

A high-angle photograph of a person's hands working on a silver laptop on a light-colored wooden table. The laptop screen displays a code editor with Java code. To the left of the laptop is a white coffee cup with a black sleeve. In the foreground, a hand holds a smartphone displaying a video call. A pair of glasses is on the table to the right of the laptop. The background is a blurred outdoor setting with a window.

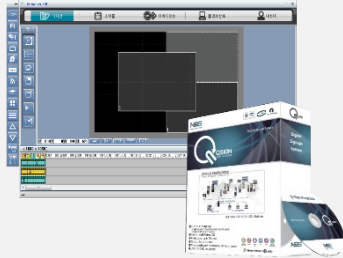
Digital Signage Solution

# Q-SIGN



## Hardware

Outdoor / Indoor  
Video Wall & Display  
Mirror Display  
Smart Kiosk



## Software

Total Signage Solution  
Content Authoring Tool  
Window/Android  
Cloud



NDS Solution Co., Ltd.



## Content

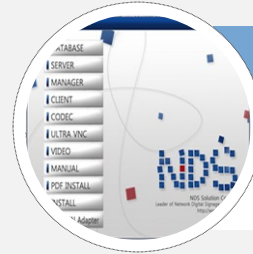
3D Wayfinder  
Manu Board  
Motion Detecting  
Face Recognition



## System

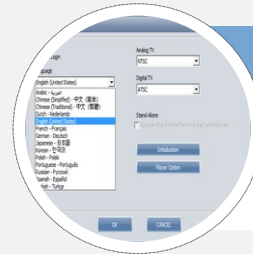
Planning & Introduction  
Installation & Support  
System Stabilizing  
Maintenance

## Q-Sign 3.0



## User friendly

- ✓ Convenient and intuitive UI
- ✓ Easy to learn and use
- ✓ Easy and Fast Installation



## Stability

- ✓ Sold in over 20 countries for 8 years (Support 14 languages)
- ✓ Stable on various network and conditions
- ✓ Regular debugging and user update



## Compatibility

- ✓ Multi Hardware controlled by one Q-Sign (Kiosk, Video Wall, LED Sign, Menu board etc.)
- ✓ Support Window & Android OS



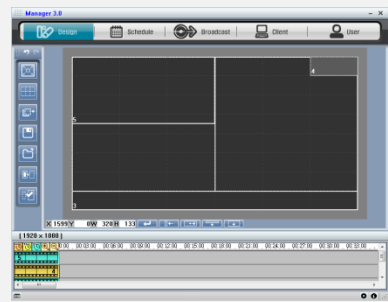
## Reliability

- ✓ Domestic and Overseas Reference
- ✓ Overseas : Kunming/Hangzhou/Hanoi/Hochiminh International airport, Court in Dubai, Shopping Mall in Canada etc.
- ✓ Domestic : Seoul and Yong-in City hall, Mapo and Gangseo Provincial Government Office, Kintex, National Museum etc.

# 01 Features

Intuitive interface with five menu

## Design



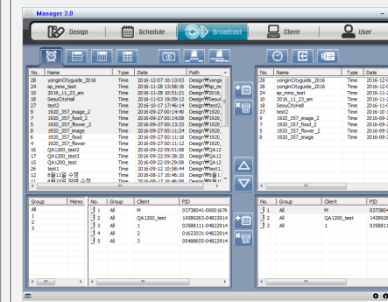
- Add screen layer
- Divide screen
- Add contents
- Contents effect
- Time management
- Overview

## Schedule



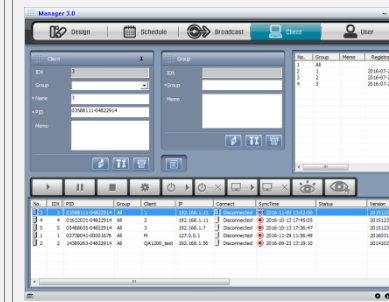
- Daily schedule
- Weekly schedule
- Monthly schedule
- Time management

## Data transfer



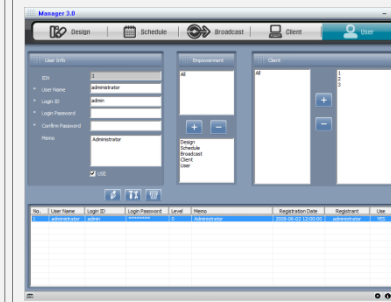
- Send contents & schedule
- Broadcast immediately
- USB transmission
- Reserve transmission
- Emergency schedule
- Control order

## Client



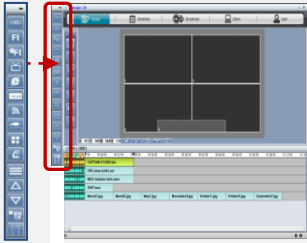
- Add group
- Add client
- Check client status
- Client control

## User



- Add user
- Authorization
- Add client

### Contents



- Support various contents  
Image/Video/Flash/Web/RSS/Ticker/TV/HTML/Flash EXE/Flash SWF/Application etc.

### Widget



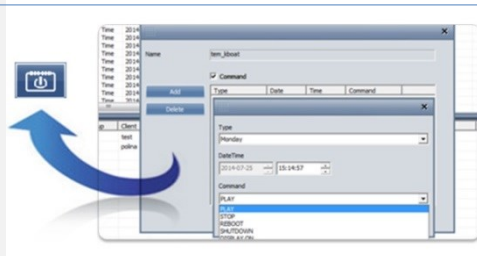
- Support own Widget  
Available to select color and skins of simple designed time/date widget

### Layer



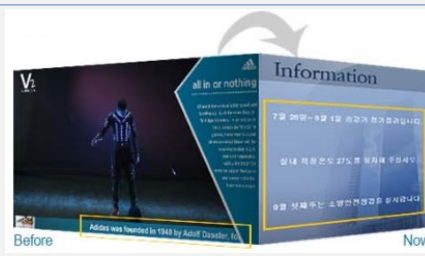
- Various screen composition  
Effective screen composition from divide screen to full screen by layer

### Contents control



- Client control  
Set a time of order such as On & Off/Reboot/Play/Stop for contents

### Multi Line



- Subtitles  
Multiple subtitles are available

### PIPVIV

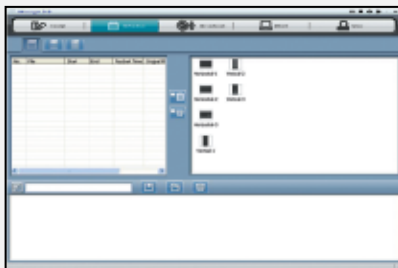
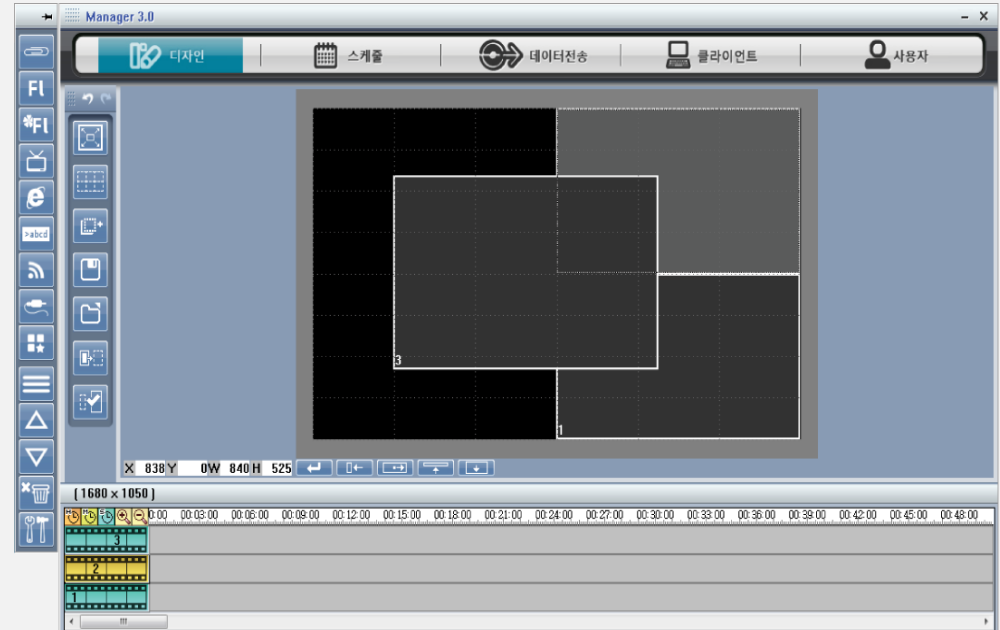


- PIPVIV  
Easily add image and video just to drag it.

## Digital Signage control solution through network

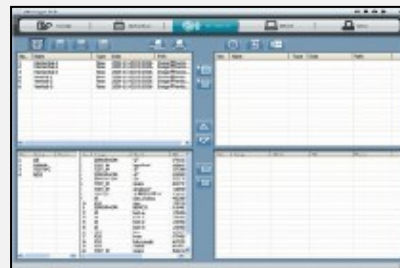
### [CS ver.] Q-Sign 3.0 Software

- Support 15 languages
- Easy installation using Window OS (Installation within 15min)
- Content design and schedule planning
- Support various applications
- Safe authentication using USB Dongle



