

PART 1: SCOPE OF WORK

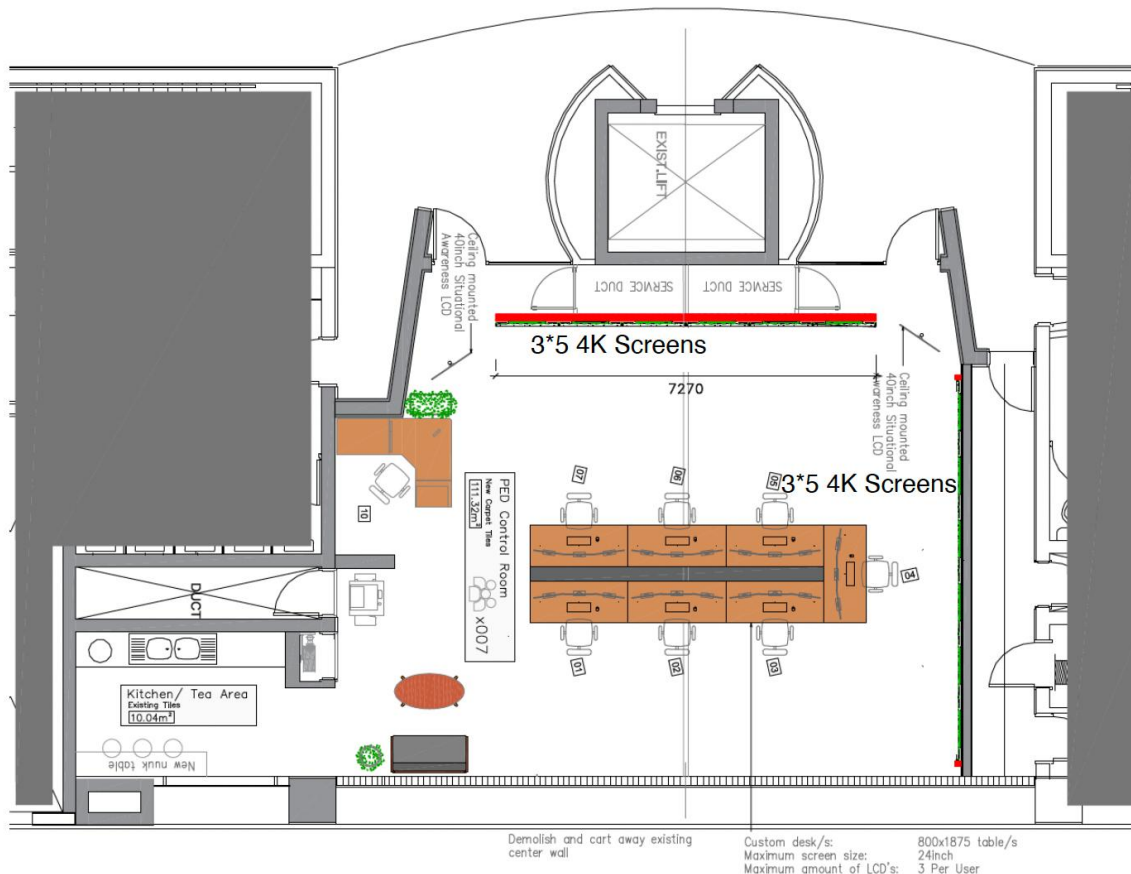
Supply, installation and the maintenance of a video wall visualisation system, including computer systems, video wall screens and all related equipment.

1. Supply of the following equipment:

- Two video walls(3*5), each consisting of 15 screens configured with each screen measuring 45 – 55 inches. Ultra-thin bezels for a nearly seamless viewing experience, with a combined bezel width of no more than 0.88 mm to ensure uninterrupted visual data4K resolution displays to provide crisp, high-definition visuals for real-time data monitoring.
- Centralized integration with the system for live dashboards and video feeds.
- Twenty-one LED Backlit Professional-Grade 24 - 27-inch 4K monitors to ensure high-quality visuals.
- Adjustable mounting arms to provide ergonomic positioning for users.
- Video Wall Manager: The vendor will be responsible for delivering and implementing advanced video wall manager software to oversee and control the two PED video walls.
- This software must efficiently handle the configuration and management of all display outputs, ensuring seamless operation across multiple inputs and outputs. The video wall manager must be fully compatible with the existing PED infrastructure and capable of integrating with the broader system for real-time updates and data visualization. Eskom will provision virtual machines (VMs) to support the video wall management software, any physical hardware components necessary for the video wall manager must be installed securely within the Megawatt Park (MWP) data centre.
- Software Control: The video wall displays must be controlled by centralized software to manage and configure the screens effectively. The software should allow seamless switching between different data sources and provide options for custom layouts. Compatibility with the system for real-time updates and integration with other operational tools.

2. PED Control Centre Layout

The physical layout of the PED Control Centre is designed to optimize operational efficiency. The room includes:



- A Two (3*5 4K Screens configuration) (Total of 30 screen video wall system), setup providing comprehensive visual data for monitoring purposes.
- Adjustable mounting arms that can set-up to 3 LCD screens per user.

