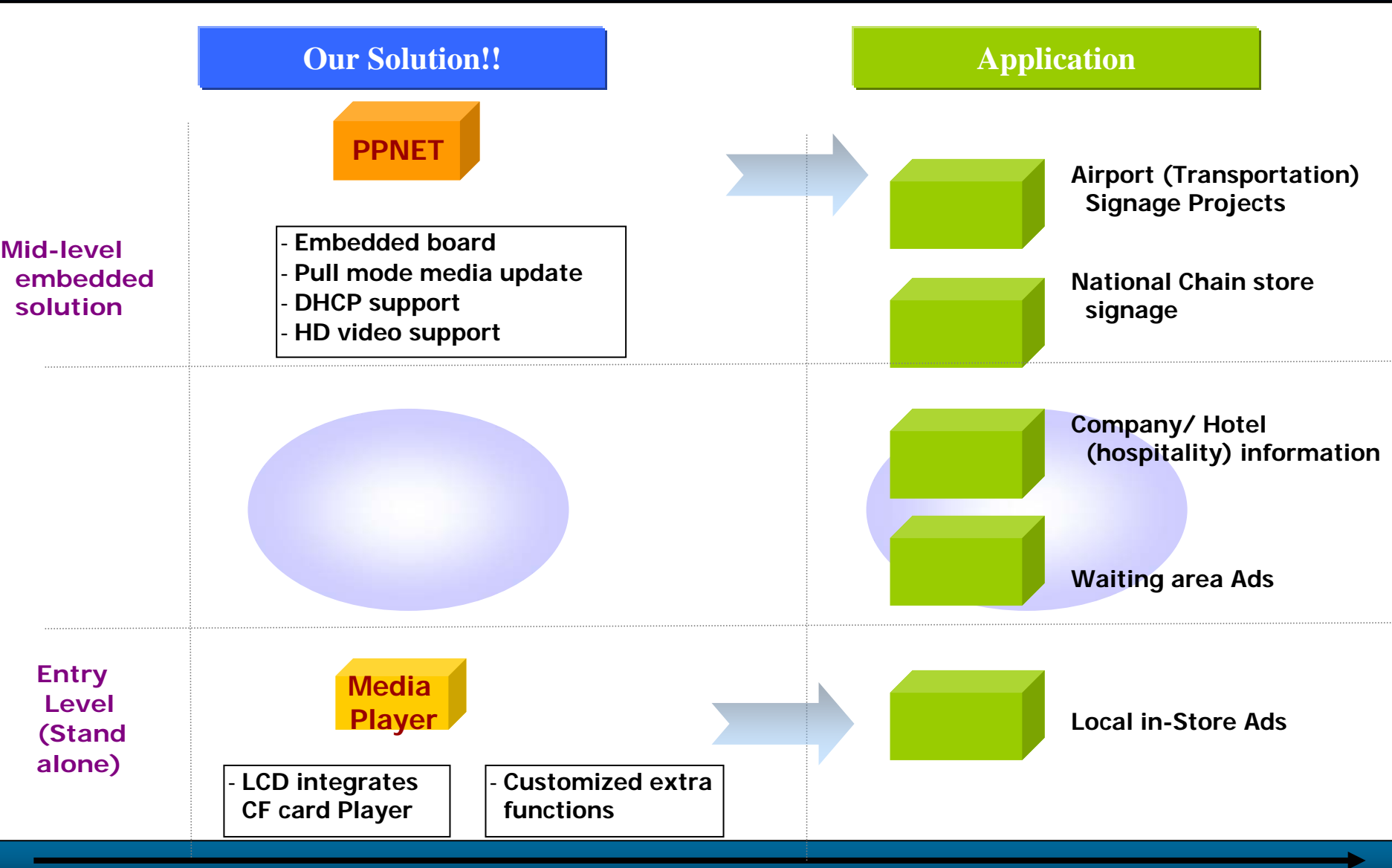


# Network Digital Signage Player



PPNET – Network Digital Signage Player

# Our Solutions for Digital Signage



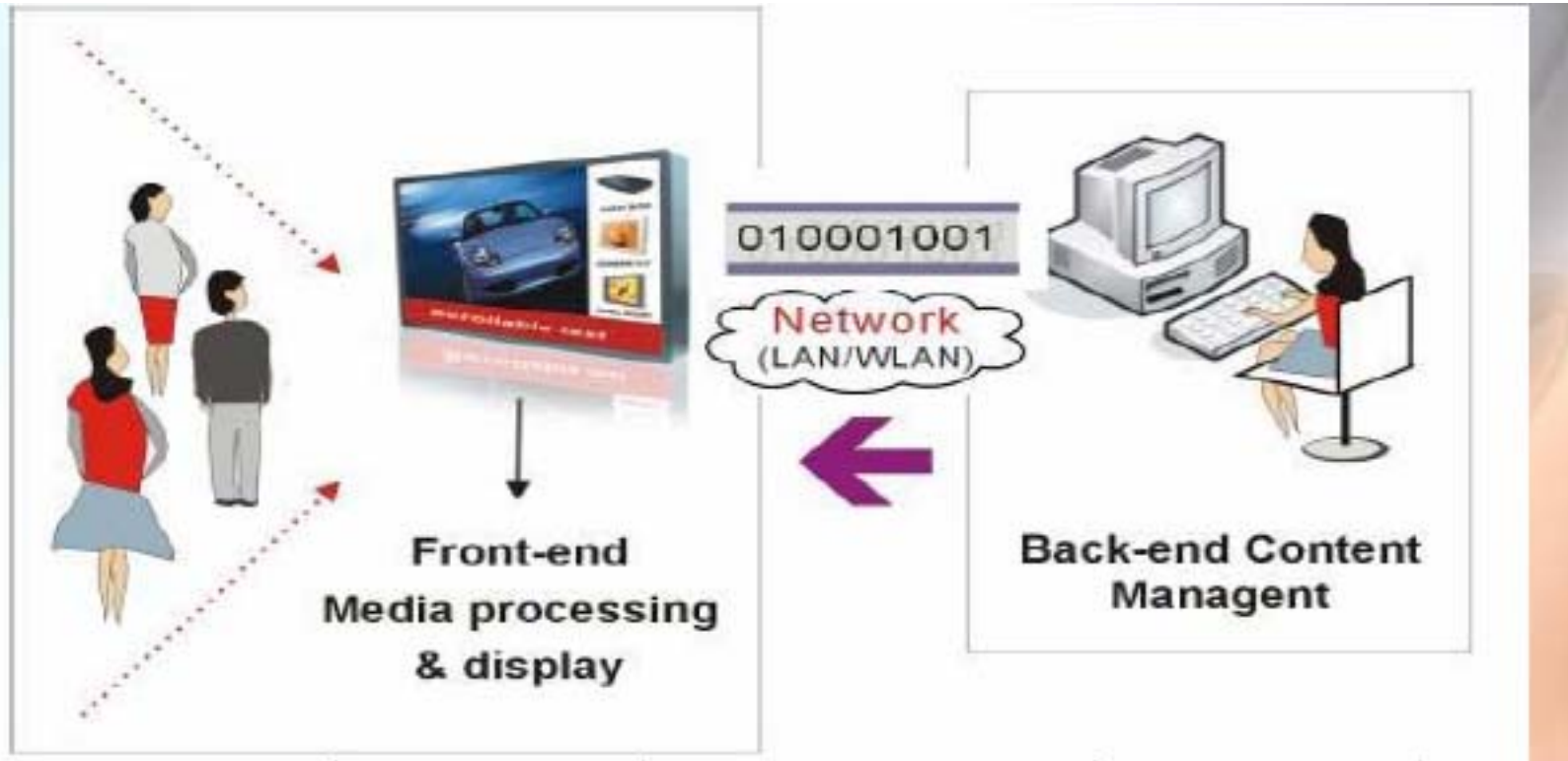
# Summarized Features

- Simple/Reliable SoC Multimedia Platform
- All-in-one Full-range LCD solutions
- Easy-to-Use User Interface
- Focus on Simple/Specific/ Network Required
- Application
- Low Total Ownership cost

# Specifications

<b>Core Processor</b>	<b>Sigma Designs – Single chip digital media processor (embedded 32-bit RISC CPU)</b>
<b>Media Decoding</b>	<b>H/W MPEG decoding Engine DSP-based audio decoders</b>
<b>Storage Interface</b>	<b>IDE device (Needed to be Linux ext2 format) Compact Flash -512MB (bigger size as optional) Or 2.5" HDD – 40GB(optional)</b>
<b>External Storage</b>	<b>USB 2.0 Flash Drive device (for storage device only)</b>
<b>Video Outputs (for Box only)</b>	<b>DVI-I (can be converted into VGA) S-Video NTSC/PAL Composite</b>
<b>Extra VGA output</b>	<b>Display in another monitor (LCD only)</b>
<b>Audio</b>	<b>Stereo 2W x2 Speaker (LCD only)</b>
<b>Network</b>	<b>10/100 Base T Ethernet (RJ-45) Internal miniPCI for wireless LAN (optional)</b>
<b>Power Input</b>	<b>12V DC input</b>

# Overview of Solution



# Multiple Zones Display



## Output Resolution V.S Zone Size (in pixel)

Output Resolution	Video/Pic Zone	Pic Zone	Message Zone
640 x 480	512 x 420	128 x 420	640 x 60
800 x 600	640 x 540	160 x 540	800 x 60
1024 x 768	820 x 708	204 x 708	1024 x 60
1280 x 960	1024 x 900	256 x 900	1280 x 60
1280 x 1024	1024 x 964	256 x 964	1280 x 60
1360 x 768	1088 x 708	272 x 708	1360 x 60

