COMMERCIAL DISPLAY
SOLUTIONS
FOR COMMAND CENTERS

HIKVISION

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COMMERCIAL DISPLAY SOLUTIONS FOR *COMMAND CENTERS*

Command centers play a crucial role in monitoring and managing various operations in sectors such as emergency services, transportation, and more.

Command centers of any size need an effective, intuitive, and high performance display and control solution to enable realtime data visualization and decision-making.

Hikvision's Commercial Display Solution for Command Centers provides high-quality, professional visual display and control solutions for multi-subsystem projects at any scale to meet a multitude of application needs and make best use of existing security management systems. Read on to learn more.

Application Scenarios

Medium-size Operations Centers
· Curved LEDs
· Powerful functions for video wall controls
· App video wall controls

Small-size CCTV Rooms
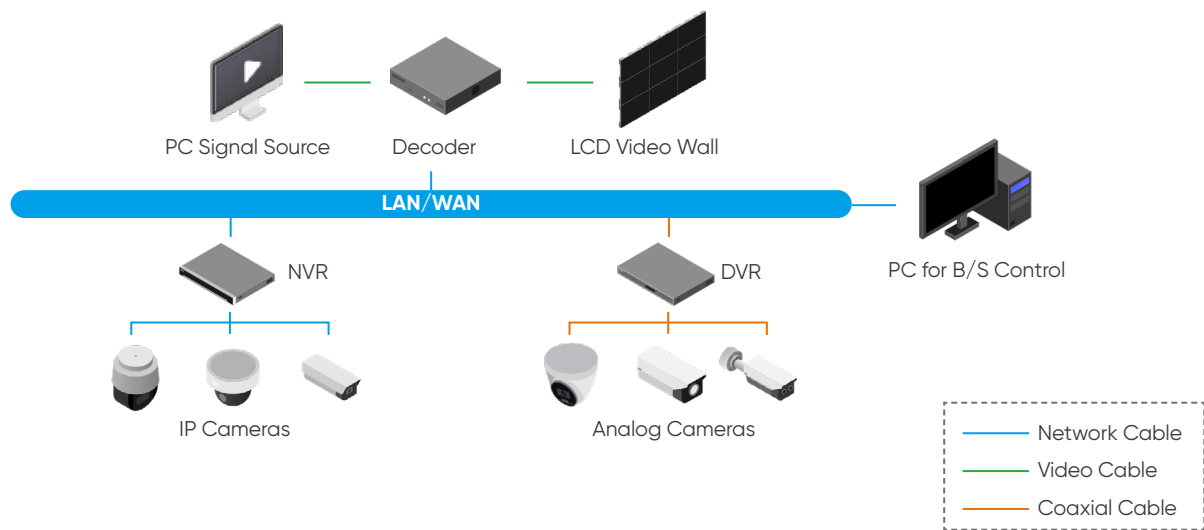· B/S client direct control
· CCTV monitoring
· PC projection

Large-size Command Centers
· Distributed video wall management systems
· KVM systems (Keyboard, Video, Mouse)

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Video Wall Management

Operators can enjoy flexible video wall management via decoder (up to 6 x 6 window division), including window division, splicing, and roaming, and more.

PC Projection

Operators can project screens from up to 2 PCs to the video wall through the decoder's video input interfaces, easily expanding communications.

B/S Direct Control

With the decoder's B/S portal, users can directly control and manage their video wall without deploying any extra software.

01 SMALL-SIZE CCTV ROOMS

CCTV rooms provide a comprehensive security solution for commercial or residential properties. With that, operators can have peace of mind knowing their property is always safe and secure.

Considering the ready availability of small-size CCTV rooms, a light-weight LCD video wall with a single decoder is recommended. This allows users to build up from there for easy establishment, installation, and maintenance.

PC Signal Source   Decoder   LCD Video Wall

LAN/WAN

NVR   DVR   PC for B/S Control

IP Cameras   Analog Cameras

— Network Cable
— Video Cable
— Coaxial Cable

1	Take test picture
2	Analyze pixel color
3	Generate calibration parameters
4	Write data to chip
5	Color well calibrated
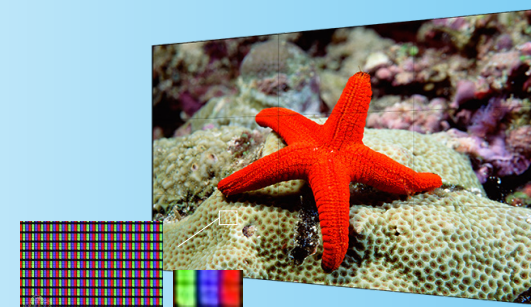
Precise Color Calibration

Clarity and precision in a display are crucial, especially in information-dense scenarios. Hikvision's LCDs deliver true-to-life colors and the right brightness with pixel-level color calibration, guaranteeing a flawless, uniform display.