3 Video Wall Setup

The video walls in the PED Control Centre are designed to facilitate seamless monitoring of coal operations. Key specifications include:

3.1 Technical Details:

- 3.1.1 Two video walls(3*5), each consisting of 15 screens configured with each screen measuring 45 – 55 inches.
- 3.1.2 Ultra-thin bezels for a nearly seamless viewing experience, with a combined bezel width of no more than 0.88 mm to ensure uninterrupted visual data.
- 3.1.3 4K resolution displays to provide crisp, high-definition visuals for real-time data monitoring.
- 3.1.4 Centralized integration with the system for live dashboards and video feeds.

E2042GXN: SUPPLY, INSTALLATION AND MAINTENANCE OF A VIDEO WALL VISUALISATION SYSTEM, INCLUDING COMPUTER SYSTEMS, VIDEO WALL SCREENS AND ALL RELATED EQUIPMENT FOR A PERIOD UP TO FIVE YEARS.

Specification	Requirement
Screen Type	LED Backlit Professional-Grade
Viewable Image Size	Between 46" and 55"
Aspect Ratio	16:9
Backlight Type	LED, Edge-lit
Displayable Colours	More than 16.7 million or better
Contrast Ratio	4000:1 or better
Resolution	4K resolution
Brightness (Maximum)	700 cd/m2 or better
Brightness (Typical)	550 cd/m2
Refresh Rate	60Hz or better
Response Time (Grey to Grey)	8 ms or better
Professional Grade Quality	Must meet rigorous durability and operational standards suitable for 24/7 for environments, the screens will run for 5 years or more.
Warranty	5-Year Time and Material (T&M) or OEM warranty

3.2 Functionality

- 3.2.1 Displays real-time metrics on coal movement, transportation status, and quality assurance.
- 3.2.2 Supports operational alerts, exception reporting, and incident management workflows for immediate resolution of issues.

4 Desk monitors

The individual workstations in the PED Control Centre must be equipped with advanced monitors to support user productivity and data analysis. Key specifications include:

4.1 Monitor Details

- 4.1.1 Each desk is equipped with 24 - 27-inch 4K monitors to ensure high-quality visuals.
- 4.1.2 Monitors are configured to support up to two HDMI inputs for flexible work connectivity.
- 4.1.3 Adjustable mounting arms to provide ergonomic positioning for users.



Specification	Requirement
Screen Type	LED Backlit Professional-Grade
Viewable Image Size	Between 24" and 27"
Aspect Ratio	16:9
Backlight Type	LED, Edge-lit
Displayable Colours	More than 16.7 million or better
Contrast Ratio	1000:1 or better
Resolution	4K resolution
Brightness (Maximum)	350 cd/m2 or better
Brightness (Typical)	300 cd/m2
Refresh Rate	60Hz or better
Response Time (Grey to Grey)	8 ms or better
Industrial Grade Quality	Must meet rigorous durability and operational standards suitable for 24/7 for environments, the screens will run for 5 years or more.
Warranty	5-Year Time and Material (T&M) or OEM warranty

5 Service Provider Scope of Work

5.1 Cabling and Installation

- 5.1.1 The vendor is responsible for supplying and installing all necessary cabling, including power, HDMI, and RJ45, ensuring the cables are neatly organized and concealed in trunking for aesthetic purposes.
- 5.1.2 Where feasible, cabling may be routed through ceilings or existing trunking systems to maintain a tidy appearance.

5.2 IP-Centric Solution

- 5.2.1 The video wall and desk screens must be driven by an IP-centric solution, utilizing a Thin-client server.
- 5.2.2 The vendor must provide a conceptual design detailing the data flow and technical specifications to meet Eskom's requirements.

5.3 Key Resources

- 5.3.1 Provide CV's, Qualifications, and relevant certifications (Project Management Degree, and PMP Certification, Lead Architect(Relevant IT Honours Degree, and Togaf certification), 2 Technical Leads(Relevant IT Degree)

5.4 Project Plan

- 5.4.1 Provide a High Level Project plan for the design, Implementation, Commissioning, and a maintenance and support of the solution.
- 5.4.2 Provide project management services throughout the life cycle of the project.

5.5 Design Approval

- 5.5.1 The Service provider is required to submit a conceptual/logical design as part of the submission.
- 5.5.2 The vendor must submit detailed design for review and approval by Eskom's technical specialists and architects prior to implementation.

5.6 Equipment Delivery and Setup

- 5.6.1 Delivery, installation, configuration, and calibration of all screens and mounting frames for the video wall and the controlling arms for the desk screens.
- 5.6.2 Ensure the site is left clean and aligns with Eskom's corporate image and standards.

6 Thin-client servers

The control centre requires thin-client computers/servers to serve in a control centre environment. The emphasis is on the device to provide the 4K resolution (*resolution per screen not collectively*) is required to drive the screens for the control room visual solutions.