**Schedule**

- Daily, Weekly, Monthly schedule
- Selectable schedule management



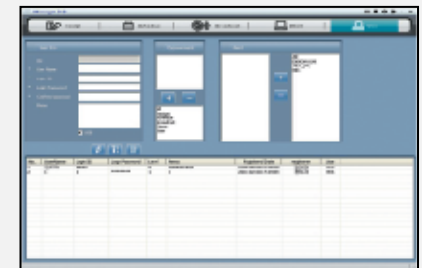
**Data transfer**

- Data transfer and USB transmit
- Immediate / Emergency reservation



**Client**

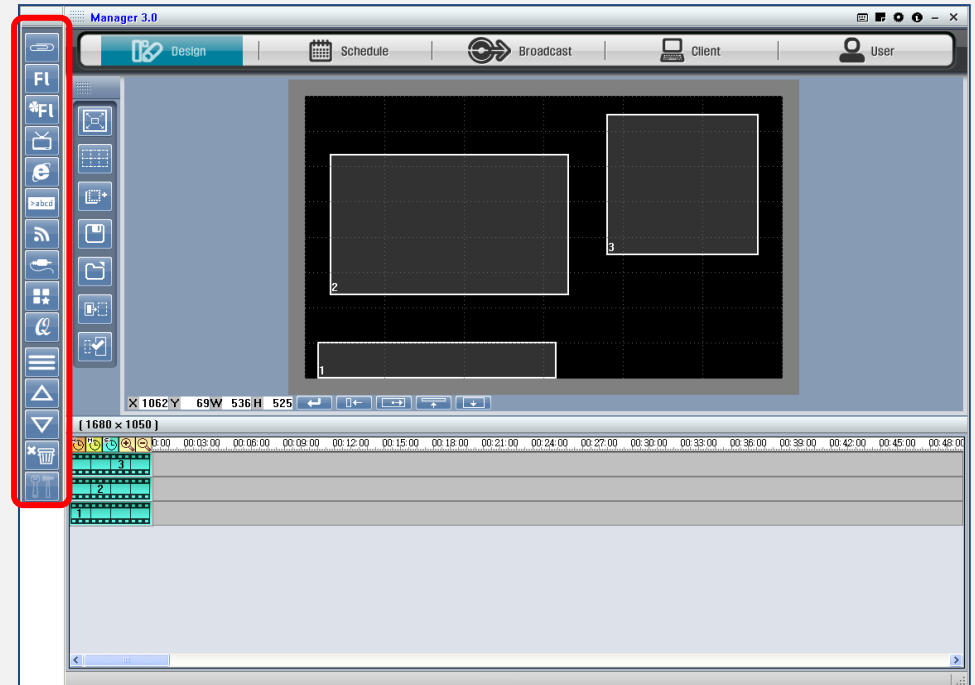
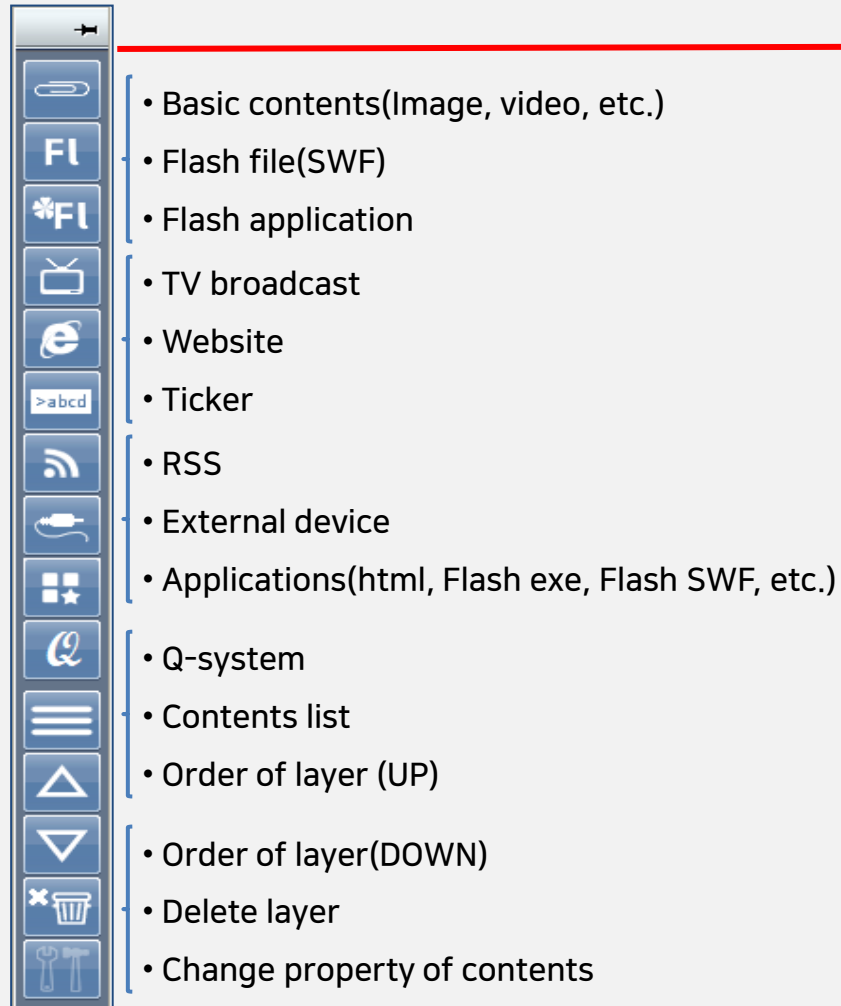
- Remote power and monitor on/off
- Monitoring clients status



**User**

- Multi User Registration
- Distribution of User authority

## Main Menu

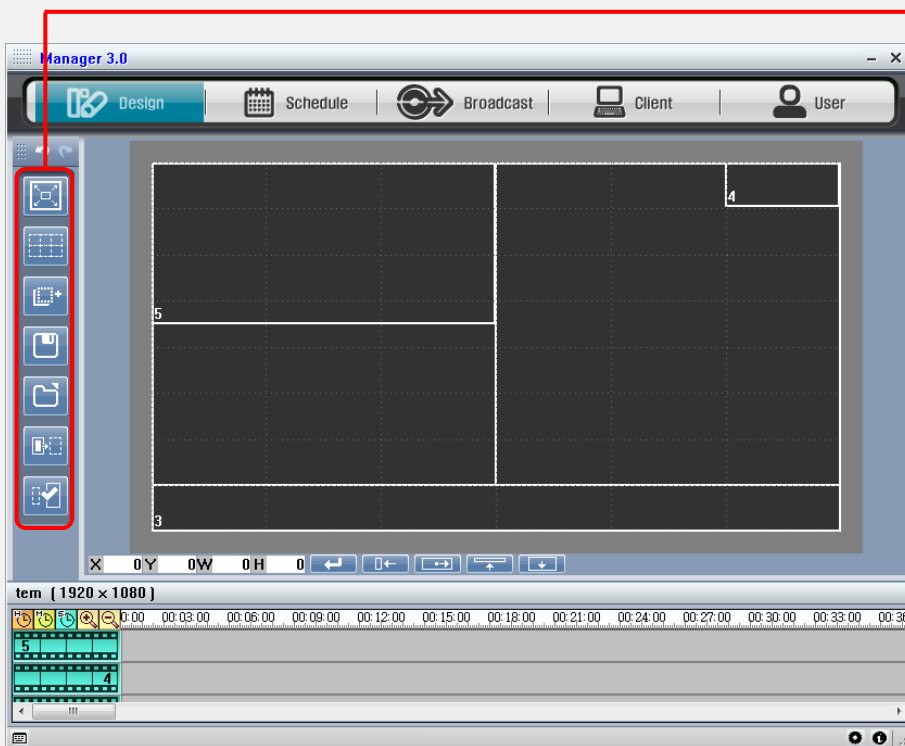


## Function list

- Resolution set depends on display
- Various screen formation by multi layer
- Unconstrained layout makes maximum 32 divide screens
- Support various image file(jpg, bmp, png, gif etc.) and video file(wmv, avi, mp4, mov, asf etc.)
- Support music file(mp3, wma) and flash(swf)
- Support TV input(Analog, Digital, S-Video, Composit, Component)
- Support video input(Webcam, TV Tuner, Composit, S-Video, Component)
- Support document file such as Power point(ppt, pptx) and Excel, MS Word, Hangle etc.
- Support Website
- Support various applications based on Windows OS(Application.exe, Flash.exe, Flash.swf, html etc.)
- Various switch effects for images are selectable
- Support subtitle and RSS, user can choose it's location, background and letter color, size, font, transparency.
- Daily, Weekly, Monthly schedule management
- Check designed template list is available even during data transfer.
- Support reservation, immediate and USB schedule transmission
- Emergency and overlap schedule transmission
- Sent schedule, playback time check available through report
- Auto-delete function when client's data get close to hard disk's capacity
- Individual/Group clients control
- Registered clients list and status check
- Remote access to client PC and control through network(play, stop, reboot, on and off)
- Authority distribution for each user
- Adding specific applications such as flight schedule, and patrol for contents safety from hacking
- Lock Key system through USB DONGLE that has Wifi function



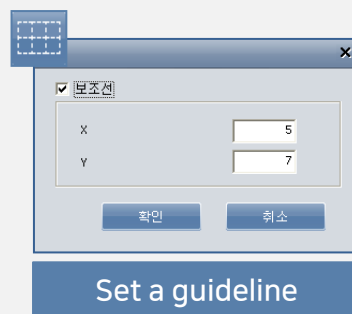
## Design – Template design and screen composition



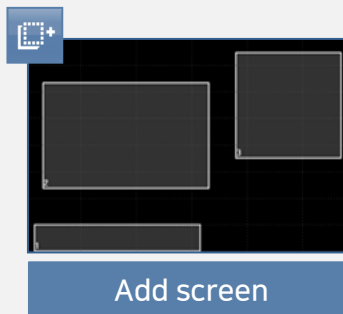
- Set up of display resolution  
(Support maximum resolution hardware can have)
- Screen Guideline  
(Help customizing screen size and formation)
- Add Screen  
(Available set a resolution for each screen)
- Save the template
- Open the template
- Preview in small size screen
- Preview in full size screen



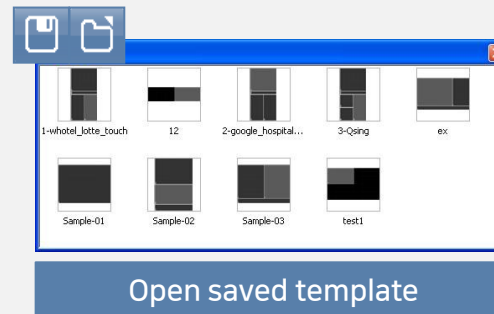
Set a resolution



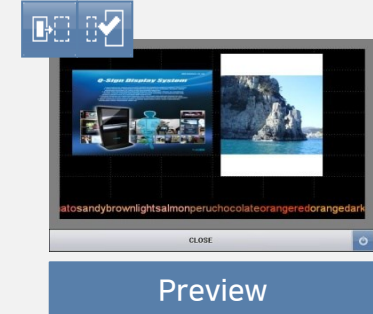
Set a guideline



Add screen



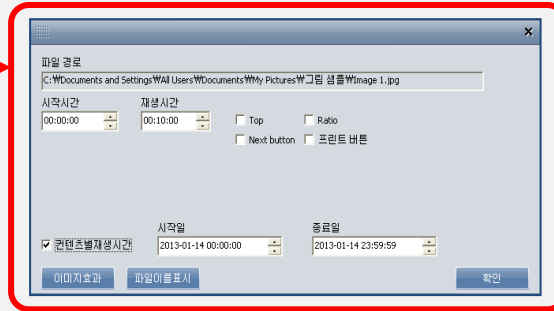
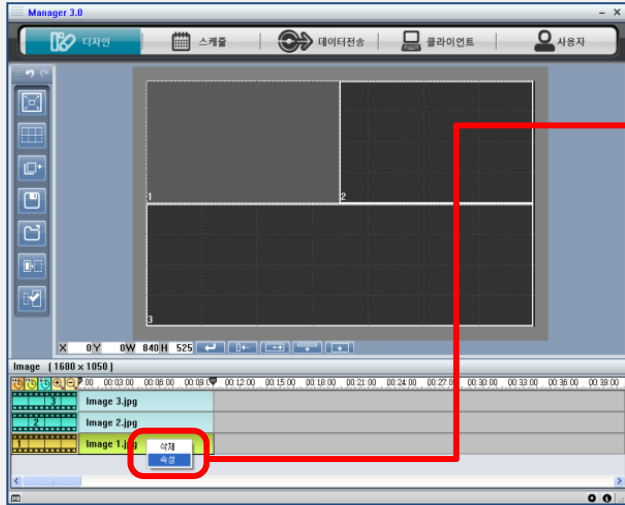
Open saved template



