



TERMS OF REFERENCE (TOR)

SUPPLY, DELIVERY, INSTALLATION, CONFIGURATION, TESTING, AND COMMISSIONING OF THE QUEZON CITY GENERAL HOSPITAL OUTDOOR LED WALL AND OTHERS FOR THE USE OF HOSPITAL ACTIVITIES

I. RATIONALE AND BRIEF BACKGROUND

The procurement of the hospital outdoor LED wall and other Information & Communication Technology Equipment (ICTE) for Quezon City General Hospital (QCGH) is a significant initiative aimed at enhancing the hospital's digital capabilities and streamlining the communication of medical and administrative activities. QCGH, as a public healthcare institution, serves a large population within Quezon City and neighboring areas. The hospital relies heavily on information technology to manage LED information, public notices. With the increasing frequency of cyber threats and the imperative to comply with data protection laws, it is important that QCGH invests in a modern, secure, and compliant Information & Communication Technology Equipment (ICTE) solution.

The key component of the project includes:

1. Outdoor LED P3.9 display / Dual Post Structure
2. Digital Signage Player
3. LED Controller with HDMI input
4. Brightness Sensor
5. Wireless HDMI
6. LED structural post
7. Electrical Works
8. Installation of LED wall and Accessories
9. Configuration of LED Wall
10. Testing and Commissioning and Training
11. Mobilization and Demobilization
12. Dismantling of Existing/old LED wall and structure
13. Interactive board
14. Digital Interactive Kiosk
15. Landscape interactive kiosk with way finder of the QCGH Buildings
16. UPS back up/ Uninterrupted Power Supply (UPS)
17. Wifi Mesh
18. Sound system at SB & HB Hall
19. Mirrorless Camera
20. Zoom lens





II. PROJECT DESCRIPTION

This project aims to implement an enhanced hospital digital equipment that integrates with medical information and facilitates smooth data flow between departments. The goal is to improve patient information through faster information and communication technology equipment (ICTE) while ensuring the information complies with the Data Privacy Act of 2012 and industry best practices in cybersecurity.

The project aims to safeguard the hospital's digital assets and new ICTE. The deployment of these hardware solutions will be executed to the highest standards to ensure the hospital's digital environment remains secure and resilient.

III. PROJECT SCOPE OF WORK

The project shall cover the delivery of services for the supply, delivery, installation, configuration, testing, dismantling of existing/old led wall structure and sound system, commissioning of the Quezon City General Hospital outdoor led wall for the use of accreditation of medical doctors and hospital activities in HB and SB hall. This will include hardware. The project will also encompass user training, system testing, and post-implementation support.

There are four (4) stages of the project to ensure manageability as separate teams and team leaders will be assigned for simultaneous development and deliveries of milestones of the project.

1. Delivery and Configuration of ICTE Infrastructure/Hardware
2. Installation, Configuration and Deployment.
3. Technical Support
4. Training and Handover

The project entails a series of activities that is aligned with the deliveries of the project.

1. Delivery and Configuration of IT Infrastructure/hardware

HARDWARE SPECIFICATIONS

a. Hardware

Technical Specifications		
P3.9 OUTDOOR LED WALL DISPLAY 3M x 4M 12 sqm. Total Panels 24 pcs.	Pixel Pitch	P3.91mm
	LED	SMD2020
	Pixel Density (dots/m ²)	65536
	Min. Viewing Distance	≥4 meter
	Pixel Configuration	1R1G1B





