

TERMS OF REFERENCE (TOR)

SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF INDOOR LED SCREEN VIDEO WALL OF QUEZON CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE (QCDDRRMO) EMERGENCY OPERATIONS CENTER (EOC)

I) RATIONALE AND BRIEF BACKGROUND

The Emergency Operations Center (EOC) of QCDDRRMO as a Command Center is equipped with technology to coordinate resources, information, crisis and emergency risks communication, to strengthen its ability to detect and respond to public safety and health threats through effective monitoring of real time incidents and situational analysis, Information and Communication Dissemination Distribution System, Advisory Alerts, Warnings and Announcements.

For QCDDRRMO EOC to present quality presentations and allow real time video information to be displayed in a large format in its Operation Center, a large format high quality LED billboard display is recommended. This display will help reach out to EOC personnel and audience at the Operations Center to view many sources of information including videos and real time data simultaneously at resolution of higher quality computer at Full HD. The system should also support multiple inputs to allow switching of contents **seamlessly**, and allow an operator or presenter to use a touch interface to quickly shift inputs and scenes to display on the screen and facilitate organization wide collaboration and efficient data monitoring. Due to its high output and resolution, it requires that the system support displaying of **multiple input sources** concurrently and also allow the operator to manage the various scenes and designs from a remote touch device like a tablet or a mobile phone running IOS or Android.

II) PROJECT DESCRIPTION

QCDDRRMO EOC in its drive to fulfill its mandate to deliver relevant, concise, urgent, time sensitive, current and updated information, situational analysis, crisis management, real time information, announcements and public advisories for public health and safety of QC residents and the public in general needs to replace the existing and current LED SCREEN/VIDEO WALL which has many modules and panel boards that are defective and not operational.

QCDDRRMO EOC LED SCREEN VIDEO WALL shall have the following parameters:

1. Disaster Management
2. Expanding Situational Awareness
3. Traffic and Emergency Monitoring
4. Weather monitoring and update
5. Public Security Surveillance and Safety
6. Flexibility to support and seamlessly integrate a variety of content sources (maps, traffic, camera, live news feed, web based content)

III. PROJECT SCOPE OF WORK

QCDDRRMO plans to install Emergency Operations Center (EOC) LED Screen Video wall greater than 4K resolution with a size approximately 9.6 meters x 5.4 meters Indoor LED Display

- The project involves the supply, delivery, installation with structure, testing and commissioning of indoor LED Screen Video Wall of QCDDRRMO EOC inclusive of engineering, design and electrical requirements
- The provider and or supplier shall install the indoor LED Display inclusive of structures (should it be required or of a necessity), metal works, mounting, cables/wiring/ conduit
- LED boards shall be delivered within one hundred twenty five (125) calendar days
- The contractor shall provide a two (2) year warranty for the indoor LED Screen Video wall, parts and services

IV. Technical Specifications: Technical Specifications and requirements for software, hardware and structural systems of System.

A) LED DISPLAY

Each display must have a viewable area of 9.6 meters in width and 5.4 meters in height.

The total resolution of the display should be a minimum of 6144 x 3456 pixels.

The display brightness should be a minimum of 600nits using a high quality LED chip of the same quality level as Nationstar. They must also supply a led driver IC with a very high refresh rate of greater than 3800Hz (please provide driver IC part number). Supplier must also provide a high quality power supply (please provide power supply brand and part number)

The display must be warranted from any factory defects for a minimum period of two (2) years and enough spares provided to allow the display to operate for a period of five (5) years justified by failure history of a similarly installed existing outdoor display previously supplied by the bidder.

MINIMUM SPECIFICATIONS OF THE EOC LED SCREEN VIDEO WALL

Pixel Pitch(mm)	1.5
Application	Indoor
Lamp configuration(Brand)	SMD 3 in1
Module Resolution(dot) (H x V)	96 x 108
Module Size(mm) (H x V x D)	150 x 168.75 x 10
Module Maintenance method	Full Front Service
Cabinet Resolution(dot) (H x V)	384 x 216
Cabinet Size(mm) (H x V x D)	600 x 337.5 x 59
Cabinet Material	Die-cast Aluminum
Cabinet Weight(kg/pcs)	7.5
IP Standard (Front / Back)	IP50 / IP50
Density(Pixels / sqm)	409600
Brightness Range(nits)	0-600

Brightness Adjustment (levels)	16384
View Distance(m)	2.5
Color Temperature(k)	3000 -10000
Grey Scale(bits)	14
Refresh Rate (Hz)	3840
Frame Rate (Hz)	60
Viewing Angle (H x V)	165°/165°
Max. Consumption(w/sqm)	500
Ave. Consumption(w/sqm)	166
Driving Mode(scan)	1/27, constant current
Control Mode	Synchronous
Working Humidity	10% ~80% RH
Working Temperature	0° ~ + 45°Celsius degree
Working Voltage	AC 90~264V, 60HZ
Life Span (Hours)	100000
IC Driver	With PWM

Video Processing

To support the correct output of the LED, a video processor is required. The video processor must supply the following capabilities:

Scaling – The processor must be able to take an input of various sizes and scale it to fit appropriately in the LED video display.