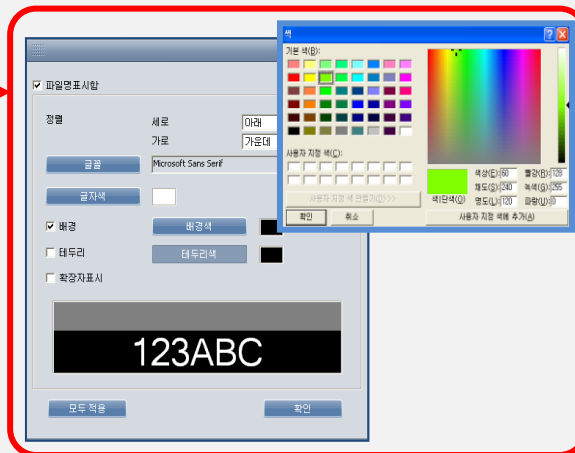
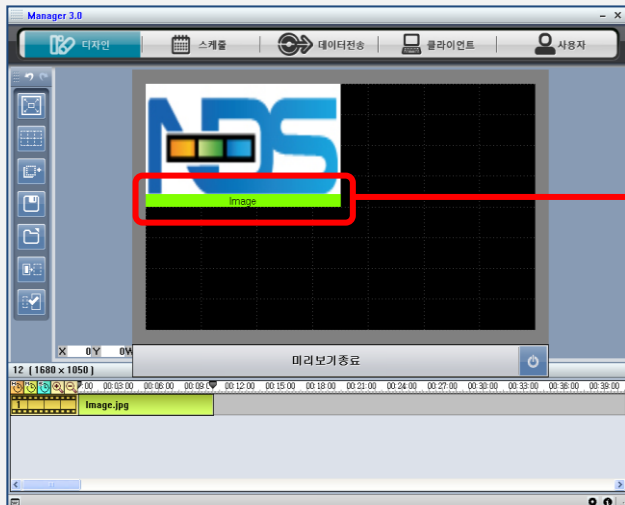
Preview

# 03 Menu Detail

## Design – Playback time setting



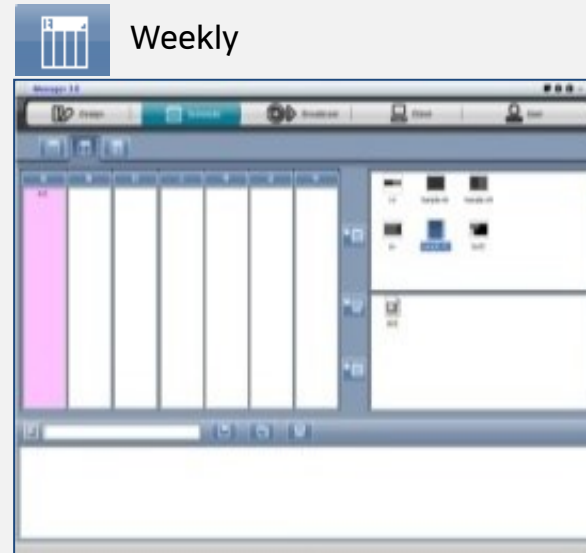
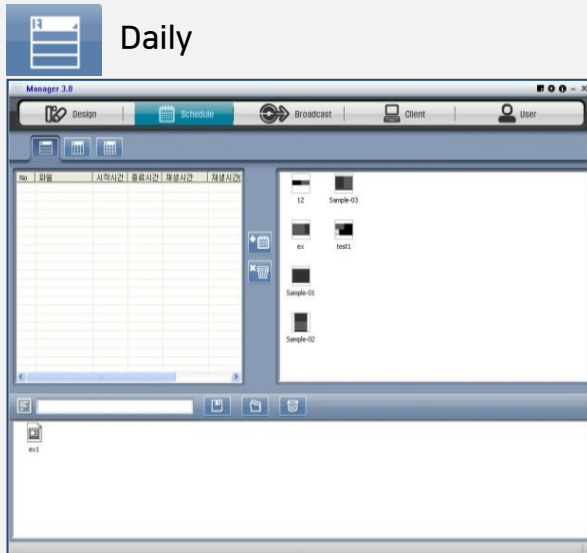
- ✓ Check playback time for each contents
- ✓ Start date(year, month, day, time)
- ✓ End date(year, month, day, time)



- ✓ Playback image
- ✓ File name below image
- ✓ Color of word and background customizing

## 03 Menu Detail

Schedule – Schedule setting for each content



✓ Set up and control your contents by daily, weekly, monthly in scheduler.

## Data transfer – Send content through network or USB

Emergency contents transfer :

Multi/Single broadcast of emergency contents

Data transfer type :

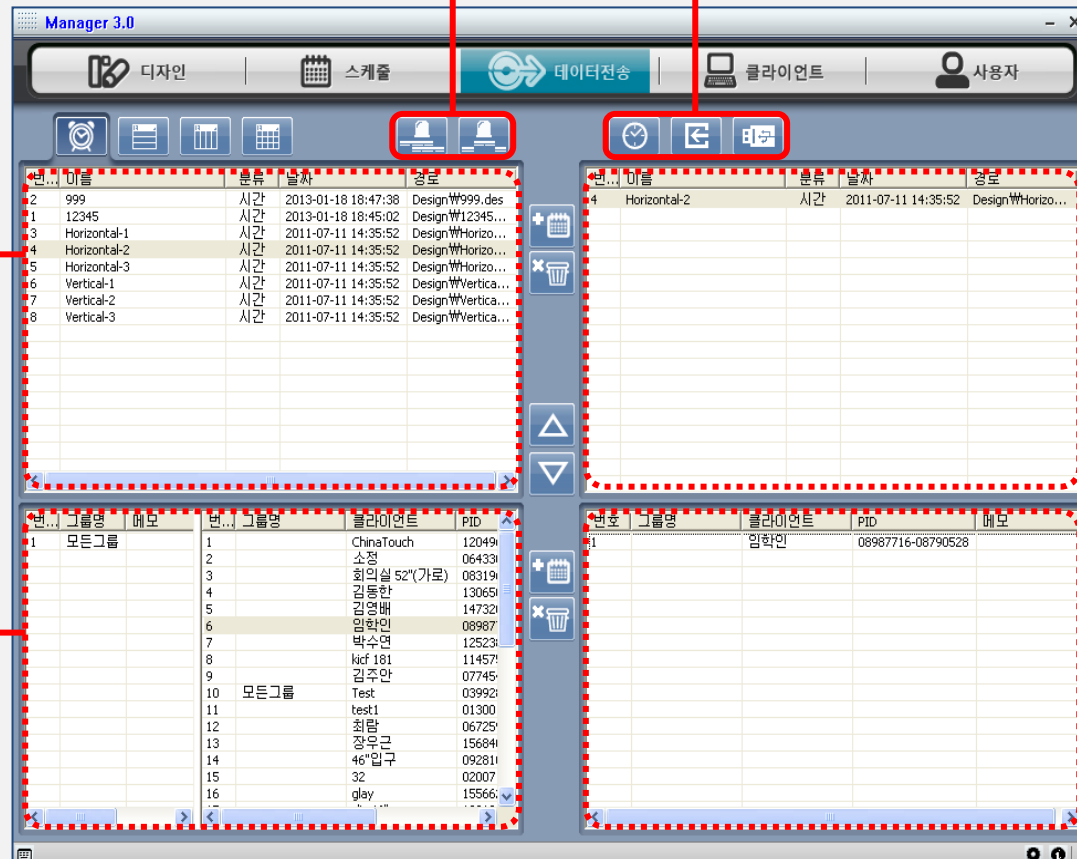
Reserved/Immediate/USB transmission

Available contents and schedule list

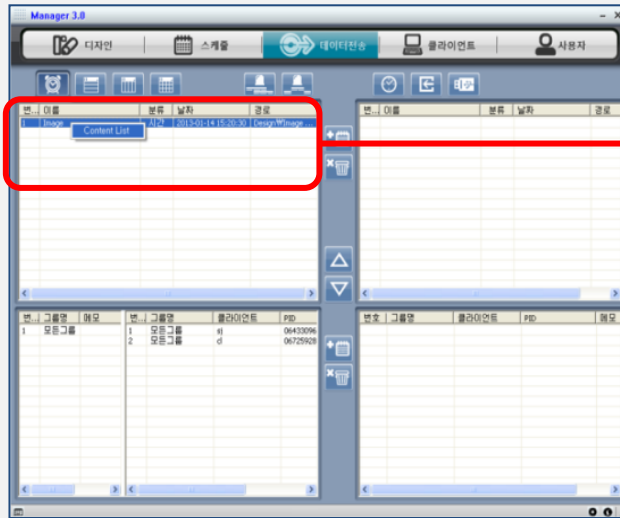
Contents and schedule for transmission

Transfer available client list

Picked clients for being transferred

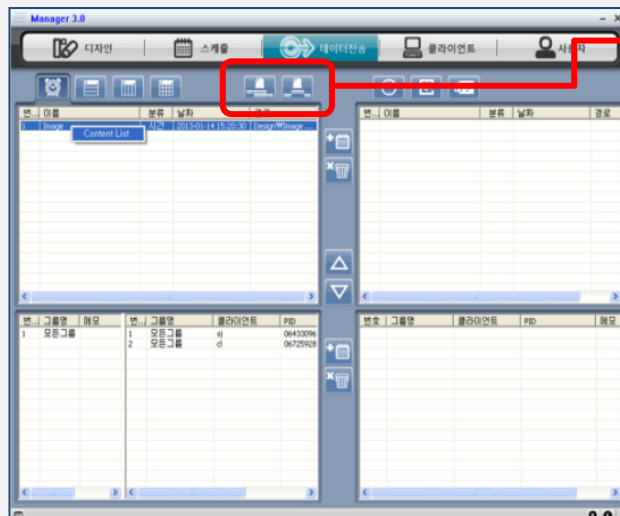


## Data transfer – Contents list, Emergency data transmission



번호	Screen	Content	Type
1	1	Image 1.jpg	Image
2	2	Image 2.jpg	Image
3	3	Image 3.jpg	Image

- ✓ Click the content
- ✓ Click right button of mouse
- ✓ Look up Contents List



**Emergency Option**

Once  
 Repeat

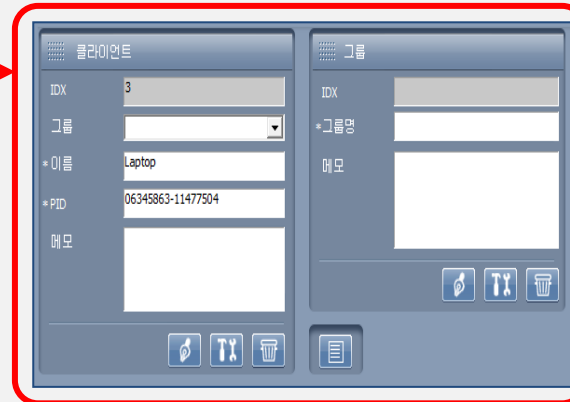
Start Date: 2013-01-18 00:00:00 ~ End Date: 2013-01-18 23:59:59