# Network Signage Player Plus

## Content Presentation

Graphics x3

Video

Scrollable  
text x3



## System Diagram



## Data Updated

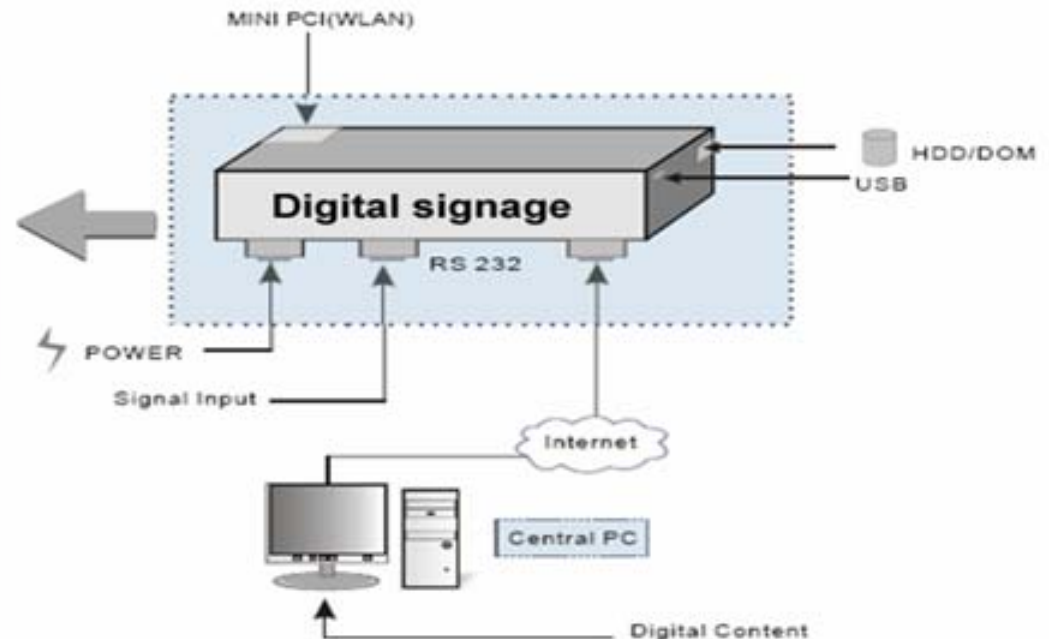
Ethernet, WLAN  
USB Flash Drive

## Storage

DOM or 2.5" HDD

## Key Features

- Play Unit Platform: uClinux
- Scheduled Playback, Flexible Screen Layout
- RS-232 Control (optional)
- Support MPEG1/2/4 (optional)



Server Software

- MSO Plus (Win2000/XP based)

# Support VIDEO Format (MPEG1)

Type	Support Format	File extension						
Video (16:9 & 4:3)	MPEG1 (VCD file) <table border="1" data-bbox="319 462 1209 986"><thead><tr><th colspan="2">Support Format</th></tr></thead><tbody><tr><td>Video Data rate</td><td>Up to 10.0 Mbit/sec</td></tr><tr><td>Audio Codec</td><td>Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported</td></tr></tbody></table>	Support Format		Video Data rate	Up to 10.0 Mbit/sec	Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported	.mpg .dat
Support Format								
Video Data rate	Up to 10.0 Mbit/sec							
Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported							

**Note:** \*1: Most of current DVD/ MPEG2 can be supported.

# Support VIDEO Format (MPEG2)

Type	Support Format	File extension						
Video (16:9 & 4:3)	MPEG2 MP@HL Multi-frames: Max. 480p or 576p <table border="1" data-bbox="426 662 1289 1186"><thead><tr><th colspan="2">Support Format</th></tr></thead><tbody><tr><td>Video Data rate</td><td>Up to 6.0 Mbit/sec</td></tr><tr><td>Audio Codec</td><td>Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported</td></tr></tbody></table>	Support Format		Video Data rate	Up to 6.0 Mbit/sec	Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported	.vob .mpg .mpeg .m2p
Support Format								
Video Data rate	Up to 6.0 Mbit/sec							
Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported							

# Support VIDEO Format (MPEG4)

Type	Support Format	File extension						
Video (16:9 & 4:3)	<b>MPEG4</b>  Multi-frames: Max. 480p or 576p  <table border="1"><thead><tr><th colspan="2">Support Format</th></tr></thead><tbody><tr><td><b>Video Data rate</b></td><td>Up to 4.0 Mbit/sec</td></tr><tr><td><b>Audio Codec</b></td><td>Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported</td></tr></tbody></table> DivX 3.11/4.x/5.x	Support Format		<b>Video Data rate</b>	Up to 4.0 Mbit/sec	<b>Audio Codec</b>	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported	.vob .mpg .mpeg .m2p
Support Format								
<b>Video Data rate</b>	Up to 4.0 Mbit/sec							
<b>Audio Codec</b>	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported							

# Video File Comparison and Media Formats

Format	VCD	DVD	AVI/DivX/XviD/WMV
Resolution	352x240	720x480	640x480
Video Compression	.mpg .dat	.vob .mpg .mpeg .m2p	.mpg .avi .divx .xvid
Video bitrate	~10.0 Mbps	~6.0 Mbps	~4.0 Mbps
Audio Compression	MPEG1-Audio-Layers II and III(mp3)	MPEG1-Audio-Layers II and III(mp3)	MPEG1-Audio-Layers II and III(mp3)
Audio bitrate	~384kbps	~384kbps	~384kbps
Size/min	10 MB/min	30-70 MB/min	4-10 MB/min
Quality	Good	Excellent	Great

