), JPEG)Ver. JFIF1.02
24	**Printing paths**	Direct printing from USB flash drive, print from network shared folder, email printing, driver for latest Windows,	Direct printing from USB flash drive, print from network shared folder, email printing, driver for latest Windows,	Direct printing from USB flash drive, print from network shared folder, email printing, driver for latest Windows,
25	**A0 size drawing print**	37 sec or better	37 sec or better	34 sec
26	**Non-Printable Area(cut-Sheet)**	3x17x3x3mm or lesser	3x17x3x3mm or lesser	Recommended Area Roll Paper - Top: 20 mm, Bottom: 3 mm, Side: 3 mm Cut Sheet - Top: 20 mm, Bottom: 31 mm, Side: 3 mm (Apple AirPrint) Cut Sheet - Top: 20 mm, Bottom: 20 mm, Side: 3 mm (Others) Printable Area Roll Paper - Top: 3 mm, Bottom: 3 mm, Side: 3 mm Roll Paper - Top: 0 mm, Bottom: 0 mm, Side: 0 mm (Borderless Print) Cut Sheet - Top: 3 mm, Bottom: 12.7 mm, Side: 3 mm (Apple AirPrint) Cut Sheet - Top: 3 mm, Bottom: 20 mm, Side: 3 mm (Others) Borderless printing on standard and custom sizes is now possible for all supported media. The printer is also capable of three-sided edge-to-edge printing on various sizes that do not match the roll paper width. This allows more flexibility in borderless printing task compared to the traditional standard four-sided borderless print.
27	**Drivers**	PostScript Printer: Raster, PostScript and PDF drivers for Windows 10 or latest, Non- PostScript Printer: Raster drivers for Windows 10 or later,	PostScript Printer: Raster, PostScript and PDF drivers for Windows 10 or latest, Non- PostScript Printer: Raster drivers for Windows 10 or later,	Apple AirPrint, Direct Print Plus, Direct Print & Share, CPP Driver Select & Publisher Select, AutoCAD Optimized Printer Driver, Easy-PhotoPrint Editor, Canon PRINT Inkjet/SELPHY, Canon Print Service, Free Layout plus, PosterArtist Lite, imageRUNNER ADVANCE Direct Enlargement Copy
28	**Environmental**	ENERGY STAR, ErP, WEEE, RoHS (EU), REACH, EPEAT	ENERGY STAR, ErP, WEEE, RoHS (EU), REACH, EPEAT	Comply with industry standards
29	**Power Consumption**	<100W(printing), <24W(Ready), <0.3W(Sleep) Power cable Round Pin Pakistan compatible	<100W(printing), <24W(Ready), <0.3W(Sleep) Power cable Round Pin Pakistan compatible	Operation 116 W or less Sleep Mode 2.0 W or less Power OFF 0.3 W or less
30	**Warranty**	One-year hardware warranty.	One-year hardware warranty.	One year Standard
31	**Dealership**	Authorized Dealership Gold / Higher with a manufactural authorization letter	Yes	Yes
32	**Cartridges**	One set of extra cartridges	One set of extra cartridges	Agreed (Quoted along)

Comments:

1. Two firms M/s DWP Technologies and M/s Shirazi Trading Co. participated in tender for Plotter.

2. M/s DWP Technologies fulfills technical specifications of the tender.

3. M/s Shirazi Trading Co fulfills technical specifications, however, by keeping the past experience of plotter of Canon Brand, the following are submitted.

   a. It has been experienced that the cost of inks of the Canon brand is very high, therefore, M/s Shirazi Trading Co may be asked to give assurance for providing ink cartridges for 8-10 years at a competitive price matching with HP brand.

    b.   M/s Shirazi Trading Co is the sole distributor of Canon Plotter, therefore, assurance may be taken from the firm to provide repair/replacement services at the site for 8-10 years.

Recommendations:

4   M/s DWP Technologies fulfills technical specifications, therfore, recommended for further proceedings.

5   M/s Shirazi Trading Co fulfills tender specifications but, recommendations for further proceedings are conditional vide Para-3.

