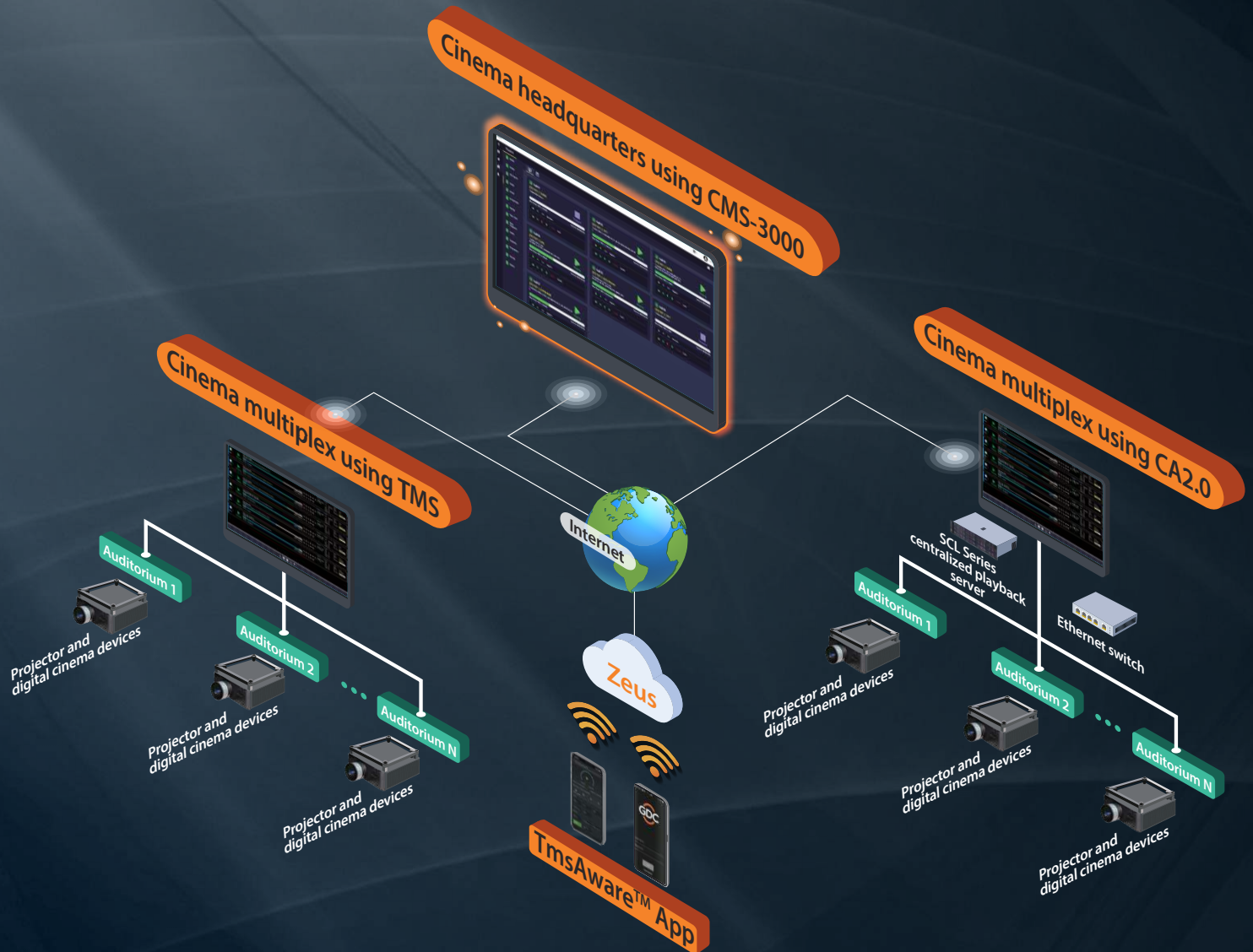# CMS-3000

Web-based Central Management Enterprise Software

Your comprehensive solution to manage screenings across an entire cinema circuit from its headquarters