Repeat Time: 10 Minute

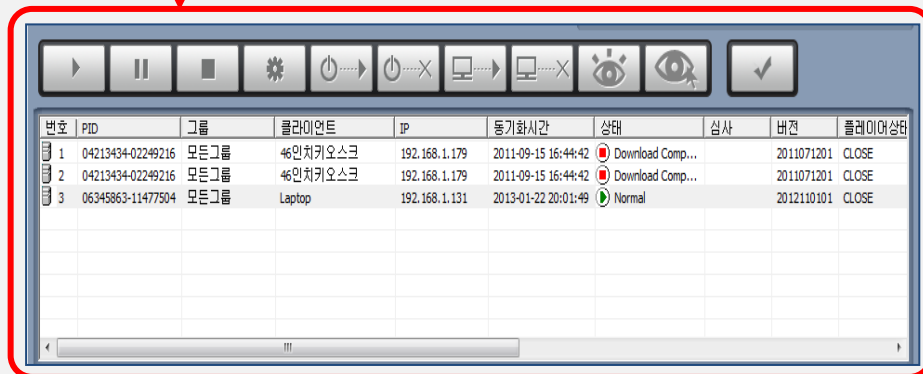
- ✓ Set up of emergency content's extension available
- ✓ Once/Repeat in the period
- ✓ Overlap play over present contents
- ✓ Play after end of present contents

# 03 Menu Detail

## Clientn – Content and display management



- ✓ Register/Re-set/Delete client
- ✓ Set a group for each client



- ✓ Monitoring of client's operation status is available
- ✓ Support client remote control through network (Play, Stop, Reboot, Shut down)

## User – Manager registration

Set an authorization of client control for each user

Registration of Manager(User)

Sub-User(Manager) set up for individual group

The screenshot displays the Manager 3.0 application window. The top navigation bar includes icons for '디자인' (Design), '스케줄' (Schedule), '데이터전송' (Data Transfer), '클라이언트' (Client), and '사용자' (User). The main interface is divided into three panels: '사용자정보' (User Information), '권한' (Authority), and '클라이언트설정' (Client Settings). The '사용자정보' panel contains fields for '사용자이름', '로그인아이디', '로그인비밀번호', and '비밀번호확인', along with a '사용여부' checkbox. The '권한' panel shows a list of permissions with '+' and '-' buttons. The '클라이언트설정' panel shows a list of client settings with '+' and '-' buttons. A table at the bottom lists user details.

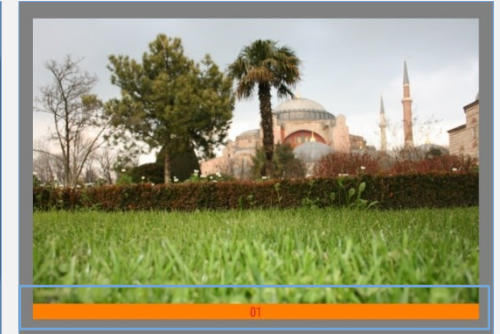
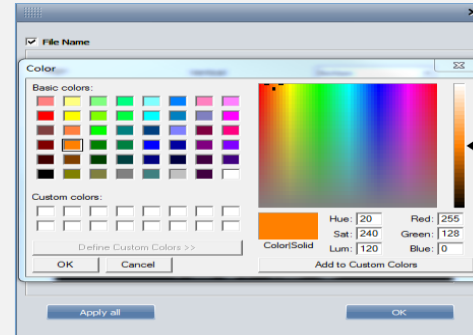
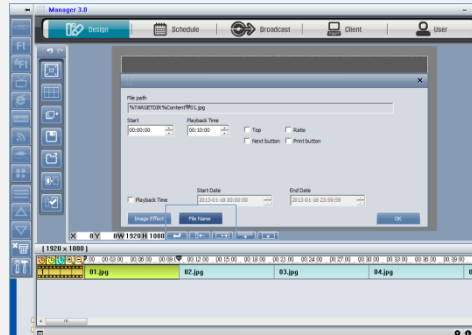
번호	사용자명	로그인아이디	로그인비밀번호	등급	메모	생성일	작성자	사용...
1	administrator	admin	*****	0	Administrator	2008-06-02 12:00:00	administrator	YES

## Others

## #1 Display image title

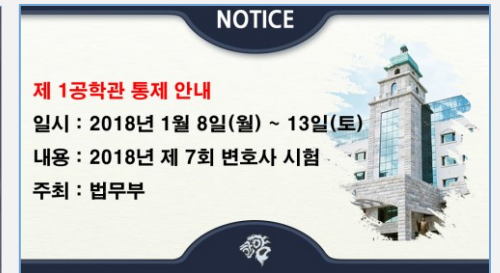
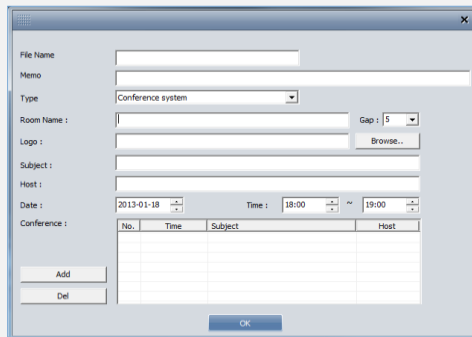
Image tab &gt; show file title

Title can be displayed on the image



## #2 Conference room App

Add application &gt; Conference

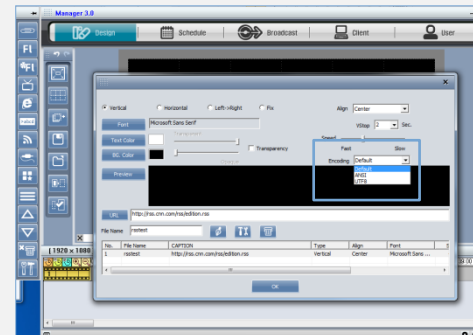
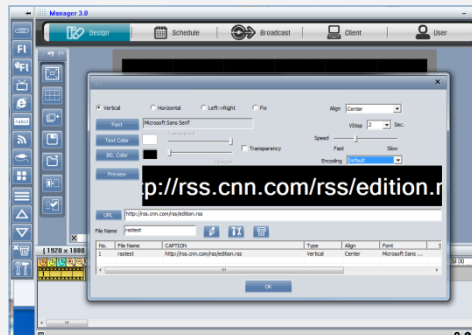
Efficient and Easy way to use  
than meeting room system in  
Outlook

## #3 RSS Encoding

RSS tab &gt; encoding

Choose one of default, ANSI,

UTF8 option

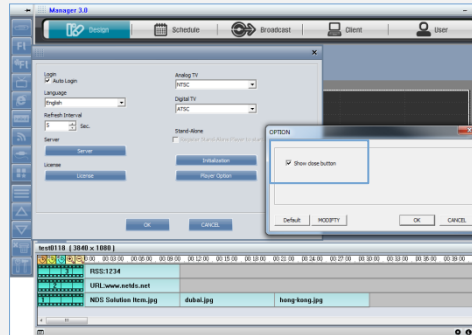




## Others

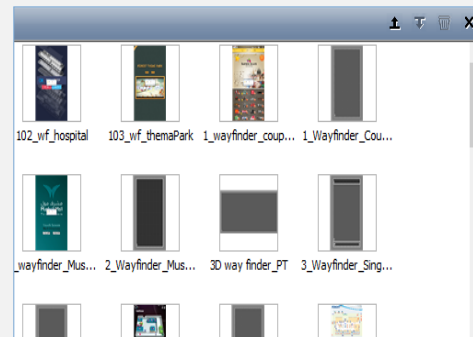
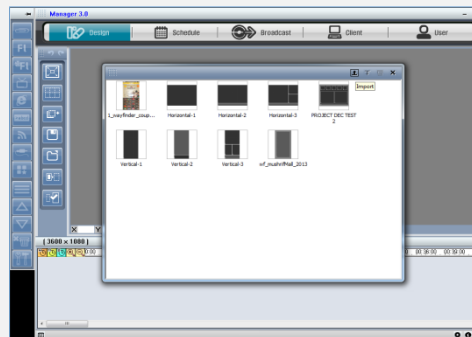
## #5 Image in image

Player option > Show 'End button'  
You can add image or video during presentation



## #6 Import/Export contents

Open > Import/Export  
Easy managing of saved contents

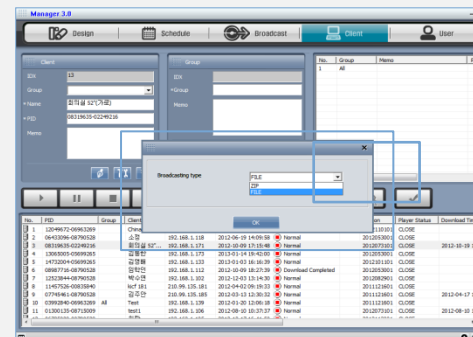
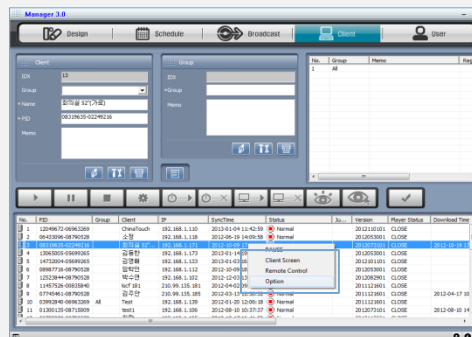