02 MEDIUM-SIZE OPERATIONS CENTERS

Massive amounts of data flow through the operations center every day. Thus, messages need to be managed in a way that allows the operator to make decisions quickly and accurately. It is essential for operators to be well-informed via adequate, clear, and flexible viewing.

Hence, a standard LED video wall solution with decoders and video wall controllers is an optimal option to boost monitoring and cooperation efficiency. Apart from the conventional operations and functions, Hikvision's solution can offer more practical software control using the HikCentral Professional mobile app.

Quick Camera Operations

For a professional control center, a large number of cameras must be displayed on the video wall at any one time. The efficiency of a skilled operator using a network keyboard will be much higher than simple mouse dragging.

Memorize Window No. and cameras ID shown on HCP

Press {Window No.} + MON + {Camera ID} + CAM

The camera's live view will be shown on the video wall.

Video Wall Operations

Clock & Rolling Text
Users can create virtual layers of text and clocks, which can be used as the video wall's headline.

Window Division
Users can divide one single display unit with up to 64 windows, bringing more critical information to the video wall.*1

Window Splicing
Multiscreen views can be created by joining various screens together.

Open Window and Roaming
Users can create windows that can be scaled and moved around on the video wall freely.*2

*1: When working with 69-series decoders, the division ceiling is 36; and when working with C30S, the division ceiling is 16.
*2: The max. number of roaming windows depends on the video wall hardware device's capacity. For instance, for C30S, it's 7.

Mobile App Operations

Window Adjustment
• Users can use a mouse to adjust the size of the currently selected window division to splice and roam
• The resources can be previewed in the window, which is called echoing

Window Division
• Divide one single screen into 64 windows (max.)

Tool Bar
• Here, users can conduct operations like start/stop echo, refresh resource snapshot, and close all windows

Source
• Preview the signal sources' snapshots here
• Directly drag the source to the upper area to display it on the video wall
• Switch among the available views

What are the advantages of Hikvision's video wall solution?
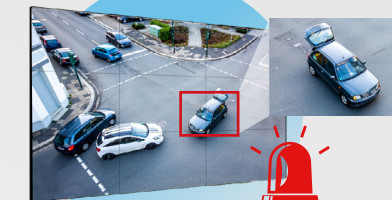(Compared with Third-Party PC Decoding Solutions)

VCA Rule Display
The on-screen video content analysis (VCA) rule display can help operators to notice the alarm information quickly and intuitively.

PC Projection
Support for remote PC program projection via the network, without extra hardware or devices

Instant Alarm Pop-up
Alarms will pop up instantly on the video wall, along with video feeds or captured pictures

Efficiency-enhancing Operations
• Direct PTZ operation
• Channel pre-monitoring
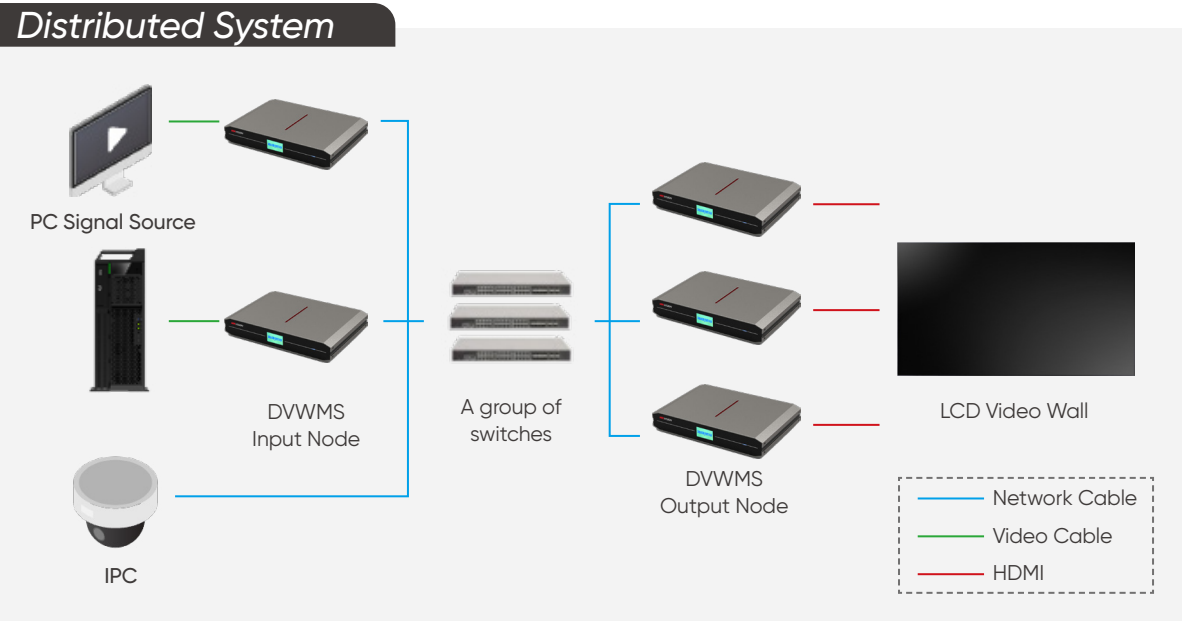• Keyboard operation