Cinema headquarters using CMS-3000

Cinema multiplex using TMS

Cinema multiplex using CA2.0

Auditorium 1 — Projector and digital cinema devices

Auditorium 2 — Projector and digital cinema devices

Auditorium N — Projector and digital cinema devices

Internet

Zeus

TmsAware™ App

SCL Series centralized playback server

Ethernet switch

Auditorium 1 — Projector and digital cinema devices

Auditorium 2 — Projector and digital cinema devices

Auditorium N — Projector and digital cinema devices

CMS-3000 is an enterprise software which enables centralized management of content transfer, screen advertisements and program schedule, allowing the remote cinema headquarters or support center to have control and visibility of the entire circuit. It helps achieve high operational efficiency by:

- integrating seamlessly with an exhibitor's pre-show advertising and entertainment program to streamline the advertising workflow;
- allowing any circuit with multiple locations to help eliminate redundant time and labor spent on the same routine tasks with local TMS and/or CA2.0;
- supporting multiple user access simultaneously anytime and anywhere with its web-based application.
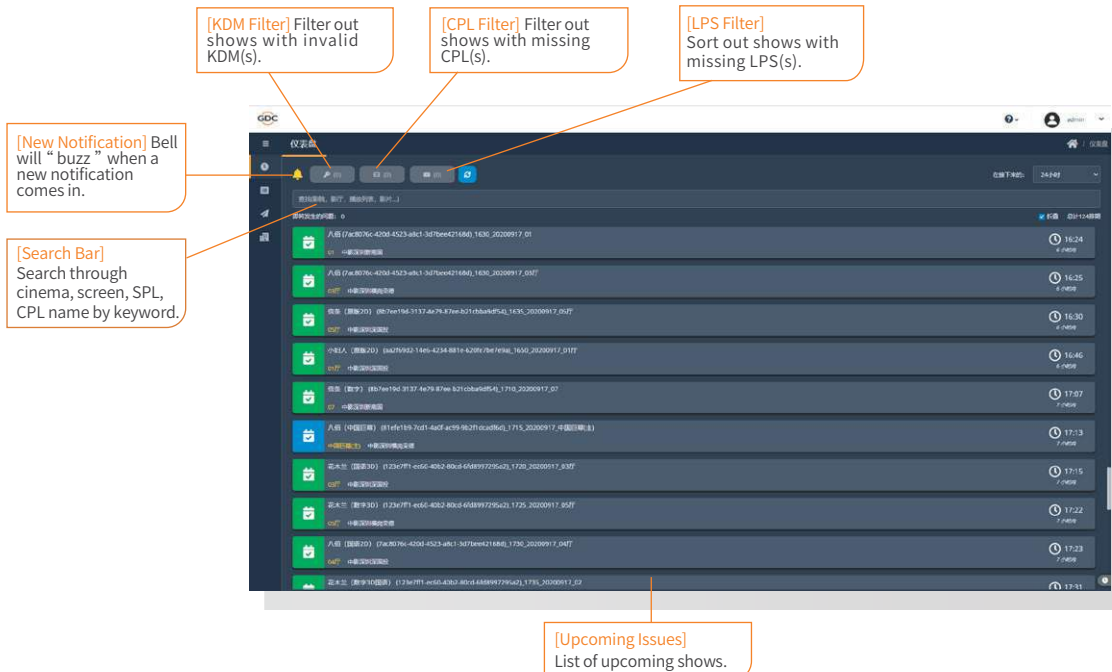
Powering your digital cinema experience
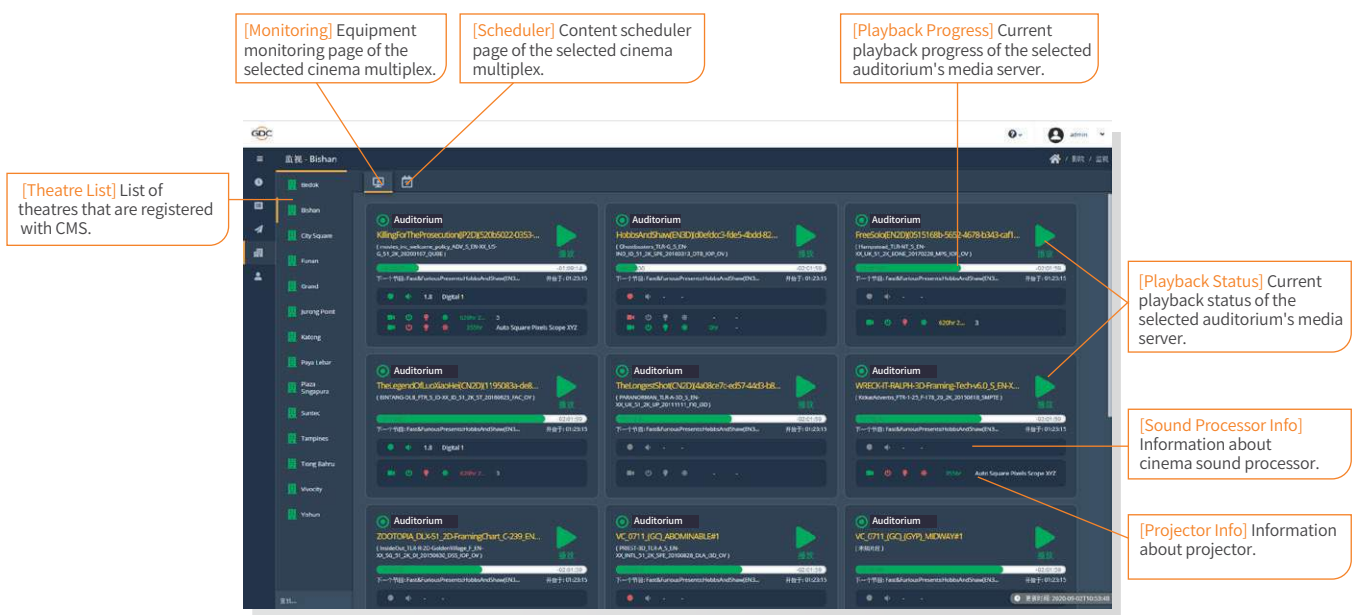
www.gdc-tech.com