TECHNICAL EVALUATION COMMITTEE-II

Comparative Statement for Printer Color A3

Sl. No.	Functions / Peripherals	Specifications	Firms
			1
			M/s DWP Technologies.
1	**Brand**	HP or equivalent	HP
2	**Size**	A-3	A-3
3	**Print speed - Color (normal)**	40 ppm or better	41ppm
4	**First page out (ready) color**	As fast as 6.1 sec	As fast as 6.1 sec
5	**Resolution (color)**	Up to 1200 x 1200 dpi	Up to 1200 x 1200 dpi
6	**Resolution technology**	ImageRet 4800, Enhanced (600x600 dpi), Fine Lines (1200x1200 dpi), Quickview (300x300 dpi)	ImageRet 4800, Enhanced (600x600 dpi), Fine Lines (1200x1200 dpi), Quickview (300x300 dpi)
7	**Print Technology**	Laser	Laser
8	**Display**	2.7-in (6.86 cm) QVGA LCD (color graphics) rotating (adjustable angle) display with 24-key pad or better	6.86 cm (2.7-in) QVGA LCD (color graphics) rotating (adjustable angle) display with 24-key pad or better
9	**Processor speed**	1.2 GHz or higher	1.2 GHz
10	**Paper Sensor**	Automatic	Automatic
11	**Paper trays, standard**	2	2, Standard
12	**Connectivity**	1 Hi-Speed Device USB 2.0; 2 Hi-Speed USB 2.0 rear host ports; 1 walkup USB 2.0 host port; 1 Gigabit/Fast Ethernet 10/100/1000 Base-TX network port; 1 Hardware Integration Pocket 2nd generation or better. Jetdirect 3100w BLE/NFC/Wireless Accessory 3JN69A, (Dual band Wireless Station and Wi- Fi Direct functionality); Jetdirect 2900nw Print Server J8031A (Dual band Wireless Station)	1 Hi-Speed Device USB 2.0; 2 Hi-Speed USB 2.0 rear host ports; 1 walkup USB 2.0 host port; 1 Gigabit/Fast Ethernet 10/100/1000 Base-TX network port; 1 Hardware Integration Pocket 2nd generation (HIP2) Jetdirect 3100w BLE/NFC/Wireless Accessory 3JN69A, (Dual band Wireless Station and Wi- Fi Direct functionality); HP Jetdirect 2900nw Print Server J8031A (Dual band Wireless Station)
13	**Compatible operating systems**	Windows 11; Windows 10; Windows 8; Windows 8.1; Windows 7; Windows Client OS; Android; iOS; Mobile OS;	Windows 11; Windows 10; Windows 8; Windows 8.1; Windows 7; Windows Client OS; Android; iOS; Mobile OS;

