

標書

寄九龍深水埗白田街 33 號
嶺南大學香港同學會小學
2024-2027 校園無線網絡器材租賃服務
招標委員會收

承投 2024-2027 校園無線網絡器材租賃服務
招標編號： 2324-T006

截標日期： 2024 年 4 月 19 日正午 12 時

(請用本頁作標書封面)

(請勿在投標書封面上顯示 貴公司名稱)

承辦 2024-2027 校園無線網絡器材租賃服務

招標通告

本校現誠邀 貴公司投標承辦 2024-2027 校園無線網絡器材租賃服務。請仔細閱讀隨本函夾附的招標書及投標附表，並提供投標附表上所列的基本項目服務及所需資料，建議之項目須合乎標書上之基本要求。有意承辦者請把標書一式兩份，放置信封內封密。信封面應清楚註明：「2024-2027 校園無線網絡器材租賃服務投標書」。投標者不可於信封面展示或披露身份，否則有關標書不會被考慮。投標書須於 2024 年 4 月 19 日（星期五）正午 12 時前送往九龍石硤尾白田街 33 號「嶺南大學香港同學會小學校園無線網絡器材租賃服務招標委員會」收啓。逾期的投標，概不受理。承辦商的投標書有效期為 90 天，由上述截標日期起計。如在該 90 天內仍未接獲訂單，則是次投標可視作落選論。另外亦請注意，承辦商必須填妥有關聲明書及投標附表，否則標書概不受理。本校將根據承辦商提交的標書內容作篩選考慮，並保留選擇承辦商之最終決定權。

倘 貴公司未能或不擬投標，亦煩請盡快把本函及不擬投標通知書寄回上述地址，並列明不擬投標的原因。

有關是次招標文件已上載至本校網站 www.luaaps.edu.hk，請自行參閱及下載。如有查詢，請致電 2776 8453 與 IT 組藍啟聰老師或趙士斌先生聯絡。

嶺南大學香港同學會小學
校園無線網絡器材租賃服務
招標委員會

二〇二四年三月二十三日

隨函夾附：

附件一：投標聲明書

附件二：投標附表

附件三：不擬投標通知書

承投 2024-2027 校園無線網絡器材租賃服務

1. 承辦商須把貨物送到校方指定地點，並豁免徵收所有貨物上樓費用。(學校沒有電梯)
2. 在保養期內，若發現貨物有不可接受之不正常操作，校方可要求退貨或更換。
3. 送貨日期及時間由校方決定，校方會預早三個工作天通知承辦商。若承辦商未能依照約定時間準時送貨，校方有權拒絕收貨，校方並有權再安排另一指定日期及時間送貨。
4. 承辦商需在合約訂明的日期內供應投標書上所列物品及服務，若承辦商未能如期提供物品及服務，須負責賠償校方從另處採購上述物品的差價。
5. 如在約定的送貨日期懸掛黑色、紅色暴雨警告、八號風球或遇上惡劣天氣，承辦商須延期一天再送貨。
6. 承辦商於遞交填妥的標書時，請同時遞交詳細的報價單，報價單內須列明各項產品及服務之價格、付款安排、保養及售後服務等。所建議的型號亦請同時提供一份規格及功能簡介。
7. 如承辦商有更優厚之條件或更佳建議，歡迎於招標書中列出，供校方考慮。
8. 如承辦商因硬件缺貨或其他原因而引致延誤或需另行招標，承辦商需賠償校方之損失。
9. 投標公司必須以密封函件遞交下列文件：
 - a. 填妥及簽妥之投標聲明書（附件一）（一式兩份）
 - b. 填妥及簽妥之投標附表（附件二）（一式兩份）
 - c. 最新商業登記證副本
10. 密封函件信封面應清楚註明：「承投 2024-2027 校園無線網絡器材租賃服務」。投標者不可於信封面展示或披露身份，否則有關標書不會被考慮。
11. 投標書須於 2024 年 4 月 19 日（星期五）正午 12 時前送往九龍石硤尾白田街 33 號「嶺南大學香港同學會小學校園無線網絡器材租賃服務招標委員會」收啓。逾期的投標，概不受理。承辦商的投標書有效期為 90 天，其間投標人不得取消投標；由上述截標日期起計，如在該 90 天內仍未接獲訂單，則是次投標可視作落選論。
12. 投標書一經遞交，內容不得修改。另外亦請注意，承辦商必須填妥有關聲明書及投標附表，否則標書概不受理。
13. 如遇上天文台於截標前 5 小時內懸掛八號或以上颱風訊號，或黑色暴雨警告，截標時間將順延一個工作天。
14. 校方著重承辦商的服務質素及承諾，故不一定接納出價最低的標書。本校有全權與任何

學校檔號： 2324-T006

投標者商議合約的條款細則。

15. 倘 貴公司未能或不擬投標，亦煩請盡快把本函及投標表格寄回上述地址，並列明不擬投標的原因。
16. 校方是次邀請招標承投的產品及服務，會以整批形式考慮接受承辦商的投標價，並保留選擇承辦商之最終決定權。倘 貴公司不擬接納部分訂貨，請於投標附表上清楚註明。
17. 投標商如中標將獲校方以書面確認，承辦人必須根據其標書所列條款提供產品及服務。

嶺南大學香港同學會小學
2024-2027 校園無線網絡器材租賃服務
投標聲明書

學校名稱：嶺南大學香港同學會小學

學校地址：九龍石硤尾白田街 33 號

學校檔案編號： 2324-T006

截標日期及時間： 2024 年 4 月 19 日（星期五）正午 12 時

第 I 部份

下方簽署人願意按照招標書的內容及校方所訂定的細則，提供投標附表內所列項目的服務。下方簽署人知悉，所有未經特別註明的項目，均須按照該細則的規定提供服務；投標書由上述截標日期起計 90 天內仍屬有效；校方不一定採納索價最低的投標書或任何一份投標書，並有權在投標書的有效期內，採納某份投標書的全部或部分內容。下方簽署人亦保證其公司的商業登記及僱員補償保險均屬有效，而其公司所供應的各個項目並無侵犯任何專利權。