Dashboard

· Provides an overview of all upcoming scheduled shows organized by showtime for an entire circuit.
· Uses multiple color codings to represent the status of the scheduled shows.
· Sorts out the scheduled shows with missing Composition Playlists (CPLs), missing Live Play Sources (LPSs) or invalid Key Delivery Messages (KDMs) with different filters.
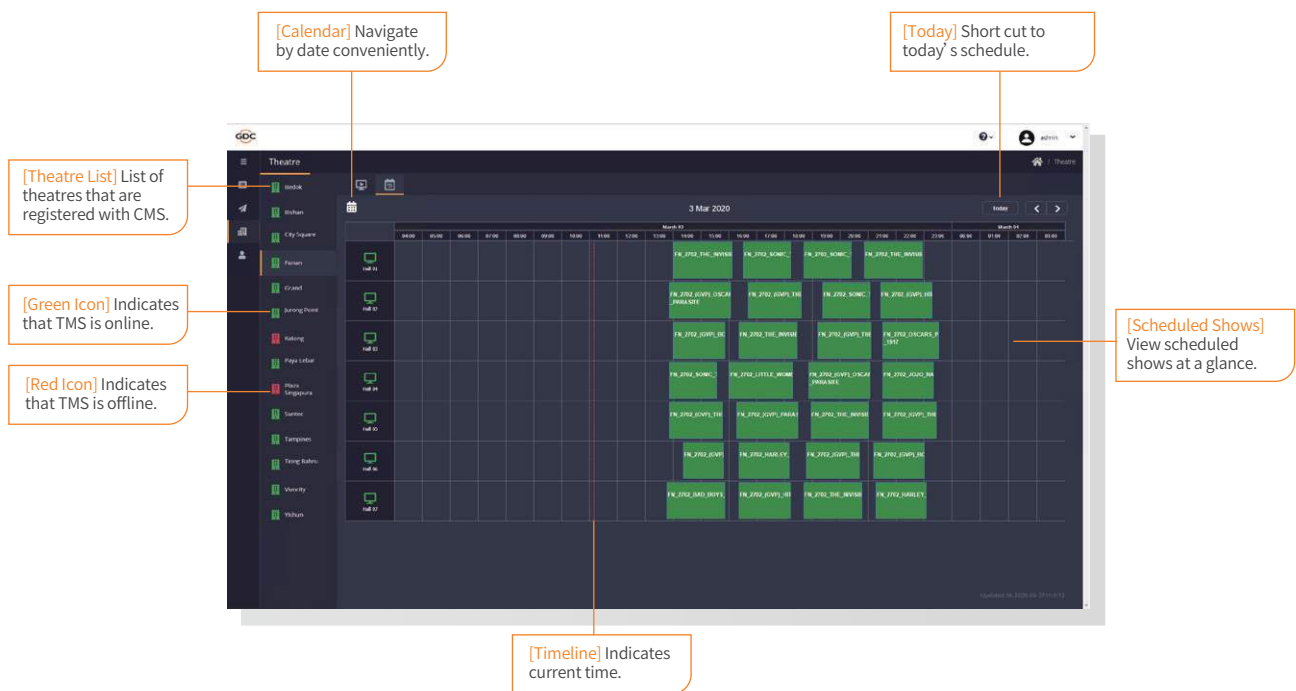
[KDM Filter] Filter out shows with invalid KDM(s).