14	**Memory**	1.5 or Higher	1.5 or Higher

15	**Hard disk**	512 GB HDD: Secure High Performance Hard Disk drive 500 GB B5L29A; FIPS-140-2 Secure Hard Disk Drive 5EL03A	optional 500 GB HDD: HP Secure High Performance Hard Disk drive 500 GB B5L29A; FIPS-140-2 Secure Hard Disk Drive 5EL03A
16	**Paper handling input**	100-sheet multipurpose tray, 550-sheet input tray	100-sheet multipurpose tray, 550-sheet input tray
17	**Paper handling output**	250-sheet output bin	250-sheet output bin
18	**Duplex printing**	Automatic (standard)	Automatic (standard)
19	**Finished output handling**	Sheetfed	Sheetfed
20	**Media sizes supported**	100-sheet multipurpose Tray 1: Statement, 3 x 5 index card, 4 x 6 index card, 5 x 7 index card, 5 x 8 index card, Letter, Letter-R, Legal, Executive, 11 x 17 in; 8.5 x 13, 12 x 18, Envelopes: #9, #10, Monarch; 550-sheet input Tray 2: Letter, Letter-R, Legal, Executive, 8.5 x 13, 11 x 17 in; Optional 1x550 and 2x550 tray and stand: Letter, Letter-R, Legal, Executive, 8.5 x 13, 11 x 17 in, 12 x 18; Optional 2700-sheet HCI paper tray and stand: Letter	100-sheet multipurpose Tray 1: Statement, 3 x 5 index card, 4 x 6 index card, 5 x 7 index card, 5 x 8 index card, Letter, Letter-R, Legal, Executive, 11 x 17 in; 8.5 x 13, 12 x 18, Envelopes: #9, #10, Monarch; 550-sheet input Tray 2: Letter, Letter-R, Legal, Executive, 8.5 x 13, 11 x 17 in; Optional 1x550 and 2x550 tray and stand: Letter, Letter-R, Legal, Executive, 8.5 x 13, 11 x 17 in, 12 x 18; Optional 2700-sheet HCI paper tray and stand: Letter
21	**Media sizes, custom**	100 -sheet multipurpose Tray 1: 2.5 x 5 to 12.6 x 18 in; 550-sheet input Tray 2: 5.8 x 5.8 to 11.7 x 17 in; Optional 1x550 and 2x550 tray and stand: 5.8 x 5.8 to 12.6 x 18 in; Optional 2700-sheet HCI paper tray and stand: 11 x 8.27 to 11.7 x 8.5 in	100 -sheet multipurpose Tray 1: 2.5 x 5 to 12.6 x 18 in; 550-sheet input Tray 2: 5.8 x 5.8 to 11.7 x 17 in; Optional 1x550 and 2x550 tray and stand: 5.8 x 5.8 to 12.6 x 18 in; Optional 2700-sheet HCI paper tray and stand: 11 x 8.27 to 11.7 x 8.5 in
22	**Media types**	Paper (plain, heavy, extra heavy, glossy, light, recycle, tough), envelopes, labels, glossy film, cardstock, transparencies	Paper (plain, heavy, extra heavy, glossy, light, recycle, tough), envelopes, labels, glossy film, cardstock, transparencies
23	**Power**	Input voltage: 220-240 V nominal (+/-10%), 50- 60 Hz nominal (+/- 3 Hz), 6 A	Input voltage: 220-240 V nominal (+/-10%), 50- 60 Hz nominal (+/- 3 Hz), 6 A
24.	**Power consumption**	870 watts (max. printing), 850 watts (typical printing) 48 watts (Ready), 0.6 watts (Sleep), 0.6 watts (Auto-Off/Auto On), 0.08 watts (Auto-Off), 0.08 watts (Off)	870 watts (max. printing), 850 watts (typical printing) 48 watts (Ready), 0.6 watts (Sleep), 0.6 watts (Auto-Off/Auto On), 0.08 watts (Auto-Off), 0.08 watts (Off)
25	**Energy efficiency**	CECP; Blue Angel; EPEAT® Silver registered; ENERGY STAR® certified	CECP; Blue Angel; EPEAT® Silver registered; ENERGY STAR® certified
26	**Operating temperature range**	50 to 90.5°F	50 to 90.5°F

27	**Support Services**	1-year Pro Support with Next Business Day on-site service	1-year Pro Support with Next Business Day on-site service
28	**Dealership**	Authorized dealership certificate	Yes

Comments:

1   Only one firm M/s DWP Technologies. participated in technical proposal for Printer Color A3.

Recommendations:

2   Therefore, M/s DWP Technologies is recommended for further Proceedings, please.

Comparative Statement for Photocopier

SI. No.	Functions / Peripherals	Specifications	Firms		
			1	**2**	**3**
			M/s DWP Technologies.	**M/s DMS, Islamabad**	**M/s Office Automation Group**
1	Brand	Toshiba/Cannon/Panasonic/Konica or equivalent	Xerox (Altalink D8255)	Kyocera TASKalfa MZ 4000i	Konica Minolta Bizhub 450i
2	Type	Digital Copier	Digital Copier	Digital Copier	Digital Copier
3	Function	Copy, Scan, Network print/Scan	Copy, Scan, Network print/Scan	Copy, Scan, Network print/Scan	Copy,Scan,Networkprint/Scan
4	Control Panel	6-7 inch TFT LCD WVGA Colour Touch panel	Intuitive Tablet-like 10.1- Inch Color Touchscreen is customizable and lets you perform tasks in just a few taps. Try it out at	10.1 inch Color Resistance film touch screen panel	10.1'' Full color Touch Screen LCD Panel
5	Power Supply	230 V +/- 10%, 50 Hz	220 to 240 VAC (+/-10%), 50/60 Hz	230 V +/- 10%, 50 Hz	220-240 VAC 50/60 Hz
6	Memory	4GB or above	4 GB	4GB	8GB
7	Hard Disk Drive	320GB or above Self-Encrypting Drive FIPS 140-2 Validated or above	Minimum 256 GB NVMe SSD	SSD/HDD Capacity 32GB(Standard / 320GB, 1TB (Optional)	256 GB SSD, HDD is old & obsolete Technology & SSD is upgrade version & 10 to 20 time faster & 15 time expensive then HDD.
8	Warm Up-Time	Within 10 sec. Low Power Recovery	10 sec. Low Power Recovery	18 seconds Low Power Recovery	Approx.15 seconds
9	First page out	Less than 4 Seconds or below	3.2 seconds	3.6 seconds	3.8 Seconds
10	Print Speed	25-30 ppm or above	55PPM	40-ppm	45 ppm
11	Copying Speed	40-45 ppm	55PPM	40-ppm	45 ppm/cpm
12	Direct Print	PDF, EPS, TIFF/JPEG, etc.	PDF, EPS, TIFF/JPEG, etc.	PDF, EPS, TIFF/JPEG,	PDF, TIFF, JPEG,
13	Paper size	A3, A4, A5, letter, legal, executive, letter-R	A3, A4, A5, letter, legal, executive, letter-R	A3, A4, A5, letter, legal, executive, letter-R	A3,A4,A5,letter,legal,executive,letter-R
14	Maximum paper capacity	> 4000	3140 sheets	4,100 sheets (Main Unit + PF-810 + MPT)	6,650 Sheets (Optional)
15	Multiple Copies	Up to 999	9999	Up to 9999	1 to 9999
16	Exposure Control	Both manual and automatic	Both manual and automatic	Both manual and automatic	Both manual and automatic
17	Double exposure	Built-in	Built-in	Built-in	Duplex exposure
18	Duplex Capacity/Size	Unlimited	Unlimited	Unlimited	Unlimited
19	Duplexing	Standard automatic trayless duplexing	Standard automatic trayless duplexing	Standard automatic trayless duplexing	Standard automatic trayless duplexing
20	Resolution	Approx. 3600 x 1200 dpi or above	Copy: Up to 600 x 600 dpi; Print: Up to 1200 x 2400	9,600 Equivalent x 600 dpi; 1,200 x 1,200 dpi	1800 x 600dpi,1200 x1200 dpi
21	Magnification (reduction & Enlargement)	25 % to 400%	25 % to 400%	25 % to 400%	25% to 400% Magnifaction
22	Document Handler/ Double Side Printing	Duplex Automatic, Document Feeder	Duplex Automatic, Document Feeder	Duplex Automatic, Document Feeder	Duplex Automatic,Document Feeder
23	Document Feeding method	100-sheet Duplexing Automatic	100-sheet Duplexing Automatic	100-sheet Duplexing Automatic	300 sheets Duplexing Automatic
24	Scan Resolution	Minimum 600dpi Colour Scanning Built-in	Minimum 600dpi Colour Scanning Built-in	1200dpi x 1200dpi (Colour Scanning Built-in	Minimum 600dpi Colour Scanning Built-in
25	Copy Resolution	1200x600dpi (interpolated) or above	Up to 600 x 600 dpi	1200 x 600dpi	600x600dpi
26	Print Resolution	1200x1200dpi or above	1200x2400 dpi	1,200 x 1,200 dpi	1800x 600 dpi,1200 x1200 dpi
27	Scan Speed	Minimum 0.7 seconds per page	saves time by simultaneously scanning both sides of a document with up to 270 impressions per minute (ipm)	200/200 ipm	Up to 140/140ipm in simplex(mono/colour) up to 280/280 ipm in duplex(mono/colour)
28	Transmission Speed	Approx. 3 seconds per page	One or Two V.34 modems: 33,600 bps. Less than 4 seconds per page tansmission time	3 seconds per page	1st page outime 3.8 sec or less
29	Interface	RJ-45 Ethernet (10/100/1000 Base-T), USB 3.0 (High-Speed),	Ethernet 10/100/1000 Base-T, High-speed USB 2.0 direct print, NFC	USB3.0 Super-Speed USB x1; 1000BASE-T/100BASE-TX/10BASE-T x1; USB Host interface (USB Host) x4; NFC TAG x1, eKUIO x2	10/100/1,000-Base-T,Ethernet USB
30	Operation Method	Touch Screen Control Panel(Colour)	Touch Screen Control Panel(Colour)	10.1 inch Color Resistance film touch screen panel	Touch Screen Control Panel (Colour)