第 II 部份

確定遵守防止賄賂條款

競投人、其僱員及代理人不得向學校僱員、校董會成員，或負責考慮與本合約相關事宜的有關委員會的任何家長或學生代表提供利益（香港法例第 201 章《防止賄賂條例》所界定的「利益」）。競投人、其僱員及代理人向有關人仕提供任何利益，根據《防止賄賂條例》可構成罪行，並可導致合約無效。學校亦可取消批出的合約，而競投人須為學校所蒙受的任何損失或損害負上法律責任。學校員工或供應商和承辦商任何一方或雙方如有干犯上述違法行為，有關投標書將不獲考慮；即使已獲委聘，所簽訂的有關合約亦會被宣告無效。

第 III 部份

性罪行定罪紀錄查核機制

香港警務處已於 2011 年 12 月 1 日推行性罪行定罪紀錄查核機制。凡某職位主要向兒童或精神上無行為能力人士提供服務、要求僱員在為兒童或精神上無行為能力人士提供服務的處所內工作，或涉及兒童或精神上無行為能力人士有經常或定期接觸，即屬該機制所涵蓋的範圍。承辦商提供之工作人員須進行性罪行定罪紀錄查核，並授權校方查詢查核結果。承辦商須確保有關工作人員不曾干犯性罪行，以加強保障學生的福祉。

第 IV 部份

再行確定投標書的有效期

有關本聲明書的第1部分，現再確定本公司的投標書有效期由上述截標日期起計 90 天內。下方簽署人亦同意，投標書的有效期一經再行確定，其公司就該事項註明於投標附表內的預印條文，即不再適用。

日期： 年 月 日

負責人姓名（請以正楷填寫）：

職銜：

(請註明職位，例如董事、經理、秘書等)

簽署：

上方簽署人已獲授權，代表

(公司名稱)簽署投標書，

該公司資料如下：

商業登記號碼：

公司印鑑

香港註冊的辦事處地址：

電話號碼：

傳真號碼：

嶺南大學香港同學會小學
2024-2027 校園無線網絡器材租賃服務
投標附表

學校名稱：嶺南大學香港同學會小學

學校地址：九龍石硤尾白田街 33 號

學校檔案編號： 2324-T006

截標日期及時間： 2024 年 4 月 19 日（星期五）正午 12 時

投標指引：

I. 投標人必須以密封函件遞交下列文件致校方：

1. 填妥及簽妥之投標聲明書（附件一）（一式兩份）
2. 填妥及簽妥之投標附表（附件二）（一式兩份）
3. 最新商業登記證副本

II. 停約或賠償

1. 如承辦商日後未能供應投標書上所列物品及服務，須負責賠償學校從另一處採購上述服務之差價。
2. 承辦商若未能給予校方滿意的服務水平或未能履行應負責任，校方有權以書面形式通知即時終止合約。承辦商除不會獲得任何賠償外，還需要負責本校因終止合約所導致之一切損失。

III. 申訴事宜

上述招標及評審程序按教育局指引行事，並受學校專責委員會監察，以確保審批合約過程公平妥善。投標者如認為其標書未獲公平處理或在投標過程中未獲公平對待，可向該專責委員會反映。

IV. 意見及查詢

承辦商如有任何疑問或建議，請致電 2776 8453 與 IT 組藍啟聰老師或趙士斌先生聯絡。

Written Quotation/Tender Schedule
(to be completed in duplicate)

Part A : School WiFi System (3-year contract of Rental Service)

Specification :

Item	Descriptions (3-year contract of Rental Service)	Comply key requirement (Y/N)	If not, please provide detail, or Remarks (If any)
1	<i>Wi-Fi services starts on</i> • December 1, 2024		
2	<i>Wi-Fi subscription period</i> • 36 months, starting from December 1, 2024		
3	<i>Wi-Fi Standard and Coverage (1)</i> • use IEEE 802.11ac2 network or above in the following rooms • 2nd Floor ◆ 201(40) ◆ 202(40) ◆ 203(40) • 3rd Floor ◆ 301(40) ◆ 302(40) ◆ 303(40) • 4th Floor ◆ 401(40) ◆ 402(40) ◆ 403(40) • 5th Floor ◆ 501(40) ◆ 502(40) ◆ 503(40) ◆ 504(40) ◆ 505(40)		

Item	Descriptions (3-year contract of Rental Service)	Comply key requirement (Y/N)	If not, please provide detail, or Remarks (If any)
4	<p><i>Wi-Fi Standard and Coverage (2)</i></p> <ul style="list-style-type: none"> • use IEEE 802.11ax network or above in the following rooms <ul style="list-style-type: none"> • Ground Floor <ul style="list-style-type: none"> ◆ Playground (100) ◆ Café Room (10) ◆ Hall (300) ◆ Lobby (20) ◆ Art Room (40) ◆ Counseling Room (30) • 2nd Floor <ul style="list-style-type: none"> ◆ General Office (30) ◆ Principal (10) • 3rd Floor <ul style="list-style-type: none"> ◆ Library (50) • 4th Floor <ul style="list-style-type: none"> ◆ Staff Room (40) 		
5	<p><i>Number of Concurrent Connection per classroom</i></p> <ul style="list-style-type: none"> • For those room under item 3 above [<i>Wi-Fi Standard and Coverage (1)</i>], commensurate with maximum 40 devices in a room with at least 2.5 Mbps upload / download bandwidth per connection. The contractor shall provide a PoC to prove that the required bandwidth can be supported for 40 devices at the same time before tender award • For those room under item 4 above [<i>Wi-Fi Standard and Coverage (2)</i>], commensurate with maximum number of said device as specified in the bracket after the room number/name in that room with at least 2.5 Mbps upload / download bandwidth per connection. The contractor shall provide a PoC to prove that the required bandwidth can be supported for said number of devices at the same time before tender award 		
6	<p><i>Number of classrooms using Wi-Fi concurrently</i></p> <ul style="list-style-type: none"> ● 4 		