[CPL Filter] Filter out shows with missing CPL(s).

[LPS Filter] Sort out shows with missing LPS(s).

[New Notification] Bell will "buzz" when a new notification comes in.

[Search Bar] Search through cinema, screen, SPL, CPL name by keyword.

[Upcoming Issues] List of upcoming shows.

Monitoring

· A centralized view of all sites in the circuit to monitor real-time playback status, sound processors and projectors.

[Monitoring] Equipment monitoring page of the selected cinema multiplex.

[Scheduler] Content scheduler page of the selected cinema multiplex.

[Playback Progress] Current playback progress of the selected auditorium's media server.

[Theatre List] List of theatres that are registered with CMS.

[Playback Status] Current playback status of the selected auditorium's media server.

[Sound Processor Info] Information about cinema sound processor.
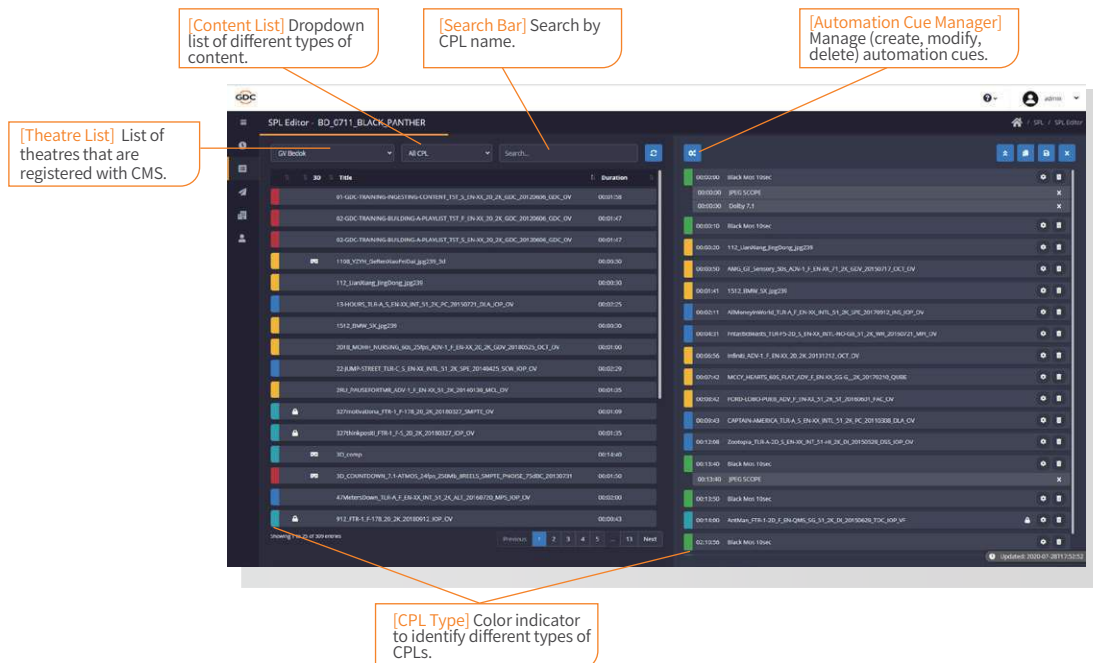
[Projector Info] Information about projector.