31	**Accessibility Features**	Tilt Front Panel, Job Programs, Universal Grip for Paper Trays, Disable Screen Timeout and Audible Beep Message Alerts	Embedded Web Server conforms to Web Content Guidelines (WCAG) • Touchscreen tilt and user interface inversion • Touchscreen zoom and pan • Touchscreen navigation with keyboard • Speech output	Tilt Front Panel, Job Programs, Universal Grip for Paper Trays, Disable Screen Timeout and Audible Beep Message Alerts	Tilt Front Panel, Job Programs, Universal Grip for Paper Trays,Disable Screen Timeout and Audible Beep Message Alerts
32	**Input Capacity:**	1140 sheets 2 x 520 and 50 sheets bypass (equivalent or better)	3140 sheets 520 sheets each tray 2 trays standard and Stand: 2000 Sheets High Capacity Tendem Tray.	Total Sheets 1150 at Paper weight: 60 -70 g/m2	1150 sheets(2x500 & 150 sheets bypass.
33	**Output capacity**	520 sheets center tray and 100 bypass trays (equivalent or better)	520 sheets center tray and 100 bypass trays (equivalent or better)	Paper size: A5R - A3 / Ledger; Paper weight: 60 - 163 g/m 2250 sheets + 50 sheets (with Inner Job Separator) face-down	Up to 250 sheets/ upto 3,300 sheets (Standard/Maximum)
34	**Repeat image**	Yes	Yes	Repeat image	Repeat image
35	**Technology**	Customer Replacement Unit (CRU), drum, Toner, Fuzer etc.	Customer Replacement Unit (CRU), drum, Toner, Fuzer etc	Customer Replacement Unit (CRU), drum, Toner, Fuzer etc.	Customer Replacement Unit(CRU), drum, Toner, Fuzer etc
36	**Trolley**	brand Specific	Xerox Imported	brand Specific Dimensions	Local Trolley or paper feed
37	**Warranty**	01 Year Comprehensive with Parts & service on-site	01 Year Comprehensive with Parts & service on-site	01 Year Comprehensive with Parts & service on-site	01YearComprehensivewithParts& service on-site
38	**Accessories**	Suitable Stand if the height of the machine is not enough to operate the machine	Built-in stand original Xerox	Suitable Stand/Trolley if the height of the machine is not enough to operate the machine	Local Trolley as (Suitable stand)
39	**Delivery, Installation & training**	Bidder to deliver and install at destination on its own arrangements and will give operational troubleshooting training	Bidder to deliver and install at destination on its own arrangements and will give operational troubleshooting training	We will deliver and install at destination on our own arrangements and will give operational troubleshooting training	We will deliver and install at destination on its our arrangements and will give operational troubleshooting training
40	**Spare parts availability**	Availability of spare parts and after-sales services for at least 10 years after the delivery of the machine.	Availability of spare parts and after-sales services for at least 10 years after the delivery of the machine.	Availability of spare parts and after-sales services for at least 10 years after the delivery of the machine.	Availability of spare parts and after-sales services for at least 10 years after the delivery of the machine (On Payment).
41	**Dealership**	Authorized dealership certificate	Yes	Yes	Yes

Comments:

1 Three firms, M/s DWP Technologies, M/s DMS, Islamabad, and M/s Office Automation Group, gave technical bids for Photocopier.

2 All three firms fulfill more than 80% Compatibility Criteria of tender specifications without suffering the operational efficiency of the Machine.

Recommendations:

3 All firms are technically qualified for further proceedings, please

Technical Evalution of DATA Storage-1
Expansion of Dell EMC Unity 400 / Up-gradation (CDBA)

SI No.	Peripherals	Specifications	Firms	
			1	**2**
			M/s App in Snap (PVT.) Ltd., Islamabad.	**M/s Techaccess Pakistan (PVT.) Ltd., Islamabad.**
1	**Brand**	Dell	Dell	Huawei OceanStor 2600 Hybrid Storage
2	**Dell EMC Unity 400 (SN: CKM00182400967)**	100 TB usable storage expansion (NL-SAS) along with DAE with a 3-year official warranty & KYHD for enterprise service	The proposed solution is 100% Compliant since the Vendor has proposed the expansion in terms of the DELL Unity XT380 Appliance which shall be working along with the existing DELL Unity 400 Appliance. The proposed storage comes with 15* 12TB NLSAS Drives providing the raw capacity of 180TB to the customer and a useable capacity of the required 100TB	100TB Useable 160TB (16 x 10TB NL-SAS) 4 x 480GB SSD
3	**Responsibilities**	The bidder will be responsible for installing and configuring the new drives to expand the existing Dell Unity 400 Storage and performing all necessary integrations with the SOP existing equipment as per SOP requirements	AIS shall be providing the Installation of the proposed DELL Unity XT380 Storage in the customer environment and provisioning of the proposed storage resources as per the SOW agreed between AIS and Customer.	-
4	**Delivery Time**	4 to 6 Weeks or earlier	The Proposed hardware will be delivered as per the mentioned Delivery Time.	-
5	**Over Eleborations**			8*1Gb ETH,4*10Gb ETH (Including Multi-Mode SFP+),
				Interface 12Gb/S
				Interface 12Gb/S
				8*1Gb ETH,4*10Gb ETH (Including Multi-Mode SFP+),
				NL-SAS 7200 RPM
				Including Device Manager, DME IQ, Acceleration, CIFS, NFS, Audit, DNS, Thin, Migration (SAN), Snap, Clone, QoS, Erase, CDP, Ultra Path, WORM, Multi-Tenant, Quota
				Yes
				Onsite 3 years warranty with parts and Support