## #7 Transmission type

Client list tab

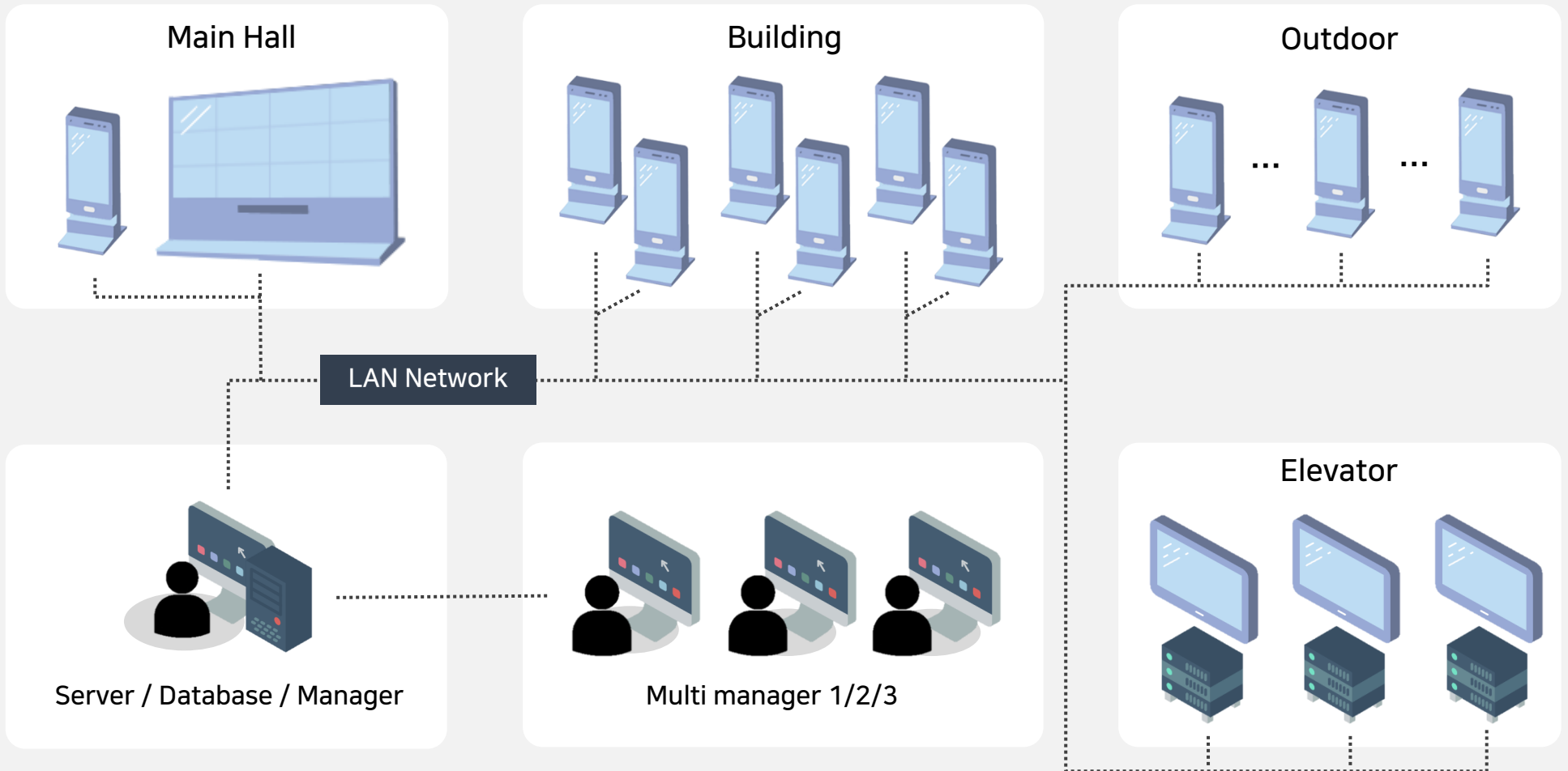
Zip : Better for file capacity

File : Better for file transmission



Block diagram of management system through LAN network

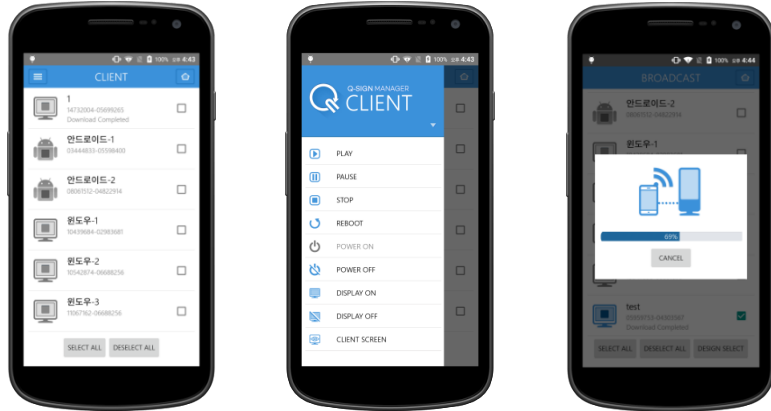
## System Diagram Example



Q-Mobile Manager 1.0

Q-Mobile Manager 1.0

- Developed in Android OS optimization environment
- Better accessibility with new UI design
- Available on over android 3.0 ver.



Why mobile?



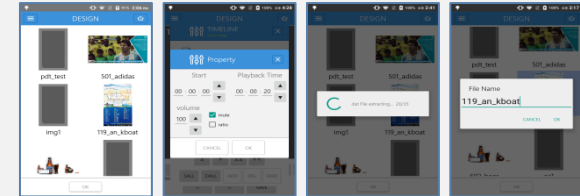
- Onsite control of facility
- Transfer and check the contents onsite
- Flexible response for any problems
- Control it anywhere you want using accessible IP

All main functions of PC ver. are available



Design

Import/Export Design, Add/Delete contents, Order of contents, Playback time



Data Transfer

All/Individual/Select Transfer, Duplicate transmission



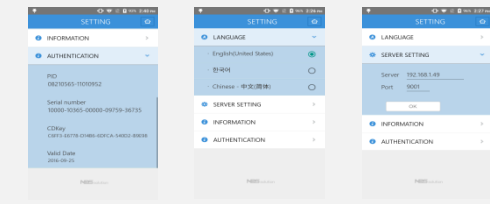
Client

Status check  
Play / Pause / Stop / Re-start  
Screen On&Off  
Shut down  
Show display



Language

Support 4 languages (Korean/English/Chinese/Arabic)



## Simple Q-Sign management on a web site

- ✓ Easy content editing through online webpage
- ✓ Background and theme editing, Image/Text/Video uploading
- ✓ Set a time for playing content on and off.
- ✓ Notice page edit and delete.
- ✓ Easy content modifying and uploading even for someone who doesn't know CMS software due to user-friendly interface.

## Content Management

관리페이지

배경 이미지 설정  
콘텐츠 관리  
환경 설정

콘텐츠 관리

로그아웃

No	제목	콘텐츠	날짜	View유/무 (예약날짜시간)
7	image9	이미지	2020-06-08	<input type="checkbox"/>
6	image7	이미지	2020-06-08	<input type="checkbox"/>
5	image8	이미지	2020-06-08	<input type="checkbox"/>
4	image7	이미지	2020-06-08	<input type="checkbox"/>
3	image6	이미지	2020-06-08	<input type="checkbox"/>
2	image5	이미지	2020-06-08	<input type="checkbox"/>
1	image4	이미지	2020-06-08	<input type="checkbox"/>

닫으기 등록

## Notice board

관리페이지

배경 이미지 설정  
콘텐츠 관리  
환경 설정

전체관리자

전체 공지

파일 업로드

## Set on and off time

관리페이지

배경 이미지 설정  
콘텐츠 관리  
환경 설정

시작 일시 - 종료 일시 설정

예약 날짜 시간

시작일시 종료일시

확인 취소

## Theme

관리페이지

배경 이미지 설정  
콘텐츠 관리  
환경 설정

FRAME 설정

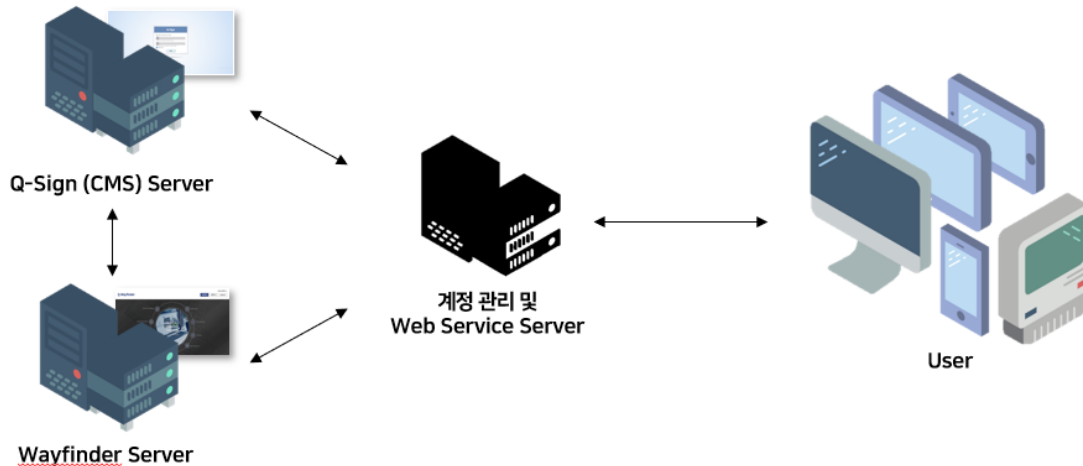
FRAME 배경 이미지 설정

1번 배경 2번 배경 3번 배경 배경 없음

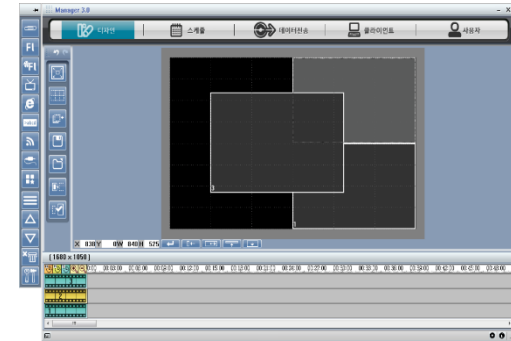
Frame 설정

## Q-Web 1.0(Cloud version of Q-Sign)

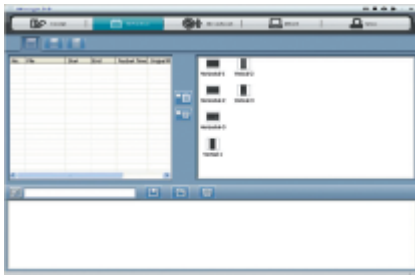
## Cloud Server



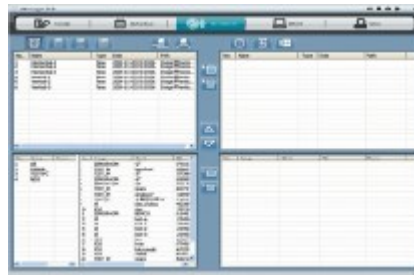
## CS Version



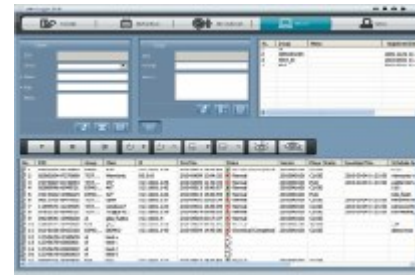
- ▶ Support 15 languages.
- ▶ Easy installation within 15mins.
- ▶ Content design and schedule transmission.
- ▶ Support various application formats.