03

LARGE-SIZE
COMMAND CENTERS

Professional command centers require a large number of on-screen displays, diverse input sources from various subsystems with different signal formats and connector types, and operations teams with specified roles, daily tasks, and shifts. It is essential to build a reliable, large-scale video wall that offers high, reliable performance, and desktop displays for each operator with flexible, effective content management.

For operators to quickly gauge the general status of the site and cooperate effectively, Hikvision offers two separate and reciprocal systems: the Distributed Video Wall Management System and the KVM System (Keyboard, Video, Mouse).

Distributed Video Wall Management System

Traditional centralized video wall management systems suffer from limited transmission distances, signals, and screen splicing. DVWMS helps to break such boundaries, bringing unlimited central management to the user's fingertips.
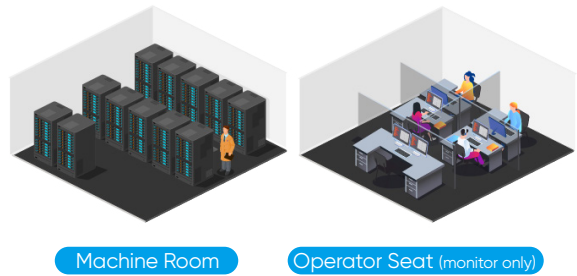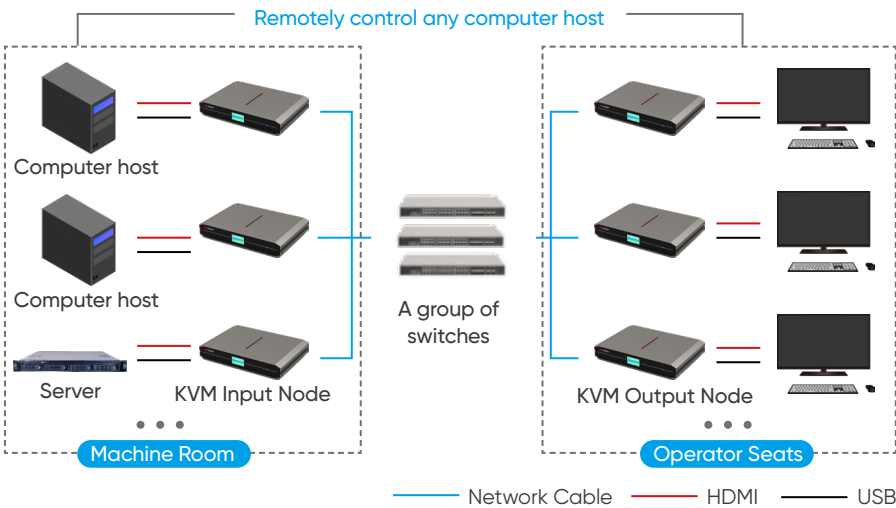
Distributed System

PC Signal Source

DVWMS Input Node

A group of switches

DVWMS Output Node

LCD Video Wall

IPC

— Network Cable
— Video Cable
— HDMI

Distributed VS. Centralized
Video Wall Management System

| System	Centralized System (C30S)	Distributed System
Transmission Distance	Max. 40 m From input signal to output signal	Unlimited
Input Signals	Max. 88 HDMI signals	Unlimited
Output Signals	Max. 8 Video walls with totally 88 screens	Max.15 Video Walls*; each video wall supports up to 360* screens
Extensibility	Only minor upgrades can be made depending on the available chassis	Nearly unlimited extendibility
Availability	Medium	High availability: As a distributed system with a fail-safe design, the failure of one node will not lead to the whole system failure.

KVM System (Keyboard, Video, Mouse)

For command centers with loads of industrial software to manage, a KVM system can help to elevate efficiency while enhancing security.