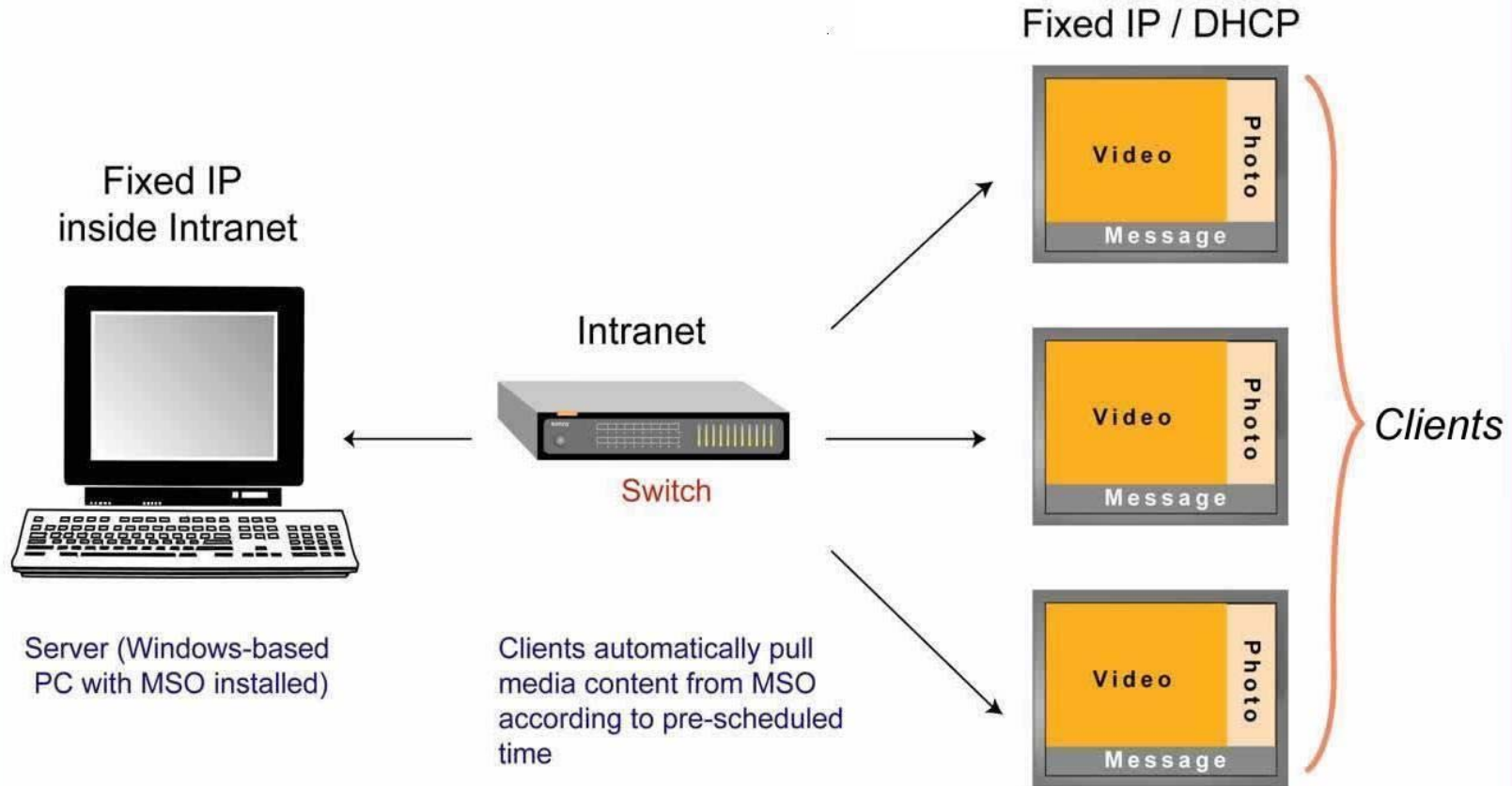
## Other Supported Formats:

Graphic Format Support: JPEG, BMP

Text Banner: TXT

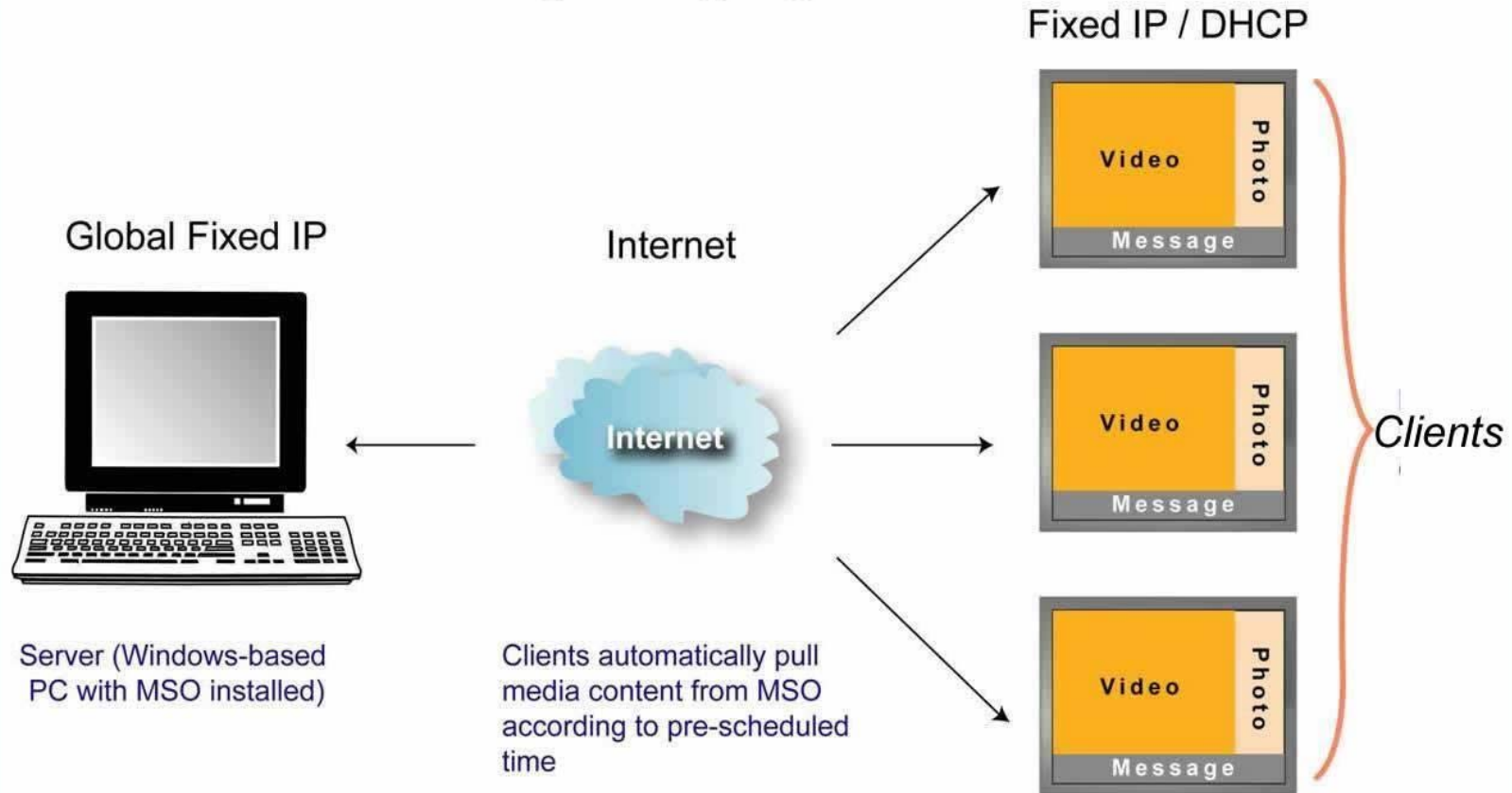
# File Transferring

Digital Signage PPNET



# File Transferring

Digital Signage PPNET



# MSO Plus Factory Setting

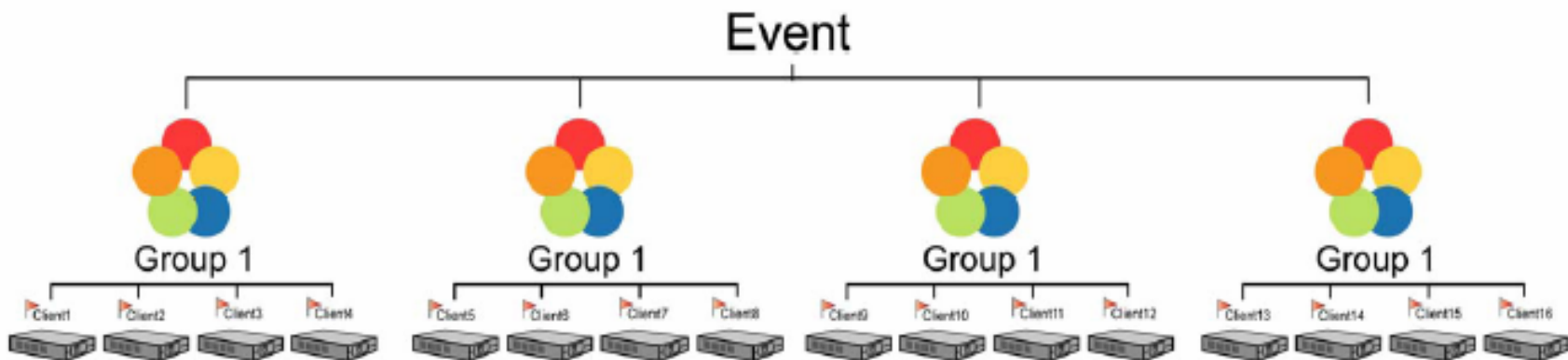
- MSO PLUS will automatically connect to SERVER, therefore, you should set the Server IP to be 192.168.0.188
- An alternative way is store IP settings in USB and apply it to clients

<b>LAN IP</b>	<b>192.168.0.128</b>
<b>LAN Subnet Mask</b>	<b>255.255.255.0</b>
<b>Server IP</b>	<b>192.168.0.188</b>
<b>IP mode</b>	<b>Fixed</b>
<b>LAN Gateway</b>	<b>192.168.0.1</b>
<b>WLAN IP</b>	<b>192.168.252.249</b>
<b>WLAN Subnet Mask</b>	<b>255.255.0.0</b>
<b>IP port</b>	<b>8001,8002,8003*</b> <a href="#">[1]</a>