GDC

Scheduler

· A centralized view of the scheduler of each registered TMS in the entire circuit.
· Allows users to amend the schedules instantly from the headquarters.

[Calendar] Navigate by date conveniently.

[Today] Short cut to today's schedule.

[Theatre List] List of theatres that are registered with CMS.

[Green Icon] Indicates that TMS is online.

[Red Icon] Indicates that TMS is offline.

[Scheduled Shows] View scheduled shows at a glance.

[Timeline] Indicates current time.

SPL editor

· Allows users to create and edit Show Play Lists (SPLs), which can be sent to all or specific cinemas from the CMS at headquarters.
· Synchronizes with all the cinema's CPL metadata to show all related information without requiring physical content stored in the CMS at headquarters.

[Content List] Dropdown list of different types of content.

[Search Bar] Search by CPL name.

[Automation Cue Manager] Manage (create, modify, delete) automation cues.

[Theatre List] List of theatres that are registered with CMS.

[CPL Type] Color indicator to identify different types of CPLs.

Pack editor

- Allows users to create and edit Packs with all the necessary rules, which can be sent to all or specific cinemas from the CMS at headquarters.
- Synchronizes with all the cinema's CPL metadata to show all related information without requiring physical content stored in the CMS at headquarters.

[Content List] Dropdown list of different types of content.

[Search Bar] Search by CPL name.

[Theatre List] List of theatres that are registered with CMS.

[Restrictions Configuration Panel] Set restrictions to the Pack (e.g. placeholder, rating, POS title, priority, date time range, theatre and attribute restrictions).
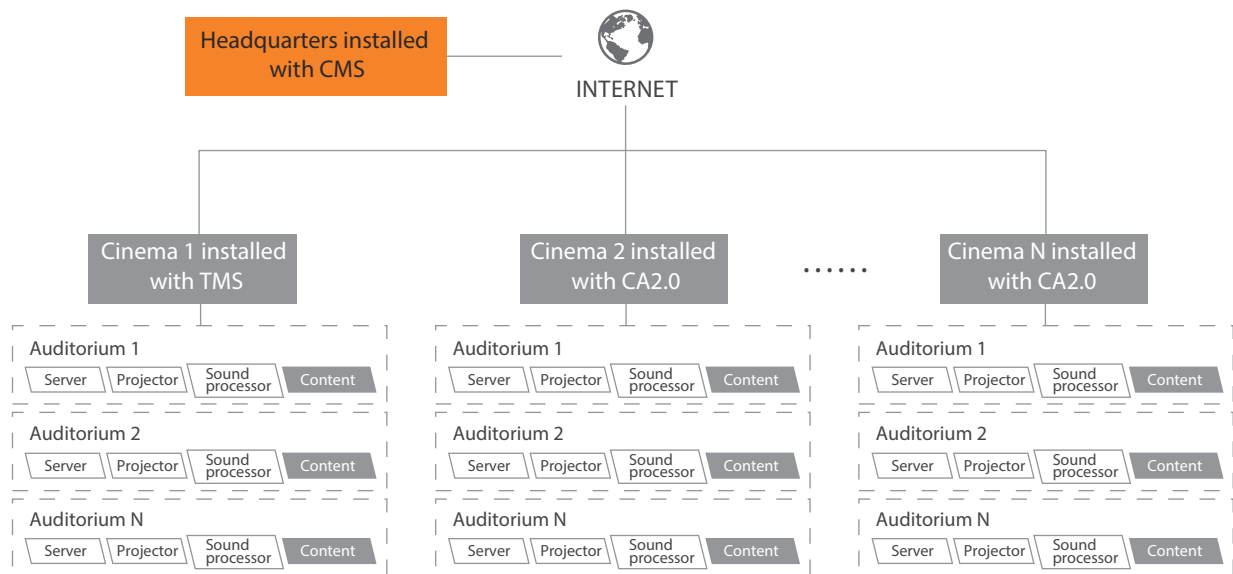

Content transfer

An overview of the transfer status for SPLs, Packs, and DCPs.

[Transfer Task Type] Indicates the type of transfer task.

[Asset Name] Name of the asset.

[Destination] Destination of the transfer tasks.

[Status] Shows the status of the transfer task (e.g. pending, finished).

[Remove Button] Delete the selected transfer tasks.

