



CMS-SE

Compact 4K UHD Digital Signage Player

Product Highlights

- Resilient management software with intuitive user interface and accessible online help
- Update contents between to a maximum of 4000* SMP players simultaneously
- Choose between main server, site server or backup server to ensure greater flexibility in network design
- Offer flexible central scheduling based on once, daily, weekly, monthly, or yearly timescales
- Monitor the current screenshots of a maximum of 15 SMP players per page simultaneously (requiring CMS-PRO)
- Manage multiple CMS servers anytime, anywhere via the Android and iOS app, CAYIN Signage Assistant
- Synchronize configurations across multiple SMP players all at once (requiring CMS-PRO)
- Broadcast emergency messages with just two clicks
- Supported in virtual machines and cloud-based VMs such as Amazon AWS
- Free multi-language AI translation and localization
- Convert Videos Directly in the Interface
- HTTPS encrypted management connections
- Multi-NIC configuration for self-built servers
- Content publish and unpublish audit log
- File download for reliable data backup

*Depending on the type of license purchased



Efficient Management of Multiple Digital Signage Players

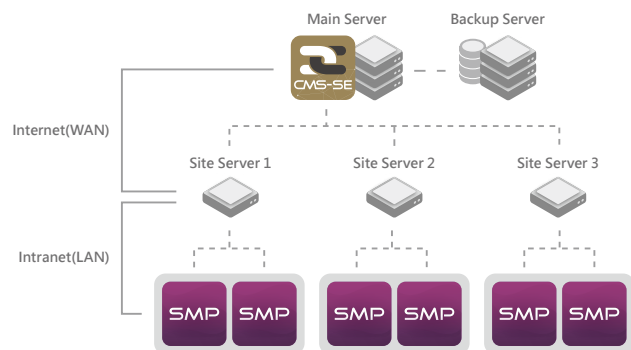
CMS-SE can control up to 4000 SMP players simultaneously* All SMP players connecting to the CMS server can be monitored through both the server's web-based user interface and a free Android app, CAYIN Signage Assistant. Instead of configuring media players one by one, you can manage all of them at the same time. Administrators can also locate SMP players on Google Maps when SMP players activate the location/GPS function.

*Depending on the type of license purchased



Designing a Multi-server Environment

Administrators can assign a role: main server, site server or backup server. The backup server will restore files and take over as soon as the main server fails, while the site server, installed at a branch office, can share the workload between servers. Building a multi-server architecture ensures centralized and/or decentralized management, flexible network planning, bandwidth saving, content backup, and non-stop services. It is the best solution for you to develop a personalized network planning and achieve the stable long-term operation.



• Network Structure Example

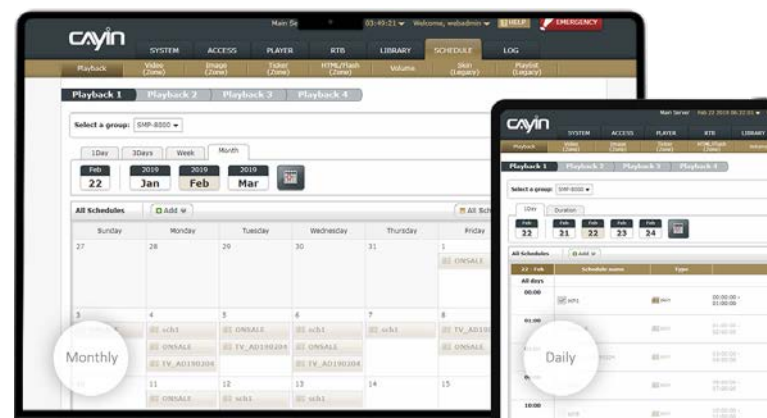
Five-Layer Group Management

Administrators can create a maximum of five-layer groups to manage all SMP players systematically in two major aspects: content updates and task scheduling. CMS server will centrally control the playlists of all media players and synchronize content automatically to all players in groups. You can set the priority for each schedule in different layers to accommodate your need.



Intelligent Scheduling Management

You can insert a one-time event or arrange periodic tasks based on daily, weekly, monthly or yearly timescales for all SMP players in groups. Location-based scheduling is also doable to largely increase the flexibility. SMP players will playback multimedia content automatically based on the schedule assigned by the CMS server. CMS provides two viewing modes, calendar and timetable, for you to facilitate schedule management.