Comments:

1. The two firms M/s App in Snap (PVT.) Ltd., Islamabad., and M/s Techaccess Pakistan (PVT.) Ltd., Islamabad offered technical proposals for Dell EMC Unity 400 / Up-gradation Expansion.

2. M/s techacces Pakistan (Pvt), Islamabad does not fulfil technical specifications at sr. 1-4.

3. M/s App in Snap (Pvt) Ltd, Islamabad fulfills technical specifications as per the tender.

Recommendations:

4. Vide Para-3 above, M/s App in Snap (Pvt), Ltd, Islamababd is recommended for further proceedings.

Technical Evalution of DATA Storage-2 (100 TB Useable) Storage Box

Sl No.	Peripherals	Specifications	Firms	
			1	**2**
			M/s App in Snap (PVT.) Ltd., Islamabad.	**M/s Techaccess Pakistan (PVT.) Ltd., Islamabad.**
1	**Brand**	DELL/HP/Huawei/IBM/equivalent	Huawei	Huawei OceanStor 2600 Hybrid Storage
2	**Capacity**	100 TB or above (Useable)	The proposed solution provides 10 * 14TB NLSAS Enterprise Drives which will provide 140TB approx. RAW Capacity and approx. 100TB Useable Capacity	100TB Useable 160TB (16 x 10TB NL-SAS) 4 x 480GB SSD
3	**Connector**	Thunderbolt 3, USB-C	The proposed storage solution includes USB Ports along with 1Gb and 10Gb front-end ports, which provide better connectivity than USB/Thunderbolt when storage is accessed by multiple users at once.	8*1Gb ETH,4*10Gb ETH (Including Multi-Mode SFP+),
4	**Sequential Read Performance**	(In default RAID 5) - Up to 700MB/s	The proposed solution meets the compliance and provides a performance of ~700MB/s when configured in RAID5/6 configurations	Interface 12Gb/S
5	**Sequential Write Performance**	(In default RAID 5) - Up to 850MB/s	The proposed solution meets the compliance and provides a performance of ~850MB/s when configured in RAID5/6 configurations	Interface 12Gb/S
6	**Interface**	USB 3.2 Thunderbolt 3	SAS 3.0 12Gbps, 1Gbs, 10Gbps, USB, Interfaces available on a dual controller configuration	8*1Gb ETH,4*10Gb ETH (Including Multi-Mode SFP+),
7	**Disk Speed (RPM)**	7200 RPM	The proposed drives are 7200 RPM Enterprise Grade NLSAS Drives	NL-SAS 7200 RPM
8	**Product Features**	Optimized multi-stream workflows Daisy-chaining for up to 5 additional devices Built-in hardware RAID	The proposed storage solution provides the capacbilites for multi stream workflows by providing the capabilites to handle workloads from multiple targets (minimum 5) and have the capabilites to connect with multiple users as mentioned in single point in time	Including Device Manager, DME IQ, Acceleration, CIFS, NFS, Audit, DNS, Thin, Migration (SAN), Snap, Clone, QoS, Erase, CDP, Ultra Path, WORM, Multi-Tenant, Quota
9	**Compatibility**	Windows 10 or above	The proposed solution complies the compatability and is compatible with windows 10	Yes
10	**Warranty**	5-Year Limited Warranty	The proposed solution complies the Standard Hardware OEM practices and provides the Warranty as per the OEM standards upto 5 years	Onsite 3 years warranty with parts and Support

Comments:

1 The two firms M/s App in Snap (PVT.) Ltd., Islamabad., and M/s Techaccess Pakistan (PVT.) Ltd., Islamabad offered technical proposals for storage box of 100TB (useable).