Item	Descriptions (3-year contract of Rental Service)	Comply key requirement (Y/N)	If not, please provide detail, or Remarks (If any)
7	<i>SSID & Authentication Method</i> <ul style="list-style-type: none"> Support Multiple SSID co-exist through an AP Different SSID can have different authentication method Authentication method : Support MAC address filter (School can have the ability to add / edit / remove MAC address permit / deny to Wi-Fi connection) 		
8	<i>Session Control</i> <ul style="list-style-type: none"> support one device or multiple devices to connect based on user group (student, teachers) 		
9	<i>Internet Content Filtering Service</i> <ul style="list-style-type: none"> based on filtering profile commonly adopted by most schools and managed by vendors 		
10	<i>Relationship with Existing Network Infrastructure and Facilities</i> <ul style="list-style-type: none"> not rely on any existing ITED network facilities and ITED cabling of the School, nor interfere with the existing Wi-Fi network of the School. The Wi-Fi network shall be physically separated from the school network if existing trunks / conduits for School do not have enough space, new trunks / conduits are required to install for the connection if existing floor cabinets (racks) for School do not have enough space, new racks are required to install for the network connecting devices and related equipment if existing cables for School are not enough, new cables are required to install All new trunks, conduits, cabinets and cables are required to compromise with school installation / mounting before actual installation / mounting 		

Item	Descriptions [WiFi 900 (3-year contract)]	Comply key requirement (Y/N)	If not, please provide detail, or Remarks (If any)
11	<p>Broadband Network</p> <ul style="list-style-type: none"> • use separate broadband for the Wi-Fi service • provide at least 1Gbps Internet connection at school for the Wi-Fi service and allowing upgrade to 2Gbps <p><i>if counter-propose other Internet connection method instead of providing independent Broadband, please specify clearly</i></p>		
12	<p>Managed Service</p> <ul style="list-style-type: none"> • operate the Wi-Fi network and the dedicated broadband line, using managed service model, by a self-owned network operation centre with international quality management, IT service management and information security certification grant, provide end-to-end service with single point of contact including configuration, provisioning of service, proactive monitoring, maintenance and regular reporting 		
13	<p>Service Level Agreement</p> <ul style="list-style-type: none"> • ensure at least 99.7% availability of the Wi-Fi services • support four-hour response time and four-hour service recovery with active monitoring, helpdesk support • support hours from Mon to Sat 08:00 am to 17:00 pm • provide monthly monitoring reports for the School • Wi-Fi on site repair issue within 48 hours. 		
14	<p>Contract End Arrangement</p> <ul style="list-style-type: none"> • All newly added / provided trunks, conduits, cables, LAN ports and power points, if has/have, shall be considered as fixture of the School and shall become the property of the School, the Contractor shall remove or keep those provisions according to the instruction of the School • Contractor can remove all the hardware equipment in the network 		

Item	Descriptions (3-year contract of Rental Service)	Comply key requirement (Y/N)	If not, please provide detail, or Remarks (If any)
15	<p><i>Delay of Schedule</i></p> <ul style="list-style-type: none"> • If the Contractor fails to provide any part of the WiFi service which shall be ready for use in the School within 30 days after the target Ending then notwithstanding anything else contained in this Contract the School shall be entitled to terminate this Contract with forthwith by giving written notice to the Contractor and to recover from the Contractor the amount of all damages and loss suffered by the School resulting from such failure, including without limitation to any damages and loss resulting from the termination of related service orders. • Within one (1) week of the termination of this Contract, the Contractor shall collect its own Hardware and Software at his own cost after the contractor has removed the School Data in the Hardware. • The Contractor shall reinstate and make good the concerned area of the School to the satisfaction of the School after removal of the hardware. 		
16	<p><i>Technical Detail</i></p> <ul style="list-style-type: none"> • Please refer to the information below. 		
17	<p><i>Extra Charges</i></p> <ul style="list-style-type: none"> • Optical fiber network: The supplier needs to provide fiber optic connectivity to the school's server, and the project cost will be amortized over 36 monthly payments. • Restore: After the completion of the contract, if there is no renewal, all Hardware needs to be dismantled and restored according to the original design. • Repair: In the event that the issue cannot be immediately repaired, the company needs to propose a temporary system as a backup plan. 		
18	<p><i>Add-on Service</i></p> <ul style="list-style-type: none"> • Wi-Fi coverage: to include special rooms and open areas • Session Control – Guest Landing page shall support session control where access time can be changed by school • Authentication Method – Authentication method shall includes WPA2 Enterprise, OAuth 2.0 and well as MAC address filtering and user account system being used by 		