	Brightness	4000cd/m ²
	Color Temperature	6500-9500k (Adjustable)
	Module Pixels	4096dots
	Module Resolution	64dots x 64dots
	Module Size	250mm x 250mm
	Panel Dimension (W x H)	500mm x 1000mm
	Panel Resolution	128*256 pixel
	Cabinet Material	Die cast aluminum
	Brightness Correction & Color Correction	Available
	Max Power Consumption	650w/m
	Average Power Consumption	325w/m
	Viewing Angle	H:160 V:140
	Refresh Rate	≥ 3840 Hz
	Gray Scale	14-16 bit
	IP Rating (Front/Rear)	IP65/IP54
	Operating Humidity	10% to 95%
	Operating Temperature	-30 to 60 Degrees Celsius
	Storage Temperature	-40 to +85 Degrees Celsius
	Lifetime	≥100,000
	Signal Input Format AV, S-Video,VGA, DVI,HDMI,SDI,DP	Signal Input Format AV, S-Video,VGA, DVI,HDMI,SDI,DP
Digital Signage Player	Supports for HD and 4K UHD Format of Videos More than 1 Display Port with Built-In Wi Fi ready	
	Able to use signage skin editor to create templates directly on SMP Player on PC	
	Use any web-editing tool to create HTML pages with unlimited video zones, image zones and ticket zones	
	Media Player with Skin Editor	
	Features:	
	System Configuration (Restart, Shutdown, Back up/ Restore)	
	Remote Access	
	Display Scheduling Set schedules to turn on/off the screen	
	Content Management:	
	Ticker x 2	
	Clock x 1	
	Video x 2 (video file/streaming/audio)	
	HTML x 3	
	Image x 2	
	Background image x 1	
	View type: calendar or time table	
	Internal Storage SSD 30GB (Optional Upgrade: up to 256GB)	





	External Storage Supports up to 4TB Certifications CE, FCC, RoHS, CB, BSMI
LED Controller with HDMI Input	<p>Input connectors</p> <ul style="list-style-type: none"> - 1x HDMI 1.3 - 1x DVI (IN & LOOP) - 1x 3G-SDI (IN & LOOP) - 1x optical fiber port (OPT1)
	<p>Output connectors</p> <ul style="list-style-type: none"> - 4x Gigabit Ethernet ports <p>A single device unit drives up to 2.6 million pixels, with a maximum width of 10,240 pixels and a maximum height of 8192 pixels.</p> <ul style="list-style-type: none"> - 2x Fiber outputs <p>OPT 1 copies the output on 4 Ethernet ports.</p> <p>OPT 2 copies or backs up the output on 4 Ethernet ports.</p> <ul style="list-style-type: none"> - 1x HDMI 1.3 <p>For monitoring or video output</p>
Easy preset saving and loading	Up to 10 user-defined presets supported
Multiple kinds of hot backup	<ul style="list-style-type: none"> - Backup between devices - Backup between Ethernet ports
Power connector	100-240V~, 1.6A, 50/60Hz
Rated power consumption	28 W
Operating Temperature	0°C to 45°C
Operating Humidity	20% RH to 90% RH, non-condensing
USB	<p>USB (Type-B):</p> <ul style="list-style-type: none"> - Connect to the control PC. - Input connector for device cascading <p>USB (Type-A): Output connector for device cascading</p>





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	Certifications	CE, CB, CMIM, EAC, FCC, IC, KC, RCM, UKCA, UL
INTERACTIVE BOARD	Display	Display 75"
	Native Resolution	3,840 × 2,160 (UHD)
	Brightness (w/o Glass)	440 nit (Max.), 390 nit (Typ.)
	Touch	Max. 40 Points
	Input	HDMI (3, HDCP2.2), RGB (1, VGA),
		Audio (1), RS-232C (1), RJ45 (1, LAN),
		USB3.0 Type A (4), USB2.0 Type A (1), USB Type-C (1, USB-PD, DP-Alt)
	Output	HDMI (1), Audio Out (1, Optical 1(SPDIF)), Touch USB (2), RJ45 (1, LAN)
	Features	QR Login for Easy Cloud Access, Advanced Eye-Care, Front Connectivity Design, Built-in OPS Slot
Remote Management Solution	Remote-control / Scheduling, Broadcasting / Alert Messaging	
Easy Connection and Sharing	Wireless ScreenShare, Bluetooth Connectivity, C-type Connection	
DIGITAL INTERACTIVE KIOSK 55" Portait Interactive Kiosk (Android) Delivery, Installation and Training	Display	55"
	Screen	LED
	Pixel Pitch	0.51*0.51mm
	Response Time	8ms
	Contrast Ratio	6000:1
	Viewing Angle	178 degrees /178 degrees
	Resolution	1920x1080
	Display Colors	16.7M
	Brightness (nits)	450cd/m2
	Operating System	(Android) CPU- RK3288 Chipset, Quad-core 1.8GHz
		RAM- 2GB DDR
		Memory- 8GB
		Input/Output- USB 2.0 (2), LAN (1), HDMI (1), Speaker (2x10W)
Power Supply	AC100-240V 50/60Hz	
Life Time	Single point of more than 600 million times	
DIGITAL INTERACTIVE KIOSK 55" Landscape Interactive Kiosk (Windows) WITH WAYFINDER OF THE QCGH BUILDINGS	Display	55"
	Screen	LED
	Pixel Pitch	0.51*0.51mm
	Response Time	8ms
	Contrast Ratio	6000:1
	Viewing Angle	178 degrees /178 degrees
	Resolution	1920x1080
	Display Colors	16.7M
	Brightness (nits)	450cd/m2
	Operating System (Windows)	Memory-8GB
		CPU-i5, up to 1.6GHz
		Input/Output-HDMI (1), USB 2.0 (6), LAN (1), Audio Input (1), Audio Output (1), Speaker (2x10W)





