

Electronic Health Solutions

REQUEST FOR PROPOSAL

Structured Cabling Solution for Ajloun Primary Clinics

RFP Reference Number: RFP-EHS-PROC-27-2023

ForReview

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QF-PRO-01-04

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Transmittal Letter

Date: 21 - SEP-2023

Dear Sir / Madam,

Electronic Health Solutions "EHS" is in the process of tendering "**RFP-EHS-PROC-27-2023**" for **Supply, Installation, Configuration, Testing and Implementation of structured cabling** system solution in Primary Clinics.

Interested companies are encouraged to submit their technical and financial proposals as per the details provided in this RFP. EHS appreciates your timely and accurate response, meanwhile, shall you have any questions please do not hesitate to contact us.

Procurement Department

Tel: +962 6 580 0461 | Ext. 3050, 3071, 3072, 3073 & 3074 Email: procurement@ehs.com.jo

Yours sincerely, Electronic Health Solution

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Confidentiality Statement

This Request for Proposal (RFP) contains information proprietary to Electronic Health Solutions, hereafter referred to as "EHS". Each recipient is entrusted to maintain its confidentiality. The information contained in this RFP is provided for the sole purpose of permitting the Bidder to respond to the RFP. This information may not be reproduced in whole or in part without the expressed written permission of EHS.

The recipient shall hereby agree to keep all the information in this RFP confidential and shall not, without prior written permission of EHS, disclose this information to any person other than the employees, agents, subcontractors, and advisors who are required in the course of their duties to execute proposal preparation activities. The recipient shall undertake the responsibility that all such persons are informed of the confidential nature of the information.

No recipient of this RFP shall, without the prior consent of EHS, make any public statements to any third parties in relation to this RFP or the subsequent short-listing of any prospective implementer or the subsequent awarding of any order. Unauthorized release of information or public statements will result in immediate disqualification.

Information provided by each Bidder will be held in confidence and will be used for the sole purpose of evaluating a potential business relationship with the respective Bidder's company.

There will be no obligation to maintain the confidentiality of any information that was known to EHS, prior to the receipt of a proposal from the Bidder, or due to becoming publicly known through no fault of EHS, or if received without obligation of confidentiality from a third party owing no obligation of confidentiality to the Bidders.



Company Abstract

Company Profile

Electronic Health Solutions (EHS) was founded in 2009 as a non-profit company. EHS is owned by the main stakeholders in health and technology sectors in the Kingdom including Ministry of Health (MoH), Ministry of Information and Communication Technology (MoICT), Royal Medical Services (RMS), King Hussein Cancer Center, King Hussein Institute for Cancer and Biotechnology, Royal Health Awareness Society and Private Hospitals Association.

Hakeem is Jordan's National Electronic Health Records (EHR) initiative by which the healthcare sector will be computerized. The program was incepted in October 2009.

The company's mandate is to implement Hakeem in public hospitals, Royal Medical Services sites, Universities Hospitals and King Hussein Cancer Center, in addition to healthcare centers including comprehensive clinics and primary clinics.

Vision, Mission, Goals, and Objectives

Vision

Transform and sustain a continuously improving healthcare system in Jordan by leveraging information technology.

Mission

Provide a secure and accessible platform that enables the storing and sharing of electronic patient health records at all healthcare facilities enrolled in Hakeem.

Objectives

EHS main objectives are the following:

- 1- Improve Healthcare
- 2- Reduce the Cost of healthcare services.
- 3- Provide Data for Research and Decision Making

Benefits

- Raising healthcare quality and outcomes by enhancing the accuracy of diagnoses, medication administration, and patient information management;
- Boosting health facilities' efficiency and workflow by saving time and reducing errors in information retrieval;
- Supporting research, scientific studies and, decision-making by supplying the necessary patient data, history and statistics;
- Reducing operating costs by optimizing resource utilization and, preventing lab test repetition.