	<p>school, etc.</p> <ul style="list-style-type: none"> • Session Control – Guest Landing page shall support session control where access time can be changed by school • WLAN system access control – specific request on MAC address filtering. • MAC Address Monitoring – The lists of filtering and filtered MAC addresses are to be monitored by the School. • Internet Content Filtering Service – Cloud based Internet Content filtering profile in Hong Kong commonly adopted by most schools with ability to create black / White list filters and managed by vendors and school. • E-Mail Filtering Service – can integrate with cloud base email filtering to protect client from email hazard. • Zoom Managed Service – capable to manage the registered Zoom account traffic on the same support platform • Integration of networks – system integration with existing network with secure design. • Voice Traffic Management – wireless infrastructure is capable to support the Wi-Fi phone solution within the same network • Internet addresses subscription & configuration – for Internet access to school internal resources, via system integration • Monitoring of Wi-Fi network – specific request on monitoring of Wi-Fi network by the Contractor and the School. • Redundancy – increase the availability of the Wi-Fi service. • Support hours – extended support hours and/or reduced time for recovery, the SLA must be 4 hours response and 4 hours onsite • Contract End Arrangement – Other arrangements • Mobile Internet Backup Services - capable to support automatic failover and failback between fixed broadband circuit and mobile network to provide uninterrupted connectivity when the primary broadband connection is unavailable. 		
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Technical Detail of the required WiFi Infrastructure (Equipment & detail of Services)

1. . Standard Provision

- 1.1 **Wi-Fi Internet Connectivity** – use Wi-Fi 6 network or above in a standard classroom. The minimum number of classrooms to be covered shall be at least equal to the number of approved classes for the 2023/24 school year, that is 24 classrooms.
- 1.2 **Number of Concurrent Connection** – commensurate with the maximum number of students, say 40 tablets, in a class with at least 2.5Mbps upload / download bandwidth per connection
- 1.3 **Number of classrooms using Wi-Fi concurrently.**
- 1.4 **Authentication Method** – use 802.1x standard based authentication and Hong Kong Education City single sign-on services.
- 1.5 **Session Control** – Hong Kong Education City authentication service can support one device or multiple devices to connect based on user group (student, teachers).
- 1.6 **Internet Content Filtering Service** – Cloud based Internet Content filtering profile in Hong Kong commonly adopted by most schools with ability to create black / White list filters and managed by vendors and school.
- 1.7 **Existing Network Facilities** – not rely on any existing network facilities and cabling of the School, nor interfere with the existing Wi-Fi network of the School. The Wi-Fi network shall be physically separated from the school network
- 1.8 **Broadband Network** – use separate broadband for the Wi-Fi service. State otherwise if the existing broadband can be utilized for the service.
- 1.9 **Managed Service** – operate the Wi-Fi and its networking devices using managed service model, provide end-to-end service with single point of contact including configuration, provisioning of service, proactive remote monitoring, maintenance and regular reporting.
- 1.10 **Service Level Agreement** – ensure at least 99.7% availability of the Wi-Fi service, support four-hour response time and four-hour service recovery with active monitoring, helpdesk support with support hours from Mon to Sat 8:00 am to 6:00 pm, and provide monthly monitoring reports for the School.
- 1.11 **Contract End Arrangement** – All provisions of trunks, conduits, cables, LAN ports and power points shall be considered as fixture of the School and shall become the property of the School. The Contractor shall remove or keep those provisions according to the instruction of the School. Contractor can remove the network equipment such as switch, routers, and access points.
- 1.12 **Industrial standard** – The manufacturer of the access point should be positioned in the “2022 Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure”.

2. Wi-Fi Network

- 2.1 The Wireless LAN (WLAN) System of the Wi-Fi network shall support simultaneous dual-operation-mode that is FAT Access Point (AP) and Thin Access Points are both supported together with Cloud-based WLAN Controller in Managed model. Thus local Controller in school is not acceptable. The Cloud-based WLAN Controller shall be located in Hong Kong and is capable of fully centralized provisioning, configuration and monitoring all APs functionalities; a backup of the Cloud-based WLAN Controller shall be available in Hong Kong.
- 2.2 The thin client WLAN Access Point (AP) shall be a high performance wireless network access device, which shall be connected with the Power over Ethernet (PoE) Access Switches via Structured Cabling System.
- 2.3 The WLAN APs shall be compatible on both Wi-Fi 5 & Wi-Fi 6 with IEEE 802.11a/b/g/n/ac wave2/ax standard or above, support dual band of minimum 2x2:2 in 2.4GHz and 2x2:2 in 5GHz as well as OFDMA, MU-MIMO and Internal antennas.
- 2.4 The Contractor shall design the WLAN System to provide the coverage for the required wireless coverage place. The received signal strength measurement from the Wi-Fi Service at the Wi-Fi client device (such as tablet PC or notebook computer) is no

worse than -68 dBm. The Contractor shall provide certificate or test report to illustrate that the Wi-Fi client device for testing satisfies the power emission requirement.

2.5 The WLAN AP shall support PoE, WPA2, WPA3, IEEE 802.1x and certificate authentication.

2.6 The WLAN System shall support automatic channel selection, protocol filtering, multicast/broadcast storm filtering and load balancing

2.7 The WLAN system shall allow single or multiple devices per user account to be authenticated using 802.1x and Hong Kong Education City single sign-on service.

2.8 Each WLAN AP shall be able to support at least concurrent 40, or otherwise specified amount of users connecting to the network simultaneously. In no circumstance shall the speed of data transmission symmetrically fall below the data rate requirement at any place or any corner or any highly congested area within the areas being covered. In case the transmission speed is below the said data rates, the Contractor shall be responsible for all remedial measures to rectify or configure fine-tuning of antenna or even increase the quantity of the WLAN AP at Contractor's own costs in order to meet the data rate requirement as mentioned in the Specification. A complete set of catalogues with brand and model shall be submitted and highlighted for reference. The catalogues shall show all the features and technical specifications of the products and systems.

2.9 The WLAN shall allow different authentications by using Service Set Identifiers (SSIDs).\

2.10 Individual APs shall be allowed to be assigned by more than one SSID and up-to eight SSIDs.

2.11 Antennas of APs shall be capable of detecting user locations in real time for direction switching while devices in motion, beam forming.

2.12 The DHCP server shall support at least 30 queries/sec.

2.13 The WLAN system shall suspend the session of the user once the session control is expired and the suspension time shall be configured by the school.