**Schedule**

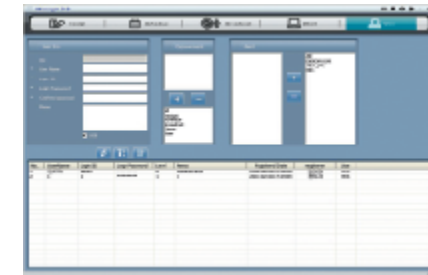
- Daily, Weekly, Monthly schedule
- Selectable schedule management

**Data transfer**

- Immediate/reservation/Emergency data transfer and USB transmit

**Client**

- Remote power and monitor on/off
- Monitoring clients status

**User**

- Multi User Registration
- Distribution of User authority

Q-Web 1.0(Cloud version of Q-Sign)

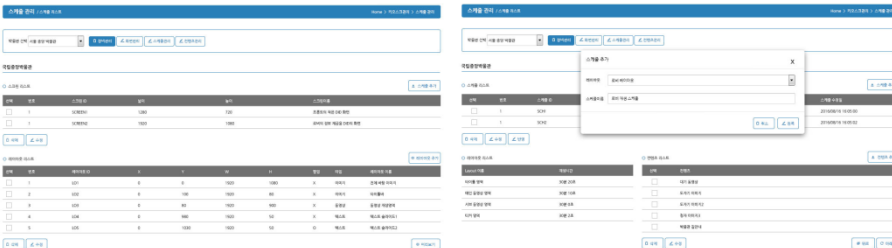
Web based CMS Q-Web 1.0

- ✓ Web based CMS makes you control it anywhere in the world
- ✓ Include main function of CMS(Making, Managing, transmission, Client control, Emergency notice etc.)
- ✓ Efficient managing by distribution of site/client to each manager
- ✓ Available in various environment by multi browser support



Developed for effective user environment

- ✓ Simple data flow and network for minimize traffic
- ✓ Only core functions included for minimize system resource usage and hardware overhead
- ✓ Contents will be played stably even data base are downed
- ✓ Automatically restart when client abnormally ends



All main functions of PC ver. are available

Manage Display

Register/Delete/Power control/Screen status/Play status/Check error

Manage Screen

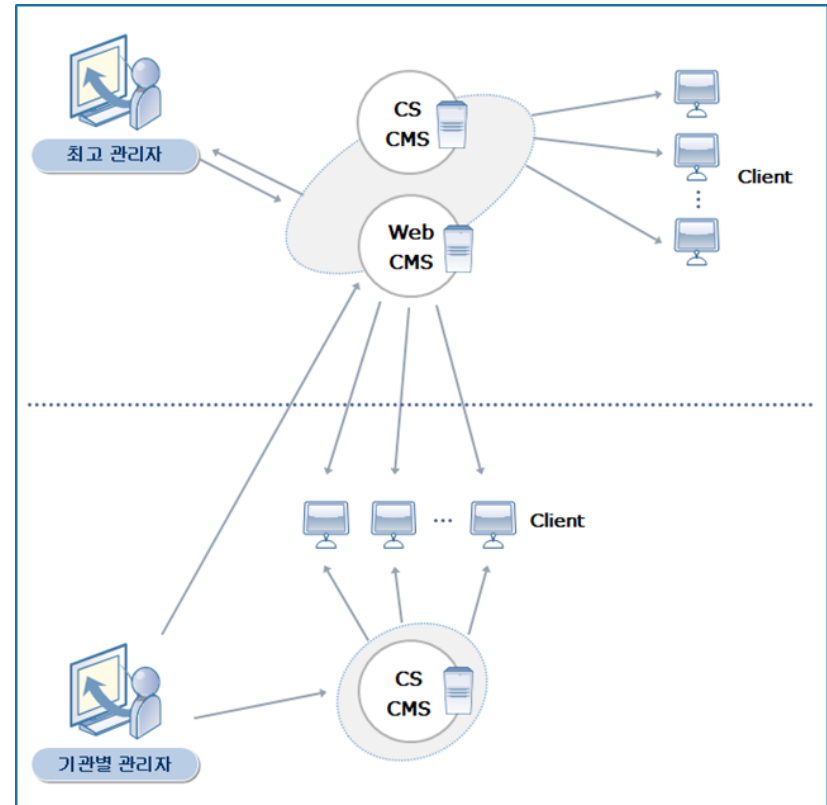
Add/Edit/Delete screen, Add/Edit/Delete/Preview of layout

Manage Schedule

Add/Edit/Delete schedule, Add/Change order/Delete of contents

Manage Contents

Add image/video, Edit registration info, Add/Edit subtitle, Emergency notice



Muan International Airport

- 55" Wayfinding Touch Kiosk 5EA
  - Tourist spot and Restaurant guide with speech recognition
  - Customized advertisement by face recognition
  - Airport shuttle bus and taxi information, Region tour information
- Total management of Dual side LED, Video wall, Media art wall through Q-Sign Cloud version
- 10.1" Android Pad – Tourist spot and map guide
- Total management of various device(Kiosk, LED sign, Multi Screen)



Total management of digital signage  
Android tablet control & manage  
(Mobile fence program)

- Q-Sign CMS (Cloud Version)
  - Sever
  - Database



Android Tablet PC (40EA) For airport visitors

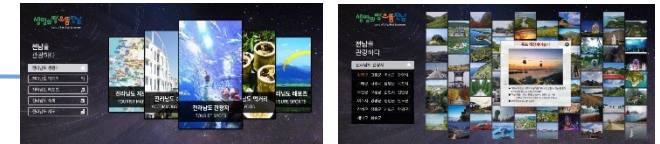
Muan International Airport



55" Stand Kiosk 5EA



Ceiling type Dual side LED



55" 4X1 Multi Screen



High Resolution LED Media Display  
(2400\*1920 p1.8)

Smart Green Shelter in Gangseo-gu

- Provide current traffic info through CCTV camera integration
- Mounted 55" outdoor Kiosk display
- Public information such as weather, micro dust
- Promotion image and notification of District office
- Public bus line and arrive information
- Dust info and temperature inside the shelter

Installation Picture

Bangwageunlin Park



Subway exit 7



Hangeul Kid's Park



55" 3EA inside the shelter

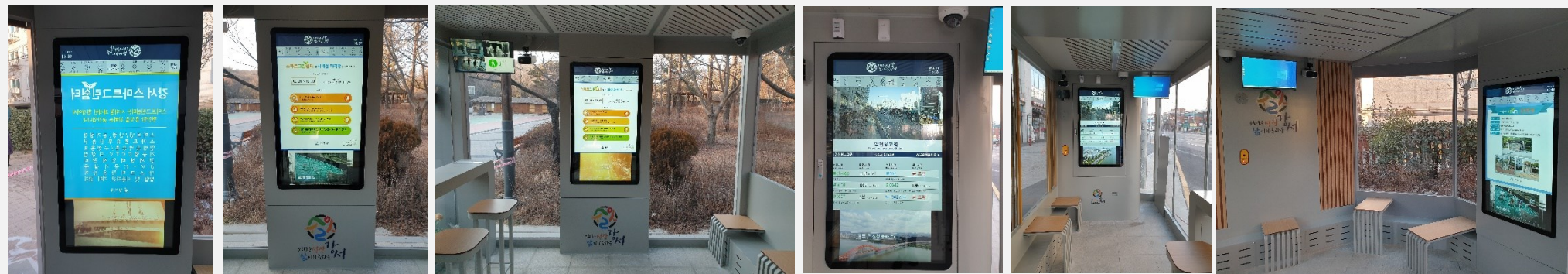


Display current traffic info through CCTV camera



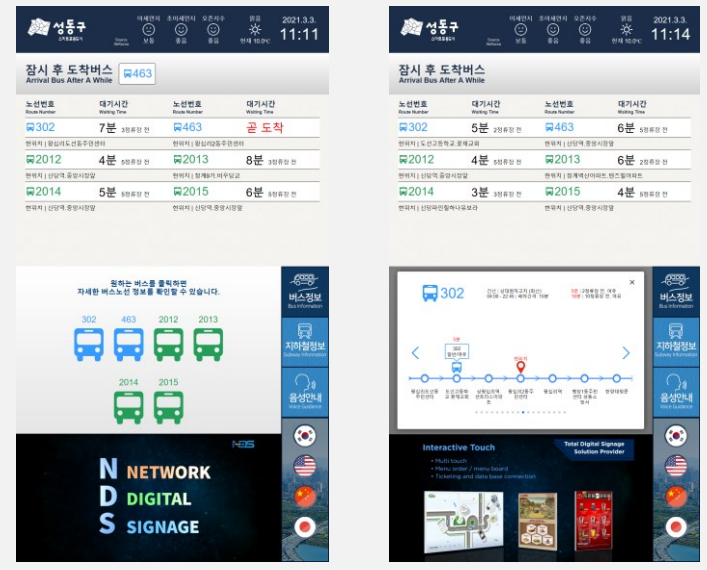
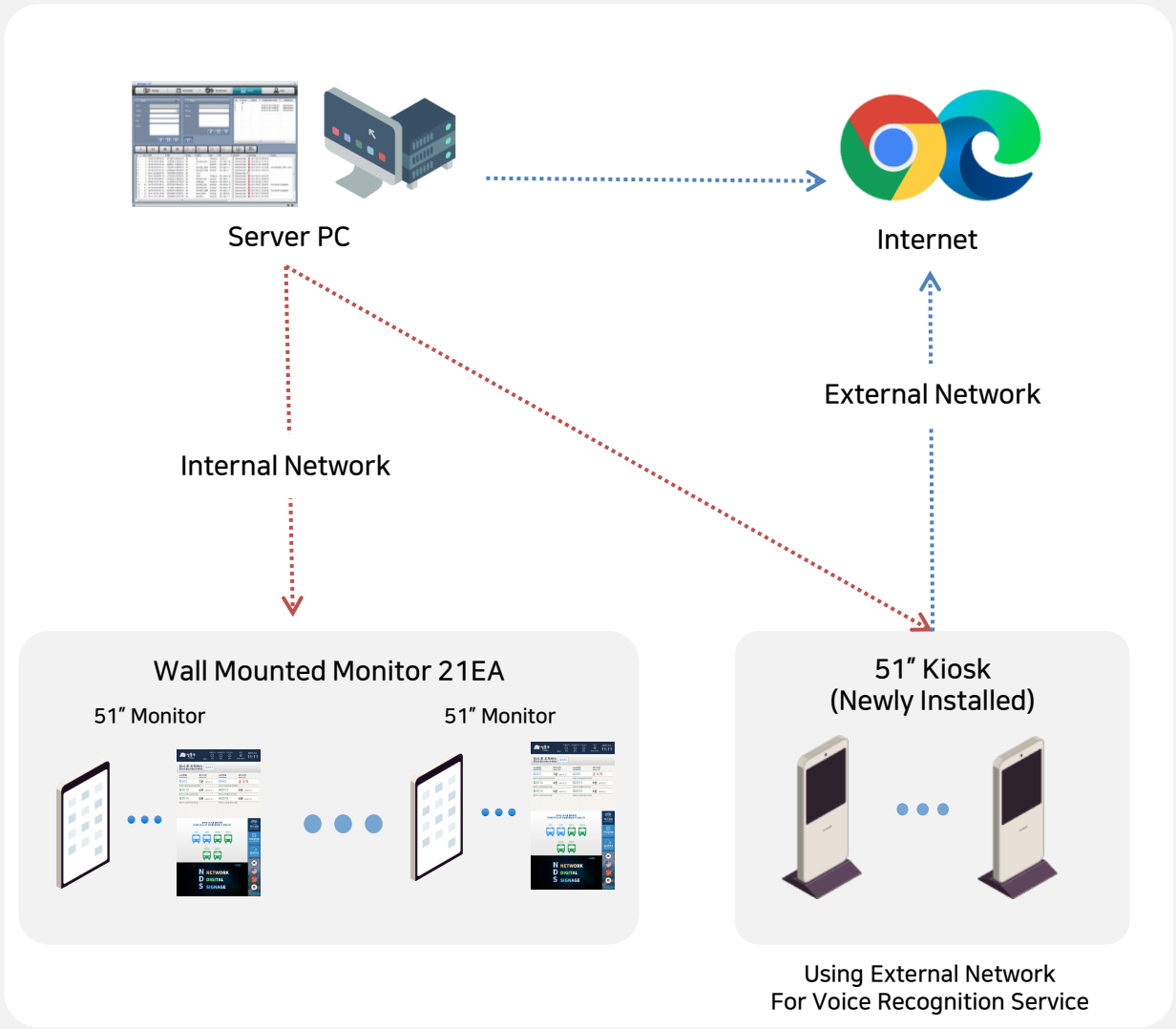
Real time bus arrival info