		Hard Disk-128GB SSD
	Power Supply	AC100-240V 50/60Hz
	Life Time	Single point of more than 600 million times
UPS SRV SRV RM 10000VA/10KW 230 W/ RailKit, External Battery Pack	Output power capacity	10.0kWatts / 10.0kVA
	Max Configurable Power (watts)	10.0kWatts / 10.0kVA
	Nominal Output Voltage	230V
	Other Output Voltage	220,240
	Input Connections	Hard Wire 3-wire
	Other Input Voltage	220, 240
Mesh WIFI 6 System Model:X20 (3 packs)	Standards	Wi-Fi 6 IEEE 802.11ax/ac/n/a 5 GHz IEEE 802.11ax/n/b/g 2.4 GHz
	WiFi Speeds	5 GHz: 1201 Mbps (802.11ax) 2.4 GHz: 574 Mbps (802.11ax)
SOUND SYSTEM (SB AND HB HALL)	Speaker (F1 812 w/ F1 SUB) Audio Mixer (Soundcraft- EFX8) w/ Multi Camera Video Mixer Switcher 5.5" Touch PTZ Control Chroma Key live streaming & Sound Card Professional Audio interface System Stereo Mono USB 24-bit 192 KHz Recording Testing and Installation	
MIRRORLESS CAMERA	Maximum Photo Resolution and Frame Rates	24.2 MP up to 10 fps
	Maximum Movie Resolution and Frame Rates	4K / 30p HD / 120p
	Maximum ISO Sensitivity	Photo: ISO 100-51200 (expandable: ISO 50-204800) Movie: ISO 100-51200 (expandable: ISO 100-102400)
	Maximum Photo Resolution and Frame Rates	24.2 MP up to 10 fps
	Maximum Movie Resolution and Frame Rates	4K / 30p HD / 120p
	Maximum ISO Sensitivity	Photo: ISO 100-51200 (expandable: ISO 50-204800) Movie: ISO 100-51200 (expandable: ISO 100-102400)
ZOOM LENS	E 70–350 mm F4.5–6.3 G OSS APS-C Telephoto Zoom G Lens with Optical SteadyShot E 70–350 mm F4.5–6.3 G OSS APS-C Telephoto Zoom G Lens with Optical SteadyShot	

2. Installation, Configuration, and Deployment

1. Led structural Post
2. Electrical Works
3. Installation of LED wall and Accessories
4. Configuration of LED Wall
5. Testing and Commissioning and Training
6. Mobilization and Demobilization
7. Dismantling of Existing/Old LED Wall and Structure

3. Technical Support

A technical support group will be set up for email and calls handling. This will serve as a guide for applicants and processors. This project is an innovative project that needs constant support technical and functional.





- 24/7 technical support.
- Via SMS & Calls
- One (1) hour response time for critical issues for resolution within twenty-four (24) hours.

4. Training and Handover

There will be a set of training for QCGH staff/users for new digital equipment and technical training on the hardware that covers maintenance, administration, and service delivery management.

a. Training and Manuals

- Knowledge transfer training on application, technical configuration, hardware administration.
- Classroom Training Two (2) days Training for involved or at least eight (8) QCGH personnel users including IT personnel.
- User Manuals and Technical Manuals

IV. AREA OF COVERAGE

The deployment of the Supply, Delivery, Installation, Configuration, Testing and Commissioning of the Quezon City General Hospital outdoor led and others for the use of Quezon City General Hospital will encompass all digital equipment within Quezon City General Hospital.