2.14 The Contractor shall in provision of the service comply with non-interference requirements of and shall not cause interference prohibited under the Telecommunication Ordinance (Cap 106) or any other laws or regulation of Hong Kong.

2.15 The WLAN System shall provide termination of idle sessions and control of the duration features. The WLAN System shall support client roaming across Access Points.

2.16 The WLAN system shall cover all areas specified under this tender.

2.17 The quotation shall include the cost to provide sufficient quantity and its cabling work required, including but not limited to supply and install the Fibre optics, Cat 6 cable, Conduit, cable patch panel, cable faceplate, Cable patch cord.

2.18 The Contractor shall provide complete set of WLAN Systems which consist of Wireless Access Point, Connection Cable, Authentication System, Wireless LAN Controller, PoE Switch, horizontal UTP Cat 6 cable/OS2 Fiber, patch cable UTP Cat 6 / OS2 Fiber Optics, any required license and all associated accessories.

2.19 All access points (AP) shall be certified by OFCA and copy of certificates issued by OFCA shall be attached to the proposals.

2.20 The Contractor shall ensure that there is no interference between WLAN Access Points due to limited non-overlapping channels assignment when the WLAN AP is installed. The Contractor shall be responsible at his own costs for providing solution to eliminate the interferences including but not limited to reassignment of the non-overlapping channels, adding extra APs with lower transmission power and/or replacement of the WLAN AP.

2.21 The WLAN System shall support Web GUI management.

2.22 FTP service shall not be allowed in the Wi-Fi network (to avoid exchanging credential and files in plain text without any encryption).

2.23 The WLAN system deployed shall be **non-Asian/ Asian** brand.

2.24 Mobile 5G Router for Mobile Internet **Backup**

- System Features:
 - Support fault alert
 - Support single view for the Wi-Fi and 5G status
 - Support auto failover between School Wi-Fi fixed broadband line and 5G network
- Mobile 5G Router:
 - Cellular: Standard compliant: 3GPP Release 15(both LTE and 5G)
 - LAN port: Support up to 2 x 1GE LAN Ports (RJ45)
- LED display:
 - Signal strength indicator
 - 5G network status
 - LAN Port status
- Peak data rate:
 - Sub-6 DL: 2.3Gbps
 - UL:1Gbps

3. Core Switch

- 3.1 The Core Switch would be responsible for connecting all PoE access switches in typical floors for WLAN AP.
- 3.2 The Core Switch shall be capable of providing DHCP Services for IP addresses distribution for mobile devices connecting to the network, and the required bandwidth, QoS, and policy-based routing to carry all sorts of information including video, voice, data, image, etc.
- 3.3 Each Core Switch shall provide a Gigabit Ethernet connection to each PoE Access Switch in typical floors.
- 3.4 The Core Switch shall support Layer 2 and Layer 3 switching and capable of providing the wired speed performance.
- 3.5 The Core Switch shall support basic IP unicast routing protocols, Static route, Routing Information Protocol (RIPv1, RIPv2), inter VLAN routing.
- 3.6 The Core Switch shall support Internet Group Management Protocol (IGMP) snooping and multicast and unicast storm control, Spanning-Tree Protocol.
- 3.7 The Core Switch shall support WebGUI Management for contractor's support, Access Control Lists (ACLs), DHCP Interface and SNMP.
- 3.8 The Core Switch shall support VLANs including support for IEEE 802.1Q and IEEE 802.1p.

4. PoE Access Switch

- 4.1 The Access Switches shall be deployed to provide high performance interconnectivity between the Core Switches and the WLAN APs on typical floor and support Cloud-based management
- 4.2 The Access Switch shall consist of 8/12/24/48 x 10/100/1000Base-T Ethernet ports, with minimum of 1 x 1000Base-T / 1000Base-SX SFP Gigabit Ethernet uplink ports connected with the Core Switch.
- 4.3 The Access Switch shall be used for connecting the WLAN APs. The Contractor shall determine the Maximum power loading of the devices to be connected with the PoE Access Switches. The Contractor shall provide additional PoE Access Switch(es) if the total power loading summed up from the PoE devices exceeds the maximum power loading capacity of the PoE Access Switch.\
- 4.4 The Access Switches shall support VLAN configuration.

- 4.5 The Access Switches shall be at wired speed.
- 4.6 The Access Switches shall be provided sufficient port density to meet all the required links.
- 4.7 The Access Switches shall support PoE and shall conform to IEEE 802.af / IEEE 802.3af standard, which delivers power over single copper UTP cable for WLAN AP.
- 4.8 The Access Switches shall support Internet Group Management Protocol (IGMP) snooping and multicast and unicast storm control, IEEE 802.1D Spanning-Tree Protocol.
- 4.9 The Access Switches shall support Virtual local area network (VLANs) including support for IEEE 802.1Q and IEEE 802.1p.
- 4.10 The Access Switches shall support WebGUI Management, Access Control Lists (ACLs), DHCP Relay and SNMP.

5. Firewall

- 5.1. The performance of the Firewall shall not be degraded with 100% Internet bandwidth utilization.
- 5.2. Network Address Translation (NAT) is required.
- 5.3. Access Control Policy, Content Filtering and Anti-Malware services are required.