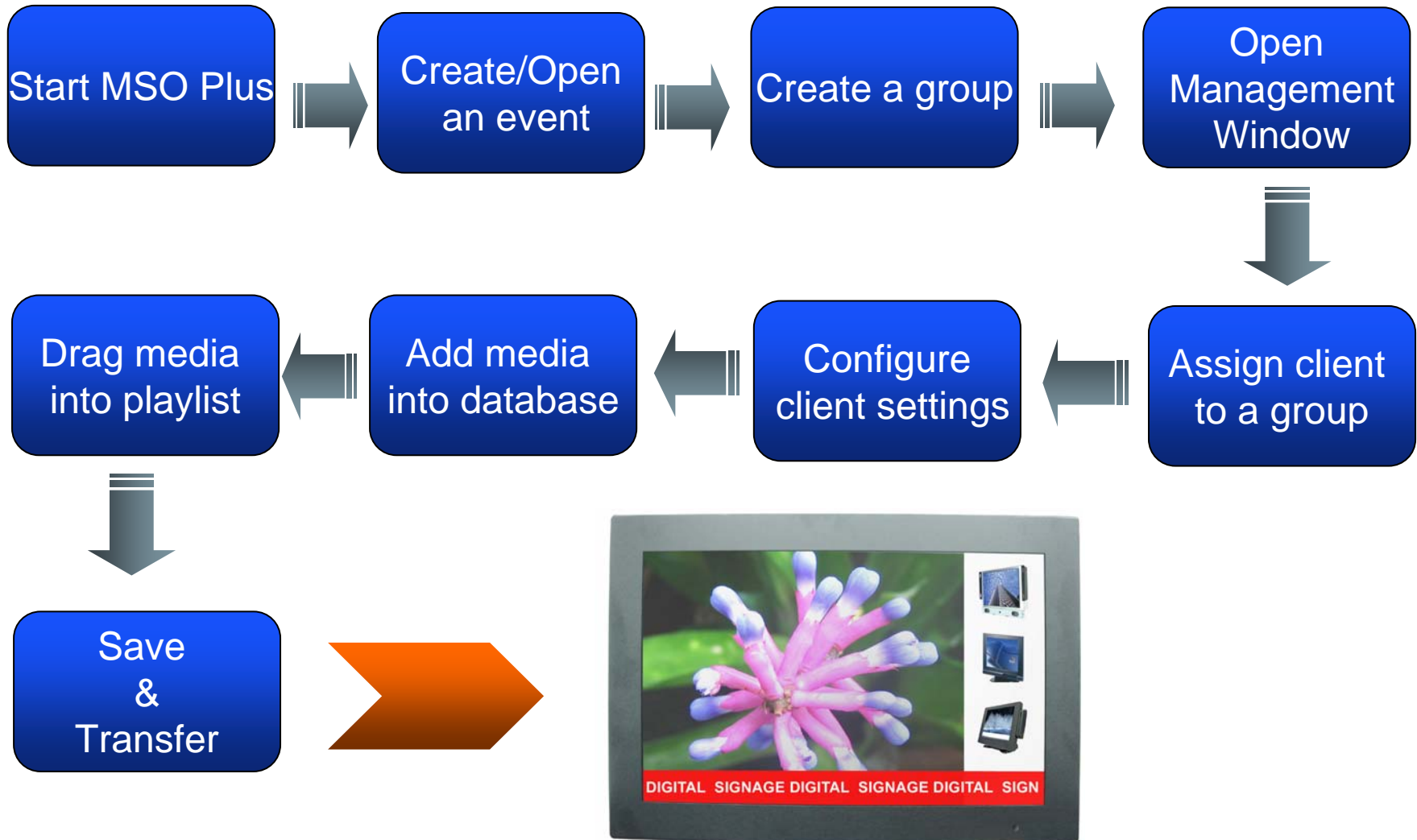
# Event

- The client management in MSO Plus is based on hierarchical concept. The highest level in this hierarchy is Event, followed by Group and Client. Every Client belongs to a Group and every Group belongs to an Event. Each time you have to load an Event and work on it.

## Hierarchical Concept of Client Management



# Playlist Creation Flow



# Super Powerful Software-Client Manager

Groups and Clients Management

MAC	Name	Group	Auto Update Time	Auto Time Sync Time	Status	TimeZone
00:10:E1:86:00:2C	Vincent	ActiveTest	12:33	00:00	playing	+08:00

Single Client Configuration

Client's MAC:

Client's Name:

Client's Group:

Auto Update Media Time:

Auto Time Sync Time:

Time Zone:   Hr.  Min.