1. Contact Information

Forkeview

Any questions regarding this RFP shall be directed to the following email address in writing:

Name:	Procurement Department
Company:	Electronic Health Solutions
Address:	King Hussein Business Park, King Abdullah the second street. 4408 Amman 11952
Telephone / Fax:	Telephone +962 (6) 5800461 EXT3050, 3071Fax +962 (6) 5800466
Email:	Procurement@ehs.com.jo

The bidder should receive a response from the procurement department, if not please call the following number +962 79 668 1595 Or Tel: +962 6 5800461 | Ext: 3050, 3071.



2. General Conditions

Upon participation, the bidder agrees to the following:

- 1. All costs incurred by Bidder in the preparation of this proposal shall be borne by the Bidder.
- 2. "EHS" will assume that all statements in writing, made by persons submitting Proposals are true, accurate, complete and, not misleading.
- 3. "EHS" reserves the right to cancel, at any time, this RFP partially or in its entirety. No legal liability on the part of "EHS" for payment of any kind shall arise and in no event will a cause of action lies with any bidder for the recovery of any cost incurred in connection with preparing or submitting a proposal, in response hereto all efforts initiated or undertaken by the bidder shall be done considering and accepting this fact.
- 4. Bidder's proposals shall be based on full compliance with the terms, conditions and, requirements of this RFP and its future clarifications and/or amendments.
- 5. "EHS" shall not be under any obligation to return or save either the original or any copies of any Bidder's Proposals (technical and/or financial), and all documents submitted to "EHS", whether originals or copies, shall be kept or disposed of by "EHS".
- 6. This Request for Proposal doesn't constitute an offer. "EHS" shall not be under obligation to enter into any agreement with any Bidder in connection with this RFP and responses received.
- 7. The Bidder's proposals (technical and financial) shall comply with the laws and regulations of the Hashemite Kingdome of Jordan.
- 8. The Bidder's proposals (technical and financial) shall be compatible with international standards and best practices.
- 9. As a part of the RFP response, the Bidder is requested to fill out the compliance sheet included in this RFP.
- 10. The bidder must include in his technical proposal a detailed Bill of Quantity "BOQ" for all proposed and priced items and services. Accordingly, this should be reflected and included in the financial offer with itemized quoted prices for all proposed items.
- 11. The bidder must commit to providing EHS with the same prices and terms for a period of (1) year starting from the Awarding Letter date for the purpose of Variation Orders
- 12. The quantities requested in this RFP are subject to increase, decrease or, cancellation as per the actual requirements in the awarding date. In case the quantities decrease the vendor is responsible to install the available materials from the EHS warehouse.

في حال أن تعذر على "المناقص الفائز بالعطاء" تنفيذ التزاماته التعاقدية و/أو أي جزء منها، بحيث يكون قد تأخر في توريد المواد و/أو الخدمات المحددة لمدة (45) يوم من التاريخ الواجب على " المناقص الفائز بالعطاء " خلاله تنفيذ التزاماته، فسيكون في هذه الحالة من حق "شركة الحوسبة الصحية" إلغاء قرار الإحالة والعلاقة التعاقدية التي تجمعهم مباشرة دون الحاجة الى اشعار و/أو انذار و/أو استصدار حكم قضائي. كما يكون من حق "شركة الحوسبة الصحية" إفياء قرار الإحالة قراء ما كان منفق عليه من مورد آخر يراه مناسبا، على أن يتحمل " المناقص الفائز بالعطاء " شركة القوسبة التي قد تكبتدها " شركة الحوسبة الماقت التي تجمعهم مباشرة دون الحاجة الى اشعار و/أو انذار و/أو استصدار حكم قضائي. التي قد تكبتدها " شركة الحوسبة الصحية " جراء ذلك الى جانب تعويض " شركة الحوسبة الصحية " عما لحقه من أضرار إثر تعذره عن تنفيذ إلتز اماته.



