

8.26.1 Video wall for Command and Control Center (CCC)

Specifications of Display Wall

Video Wall Cubes for 24*7 Operations
Rear projection DLP Video Cubes for 24*7 Operations
Size : 70" diagonal with +/- 5" variation
Front/Rear Serviceable
Matrix : 2 sets of 2x2 placed Back to Back, driven by Video Display Processor
Depth of Video Cubes must be less than 1050mm
Backlit Type: LED, with 6x redundancy for each of 3 LED's or LASER with multiple LASER bank for redundancy
Declared Backlight Lifetime: 80,000 Hrs or more in Eco Mode
The minimum brightness level must be mentioned along with declared life of backlight of display panel
Screen Gap (Bezel to Bezel) : 2 mm or lesser
Resolution: Full HD 1920 x 1080 or Higher
Luminance : 200cd/m2 (nits) or more / equal to 1000 Lumens or more
Viewing angle: 178° (H), 178° (V) or better
Video compatibility: NTSC, PAL, SECAM
Built in processing and scaling
Dual link DVI-D (or Better) Input – 2 inputs & Output - 1
Ethernet ports - 1 at least
Input through Video Processor
Control: Over LAN
Unified Control of Video Wall through Server for wall configurations
Unified Control of Video Wall through Server for switching the complete Wall ON/Standby

It should be possible to calibrate entire video wall for uniformity of brightness, contrast ratio manually , through control software from a desktop
Automatic color and brightness calibration of the Video Wall: Integrated color & brightness sensors in each screen along with calibration software to automatic maintain color and brightness uniformity among all screens without manual intervention or any trigger using external spectrometer. The mentioned calibration should be supported through time based scheduling so as to have touch-less calibration.
It shall be possible to time schedule brightness and contrast ratio for whole Video Walls based on Time of the Day, to optimise power consumption and ease of operations staff
Half Gain Angle (Horizontal / Vertical) : 33Deg/33Deg +/- 3 Deg
Redundant Control Design: to drive 2 Video walls of full 2x2 display, incase of failure of Video Wall Processor to avoid video wall going blank without modification in resolution of content
Aspect Ratio - 16:9
Contrast Ratio - 5,00,000:1 or Better (On Screen or Dynamic) / 1200:1 or Better (Static or Native)
Cooling - Low Noise Fans for heat dissipation efficiently

Operating temperature :10-40 degree centigrade or better
Custom Video wall (2x2) Floor mount kits (2 nos.) To be supplied by Video Wall OEM
Should be universal designed mount for video wall screens which can hold weight of 2*2 panels (to be supplied)
Should be landscape screen mounting
Should have adjustable height, extension and depth
Outer rim is required for two Video Walls of 2*2 matrix
Video wall Processor
Configurable videowall processor that shall support the real-time window display of multiple video, graphic, picture and streamed input sources on a single or tiled video display.
Video Wall Processor to drive 2 number of 2x2 matrix Videowalls
Redundant Design : Redundant Power supplies
Redundant Design : Redundant Fans
Raid1 redundant setup with either 1000 GB HDD or more Harddisk drive
1Gb/s LAN port
Outputs : DVI/HDMI suitable for driving 2 VW sets of 2x2 Panels
Inputs : 2 DVI/HDMI with Audio and 4K resolution. System should be able to simultaneously show multiple sources (available from LAN) on each Videowall.
Processor should have Key board and Mouse Control for controlling the Video Wall Layouts .
Layout : It should be possible to create layouts comprising of screen scrapped content of Workstations, DVI inputs, Web sources, URLs configured as sources. Layouts can be pre configured or changed in real time
Scheduling : It should be possible to schedule specific Layout based on time range (from : to)
Zoning: It should be possible to create two zones.
Sharing & Collaboration : it should be possible to share layout over LAN/ WAN network with workstations connected to meeting room or other workstations connected to same LAN / WAN network
Soft KVM : The system shall include complete Soft KVM to permit operators to take mouse & keyboard control of Displays, Screen Scrapped applications and DVI source
Ticker: It should be possible to create two separate Tickers which run concurrently (One in each Video Wall Zone). These can be positioned at top or bottom and can run independently in respective zones
The Ticker can be picked from data source through screen scrapping or through typing specific incidence, manually
Security : The system shall support password based access control of Video Wall Layouts & Tickers
VW Processor should be able to display EMS views based on Windows OS
It shall be possible to load EMS clients on Video Wall Processor, requiring for opening UI for pulling data from EMS or from any other streaming data source
Rack mountable

Controlware : System Design should be Network based and uses Ethernet network infrastructure
Processor is to be mounted in Equipment room which is away from Videowalls. Bidder to visit the site and estimate cable requirements
Redundancy for Video Wall Processor - Functionalities must be offered to avoid Video Wall going blank in case of Video Wall Processor goes down, for redundancy. Video Wall should continue to display contents based on pre-configured layout, without downscaling of Display Content, even if Video Wall Processor goes down.

Specifications of Display Wall Management Software

SN	Minimum Performance Specifications
Layouts	The software should be able to pre configure various display layouts and access them at any time with a simple mouse click or schedule/timer based.
Sources	The software should be able display multiple sources anywhere on video wall in any size.
Remote Viewing	The video wall content will be able to show live on any remote display Mobile with IE, Chrome or safari
User management	Key features of Video Wall management Software
	• Central configuration database
	• Browser based user interface
	• Auto-detection of network sources
Software features	• Online configuration of sources, displays and system variables
	Video Wall Control Software shall allow commands on wall level or cube level or a selection of cubes :
	• Switching the entire display wall on or off.
	• Setting all projection modules to a common brightness target, which can be either static (fixed) or dynamic to always achieve maximum (or minimum) common brightness between projection modules.
Client & Server based Architecture	• Fine-tune colour of each cube
	Should support Multiple clients / Consoles to control the Wall layouts
Collaboration	The Software should be able to share layouts comprising of multiple sources with workstations / Displays over LAN for remote monitoring
Scaling	Software should enable the user to display multiple sources (both local & remote) up to any size and anywhere on the display walls (both local & remote).
Display	The software should be able to create layouts and launch them as and when desired

Remote Control	The Display Wall and sources (both local & remote) should be controlled from Remote PC through LAN without the use of KVM Hardware.
Support of Meta Data	Software should support display of Alarms
Authentication	The software should provide at least 2 layer of authentication
Scenarios	Software should be able to Save and Load desktop layouts from Local or remote machines
Layout Scheduler	All the Layouts can be scheduled as per user convince.
Layout Scheduler	Software should support auto launch of Layouts according to specified time event by user
Layout Management	It should be possible to create layouts comprising of screen scrapped content of Workstations, DVI inputs, Web sources, URLs configured as sources. Layouts can be pre configured or changed in real time
Layouts Configuration	Can be pre configured or changed in real time
Scheduling	It should be possible to schedule specific Layout based on time range
Sharing & Collaboration	It should be possible to share the layouts over LAN/WAN Network with Display in Meeting room or on Remote Workstations connected on LAN/WAN Network
Soft KVM	The system shall include complete Soft KVM to permit operators to take mouse & keyboard control of Displays, Screen Scrapped applications and DVI source
Ticker	It should be possible to create two separate Tickers which run concurrently . These can be positioned at top or bottom and can run independently .The Ticker can be picked from data source through screen scrapping or through typing specific incidence, manually
OEM Certification	All features and functionality should be certified by the OEM.
	The Display Modules, Display Controller & Software should be from a single OEM.