NetWork

Group management

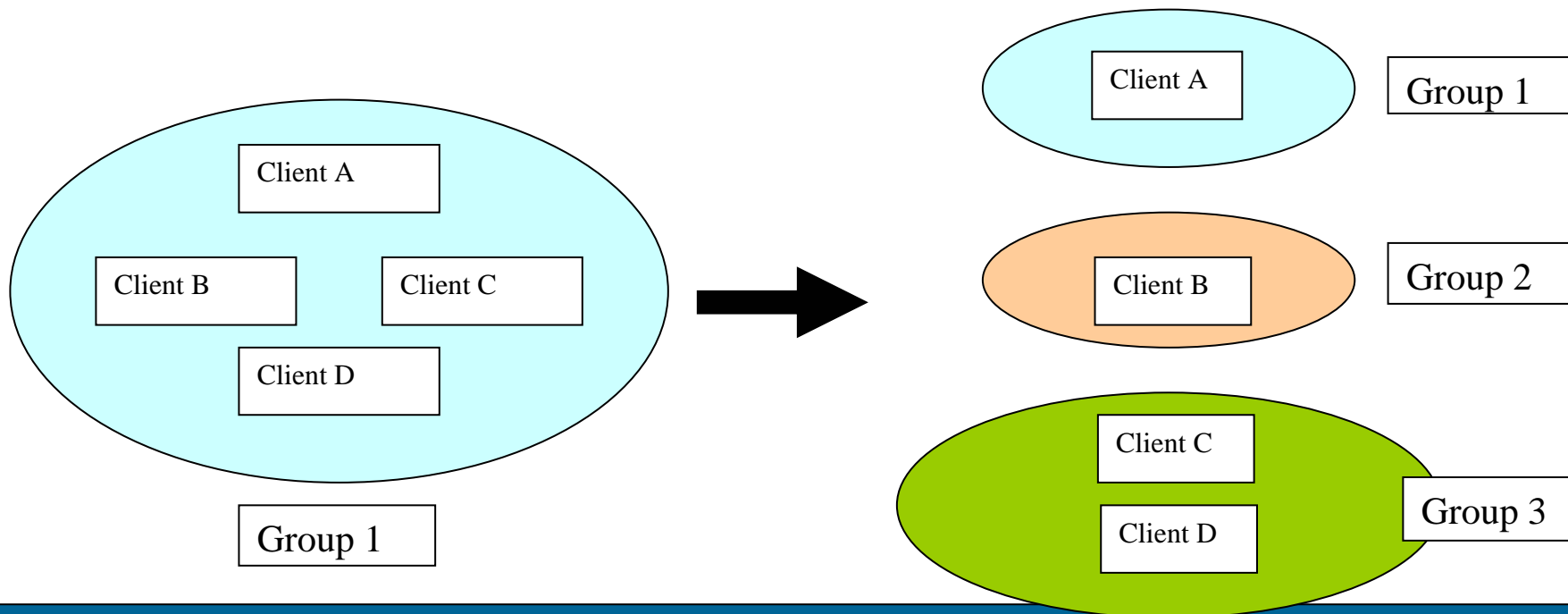
# Client Manager

- Client Manager is a powerful control panel where you can view client information, configure single client, and do group management.
- Client information including:
  - Client MAC address
  - Client Name
  - Group belong to
  - Auto Update Time
  - Auto Time Sync Time
  - Client Status
  - Client Time Zone
- Items in Single Client Configuration including:
  - Client Name Setup
  - Client's Group Assignment
  - Client Auto Update Time / Auto Time Sync Time Setup
  - Client Time Zone Setup
  - Client Network Configuration
  - Client Report Obtainment
- Items in Group Management including:
  - Group Addition
  - Group Edition
  - Group Deletion
  - Group Report Obtainment

# Assign a client to different group with a click

*MSO Plus-> open Client Manger -> assign clients to different group from drop-down menu*

- Assume you have 100 clients within a group but you would like to assign half of them to different group, what are you going to do? Delete them then create new clients in a group? Signage Plus saves you the hassle. Now you can assign clients to different group with a simple click.



# Picture Rotation

- MSO Plus allows you to rotate pictures and display it in portrait mode for more flexible usage