6. Service Requirements

- 6.1 Contractor shall be responsible for the total project management and shall assign a person to act as the single contact point to the School regarding all related activities of the contract. This single contact point cannot be transferred to a sub-contractor unless explicitly agreed by the School. Contractor should formally inform the School in writing if there is a change of contact point.
- 6.2 The Contractor shall provide rack/cabinet or use existing school rack if there is available rack space. All switches/firewall shall be properly installed into wall mounted cabinet or rack.
- 6.3 Cables shall be labelled with connected port and its device id.
- 6.4 All the equipment shall be labelled with an identifiable id.
- 6.5 The placement of cables, cabinets, racks and appliances shall be shown on the network diagram.
- 6.6 Switches and/or other appliances shall be properly installed into cabinet/rack with appropriate ventilation.
- 6.7 13A power cord(s) shall be bundled with appliance(s).
- 6.8 Cable shall be properly set up onto appropriate cable management guide.
- 6.9 Contractor should make sure that the actual environment is suitable for the installation and operation of equipment with School agreement in advance, and make necessary suggestions, if any.

7. Service Level Requirements

- 7.1 Contractor shall provide incident/problem report to the School within 5 working days after each incident and the resolution taken.
- 7.2 The Contractor shall derive mechanism, including forms and reference tables for measuring and recording the Service Level Measures, to ease the administration and monitoring by the School.
- 7.3 Advance notice by at least 2 weeks shall be given to the School prior to all scheduled maintenance. At most 4 scheduled maintenances per year are excluded from the calculation of Service Levels. No more than 1 hour service interruption or an agreed time slot is accepted for each scheduled maintenance.
- 7.4 Service Level, expressed in percentage, is the ratio of actual available time to the scheduled available time for the Wi-Fi

network of the School and is calculated according to the following formula:

- 7.5 Service Availability Level = (Schedule Uptime within the month– Unscheduled Downtime within the month) / Scheduled Uptime within the month, where
- 7.6 Scheduled Uptime: The duration, in unit of minutes, for the Wi-Fi network of the School is scheduled to be available for the month. The duration will exclude the scheduled downtime, which is defined as duration agreed between the School and the Contractor during which the service may be deliberately made unavailable to users.
- 7.7 Unscheduled Downtime: The amount of time, in unit of minute that the services are unavailable due to equipment failure or other reasons under the responsibility of the Contractor.

8. Service Level Rebates

- 8.1. The Service Rebates to the School operate as liquidated damages for the performance fallen short of the target service levels over a period of one month. The service measures stipulated in Point 6 (Service Level Requirements) above will be used to determine the Service Rebates in Service Availability (S1) and Service Resumption Time (S2).
- 8.2. The application of the Service Level Rebates adjustment to the monthly charge will commence with effective from the acceptance of the reliability test.
- 8.3. For each month, the Service Rebates for different service measures (S1, S2) will be calculated as below if the Contractor cannot meet the target Service Levels for the Wi-Fi network of the School under the availability agreed:

$$\text{Failure Hour} \times [(\text{Yearly Subscription Fee}) / (365 \times 24)] \times 2$$

where Failure Hour: The unscheduled downtime or the time to resume the network due to the failure of hardware or software which is provided by the Contractor. Failure Hour is calculated in the increment of 0.5 Hour.

- 8.4. The Service Rebates of the Wi-Fi network of the School, if any, will be paid by crediting the invoice of the following month.

9. Helpdesk Service

- 9.1. The Helpdesk Service shall maintain dedicated hotline, including phone, email and fax, for enquiries and complaints.
- 9.2. The Helpdesk Service shall answer enquiries and complaints originated from the School concerning the Service.
- 9.3. The Helpdesk Service shall operate from Mon to Sat 08:00 am to 17:00 pm.
- 9.4. The Helpdesk Service shall maintain call logs on enquiries and complaints. The information shall be included but not be limited to date, time, description of issues, contact information, and follow-up actions. The Contractor shall observe and comply with Personal Data (Privacy) Ordinance in handling all information relating to these enquiries and complaints.
- 9.5. The Contractor shall provide the following information concerning the Helpdesk service related to the implementation of the Service:
- ◆ Detailed information of the helpdesk office, such as address, phone number, fax number; and
 - ◆ Facilities, computer systems and equipment provided in the helpdesk office, such as private branch exchange (PBX), keyline telephone system (KTS), interactive voice response system (IVRS) and voice recording system.
- 9.6. The Contractor shall provide helpdesk staff with the necessary tools, including but not limited to hardware and software, related training for supporting the Service.
- 9.7. The Contractor shall not make use of the Helpdesk Service to transmit any message or conduct any activity to the School, which is not connected with the provision of the Service. The School shall have the full discretion to determine whether any such message or activity is in breach of this provision. The Contractor shall forthwith stop transmitting such message or conducting such activity and refrain from doing it further once the School has notified the Contractor in

writing or verbally of its determination.

10. User Acceptance Test

- 10.1. The Contractor shall conduct tests with the School before the service is officially accepted and subscription started. Tests shall include User Acceptance Test for reliability and performance of the hardware and software, and also the monitoring, operation support and all other aspects related to the Service Level Agreement of the Service. At least 14 school working days of trial period is expected for service monitoring after testing.
- 10.2. The contractor will be required to perform test making reference to the User Acceptance Test and System Test documents at www.edb.gov.hk/ited/Wi-Fi900. They include the types of testing to be performed, the requirements to be tested, the testing environment, testing tools and pass/fail criteria as reference to the Contractor.
- 10.3. The Contractor shall upon request by the School arrange briefings to the School and/or Responsible Parties of the School, with briefing materials, prior to the User Acceptance Test when required.
- 10.4. The Contractor shall provide detailed acceptance test plan and a step by step testing procedure with expected results against the requirements set out in this specification.
- 10.5. The Contractor shall provide, configure and set up the proper software and hardware for the School to carry out the User Acceptance Test.
- 10.6. The Contractor shall be required to carry out tests to demonstrate that the equipment and system meet the specification and other contractual requirements. The Contractor shall also be responsible for the timely preparation and compilation of all test schedules, test procedures and test reports.
- 10.7. The Contractor shall follow the agreed standards as laid down in this specification for the testing methods and procedures.
- 10.8. The Contractor shall submit a schedule of site performance and commissioning tests at least 3 working days prior to the commencement of the scheduled commissioning date.
- 10.9. Special tools, test equipment, test objects and simulators required for the demonstration of either bench or commissioning tests shall be made available by the Contractor at no extra charge to the School.
- 10.10. All test equipment used by the Contractor shall be properly and periodically calibrated. Measuring standards used in calibration shall be traceable to international or national measurement standards, or to an industry recognized manufacturer's reference, subject to approval of the School.
- 10.11. Calibration procedures and results shall be documented and signed by certifying body where applicable. The Contractor may be requested to show evidence of calibration of test equipment by submission of copies of these calibration records prior to conduction of any tests.
- 10.12. The Contractor shall submit the User Acceptance Test report within 3 working days. The acceptance of the installation will only be granted after receiving a satisfactorily UAT report from the Contractor.
- 10.13. All equipment to be installed may be subject to inspection and bench testing. The Contractor shall meet the cost of deliveries for bench test. Notwithstanding, the Contractor shall have carried out the tests in accordance with the requirements and procedures stipulated in this specification and submitted the associated test reports for inspection.