Promotion image of District office





Public transportation info kiosk



- Total management of 21EA monitors and Kiosk
- Public information(Micro dust, Weather)
  - Transportation Info(Bus and Subway arrival)
  - CCTV Screen
  - Voice Recognition
  - Personalized advertisement by face recognition.



Integrated server / Management software(CS based)



- Total management of digital signage
- System power control
- Screen control
- View screen
- User management
- Create and send contents
- Schedule management

Central manager



General announcement  
Real time editing  
Remote hardware control  
System remote access

<Comprehensive management>

Separate manager



Separated announcement  
Class guide  
Campus guide  
Guide by floor  
Real time editing

<Concentrative management>

<DB access sharing>



Hanyang univ.  
Event hall reservation website



24in Wall-hanging monitor 40EA



<Template example>

55in Standing Kiosk 30EA

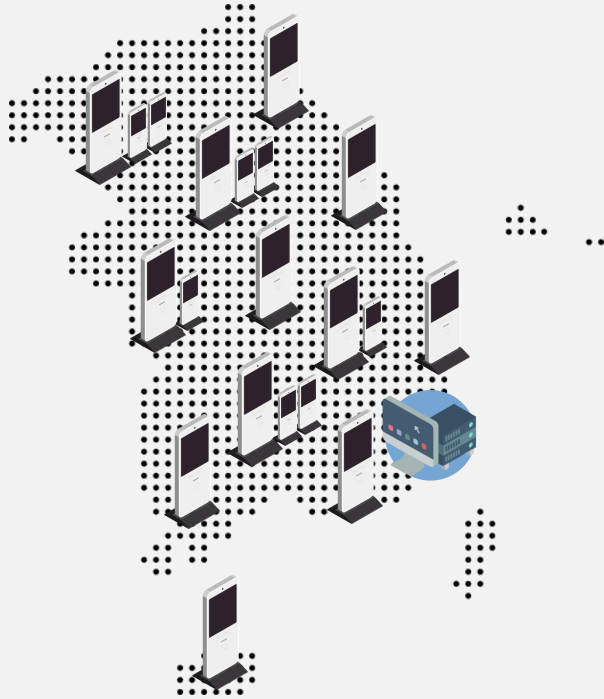


<Template example>

<Connecting with event website>

## Media Kiosk Rent, Korea Occupational Safety Health Agency

## Kiosk installed to each branch of KOSHA



Q-Sign 3.0 Server : Manage all the kiosk in each branch of KOSHA

- 20EA Kiosk installed in nationwide
- Each branch's banner and logo applied
- Remote ON/OFF using digital timer

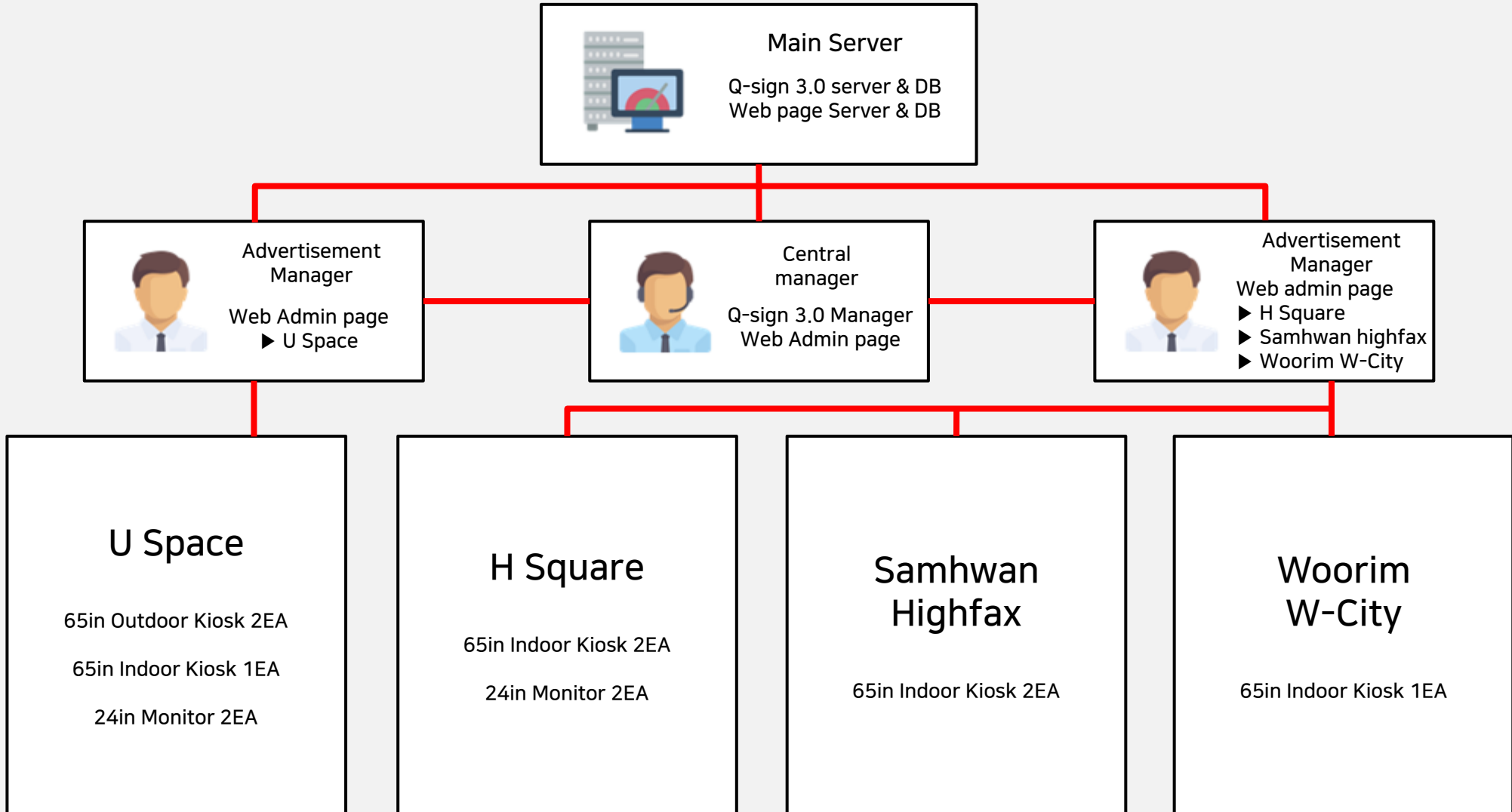
Remote maintenance by NDS through TeamViewer

## 각지사별 설치현황



Pangyo Techno Valley

Build multi user management server



High-one Waterpark

Integrated management server

Integrated server / Management software(CS based)



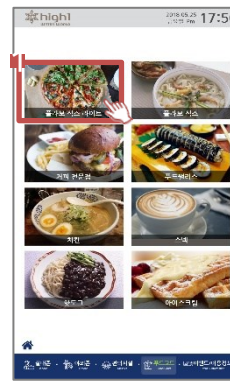
- Total management of digital signage
- System power control
- Screen control
- View screen
- User management
- Create and send contents
- Schedule management

Contents managing

- Change facility info
- Edit contract and event
- Web linkage announcement



49in Outdoor Kiosk 19EA(Indoor/Outdoor pool)



<Template Example>

49in Outdoor DID 10EA(Ticket box, etc.)