2 M/s techacces Pakistan (Pvt), Islamabad has provided specifications at sr. 3 to 6 & 8 are not compatible with the existing infrastructure & requirement.

3 M/s App in Snap (Pvt) Ltd, Islamabad fulfills technical specifications as per the tender.

Recommendations:

4 Vide Para-3 above, M/s App in Snap (Pvt), Ltd, Islamababd is recommended for further proceedings and M/s techaccess Pakistan (Pvt) not recommended on above stated reasons.

Technical Evalution of Fire Wall

SI No.	Peripherals	Specifications	Firms
			1
			M/s App in Snap (PVT.) Ltd., Islamabad.
1	**Brand**	Fortinet/Huawei/Cisco/Equivalent	Huawei 6625F
2	**Basic Firewall**	The appliance based security platform should be a stateful NGFW, Next-Generation IPS, malware protection, URL protection, providing firewall, application visibility, and IPS functionality in a single appliance.	Fully Compliant to The appliance based security platform should be a stateful NGFW, Next-Generation IPS, malware protection, URL protection, providing firewall, application visibility, and IPS functionality in a single appliance.
3	**Hardware architecture**	8×GE COMBO + 4×GE RJ45 + 4×GE SFP + 6×10GE SFP+ Single AC power supply; optional dual AC power supplies Optional, SATA (1×2.5 inch) supported, 240 GB/ 1TB	Fully Compliant Fully Compliant to 8×GE COMBO + 4×GE RJ45 + 4×GE SFP + 6×10GE SFP+ Fully Compliant to Optional, SATA (1×2.5 inch) supported, 240 GB/ 1TB
4	**Performance requirements**	Layer 3 throughput≥25Gbps; concurrent connections per second ≥ 10,000,000; new connections per second ≥250,000; IPSec VPN throughput (AES-256,1420 byte)≥25 Gbps Application controlling and IPS throughput ≥ 10 Gbps;	Fully Compliant to Layer 3 throughput ≥25Gbps; Fully Compliant to concurrent connections per second ≥ 10,000,000; new connections per second ≥250,000; Fully Compliant to IPSec VPN throughput (AES-256,1420 byte)≥25 Gbps Fully Compliant to Application controlling and IPS throughput ≥ 10 Gbps;
5	**Routing**	Supports static routes, policy-based routing, and routing protocols such as RIP, OSPF, BGP, and IS-IS; Policy-based routing supports the following matching conditions: source IP address, destination IP address, service type, application type, user/user group/security group, inbound interface, and DSCP priority.	Fully Compliant to Supports static routes, policy-based routing, and routing protocols such as RIP, OSPF, BGP, and IS-IS; Fully Compliant to Policy-based routing supports the following matching conditions: source IP address, destination IP address, service type, application type, user/user group/security group, inbound interface, and DSCP priority.
6	**Intelligent uplink selection**	Supports service-specific PBR and intelligent uplink selection based on multiple load balancing algorithms (for example, based on bandwidth ratio and link health status) in multi-egress scenarios.	Fully Compliant to Supports service-specific PBR and intelligent uplink selection based on multiple load balancing algorithms (for example, based on bandwidth ratio and link health status) in multi-egress scenarios.
7	**NAT**	Supports full NAT functions and NAT ALG for multiple application-layer protocols, including ILS, DNS, PPTP, SIP, FTP, ICQ, RTSP, MSN, and MMS. Supports Source NAT automatic detection and exclusion of invalid addresses in NAT address pools. Firewall should support NAT444, NAT66 (IPv6-to-IPv6) , Nat46 (IPv4-to-IPv6) and DS-Lite NAT	Fully Compliant to Supports full NAT functions and NAT ALG for multiple application-layer protocols, including ILS, DNS, PPTP, SIP, FTP, ICQ, RTSP, MSN, and MMS. Fully Compliant to Supports Source NAT automatic detection and exclusion of invalid addresses in NAT address pools. Fully Compliant to Firewall should support NAT444, NAT66 (IPv6-to-IPv6) , Nat46 (IPv4-to-IPv6) and DS-Lite NAT
8	**Traffic control**	Supports application-layer protocol-based traffic control policies, including setting the maximum bandwidth, guaranteed bandwidth, and protocol traffic priority. Supports bandwidth guarantee based on users and IP addresses. Supports maximum number of connections per IP address.	Fully Compliant to Supports application-layer protocol-based traffic control policies, including setting the maximum bandwidth, guaranteed bandwidth, and protocol traffic priority. Fully Compliant to Supports bandwidth guarantee based on users and IP addresses. Supports maximum number of connections per IP address.
9	**Intrusion prevention and antivirus**	Supports attack detection and prevention based on over 7000 local signatures. Supports the customization of intrusion prevention policy templates based on scenarios. Supports brute-force cracking prevention for common application services (HTTP, FTP, SSH, SMTP, and IMAP) and database software (MySQL, Oracle, and MSSQL). Supports malicious domain name-based filtering to block C&C. Supports antivirus for protocols such as HTTP, FTP, SMTP, POP3, IMAP, and NFS.	Fully Compliant to Supports attack detection and prevention based on over 7000 local signatures. Fully Compliant to Supports the customization of intrusion prevention policy templates based on scenarios. Fully Compliant Supports brute-force cracking prevention for common application services (HTTP, FTP, SSH, SMTP, and IMAP) and database software (MySQL, Oracle, and MSSQL). Fully Compliant to Supports malicious domain name-based filtering to block C&C. Fully Compliant to Supports antivirus for protocols such as HTTP, FTP, SMTP, POP3, IMAP, and NFS.