Multiple input sources – The processor must be able to support a minimum of SIX concurrent (6) HDMI1.3 inputs with up to 16 selectable HDMI inputs. It also must be able to natively support video, image, HTML, PDF, PPT, live streams and other contents natively. A minimum of 16 of the above type of sources shall be supported by the video processor.

Layers – The processor must support layering of contents with a minimum of sixteen (16) layers of video, images, web pages, and other contents concurrently.

Scenes – The processor must support scenes with different layer/input positioning, sizing and scaling settings. Must support an unlimited number of scenes.

Smooth output transitions – When selecting different inputs or scenes and switching, the video processor must support smooth transitions including fading of scenes.

Touch support – The processor must support the capability of selecting inputs and scenes using a remote device such as a tablet or mobile phone with Android or IOS. This allows the operator to easily select output displays from anywhere within the area.

Structural Support Stand for Displays

The information displays must be mounted on a structure that supports the load of the display. This display must be stand alone and is a minimum of 2m from the floor. Structure should be removable in the event it is not required by the LED Screen Video Wall.

V. PROJECT STANDARDS AND REQUIREMENTS

Track Record

- Bidder must have a minimum of three (3) year experience, or have a local partner/supplier with at least four (4) years of local experience in LED Display Technology and Digital Signage.
- Bidder must have experience in design and built-out of a similar structural system supporting similar displays located on streets for communications and can document history
- Must have the capability to locally maintain, repair and service supplied equipment for the project to prevent down times
- Must be able to supply replacement parts immediately during the warranty period
- Must have completed contracts similar to the project within three (3) years prior to the deadline for the submission and receipt of bids.
- Must be knowledgeable in creating video/animation contents

Manpower

- Bidder must have at least one (1) Project Manager with a minimum of four (4) years of project management, coordination and implementation
- Must have one (1) LED System Designer with a minimum of ten (10) years of manufacture, design and production of LED Displays and digital signage equipment
- one (1) content management or video processing skilled engineer with a minimum of five (5) years of content development

REQUISITES

Bidders must include in their submissions, all the required engineering diagrams of the whole system, which includes the displays, computing systems, power supply requirements, estimates on distance to power supplies and structural design for the project implementation

To ensure that the system is constantly available in all conditions, Bidders must include an adequate amount of spares for the continuous operations of the displays for a period of five (5) years taking into consideration the normal wear and tear of components whether serviceable or disposable.

The Bidder must justify the supply of spares with a failure analysis of previous displays previously installed based on the quality of equipment supplied. The analysis of the failure must be signed off and notarized as actual measurements in actual conditions of the previous existing project.

All Bidders must clearly indicate the model number and specifications and source of origin of all products bid for the project to allow the organization to completely evaluate the solutions proposed.

VI. PROJECT DURATION

Delivery of the Goods and Services will have a maximum of one hundred twenty-five (125) calendar days upon issuance of Notice to Proceed. Before Goods are delivered,

Supplier must initiate coordination with QCRRMO EOC as to the planning requisites, electrical and data conduit, installation and fabrication of structure to ensure accurate installation and commissioning of the Goods.

VIII. APPROVED BUDGET FOR THE CONTRACT

The source of fund for the project is Local Disaster Risk Reduction and Management Fund under General Fund. The Approved Budget for the Contract is **Forty Million Pesos (PHP 40,000,000.00)** for the project.

The project cost shall be fixed and there shall be no price adjustment applicable for the duration of the contract except when operation costs are increased by more than 10% as a result of extraordinary circumstances as determined by National Economic Development Authority (NEDA) pursuant to the provisions of RA 9184 and its IRR on contract price escalation. All contract price escalation shall be approved by the Government Procurement Policy Board (GPBB)

VIII. BASIS OF PAYMENT

The contract price shall be the amount proposed by the winning bidder for the project. Payment shall be based on the following schedules:

ACTIVITIES	PERCENTAGE OF PAYMENT	CALENDAR DAYS
Submission of Project Implementation Plan	15 %	5 days
Delivery of Indoor LED Panel Boards	50 %	95 days
Installation, Mounting, Testing, Configuration, Commissioning, and turnover of EOC LED Screen/Video Wall	35 %	25 days
TOTAL	100% payment made	125 days

IX. PENALTIES FOR BREACH OF CONTRACT

Failure to deliver the services according to the standards and requirements set by the City constitute an offense and shall subject the contractor to penalties and/or liquidated damages pursuant to RA 9184 and its revised Implementing Rules and Regulations.

X. CANCELLATION OR TERMINATION OF CONTRACT

The guidelines contained in RA 9184 and its revised 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 into negotiated procurement pursuant to section 53 (d) RA and its IRR.9184

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