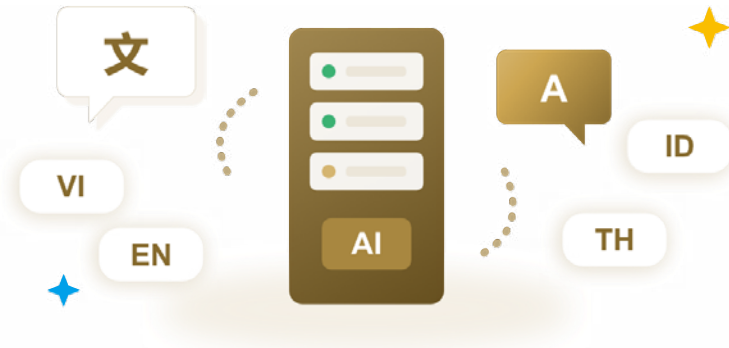


Live Streaming Video Channels

CMS-SE can transmit streaming data through an external HDMI capture card (sold separately) to players by means of LAN broadcasting, multi-casting, or uni-casting and provides the most updated, multimedia entertainment for digital signage networks.

CAYIN AI Server Free Multi-language Localization

With the CAYIN AI Server, CMS-SE can translate and localize content into multiple languages within seconds. This is especially useful for multi-national organizations managing SMP players across regions, ensuring that announcements, training, and safety information reach every location instantly. Enjoy high-quality localization with no extra fees.



Centralize Creativity with CMS-SE AI

Optimize your server with AI.

Automate professional content creation and maintain centralized visual consistency across your entire network.

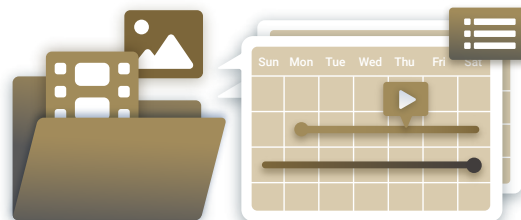
Smart Tools for Modern Marketing:

- **Text-to-Image:** Generate high-quality visuals instantly.
- **Image-to-Image:** Adapt styles while preserving consistency.



Automated Video and Image Playlist

Schedule content on playlists ahead of time so you never drop the ball! Expiration dates can be set on uploaded video or image files in your playlist and automatically played or stopped as per your desired dates.



Convert Videos Directly in the Interface

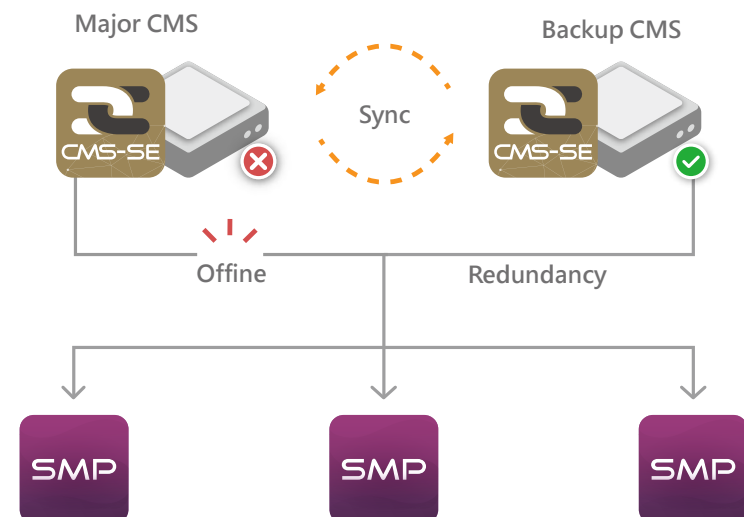
When a video file cannot play normally because it is 30.3 FPS (PowerPoint-exported video), you can convert it manually directly in the management interface, no extra software needed, making troubleshooting faster and minimizing the risk of interruption during playback.