10	**URL filtering**	Provides a URL category database with over 120 million URLs and accelerates access to specific categories of websites, improving access experience of high-priority websites. Supports DNS filtering, in which accessed web pages are filtered based on domain names. Supports the SafeSearch function to filter resources of search engines, such as Google, to guarantee access to only healthy network resources.	Fully Compliant to Provides a URL category database with over 120 million URLs and accelerates access to specific categories of websites, improving access experience of high-priority websites. Supports DNS filtering, in which accessed web pages are filtered based on domain names. Supports the SafeSearch function to filter resources of search engines, such as Google, to guarantee access to only healthy network resources
11	**DDoS defense**	Supports application-layer flood attacks such as HTTP, HTTPS, DNS, and SIP, supports traffic auto-learning, the setting of the auto-learning time, and automatic generation of anti-DDoS policies.	Fully Compliant to Supports application-layer flood attacks such as HTTP, HTTPS, DNS, and SIP, supports traffic auto-learning, the setting of the auto-learning time, and automatic generation of anti-DDoS policies.
12	**Policy & Management**	Allows users to configure security policies based on time, application-layer protocol, geographical location, IP address, port, domain name group, URL category, access type, vlanID and content security.	Fully Compliant to Allows users to configure security policies based on time, application-layer protocol, geographical location, IP address, port, domain name group, URL category, access type, vlanID and content security.
13	**Network access user authentication**	Supports multiple user authentication methods, including local, RADIUS, HWTACACS, AD, and LDAP.	Fully Compliant to Supports multiple user authentication methods, including local, RADIUS, HWTACACS, AD, and LDAP.
14	**License**	Provides the related Full threats protection License of 03 Years	Fully Compliant to Provides the related Full threats protection License of 03 Years
15	**Reliability**	Supports BFD link detection and association of BFD and VRRP/OSPF to implement rapid active/standby switchover. It supports the smooth upgrade of HA(Active/Active or Active/Standby) Mode. Different versions of software can be used for hot standby.	Fully Compliant to Supports BFD link detection and association of BFD and VRRP/OSPF to implement rapid active/standby switchover. Fully Compliant to Supports the smooth upgrade of HA(Active/Active or Active/Standby) Mode, the software of different versions can be used for hot standby.
16	**Product certification**	Has been listed as Leader or Challenger in Gartner Magic Quadrant;	Fully Compliant to Has been listed as Leader or Challenger in Gartner Magic Quadrant;
17	**Warranty Service**	3 years of licenses and hardware support should be a part of the proposal	Fully Compliant to 3 years licenses and hardware support should be a part of proposal
18	**Installation, configuration and training of staff**	The firm will be responsible for the installation, configuration, troubleshooting, and comprehensive training of staff on site	Fully Compliant to The firm will be responsible for the installation, configuration, troubleshooting, and comprehensive training of staff on site

Comments:

1 The only one firm M/s App in Snap (PVT.) Ltd., Islamabad, has offered technical specifications for the Firewall.

Recommendations:

2 Vide Para-1 above, M/s App in Snap (Pvt) Ltd, Islamabad is recommended for further proceedings.