[Search Bar] Search asset name by keyword.
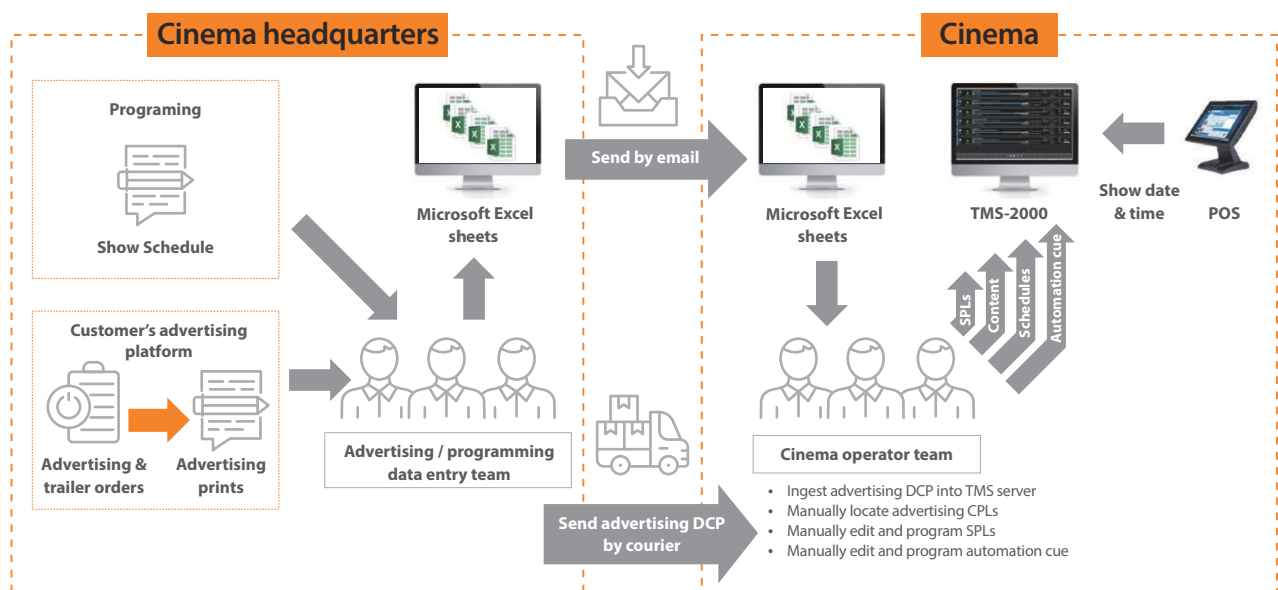
[Remove Button] Remove the selected transfer task.

CMS-3000 web-based central management enterprise software

Headquarters installed with CMS

INTERNET

Cinema 1 installed with TMS

Cinema 2 installed with CA2.0

......

Cinema N installed with CA2.0

Auditorium 1
Server | Projector | Sound processor | Content

Auditorium 2
Server | Projector | Sound processor | Content

Auditorium N
Server | Projector | Sound processor | Content

Auditorium 1
Server | Projector | Sound processor | Content

Auditorium 2
Server | Projector | Sound processor | Content

Auditorium N
Server | Projector | Sound processor | Content

Auditorium 1
Server | Projector | Sound processor | Content

Auditorium 2
Server | Projector | Sound processor | Content

Auditorium N
Server | Projector | Sound processor | Content

Challenges of working with a traditional advertising workflow without CMS

1. Misdirected time and effort in tedious and repeated tasks at each cinema multiplex.
2. Inefficient way of managing program schedule using Microsoft Excel sheets.
3. Prone to human error in manual handling of CPL and SPL programming.
4. Long lead time needed for the acceptance of SPL modification; not able to accept last minute advertisement orders.