Redundancy (Failover) service

Always Be Prepared

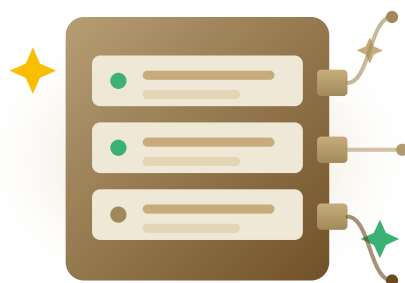
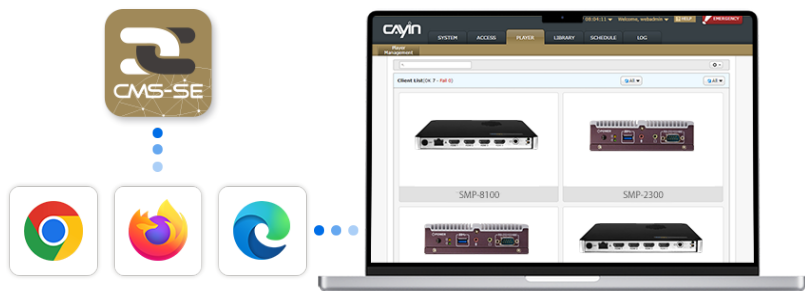
CMS-SE supports Redundancy (Failover) service, so you don't have accidents. Should a CMS server become offline or unavailable, the backup server will automatically divert the connection until the Major CMS is available again.



Ready-to-use Digital Signage Server

CMS-SE, a dedicated content management server software for digital signage networks, is easy to install, and ready-to-use on your hardware*. Not only will you enjoy a seamless user experience, but you can also manage the device remotely from your web browser.

*Please refer to System Requirement



Multi-NIC Configuration for Self-Built Servers

CMS-SE automatically detects all installed network interface cards on self-built servers. Easily assign unique IP, netmask, and DNS settings to each NIC, no extra manual steps needed.

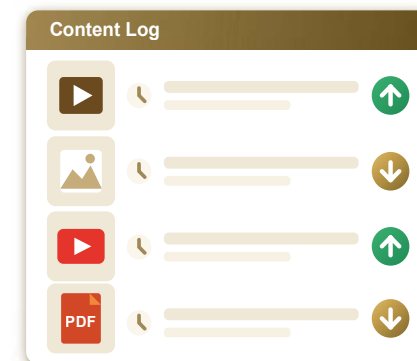
Network Traffic Manager

Easily manage your video players' bandwidth and instantly tap into each player's real-time traffic and functioning status. You can also observe and check large traffic spikes for accidental operational mistakes or abnormal intrusions. To improve playback fluency and stability, adjust your player's content based on what you observe from the backend.



Content Audit Log All Publish & Unpublish Events at a Glance

The CMS-SE log records precise timestamps for every content publishing and unpublishing event across your player network. Administrators can easily review when playback started and ended for each item, streamlining audit trails, troubleshooting schedule issues, and providing vital evidence for contracts and playback verification.



File Download for Reliable Data Backup

When relocating devices, replacing equipment, or retaining playback logs, users can download and back up all file contents from the server to their local computer.



Supports HTTPS Encryption for Enhanced Security

To strengthen management interface transmission security, CMS-SE supports HTTPS encrypted connections.

After enabling this feature, you can quickly activate encryption using the system's built-in default self-signed certificate.

Enterprises with their own certificates can also upload a custom self-signed certificate for even stricter management connection security.



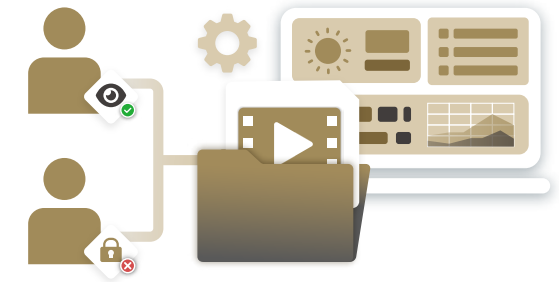
Rich Library and Cloud Resources

All necessary raw materials, including multimedia files, fonts, clocks, skins, programs, and playlists, can be accessed easily in the Library to assist you in organizing resources. Moreover, the system allows you to upload your desired fonts or even to download the latest templates from CAYIN's Cloud service for free to greatly enrich your content.



Secured Decentralized Management

Administrators can create multiple user accounts and authorize each account to possess different access rights. Usernames and passwords are required to access the user interface and media folder.