3. Bidder Qualifications

- 1. Bidder should be a Company registered under the Jordanian Ministry of Industry and Trade for more than <u>three years</u> or represented by a company abiding by the aforementioned condition; otherwise, any international or regional bidder must present the formal documents which prove the financial capacity of the company in addition to its commercial registration documents at the country of origin
- 2. Bidder should have at least three references of similar projects preferably in the health care sector and to be accepted by EHS.
- 3. The Bidder shall have at least 2 live installations with support as of the date of submission of this bid.
- 4. The Bidder shall have specialized and certified engineers with relevant technical certification for at least two engineers.
- 5. The bidder must submit Up-To-Date official documents of registration issued from the Companies Control Department at the Jordanian Ministry of Industry and Trade.
- 6. The bidder shall be an authorized Top Level Partner of the mother company he represents in this bid. An up-to-date valid official letter/certificate from the mother company shall be submitted by the bidder as part of the bidder's qualification documents, to prove the level of partnership for the bidder.
- 7. The bidder must have at least (2) two engineers certified by the mother company for the implementation and technical support of the proposed solution.
- 8. All proposed and supplied equipment\solutions\items\services must be original, brand new (not refurbished) and, licensed by the manufacture (mother company) to be supplied and installed for this project at EHS.
- 9. All proposed and supplied equipment / solution / items / appliances / hardware must be newly manufactured with manufacturer valid warranty and support duration for not less than (7) years from the date of delivery. This implies that supplied products must not be obsolete, phased out of production, out of sales, or out of support.
- 10. All proposed and supplied equipment\solutions\items\services must be original, brand new (not refurbished) and, licensed by the manufacturer (mother company) to be supplied and installed for this project at EHS.

The winning bidder is obliged to determine the percentage of maintenance and technical

support including spare parts and manpower for the years following the free maintenance duration. This has to be specified clearly in the financial offer for the supplied devices\solutions as per this RFP and will be part of the financial evaluation of the bid.



4. RFP Guidelines

a. RFP Issuance & Submission

Event	Date	20
1. RFP distribution to vendors	21-SEP-2023	
2. Questionnaire Session	Starts (21-SEP-2023) till (5-OCT-2023)	
3. Proposal due date Closure Date	12-OCT-2023	

b. Queries and Responses

All inquiries during the questions and answers session (Bidder Conference) if conducted must be documented., Verbal clarifications, inquiries or communication are not permitted, and only written communication is accepted.

c. RFP Acknowledgement

- 1. Award of the contract resulting from this RFP will be based upon the most responsive vendor whose offer will be the most advantageous to "EHS" in terms of cost, functionality, and other factors as specified elsewhere in this RFP.
- 2. Vendor has a period of (5) days to acknowledge and accept the awarding letter with its terms and conditions. Delay of acceptance will yield into consideration of rejection.
- 3. EHS" reserves the right to:
 - a) Accept other than the lowest-priced offer.
 - b) Award a contract on the basis of initial offers received, without discussions or requests for best and final offers.
 - c) Award the RFP contract on a partial basis (i.e. not all requirements requested from a single vendor.)
 - d) Not declare the name of the winning bidder, and awarding details.

d. Proposal Format Requirements

1. The financial and technical proposals must be submitted separately. Each proposal must be sent in a separate (PDF) electronic file (PDF). (If the proposal file document size is bigger than 9 Megabyte (MB), you may send the document through a secured file hosting service and an internet-based computer file transfer service company such as Dropbox, WeTransfer, etc.)



- The proposals must be sent to the Procurement Department email namely; (<u>Procurement@ehs.com.jo</u>). A password divided into (3) portions and not to be less than (9) nine digits must be set on the financial offer.
- 3. The passwords must be sent through a text message (SMS) to relevant mobile numbers which will be cellular mobile numbers that will be provided to the bidders at a later stage.
- 4. Pricing must be per site with a breakdown itemized pricing for each item, component, product and services included in the submitted Financial Proposal.
- 5. The Financial Proposal must specify clearly the compliance with the (5) five years' warranty duration required in the Technical Specification section.
- 6. The bidder shall submit only one financial proposal file. The financial proposal must include all of the products or solution options proposed in the Technical Proposal. The financial proposal must be in a format that is easy to read and understand and in compliance and consistent with the pricing and terms and conditions mentioned in this RFP document. The financial proposal must be in English. The financial proposal must be signed by an authorized representative of the bidder. If the bidder submits more than one financial proposal file, or if the financial proposal does not include all of the products or solution options proposed in the Technical Proposal, the bidder's proposal may not be considered.
- 7. The bidder must submit a cover letter in a PDF format as a separate document from the Technical and the Financial Proposal. The cover letter must include the following information:
 - The tender reference number.
 - The name of the bidder.
 - The contact information for the bidder.
 - A list of the product(s) and\or solution(s) names that are being proposed, along with the corresponding product and/or solution code.
 - A listing of the proposed product(s)\ solution(s)\service(s) along with their relevant brief description.