Cinema headquarters

Cinema

Programing

Show Schedule

Customer's advertising platform

Advertising & trailer orders → Advertising prints

Microsoft Excel sheets

Advertising / programming data entry team

Send by email

Microsoft Excel sheets

TMS-2000

Show date & time

POS

SPLs | Content | Schedules | Automation cue

Cinema operator team

Send advertising DCP by courier

- Ingest advertising DCP into TMS server
- Manually locate advertising CPLs
- Manually edit and program SPLs
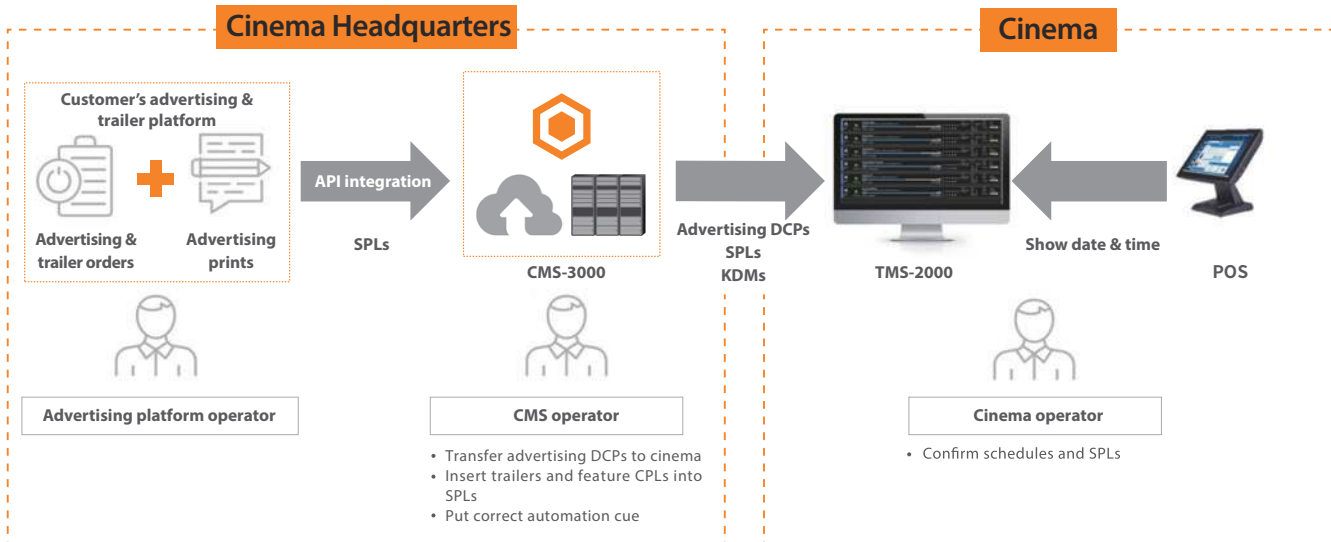- Manually edit and program automation cue

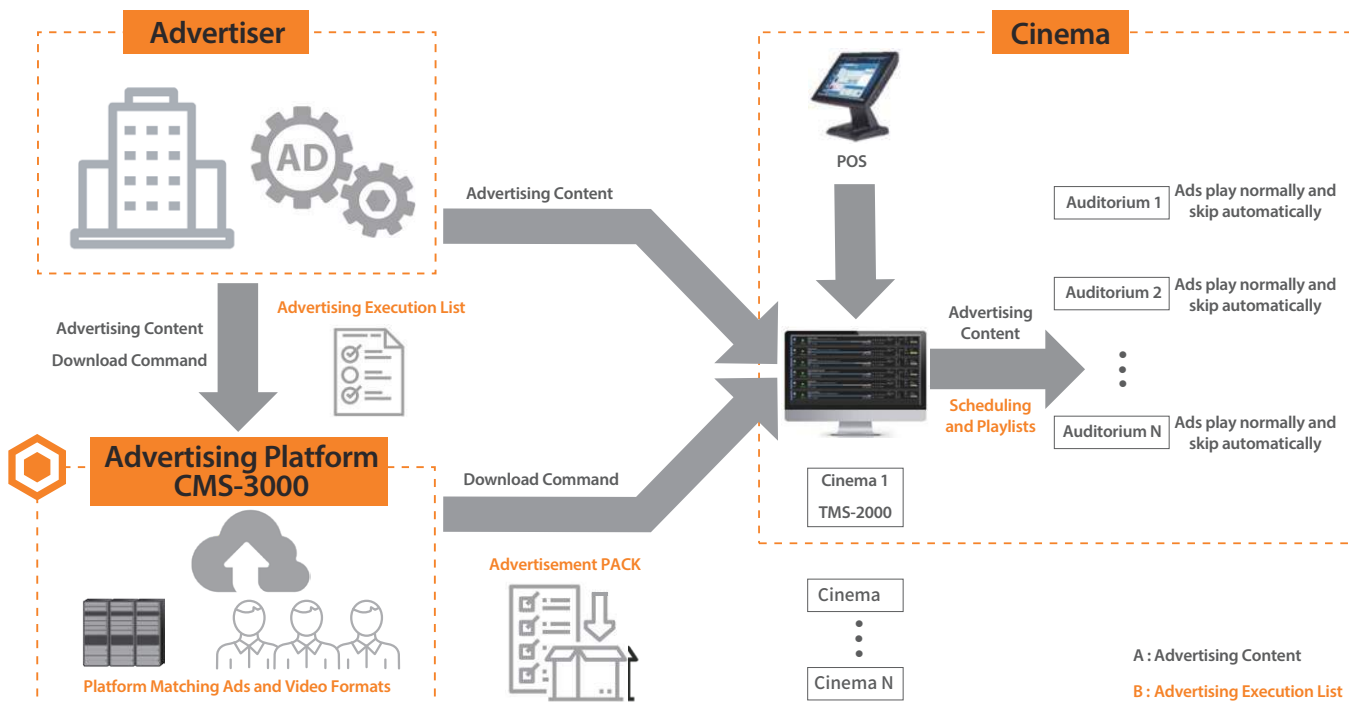# Benefits of integrating CMS-3000 with customer's advertising business