6.1 Thin client SW

- 6.1.1 The solution software components must authenticate to an external authentication source, i.e. Active Directory or LDAP.
- 6.1.2 The solution software components must use Roles or Profiles to assign access rights to system users and administrators.
- 6.1.3 The solution software components must establish secure communications using TLS1.1 or later or better.
- 6.1.4 The solution software components must encrypt stored data
- 6.1.5 The solution software components must log user and administrator activities.
- 6.1.6 The solution software components must expose interfaces that can be invoked by external or reliant applications.
- 6.1.7 The solution software components must provide data on users and their access rights through API or SOAP services.

Thin-client Specifications

CPU	Intel i3 or better
Video display	3 or more HDMI 4K
Memory	8Gb expandable up to 32GB DDR4 or better
USB Ports	Two or more USB 3.0 ports
LAN Port	RJ45 port @100MB/s
Mount	Freestanding or wall mount
Quantity of thin clients (screens) 2 Spare Quantity of devices may vary as per vendors proposed design	14 Total

7 Video Wall Setup

7.1 Video Wall Manager

- 7.1.1 The vendor will be responsible for delivering and implementing advanced video wall manager software to oversee and control the two PED video walls. This software must efficiently handle the configuration and management of all display outputs, ensuring seamless operation across multiple inputs and outputs. The video wall manager must be fully compatible with the existing PED infrastructure and capable of integrating with the broader system for real-time updates and data visualization.
- 7.1.2 Eskom will provide virtual machines (VMs) to support the video wall management software, Any physical hardware components necessary for the video wall manager must be installed securely within the Megawatt Park (MWP) data centre.

7.2 Software Control

- 7.2.1 The video wall displays must be controlled by centralized software to manage and configure the screens effectively.
- 7.2.2 The software should allow seamless switching between different data sources and provide options for custom layouts.
- 7.2.3 Compatibility with the system for real-time updates and integration with other operational tools.

PART 2: EVALUATION CRITERIA**8 Evaluation criteria****8.1 Phase 1: Desktop evaluation**

Phase 1 - Desktop Evaluation			Rating	Total	Rating					
Criteria	Returnables	Description			0	1	2	3	4	5
Video wall OEM Partnership	Service must provide proof of Video wall OEM Partnership certificate	OEM Partnership certificate (Certificate must in a Company Letterhead)	Yes/No	25%	OEM Partnership certificate not provided	N/A	N/A	N/A	N/A	OEM Partnership certificate provided
Company Experience	Signed Reference letters (South African based clients)	4 contactable References of completed control centre projects (Letter must be completed in a company letter head)	Number of letters	10%	0 reference letter	1 reference letter	2 reference letters	3 reference letters	4 reference letters	N/A
Key Resources	CV's, Qualifications, and certifications	Provide CVs, Certified Qualifications, Certified Certifications (1 Project Management Degree & PMP Certification, 1 Lead Architect with relevant Honours IT Degree or better, & TOGAF Certification, 2 Technical Leads with relevant IT Degree)	Yes/No	25%	No Missing or invalid CV, Qualification or Certification,	N/A	N/A	N/A	N/A	Yes All CV's, Qualifications and Certificates submitted.
Conceptual/Logical design	Logical design document	Design must align to the requirements as per the scope of work. Completeness and feasibility of the submitted designs conceptual design.	0-5	10%	0 element meeting scope of work	1 element meeting scope of work	2 elements meeting scope of work	3 elements meeting scope of work)	4elements meeting scope of work)	5 elements meeting scope of work)
Technical Compliance	Logical design document	Adherence to technical requirements, such as IP-centric solutions, ultra-thin bezels, 4K screens, 24/7 professional grade screens Show in the Conceptual/ Logical Design.	0-5	5%	0 element meeting scope of work	1 element meeting scope of work	2 elements meeting scope of work	3 elements meeting scope of work)	4elements meeting scope of work)	5 elements meeting scope of work)
5 year Support and Maintenance Plan	Maintenance plan document	Robustness of the proposed 5-year support and break-fix maintenance plan, with extension options.	0-5	25%	No maintenance plan submitted	Maintenance plan only covers 1 year	Maintenance plan only covers 2 years	Maintenance plan only covers 3 years	Maintenance plan only covers 4 years	Maintenance plan only covers full period
Total Points:				100%						
Minimum threshold required to move forward:				80%						

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8.2 Phase 2: Site visit/Demo

Phase 2 - Site visit/Demo		Rating	Weight	Rating	
Evaluation Criteria	Description			0	1
Site visit to one of reputable clients control centre work completed.	Provide access to one of a reputable clients (one of the provided reference letters submitted at tender closing)	Yes/No	20%	No	Yes
Functionality of Proposed Technology	Demonstrate how operators can manage display inputs and outputs on the video wall, including arranging multiple windows.	Yes/No	20%	No	Yes
Demonstration of Proposed Screens	Show 4K screens, either on 45" to 55" professional-grade monitors and 24" interactive touch screens.	Yes/No	20%	No	Yes
Quality, Practicality, and Functionality of Products	Provide proof of warranty for a period of 5 years	Yes/No	20%	No	Yes
Technical Compliance to Functional Requirements	Demonstrate that the proposed technology is aligned with the logical design submitted at tender closing.	Yes/No	20%	No	Yes

Total Points:**100%****Minimum threshold required to move forward:****80%**