The aforementioned information must be filled in the following "Table Template" (ملخص للمنتجات والخدمات والحلول المعروضة) and must be consistent and in a total match with the relative names and descriptions included in the financial and technical proposals. The list of product and/or solution names must match those included in the Technical and Financial Proposal. If the bidder does not submit a cover letter, or if the list of product and/or solution names do not match those included in the Technical and Financial Proposal, the bidder's proposal may not be considered.



Table Template (ملخص للمنتجات والخدمات والحلول المعروضة)

The following table template can be used to list the product and\or solution names that are being proposed:

		6
Option	Product\Solution\Services Name	Product\Solution\Services Description
Option (1)	Product 1	A B
Option (2)	Solution 1	
Option (3)	Solution 2 & Product 2	

5. RFP Terms & Conditions

a. Evaluation Criteria

- 1. "EHS" will evaluate each response. Responses will be evaluated on many criteria deemed to be in EHS's best interest, including but not limited to, technical offering, price, warranty, delivery duration, Bidder certification, accreditation, schedule, bidder's capabilities, compliance with bonding, and any other factors that "EHS" determine. The order of these factors does not denote relative importance.
- 2. "EHS" reserves the right to consider other relevant factors as it deems appropriate in order to obtain the best value.
- 3. This RFP does not commit "EHS" to select any firm, enter into any agreement, pay any costs incurred in preparing a response or procure or contract for any services or supplies. "EHS" reserves the right to request additional information from the bidders whose response meets "EHS" needs and business objectives without requesting such information from all respondents.

b. Rejection of Proposals



"EHS" reserves the right to reject any or all offers and discontinue this RFP process without obligation or liability to any potential Vendor.

c. Proposal Costs and Expenses

No legal liability on the part of "EHS" for payment of any kind shall arise and in no event will a cause of action lies with any bidder for the recovery of any cost incurred in connection with preparing or submitting a proposal. In response hereto all efforts initiated or undertaken by the bidder shall be done considering and accepting this fact.

d. Bid, Performance, Advance payment, and Warranty Bonds

- 1. Unconditional Bid Bond valid for (3) <u>three</u> months with an amount of (JoD 1,260.00) One Thousand Two Hundred Sixty Jordanian Dinar to be renewed automatically must be submitted by every participating bidder.
- 2. Advance payment LG, is to be submitted against any required advanced payment.
- 3. Unconditional Performance Bond for (10%) of the total amount of the awarded value shall be submitted by the winning bidder and within (5) working days from the date of the award. The Performance bond must remain valid for the total duration of the implementation of the project and until the delivered solution is finally received and accepted by EHS. This Performance Bond will be replaced by the Maintenance LG after items delivered installed and finally accepted duly. The Maintenance Bond will remain valid until the end of the warranty duration. In case the winning bidder fails to submit the performance bond, EHS reserves the right to cancel the contract and liquidate the bid bond without reverting to the bidder.

e. Penalties

In the event, the bidder fails to deliver according to the agreed time (for either the initial agreed delivery date or any of the subsequent delivery dates). The Bidder must pay EHS a delay penalty of (0.5%) of the total contract amount for each calendar day of delay. The maximum penalty for delays shall not exceed (15%) of the total contract value. The payment or deduction of such penalty shall not relieve the winning bidder from its obligations to complete the services or from any other obligations and liabilities under this bid.



f. Payment Terms

1- Payment terms:

20% Advance Payment against "Advance Payment LG"20% upon items delivery20% upon installation or implementation40% on final EHS acceptance.