Scenario 1: Manage customer's own advertising business with CMS-3000

1. Complete the tedious and repeated jobs all at once at each cinema multiplex through CMS.
2. Automatically place advertising execution orders without use of Microsoft Excel sheets.
3. Automatically manage the advertising CPL, improve the efficiency and accuracy.
4. Quickly update to cinema multiplex when changing the advertising schedule.

Cinema Headquarters

Customer's advertising & trailer platform

Advertising & trailer orders + Advertising prints

API integration

SPLs

CMS-3000

Advertising DCPs
SPLs
KDMs

Advertising platform operator

CMS operator
- Transfer advertising DCPs to cinema
- Insert trailers and feature CPLs into SPLs
- Put correct automation cue

Cinema

TMS-2000

Show date & time

POS

Cinema operator
- Confirm schedules and SPLs

Scenario 2: Achieve intelligent management of advertising business by integrating CMS-3000 with the advertiser's system

1. Quickly update cinema multiplex about advertisers' last-minute changing requests of advertisements.
2. Quickly locate and solve the problem of misplaced and missing advertisements.
3. Have the ability to skip embedded advertisement.
4. Automatically match advertisements with corresponding formats based on movie formats.

Advertiser

Advertising Content

Advertising Content
Download Command

Advertising Execution List

Advertising Platform CMS-3000

Platform Matching Ads and Video Formats

Download Command

Advertisement PACK

Cinema

POS

Auditorium 1 — Ads play normally and skip automatically

Auditorium 2 — Ads play normally and skip automatically

Advertising Content

Scheduling and Playlists

Auditorium N — Ads play normally and skip automatically

Cinema 1
TMS-2000

Cinema

Cinema N

A : Advertising Content

B : Advertising Execution List

GDC

CMS-3000 installation requirements

Number of Site	Number of Screen	AWS EC2 Instance Size	vCPU	RAM	OS Drive (SSD io1)	OS	Remark
<15	<120	m5.large	2	8GB	100GB	Windows Server 2022/2019	Suitable for demo purpose
50	250~400	m5.xlarge	4	16GB	100GB	Windows Server 2022/2019	
100	500~800	m5.2xlarge	8	32GB	100GB	Windows Server 2022/2019	
200~300	1000~2400	m5.4xlarge	16	64GB	200GB	Windows Server 2022/2019	

For reference: AWS EC2 instance size m5 family is using Intel® Xeon® Platinum 8175M CPU @ 2.50GHz

Note: For a cinema network that exceeds 300 sites and/or 2,400 screens, please consult GDC sales engineer for the required hardware specifications

GDC Website

Contact Us

GDC Technology manufactuning facility is ISO 9001:2015 certifie d.

www.gdc-tech.com