Instant Alert Broadcasting

With just two clicks, you can activate the alert mechanism and broadcast emergency messages to a particular group or all groups. Emergency messages can be presented in many formats, such as texts, images, video, HTML/Flash, etc.

Multiple Ways to Update Content

Multimedia content can be updated by FTP and Network Neighborhood. You can also upload or delete files directly in the Library of CMS's user interface.

One-Time Investment

There are no extra fees or licenses for adding media players to work with the CMS server, no matter the number. It is the best solution for self-hosted digital signage networks.

CMS-PRO: an add-on module for advanced management



Access Detailed Information of SMP Players Efficiently

Administrators can check the details of system information, log records, and content update status of multiple SMP players without logging in the user interface of each SMP player one by one.



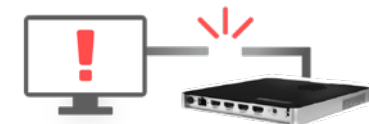
Perform Time-Saving Batch Configuration

Configurations, such as multimedia playback, local schedule and system settings, can be synchronized between the benchmark player and all the other selected players simultaneously.



Monitor Live Status of Multimedia Playback

Administrators can check the screenshots of a maximum of 15 SMP players per page simultaneously, receiving instant updates of each SMP player.



Provide Instant Alert Mechanism

The system will indicate those abnormal devices whenever any disconnection between a SMP player and a CMS server is detected. Administrators can also receive an alert notification via Email.

System Specifications

System software	CMS-SE v.11.0	
Access Control	User Accounts	• Create unlimited user accounts and authorize each account to possess different access rights
	Authentication	• Secure the access to Web Manager and Media Folder by usernames and passwords
Media Player Management	User Interface	• View a list of all SMP players controlled by the CMS server in a tree structure
	Group Management	• Create a maximum of five-layer groups to organize and monitor the functioning status of SMP players
	Position	• Locate SMP players on Google Maps when SMP players activate the location function
Content Updates and Management	User Interface	• Manage files with two view modes, icon and list, and select files by the file filter
	Methods	• Upload files to CMS by FTP, Network Shares (Network Neighborhood), and CMS's Web Manager
	Capacity	• Update contents to max. 4000 SMP players simultaneously depending on the type of license purchased
	Sync Source	• Create folders and sub-folders in CMS to store and organize multimedia files
	Sync Destination	• Assign each group with one media folder and synchronize contents automatically to all SMP players based on a group basis
	Media Types	• Synchronize playlist, skin, program, font, clock, and all multimedia files in the CMS's Media Folder to SMP players
	AV-in ⁽¹⁾	• HDMI Capture Card: USB UVC compatible device • Codec: Motion JPEG (MJPEG) and YUYV • Resolution: up to 1080p (1920×1080) @60fps
Central Scheduling	Playback	• View type: calendar or time table • Schedule mode: once, daily, weekly, monthly, yearly, and location • Playback type: able to edit scheduled tasks in the master schedule and take further steps to edit tasks for each zone in the sub-schedule for the Skin playback mode • Media type: include skin, program, playlist, video, image, ticker, or HTML/Flash in scheduled tasks
	Emergency	• Arrange emergency messages with skin, program, playlist, video, image, or HTML/Flash
	Volume	• Set schedules to adjust SMP's volume

⁽¹⁾ Please refer to online help for more information.

System Settings	Languages	• User Interface: Chinese (Traditional), Chinese (Simplified), English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish, Thai • Ticker Support: Unicode (UTF-8) compatible languages; able to use default fonts or upload TTF fonts⁽¹⁾ to a specific group.
	Time	• Set system time manually or synchronize the clock from an NTP server
Remote Diagnostics and Maintenance	Hardware Monitor	• Check utilization of CPU, system DRAM, and hard drive
	Log	• Create log files recording the system status
	System Update	• Automatic notification of patch and firmware updates
	Self-repair	• Able to restart/shutdown the system and backup/restore configurations remotely
Resources	Cloud-based	• Provide templates and materials in Library and Online Resources
Web Manager	Recommended Browsers	• Chrome 88, Edge 88, Firefox 85 or later
CMS-PRO	Player Management	• Check SMP's system information, log records and content update status in details
	Multiplayer Configuration	• Configure more than one player at the same time, including multimedia playback, local schedule and system settings
	Screenshot	• Check the screenshots of a maximum of 15 SMP players per page
	Mail Alert	• Send an alert notification by Email to multiple users whenever the following event is detected: disconnect, connect, or shutdown • Send Email immediately or upon a pre-set schedule
	Patch Management	• Synchronize patches manually or automatically from Online Resource Server • Update patches to selected SMP players immediately

⁽¹⁾ CAYIN doesn't guarantee that SMP-NEO is compatible to all font files. * Specifications subject to change without notice.