In case the winning bidder fails to comply with the "Advance Payment LG" term set for the first payment, hence, the winning bidders will be entitled to receive (40%) of the total contract value after the fulfillment of the delivery and initial receiving conditions "إستلام توريدي" set forth in this RFP.

2- Payment currency shall be in Jordanian Dinar (USD and Euro exchange rate will be calculated at the currencies exchange rate issued by Central Bank of Jordan at the payment date).

g. Terms of Delivery

- Delivery, Installation and, Implementation must be within (4-6) Weeks from the date of issuance of the purchase order. Delivery must be to the warehouse at EHS HQ offices or to any of "Hakeem" Project sites upon coordination and approval of EHS. Final acceptance is required by EHS, and penalties for delays will be imposed as per the condition specified in clause (5.e) of this RFP.
- Installation and implementation must be within (4) four weeks from the date of delivery and EHS's commencement confirmation letter or email.
- Any bidder who fails to meet the above named durations for delivery and implementation may be considered dis-qualified.
- Weight: The duration of delivery and implementation of projects will be given a high weighting value in the evaluation criteria. Accordingly, the weighting value for the bidder with the shortest proposed duration will receive the highest score.

h. Offer Expiry Date

The validity of the Proposal shall be no less than (90) days unless clearly mentioned differently.

The prices must remain fixed and valid for (90) days from the date of the invitation for bid closing date and shall be clearly stated in the technical and commercial bids.



6. Financial Compliance Sheet

#	Description	Comply (Yes/No)	Reference in the proposal
1	The bidder shall comply with all points included in the general conditions section		
2	The bidder shall comply with all points included in the bidder qualifications section		in the
3	The bidder shall comply with all points included in the RFP guideline section	~	Bide
4	The bidder shall comply with all points included in the RFP terms and conditions section	¢ FOY	
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7. Objectives

EHS invites technically complete and commercially competitive bids from reputed bidders for Supply, Installation, Configuration, Testing and Implementation structured cabling system solution in Primary Clinic

8. Bill of Quantity (BOQ) and Sites Names

	8. Bill of Quantity (BOQ) and Sites Names																						
	A. <u>Copper and Fiber Quantities.</u>																						
#	Site Name	Region	15 U Cabinets	Dual Network Nodes	Single Network Nodes	Patch Panels	RJ-45 Connectors	Cable organizer	copper Patch cords 1 m	copper patch cords 3m	Copper cable length (m)	Dual Faceplates & Back Box	External electrical breaker 13A	Single-Phase industrial socket	IDF PDU	Plastic Trunk 16*25 (m) with accessories	Plastic Trunk 25*40 (m) with accessories	Plastic Trunk 48*100 (m) with accessories	Flexible pipes 32mm (m)	Flexible pipes 50mm (m)	PVC conduit Pipe 32mm (m)	Electrical Cable 3 x 2.5 mm (m)	UPS 1.5KVA
1	مركز صحى الاستقلال	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
2	مركز صحى الصفا الجديد	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
3	مركز صحى الاستقلال مركز صحى الصفا الجديد مركز صحى الوهادنة	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
4	مرکز صحی اوصرة مرکز صحی حلاوة	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
5	مركز صحى حلاوة	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
6	مركز صحي راجب	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
7	مرکز صحي راسون	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
8	مرکز صحي صنعار	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
9	مرکز صّحی عَین البستان مرکز صحی الحرث الاو	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
10	مركز صحي الحرث الاو	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
11	مرکز صحی آلهاشمیة / اولی مرکز صحی باعون/ اولی	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
12	مركز صحي باعون/ اولى	عجلون	1	10	10	2	60	3	32	30	1350	20	1	2	1	100	100	100	100	100	40	35	1
	Total 12 12 12 12 12 12 12 12 12 12 12 12 12 13 13 13 12 12 12 12 12 13 13 12 12 12 12 13 14 120 120 <th120< th=""> 120 120 <</th120<>																						

9. Business Requirements

From a business perspective, the new architecture must address the following key points:

- 1. Install structured cabling solution as per EHS needs
- 2. Provide continuous support for Hakeem systems.