Remotely control any computer host

Computer host

Computer host

Server   KVM Input Node

A group of switches

KVM Output Node

Machine Room   Operator Seats

— Network Cable   — HDMI   — USB

Machine Room   Operator Seat (monitor only)

Operator-machine separation

Centrally placing the PC hosts and servers in the machine room, and monitoring only from the operators' seat, improves data and property security.

A   D
A B
C D
Operator 1   Operator 2
Push screen A to operator 1   Push screen D to operator 2
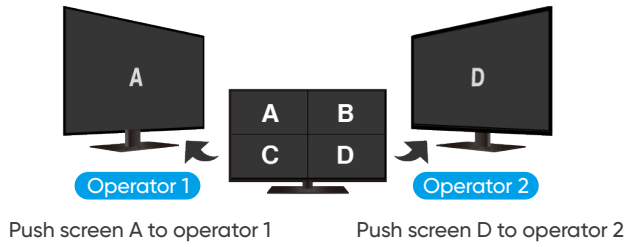
Easy Screen Sharing & Taking Over

Free and flexible screen sharing and taking over raises team collaboration efficiency.

Windows   HIKVISION HIKVISION   Linux
HIKVISION

One person multi-machine operation

• One mouse & keyboard set can control up to 15 monitors. Just slip the mouse over the screen border to control another screen.
• Cross-system control is supported. For instance, screen A is Windows and screen B is Linux.
• Users also get support for up to 4 divisions per screen to control multiple systems on one monitor.

RECOMMENDED
PRODUCTS

Distributed Video Wall Management System

Model	DS-C21N-HI2	DS-C21N-HO2
Image		
Input/output	HDMI x 2 Input	HDMI x 2 Output
Resolution	Max. 1,920 x 1,080 @ 60 Hz	Max. 4,096 x 2,160 @ 30 Hz
Audio Intercom	Supported	Supported

KVM System

Model	DS-C22K-HI1	DS-C22K-HO1
Image		
Input/output	HDMI x 1 and DP x 1 Input	HDMI x 1 and DVI x 1 Output
Resolution	Max. 1,920 x 1,200 @ 60 Hz	Max. 1,920 x 1,080 @ 60 Hz

Decoders

Model	DS-D6908UDI(B)	DS-D6910UDI(B)	DS-D6912UDI(B)	DS-D6916UDI(B)
Image				
Max. Decoding Capacity	1,080p @ 30 fps x 64-ch	1,080p @ 30 fps x 80-ch	1,080p @ 30 fps x 96-ch	1,080p @ 30 fps x 128-ch
Video Input Interfaces	VGA x 1, DVI-I x 1	VGA x 1, DVI-I x 1	VGA x 1, DVI-I x 1	VGA x 1, DVI-I x 1
Output Interfaces	HDMI x 8, BNC x 4	HDMI x 10, BNC x 5	HDMI x 12, BNC x 6	HDMI x 16, BNC x 8

LED Cabinet

Model	DS-D4209CI-ZWDH(B)	DS-D4212FI-LWF	DS-D4218FI-CWFH	DS-D4225FI-CKF	DS-D4226FI-CGFB
Image					
Pixel Configuration	Flip-chip COB LED	Flip-chip SMD	SMD LED with HOB technology	SMD LED	SMD LED
Pixel Pitch (mm)	0.93	1.25	1.875	2.5	2.6
Brightness	1,000	600	800	600	800

LCD Displays

Model	DS-D2046LU-Y	DS-D2049LU-Y	DS-D2055LU-Y	DS-D2055HU-Y	DS-D2055LE-G
Image					
Size	46"	49"	55"	55"	55"
Bezel Width	3.5 mm	3.5 mm	3.5 mm	3.5 mm	1.8 mm
Brightness	500 nits	500 nits	500 nits	700 nits	500 nits

Video Wall Controller

Model	DS-C30S-S23
Image	
Slot	23
Features	Support for input board, output board, decoding board and LED controller board free inserting

Decoders

Model	DS-D6901UDI	DS-D6904UDI(B)
Image		
Max. Decoding Capacity	1,080p @ 30 fps x 16-ch	7,20p @ 30 fps x 72-ch
Video Input Interfaces	–	HDMI x 1, DVI-I x 1
Output Interfaces	HDMI x 1, BNC x 1, VGA x 1	HDMI x 4, BNC x 2

LCD Displays

Model	DS-D2055HE-G	DS-D2055LR-G	DS-D2055HR-G	DS-D2065LU-Y
Image				
Size	55"	55"	55"	65"
Video Input Interfaces	1.8 mm	0.88 mm	0.88 mm	3.5 mm
Output Interfaces	700 nits	500 nits	700 nits	500 nits