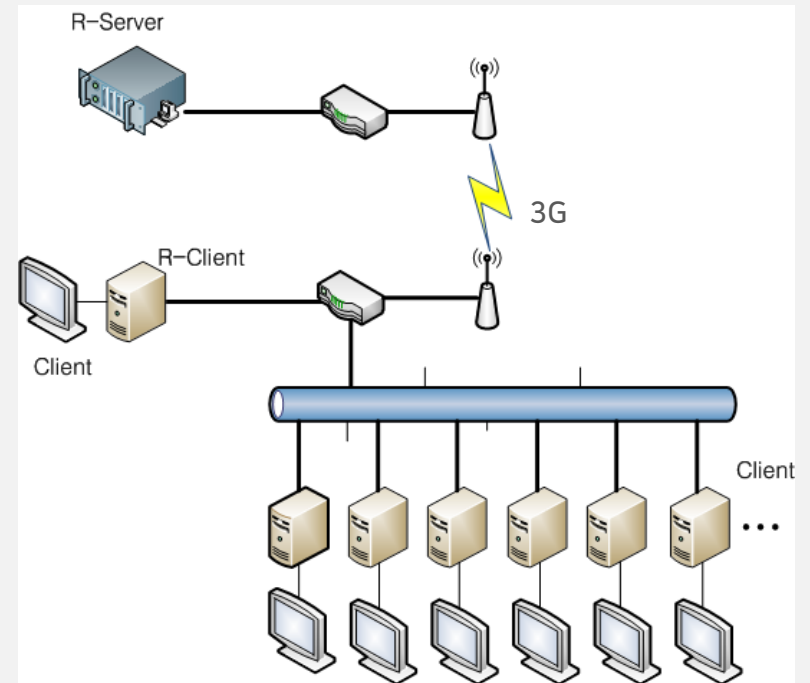


<Announcement or etc.>

## Kunming International Airport

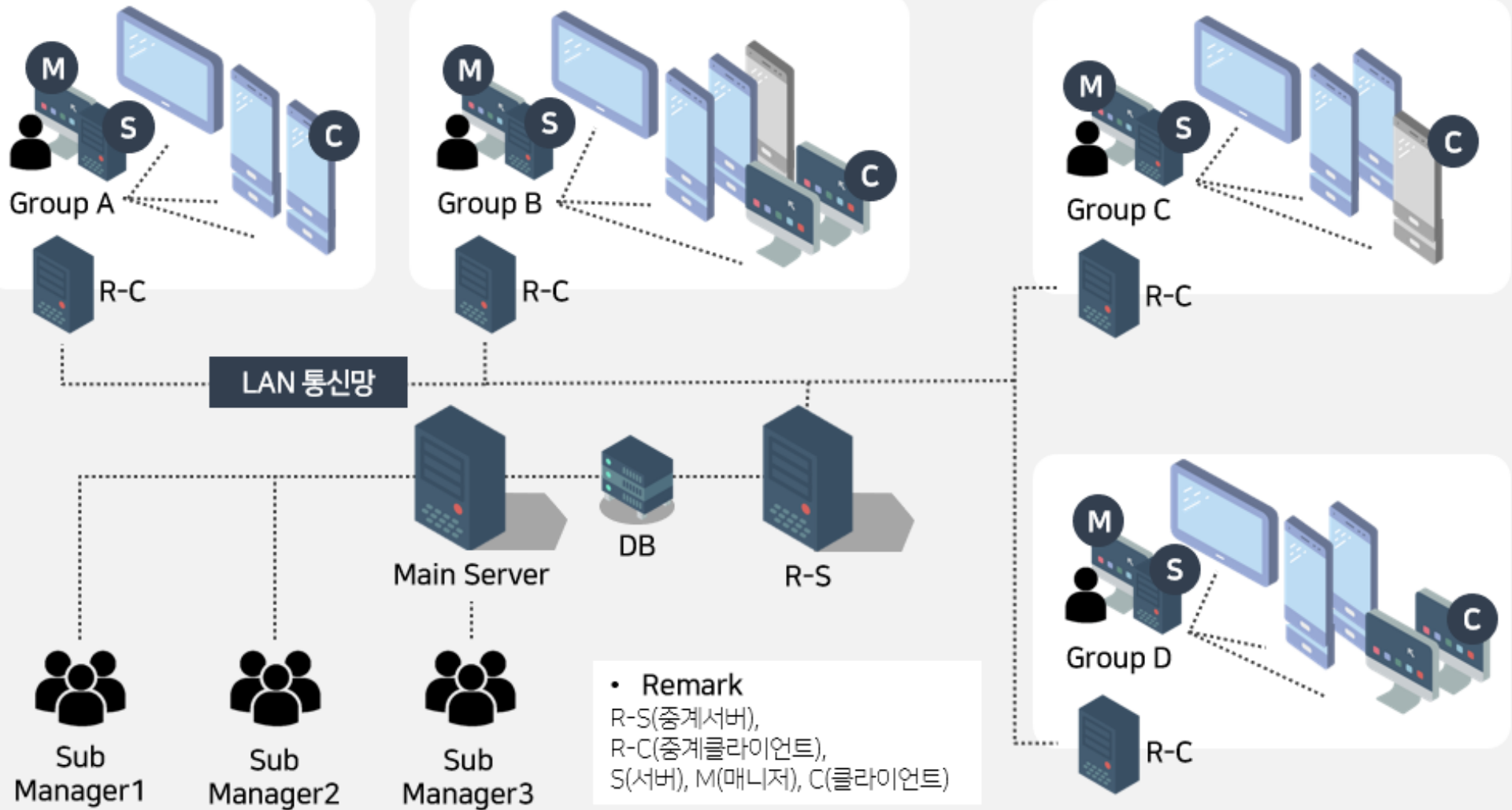
## Network composition using relay server and client

- ✓ External network : 3G IP SEC VPN
- ✓ Internal network : Wi-fi Wireless internet
- ✓ Contents : Commercial video
- ✓ Feature : Contents transmission via 3G and Wi-fi
- ▶ Contents change within 1 sec



## Kunming International Airport

## System Diagram



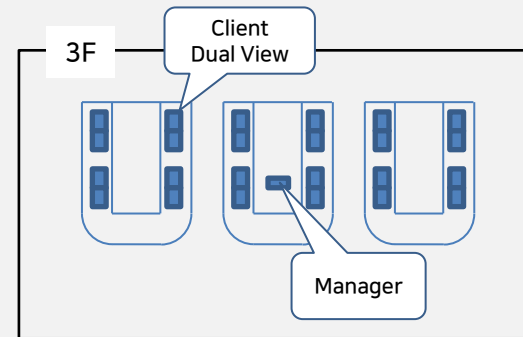
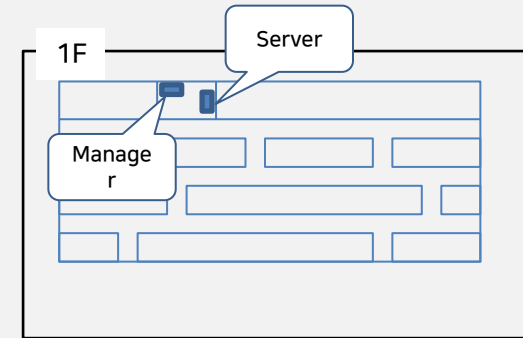
# 08

## Reference

Hangzhou National airport

### Emergency notice and Security management

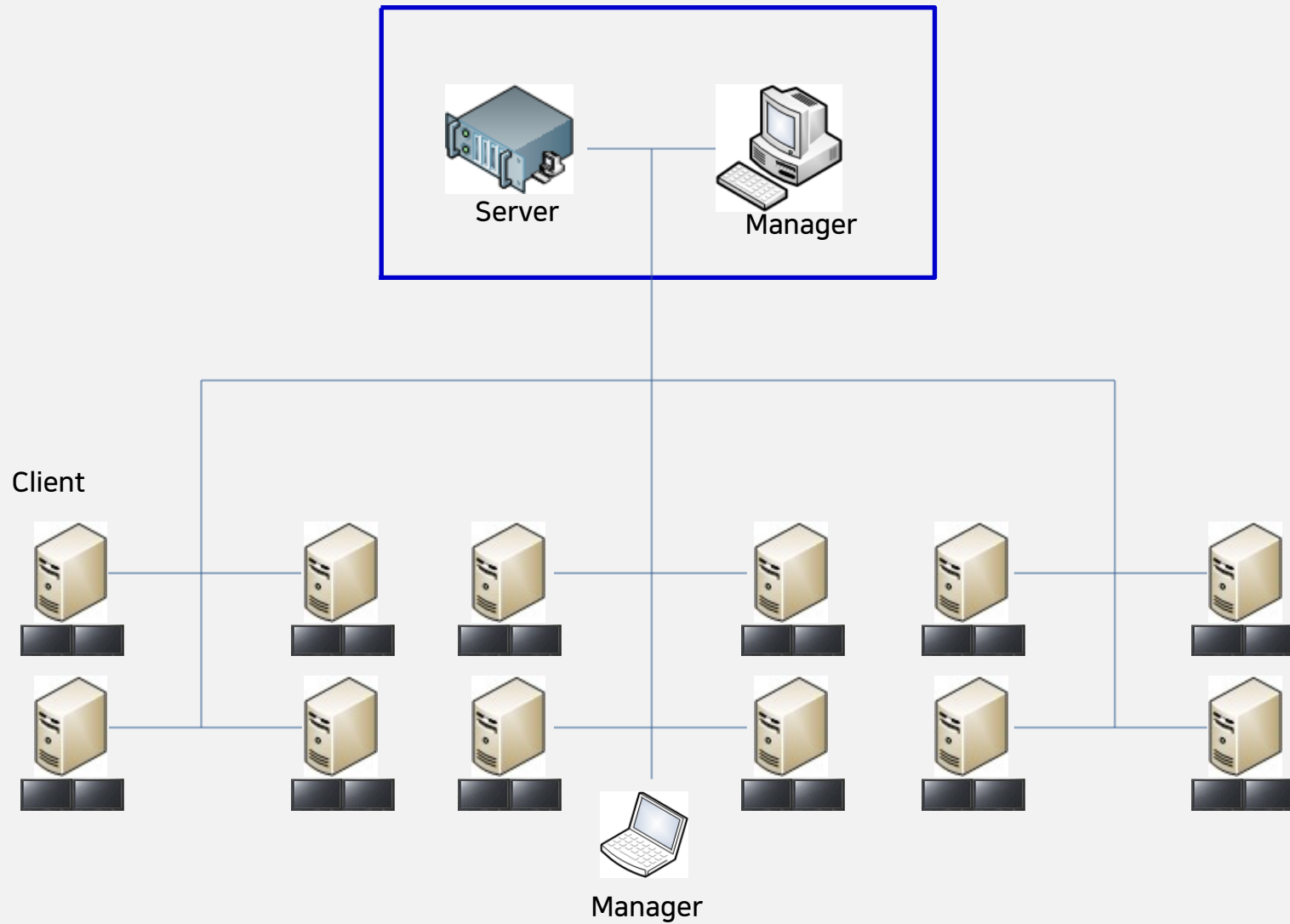
- ✓ External network : 3G IP SEC VPN
- ✓ Internal network : Wi-fi Wireless internet
- ✓ Contents : Emergency broadcast for flight delay
- ✓ Feature : Contents transmission via 3G and Wi-fi
  - ▶ Contents play on repeat using emergency schedule
  - ▶ Censorship mode for the security of contents
  - ▶ Monitor distribution on one client PC (Dual View)





Hangzhou International Airport

Block diagram of server network



## Seoul National Univ. Hospital

### All ward's display system management include elevators

- ✓ Internal network : Local network
- ✓ Contents : Commercial video, Clinic information, etc.
- ✓ Feature : Individual department use multi manager with one server

Main Building/Others : 48EA  
Clinical Ward : 6EA

Total 54EA

Sort	No.	Location	Quantity(EA)
Main Building	1	DID Touch system	10
	2	4x4 Multi vision	1
	3	Main building elevator	5
	4	Parking lot elevator	1
Children's ward	5	DID Touch system	3
Cancer ward	6	DID Touch system	4
	7	3X3 Multi vision	1
	8	Cancer ward elevator	5
Children's annex	9	DID Touch system	1
	10	Annex elevator	3

### Main Building



### Cancer Ward



### Children's Ward and Elevators



Seoul National Univ. Hospital



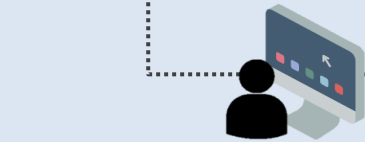
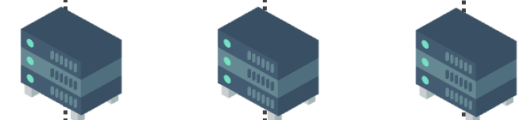
Lobby 3X3 Video Wall



LAN Network



VGA or RGB Cable



M2



M3

LAN Network



Main Manager1  
(Main server management)



Original hospital DB server  
(OCS integration, reservation check, etc.)



# THANK YOU

For more information, visit  
<http://www.netds.net>



NDS Solution Co., Ltd.