11. Termination of Service

- 11.1. The School reserves the right to terminate all or part of the Service at any time with written notice of 10 working days in advance if:
 - ◆ The Contractor fails to meet the target service levels under Service Level Requirements for two consecutive months, or three months in total within the committed subscription period;

- ◆ The School suspects that unauthorized activity has occurred or is occurring in relation to the Service;
- ◆ The provision of the Service will cause the School to be in breach of any applicable law;

11.2. The Contractor shall provide to the School and implement the Exit Plan in accordance with:

- ◆ The Contractor shall provide to the School an Exit Plan with feasible arrangements before the committed subscription contract date;
- ◆ If the School considers the Exit Plan as not satisfactory, it will notify the Contractor with comments. The Contractor shall revise the Exit Plan by taking into consideration of the School's comments and provide to the School with five (5) working days after the date of receiving the School's comments. If the Exit Plan has been considered as not satisfactory for three or more times, the School shall have the right to terminate this Contract by giving 10 days' notice in writing;
- ◆ Detailed exit procedures, disengagement timetable and actions to be taken by both the Contractor and the School for smooth termination of all or any part of the Service;
- ◆ The Exit Plan shall aim at enabling the School or its authorized parties to perform in substitution for the Contractor and to eliminate or minimize any disruption or deterioration of the Service. The Exit Plan shall contain, but not limited to the following information:
 - ◇ Detailed exit procedures, disengagement timetable and actions to be taken by both the Contractor and the School for smooth termination of all or any part of the Service;
 - ◇ Any information that is necessary for the School or a new service provider to continue the provision of the Service;
 - ◇ Details of the Contractor's personnel and other resources that will assist the School or the School's authorized parties during the handover;
 - ◇ All provisions of facilities such as trunks, conduits, cables, LAN ports and power points, shall be considered as fixture of the School venues and shall become the property of the School. The Contractor shall remove or keep those provisions according to the instruction of the School. Contractor can remove the network equipment such as switch, routers, and access points.
- ◆ The Contractor shall be responsible for the implementation and execution of the Exit Plan and shall ensure that the exit plan is carried out in a timely and orderly manner.

12. Wi-Fi Project Reference

- 12.1. The Contractor shall list out 10 reference cases with compliment letters.
- 12.2. The compliment letters shall be provided during the tender submission
- 12.3. To prove that the Contractor has the capability on Wi-Fi system design and maintenance, The Contractor shall list out 20 reference cases in non-subscription model which uses the same wireless solution vendor as the proposed brand in last 3 years while the cases in a single year shall not be less than 5.
- 12.4. The project references shall be provided during tender submission.

13. Wi-Fi.HK (optional service)

- 12.1 The implementation of Wi-Fi.HK is advocated by the School, the decision of the implementation will not be served as a basis of discrimination for proposal evaluation.
- 12.2 To make it easier for the public and visitors to access free Wi-Fi services in Hong Kong, the Government is promoting the free Wi-Fi services offered by the public and private sectors in Hong Kong under a common Wi-Fi brand "Wi-Fi.HK". It will help the public and visitors find and connect to the public Wi-Fi hotspots throughout Hong Kong. These free

hotspots will be promoted under the Wi-Fi.HK brand through various means such as the Wi-Fi.HK thematic website and mobile app. With a common brand in place, it will create more business opportunities for the Wi-Fi.HK participating organizations to promote and deliver their products and services to their customers by leveraging on mobile technologies.

12.3 Contractor is invited to provide free Wi-Fi service riding on the same Wi-Fi network infrastructure using the Wi-Fi.HK SSID for school visitors such as parents to access the Internet in schools and such services shall incur no additional charge to the School.

12.4 The following are the requirements of the Wi-Fi.HK scheme:

- Aggregated total of at least 30 minutes free access time per day per device;
- Service available 24 hours x 7 days
- All Access Points providing public Wi-Fi service be registered with OFCA;
- SSID of Access Points be presented in “Wi-Fi.HK via <designated name of service provider>” format;
- Landing page with Wi-Fi.HK logo, terms and conditions and disclaimers for user to accept for connection but no need for user to login using username or password;
- Hotline service, contact email or on-site support be provided for public enquiry and technical support; and
- Preferably with installation of digital server certificate issued by recognized certificate authority on the landing page so that users can easily discern the legitimacy of the Wi-Fi services.

12.5 The network for supporting Wi-Fi.HK shall not be allowed to have direct access to the School’s network. Connections via Wi-Fi.HK shall have access to the Internet only.

12.6 Content filtering is not a requirement for Wi-Fi.HK.

12.7 When the School terminates all or part of the Service, the Wi-Fi.HK service of the related area will be terminated together.