10. Submittals

The bidders' proposal shall include the following:

- 1. Compliance sheets (for both technical and financial)
- 2. Data sheets for all items
- 3. Accept Procedure Test (ATP) document
- 4. Project Implementation plan.
- 5. Service level agreement (SLA)
- 6. Project team details.
- 7. Network test equipment valid calibration certification
- 8. Structured Cabling System application performance warranty
- 9. Test all copper and fiber network nodes using a Fluke network tester

11. Solution Technical Specifications

12.1. Network Cabinet

- 1. Wall Mount (15U).
- 2. Lockable side panels.
- 3. Cabinet dimensions shall be 600 mm x 600 mm.
- 4. Cabinet shall be Glass front door, with lock.
- 5. A roof blanking plate fitted with two fans.
- 6. One Fused Power Distribution Unit contains six UK-type outlets.
- 7. Thermostat Adapter to control the Cabinet's fan.

12.2. CAT6 UTP patch panel

The RJ-45 patch panel shall include the following items:

- 1. Mount to standard 19" racks.
- 2. 1U-high patch panel with 24 modular ports.
- 3. A cable-holder back plate.



12.3. Patch cords guide panel

The Patch cord guide panels shall include the following items:

- 1. Mount to standard 19" racks.
- 2. A 1U-high patch cord guide panel.
- **3.** A front panel set back from the rack frame to avoid door-opening problems.
- 4. Cover on the front.
- 5. Patch cord guide panels shall be installed in the racks for cable management, between each set of two 24-port patch panels and between each set of two edge switches.

12.4. Horizontal copper Cables

The four twisted pair Category 6 U/UTP cables were used in this project to make up the Horizontal Cabling and to connect telecommunication outlets with the intermediate distribution frame.

12.5. Face Plates and Back Boxes

Face Plates

- The faceplates shall be mounted on the back box; the back box dimensions (H, W, and D) shall be compatible with the vendor's recommendation, and the minimum depth for the back box is 35 mm.
- 2. Angled face plate.
- 3. Singe / Dual port configuration based on the site's requirements

12.6. Connectors

RJ45 Connectors

- 4. CAT6 RJ45 connectors shall comply with ISO & EIA/TIA Standards.
- 5. Connectors shall be connected without using any simple tool (Toolless).



12.7. Patch cords

RJ-45 patch cords

1. Patch cords shall be factory-assembled by the manufacturer of the cabling system.

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- 2. CAT6 UTP patch cords shall comply with ISO & EIA/TIA.
- 3. All patch cords shall be straight connected.

12.8. IDF Electrical preparation

One six-way power strip shall be supplied with each cabinet; the power strip shall have the following features:

- Illuminated power switch
- The PDU input shall be supplied by a single-phase industrial socket.
- Industrial sockets (16A) with 3x4mm power cable to feed the 16 A PDU of the rack with conditioning power (UPS output)
- The PDU shall contain six standard UK-type outlets.
- The power cable 3x4 mm shall be pulled from the main control panel to the cabinet with an industrial socket (UPS input).
- One External electrical breaker 13A for each site shall be installed before the UPS near the cabinet.
- UPS In/Out Power Cables with industrial sockets.



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12.9. Trunks and conduits

- The trunks shall be paintable
- Trunks must-have accessories during the cable path, accessories shall be from the same vendor/brand.
- The trunks and conduits shall contain the horizontal (UTP) cables during the entire cable path.
- The Trunks and conduits shall include flexible pipes, PVC pipes, and trunks from different sizes depending on the actual needs and any related accessories.