V. PROJECT STANDARD & REQUIREMENTS

The requirements are expressed in indicative and functional terms to guide the Service Provider in the provision of services that will ensure the overall health of the hardware to include its performance, interoperability, integration, and information exchange.

1. SERVICE PROVIDER STANDARDS/QUALIFICATIONS

The following are the minimum qualifications and requirements for the Service Provider:

- Service provider must provide certificate of exclusive distributorship from manufacturer for LED wall, Digital Signage Player and panel being offered.
- Service provider must be at least 15 years of existence as shown on the SEC/DTI
Service provider must provide the following certificates for LED wall:
 - a) Conformité Européenne (CE).
 - b) Restriction of Hazardous Substances (RoHS)





- c) International Organization for Standardization (ISO9001:2015)
- d) China Compulsory Certification (CCC)
- Service provider must provide two (2) years warranty certificate for LED wall units, parts and accessories.
- Service provider must provide Manufacturer's Certificate that the LED Wall brand has been in existence in the global market for at least five (5) years.
- Service provider must provide Manufacturer's Certificate that the LED Wall undergone minimum tests for vibration and humidity testing.
- Service provider must have its own service center authorized by the manufacturer of led wall for after sales support.
- Service provider must conduct 1-2 days hands on-training for the transfer of technology.

I. Manpower

The Service Provider shall have the critical technical knowledge that includes knowledge of LED Structure; ability to manage LED Hardware, implementation, and testing; knowledge of client tools used by business users. The project should provide the following Professional Services:

- a. Project Manager (1) - The Project Manager should have at least 2 years experience in LED projects.
- b. ICTE Administrator (1) – ICTE Administrators are for the installation and configuration of ICTE, Communication equipment and other that includes These administrators will provide support hardware to assure continuous operation of the digital equipments.
- c. Technical Support (2) – Provides technical support to assure all facilities including all LED, ICTE and communication equipments are all in good condition and technical support to components.

VI. AFTER SALES SUPPORT

The service provider will submit a sworn Statement of Undertaking stating the following:

- Software Component will have one (1) year warranty upon implementation.
- User manual and installer will be provided for software components.
- All hardware components will have one (1) year warranty upon delivery and configuration.
- SMS Result Notification within one (1) year.
- Technical Support:
 - 24/7 technical support.
 - Via SMS & Calls





- One (1) hour response time for critical issues for resolution within twenty-four (24) hours.
- 1-year coverage after full acceptance of project including:
 - Technical Support Assistance
 - Troubleshooting Support

VII. PROJECT DURATION / DELIVERY SCHEDULE

Ninety (90) calendar days delivery period upon issuance of the Notice to Proceed (NTP)

VIII. BASIS FOR PAYMENT

The terms of payment shall be based on the following completed deliverables:

- a. Upon submission of the delivery of the Project Management Plan, the procuring entity will release fifteen percent (15%) of the total winning bid amount to the service provider.
- b. Upon completion of delivery of Hardware equipment (ICTE), completion of configuration and setup. The procuring entity will release twenty three percent (23%) of the total winning bid amount to the service provider.
- c. Upon deployment of the outdoor LED, the procuring entity will release sixty one percent (62%) of the total winning bid amount to the service provider, including the following:
 - Installation and Configuration
 - Knowledge Transfer/ Training

IX. APPROVED BUDGET FOR THE CONTRACT

The Approved Budget for the Contract (ABC) amounts to Sixteen Million Five Hundred Ninety Thousand Five Hundred Two Pesos and only 04/100 only (P16,590,502.04).

X. PENALTIES FOR BREACH OF CONTRACT

Failure to deliver the services according to the standards and requirements set by the City shall constitute an offense and shall subject the Contractor to penalties and/or liquidated damages pursuant to **RA 12009** and its Implementing Rules and Regulations.

XI. CANCELLATION OR TERMINATION OF CONTRACT

The guidelines contained in **RA 12009** and its IRR shall be followed in the termination of any service contract. In the event the City terminated the Contract due to default insolvency, or for cause, it may enter negotiated procurement pursuant to **RA 12009** and its IRR.





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