System Requirement

Before you install CMS-SE, we recommend you verify that your hardware meets or exceeds the minimum system requirements for the product.

The system requirements in the table below apply to CMS-SE.

Operating system	• Ubuntu 64 bits 22.04 LTS*
Computer and processor	• 2 GHz dual core processor
Memory	• 4 GB RAM
Hard disk(HDD or SSD)	• 120 GB of available disk space
Other	• DVD drive or USB port for installation • High-speed Internet access for installation and based services. Additional costs may apply.

* Ubuntu is a Linux operating system and all of the application software installed by default is free software. For more information please contact our sales team.

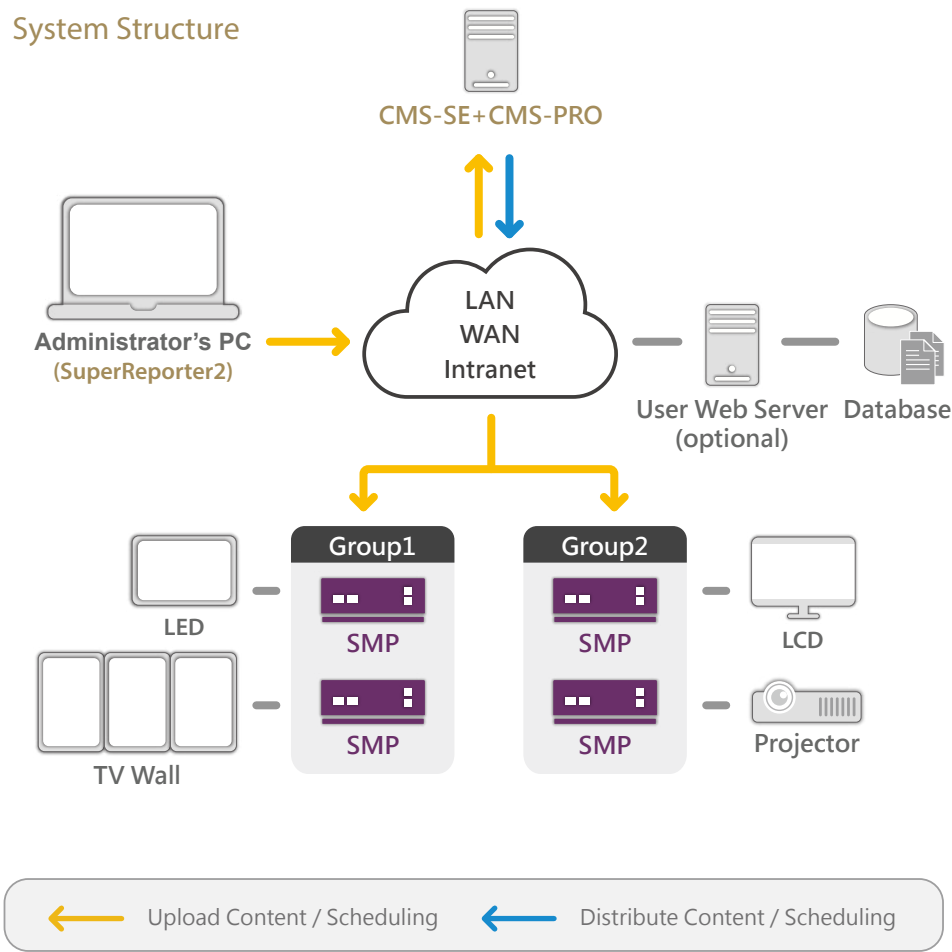
CAYIN Signage Assistant

Start to manage CMS servers and SMP players on your mobile devices!

<https://play.google.com/store/apps/details?id=com.cayintech.assistant>



System Structure



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