12.10. UPS Units

- Each network cabinet shall include a 1.5 KVA Online-double conversion UPS system to protect the active components
- UPS shall be rack mountable and have in/out industrial socket; UPS must fit in the cabinet including electrical wiring from and to the UPS (maximum UPS depth must not exceed 43 cm)
- VRLA maintenance-free lead-based batteries (8) years lifetime
- UPS input and output shall be based on single-phase industrial sockets
- UPS shall include an LCD screen

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• Include network management interface SNMP



12. Scope of Work

The scope of this RFP covers installing the structured cabling solution based on the related ISO & EIA/TIA standards. The scope of work shall include the following:

12.11. Pre-Cabling

The following requirements shall be met before the cabling work commences:

- Secure work area.
- Equipment for supporting cable shall be in place.
- Any required equipment for supporting cable shall be in place.
- Correct cable lengths shall be available.
- Adequate manpower shall be available.
- Before pulling begins location of access and pulling positions shall be identified.

12.12. Site closure

Before vacating the site, the following practices shall be observed:

- Dispose of all debris including scrap, drawstrings, tapes, etc.
- Remove all empty cable reels and boxes
- Remove any surplus materials and return them to stores
- Clean the Work Area including personal waste
- Store tools and equipment properly in an agreed location.
- Check the containment integrity and continuity.

12.13. Horizontal cabling installation

- 1. UTP 4 pair Cat 6 Cable, 100 ohms and shall be ANSI/TIA/EIA-568-B.2 compliant for use of Cat6 ISO 11801 performance.
- 2. The Cat 6 cable shall be distributed as per the Contract drawings for the use of voice and data services and the 90m rule shall be implemented as per Manufacture and Industry Guidelines and Specifications. Cabling shall be installed in a Star Topology and to be deployed in a Home Run arrangement.
- 3. Cables shall be installed as per the guidelines specified by the Tender Document and by the product manufacturer e.g. pulling tensions, bend radius, and side wall pressures. Cable shall also be installed to minimize EMC and necessary guidelines shall be followed as per ANSI/TIA/EIA 569-B.
- 4. All cables shall be installed and secured in a neatly or other containment with the use of approved fixing and bundling materials e.g. cable ties
- 5. All jacks/TO shall meet or exceed the ANSI/TIA/EIA 568-B.2-10 requirements for Cat6 and shall be terminated to manufacturer guidelines and the termination guideline is mentioned in each connector bag.
- 6. Faceplate shall be white in color or specified differently during the duration of the project and shall facilitate the housing of 2 connectors.
- 7. Faceplates shall be installed square and plumb with all fixing required.

- 8. The faceplate shall have an integral labeling and identification capability.
- 9. The Cable systems shall be labeled, using an approved system decided upon by EHS. Labeling shall take place at termination points, Patch Panels, Faceplates, and Jacks and shall conform to the ANSI /TIA/EIA 606-A.
- 10. Installation shall be based on the vendor's recommendation; the bidder shall provide the application performance warranty from the vendor for (20) years minimum.

12.14. UPS installation shall be conducted by the contractor including:

- a. Installing the UPS in the network cabinets
- b. Wiring the UPS systems to the emergency/generator panel (if available) otherwise it should be connected to the normal power panel.
- c. Insuring installing required electrical connections within cable conduits or trunks to reach the main electrical source within the building/floor, and
- d. Install the required electrical protections and circuit breakers.
- e. UPS input and output cables shall be based on industrial sockets
- f. Connect the UPS output to the cabinet's PDU
- g. Patching the copper, and fiber patch cords cables inside the cabinets is the bidder's responsibility.

12.15. Testing

Installation conformance is performed through a systematic method that ensures the installation has been completed by industry standards and the terms and conditions of the installation contract. Visual inspection and documentation shall be submitted for proof of proper installation conformance. Performance test documentation of the installed cabling shall be provided to the main contractor and it has to be verified by EHS Engineers as per contract requirements. The TIA performance specification shall be used in this context. Transmission performance depends on cable characteristics, connecting hardware, patch cords and cross-connect wiring, the total number of connections, and the care with which they are installed and maintained.