The School also reserves the right to request the Contractor to terminate or suspend the Wi-Fi.HK service at any time.

12.8 More details of the scheme can be found at Wi-Fi.HK thematic website (<http://www.wi-fi.hk>).

14. Sub-Contracts

14.1. The Tenderer shall be the prime Contractor for all the services specified in Part X and Part Y of this contract. The Tenderer shall be the single point of contact for all contractual matters.

14.2. The Tenderer shall be liable for the performance or breach of any provisions of the contract by Sub-Contractors.

14.3. The Tenderer shall provide details of the sub-contract service for the Wi-Fi operation and maintenance of the Sub-Contractors in the format listed on Section 5 of Part Y. The hierarchy of the sub-contracting shall also be clearly stated below. If there are no Sub-Contractors, please enter nil.

14.4. No Sub-Contractor(s) specified in Section 5 of Part Y shall be replaced unless prior written consent has been given by the School.

14.5. The Tenderer shall ensure that the quality of the service rendered by the Tenderer shall not be affected due to any change of Sub-Contractors;

14.6. The Tenderer shall not be relieved from any of its obligations hereunder by entering into any sub-contract for the performance of any part of this contract. If request by the School, the Tenderer shall describe which part of the service shall be performed by the Sub-Contractor(s) in the sub-contract(s) between the tenderer and its Sub-Contractor(s).

15. Schedule of Work

The Contractor shall provide the service according to the following schedule.

Phase	Items	Starting Date	Subscription Period	Service fee
I	Build up of Wi-Fi network	N.A.		

II	Subscription of service	2025-1	36 months	Quoted price
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16. Deliverables

16.1. The Contractor is required to provide the following deliverables for the WiFi network design:

- ◆ Master Activity Plan
- ◆ Network Configuration Report and Network Diagram
- ◆ Network Test Plan and Network Test Result Report
- ◆ Operation Manual for End User
- ◆ User Acceptance Test Plan
- ◆ Exit Plan

16.2. The Contractor is required to provide the monthly monitoring report with the following items:

- ◆ Network Health Report
- ◆ Network Usage Report
- ◆ Reporting of security incidents
- ◆ Reporting on trend and statistics of incident and their analysis
- ◆ Reporting of the failure rate for all equipment with detailed fault analysis
- ◆ Problem log and incident log for critical failure of the network
- ◆ Statistical report on the type and no. of calls
- ◆ Summary of the outstanding enquiry for the month-to-date

(1) Group	(2) Description/Specification	(3) Quantity Required	(4) Unit Rate (HK\$)	(5) Total Amount (HK\$)
Part A	School WiFi System (3-year contract)	1 project		

For WiFi System

- the Service Provider is required to provide a breakdown on the service charges for each of the service items above. Failure in complying with this requirement may render the tender disqualification.
- Set up cost will not be considered as a part of the cost in subscription mode
- The Service Provider is required to submit the following information and document
 - A Statement of Compliance to provide response that the quotation complies with all requirements stated in this Specification.
 - No upfront cost or one off cost schools shall be paid throughout the entire subscription period.
 - Proposed AP location mark on the Floor plan.
 - Proposed Network infrastructure show on the Network Diagram.
 - Implementation Plan.
 - WiFi Access Point certificates issued by OFCA.
 - Quantity and Model of the following equipments and devices by filling in the table below :

Equipments and devices	Quantity	Model	Brand New (Y/N) ?
WiFi Controllers	At least 1		
Access Points	At least 25		

嶺南大學香港同學會小學
2024-2027 校園無線網絡器材租賃服務
不擬投標通知書

致：嶺南大學香港同學會小學（傳真：2776 8452）

有關 貴校的招標報價邀請（學校檔案編號：2324-T006）（截標日期：2024 年4月 19 日（星期五）正午 12 時），本公司抱歉未能提供報價，理由如下：（請於適用方格內加上 ✓ 號）

原因	備註（如需填寫）
<input type="checkbox"/> 招標服務不在本公司的供應/服務範圍之內	_____
<input type="checkbox"/> 未能符合報價規格	_____
<input type="checkbox"/> 未能按照截標日期報價	_____
<input type="checkbox"/> 其他理由（請說明）	_____

日期： _____ 年 月 日

負責人姓名（請以正楷填寫）： _____

職銜： _____（請註明職位，如董事、經理、秘書等）

簽署： _____

電話號碼： _____

傳真號碼： _____



公司印鑑

學校檔號： 2324-T006

Router	At least 1		
Firewall	At least 1		
Core Switch	At least 1		
PoE Switches	At least 1		
Cabling	1 job		
Others (please specify)			

- Product information including technical and descriptive literature and catalogues. Information provided by the manufacturer shall be able to substantiate that the products offered meet the mandatory Technical Specification.
- Details of following of all the sub-contract service involved in the proposal for the project implementation, service operation and maintenance, by filling in the table below :

Name of Sub-Contractor	Sub-contract service	Roles and responsibility

Selection criteria

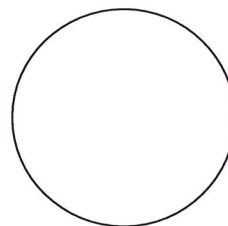
School is looking for a contractor based on the following criteria

- Proposed pricing fit with school budget
- Solution suitability to school
- Equipment and services level that can offer
- Case reference
- Other useful information

Terms of Payment

The subscription will be paid in arrears of each month during the subscription period.

We/I understand that if we/I fail to supply the stores or services as offered in our/my written quotation/tender upon accepting College's order, we are/I am prepared to pay the price difference to the College if such stores or services are obtained from elsewhere.



Company Chop

Name and Signature of Person authorized to sign Written Quotation/Tender

Name (in block letters): _____ Signature: _____

Date: _____