Field test instruments shall be calibrated and maintained at intervals specified by the manufacturer.

12.16. Copper testing

For field testing of the CAT6 cabling, a calibrated test instrument shall be used to verify that the installation meets or exceeds the applicable requirements in ANSI/TIA 568-B.1 and ANSI/TIA 568-B.2, including their addenda. Copy of test results shall be submitted for approval and shall form part of the final documentation. Calibration of the test machine shall be provided by an Authorized service dealer and it shall be submitted before starting testing on the site.

13. Technical Terms and Conditions

- 1. The bidder shall have at least two certified engineers according to the manufacturer's recommendations on the proposed solution.
- 2. The bidder shall be classified as tier 1; the bidder shall provide the required manufacturer's certificates or letters for his qualifications. This condition is applied only on items that aren't mentioned by brand name.

14. Warranty and Support

- 3. The bidder shall offer a minimum of (5) years of onsite manufacturer warranty.
- 4. The bidder shall offer a minimum of (5) years of maintenance and support service; Maintenance and support service shall cover all supplied components.
- 5. During the warranty period, the contractor shall provide all required spare parts free of charge including UPS batteries.
- 6. The bidder shall provide the support approach in the form of a signed and stamped SLA, including the escalation matrix, support contacts, and response time.
- 7. Perform preventive maintenance for the delivered solution based on 2 yearly visits during the warranty and support period.
- 8. Application performance warranty certificate shall be submitted based on the vendor's recommendation for (20) years minimum.

15. Service Level Agreement

During the warranty period, the contractor shall meet the below SLA parameters: During the warranty period, all the reported issues to the vendor must be processed based on the following:

- Response time: Within 12 Hours
- Arrival on site: Within 24 Hours
- Resolution time: Guaranteed network recovery & repair within 48 Hours.

Definitions:

- **Response time:** the time it takes to send back an acknowledgment of an issue and commence the process of developing a resolution.
- **Resolution time:** the needed time to solve an open case.

Terms and Penalties

The vendor will be subject to a penalty if he does not meet the "response time", "arrival on-site" and "resolution time". The following table shows all the penalties under this SLA contract.

Penalty condition	Penalty amount per day JoD
Failed to achieve "response time"	50
Failed to achieve "arrival on-site time"	50
Failed to achieve "resolution time"	50

Vendor response will be measured and monitored using EHS's Service Management tool.

- 1. The vendor should submit a preventive maintenance program every three months.
- 2. The Vendor must provide the support methodology and escalation matrix including contact details.
- 3. The Vendor is responsible for maintaining spare parts to meet the "availability" and "resolution time" targets at no additional cost.
- 4. The Vendor will provide workshops and/or on-site training if necessary or if requested by EHS.
- 5. The Vendor will support, configure and resolve problems whenever needed and/or if requested by EHS.
- 6. The Vendor will commit to providing quality assurance for any major configuration changes whenever requested by EHS. Any change must be done within the EHS change management process.
- 7. The Vendor is responsible for the review of the system configuration and setup at the beginning of the SLA support contract, developing all the required corrective plans, updating the design document, and all the documentation required to insure the alignment of the best practices.

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16. Technical Compliance Sheet

#	Description	Comply (Yes/No)	Reference in the proposal
1	The bidder proposal shall include all the submittals mentioned in the submittal section		
2	The delivered items must match the proposed technical specifications that mentioned in the solution technical specifications section.		dine
3	The bidder shall propose the quantities based on the BoQ table as mentioned in the Bill of quantities section. All quantities shall be considered as re-measured; the unused quantities shall be returned and the extra needed quantities shall be delivered by the bidder. This will be managed through the variation order process to control used/unused quantities.	HOTEO	
4	The bidder shall agree to all points mentioned in the scope of work section.		
5	The bidder shall be committed to all technical terms and conditions mentioned in the technical term and condition section.		
6	The bidder must be committed to all warranty and support points that mentioned in the warranty and support section.		
7	During the support and warranty period, the bidder shall be committed and meet all parameters mentioned in the service level agreement section		



For Period