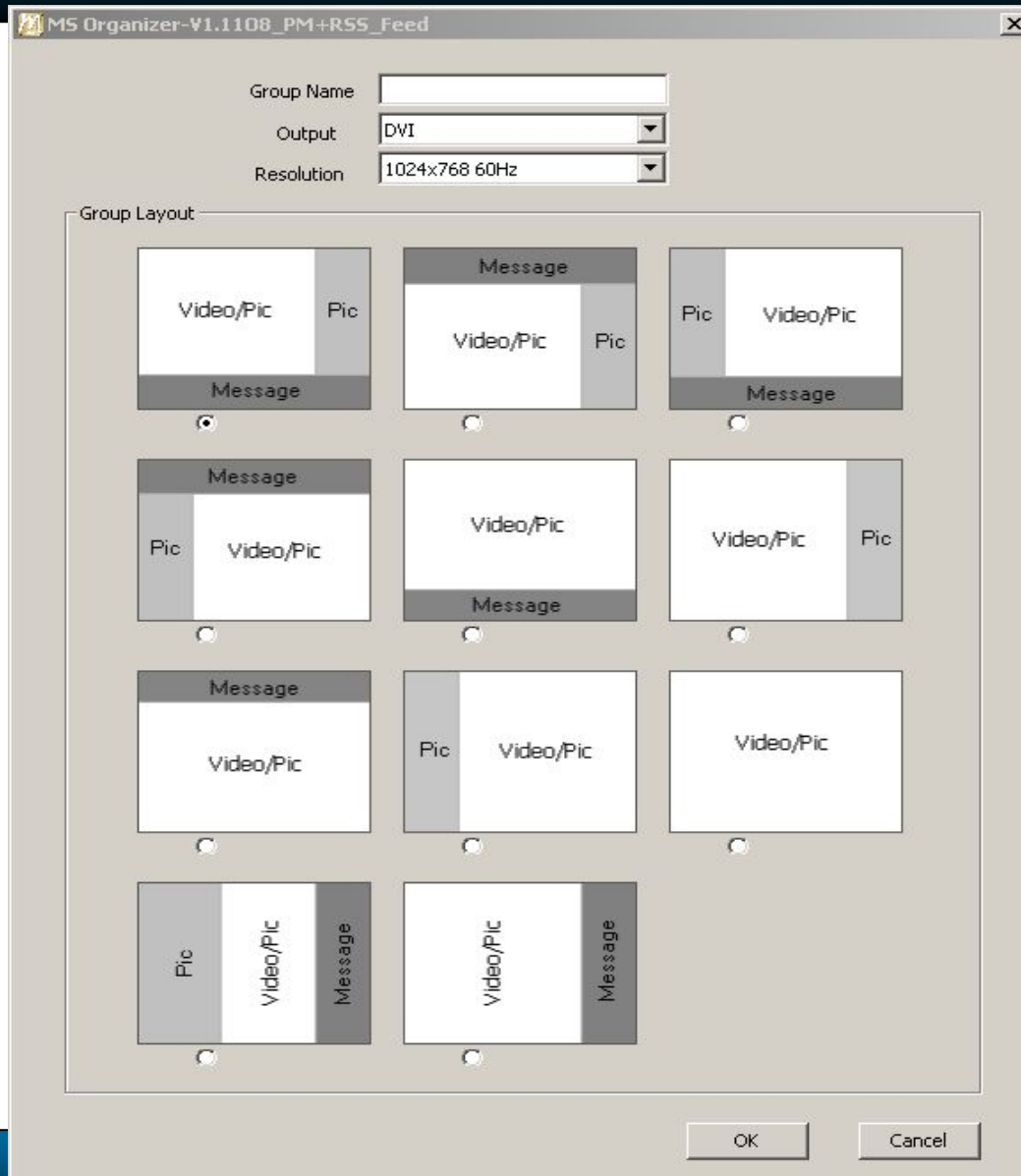


Landscape Mode



Portrait Mode

# Multiple Zones Display



# Portrait Mode

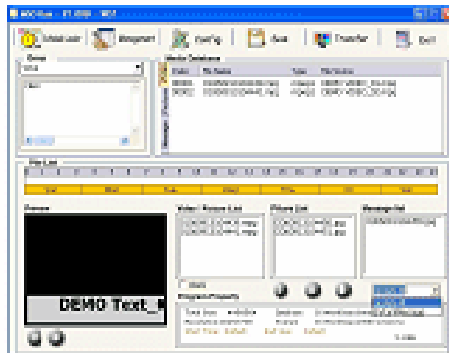
- If choose portrait mode layout from management software, you will be able to display digital content in portrait mode.

## Applications

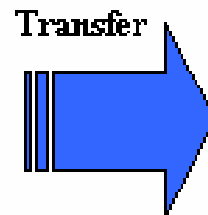


# Instant messages

- The software transfers the instant message to player via network in a very short time in case users need to display urgent message really quick.
- The player temporarily stops the current message and plays the instant message. When the message is done, it returns to the previous message.



Edit Instant Message in MSO



Display message immediately

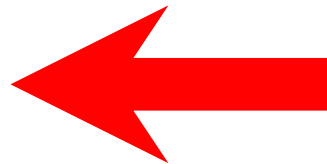
# Auto Time Sync/Auto Media Update

*MSO Plus-> open Client Manger -> Set schedule of Auto Time Sync/Auto Media Update*

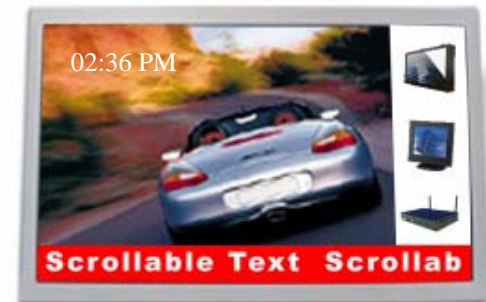
- Client will automatically synchronize its time with server according to time sync schedule, no matter which time zone it is in.



Server (Windows-based PC with MSO installed)



**Auto Time Sync  
Auto Media Update**



Clients

# RSS Feed

1. Create active data ( updated automatically)
2. Reduce the Support and update Manpower
3. Attract Customers with actual events from
  - Sports
  - News
  - Politics
  - Aso
4. Use the attraction to make your advertising more powerful

The screenshot shows a software application window titled "RSS Feed is DEMO-- Running". The window is divided into three main sections: Basic Control, Advanced Control, and Switch.

**Basic Control:**

- Group Name: DEMO (dropdown menu)
- Mode: Auto (dropdown menu)
- Source File: C:\ (text input field) with a Browse button
- RSS Feed URL: http:// (text input field) with TEST and ADD buttons
- RSS List URL: (text input field) with a dropdown arrow and DEL button
- Refresh Time: 0 Hr (dropdown menu) Hours 1 Min (dropdown menu) minutes

**Advanced Control:**

- Speed: 6 (dropdown menu)
- Scroll: Right -> Left (dropdown menu)
- Showing Text: (text area with yellow background)
- Buttons: Set BG Color, Set Text

**Switch:**

- Buttons: Run, Off

**Exit:**

- Button: Exit

# Get Client / Group log

## 3 files generated for statistics



xxx.csv	Can be imported to EXCEL for statistics.
ClientBaseInfo.txt	Contains file name and total playback time based on each client.
FileBaseInfo.txt	Contains client name and total playback time based on each file.

# Firmware Update via LAN

## *MSO Plus -> Config -> FW Update*

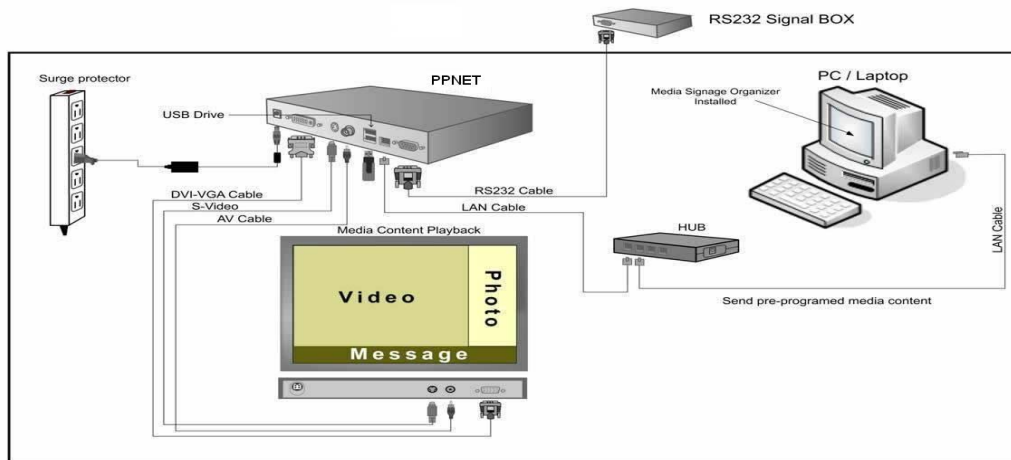
- This is the most convenient way to update client's firmware remotely or update all clients' firmware within a group.

Step 1. Choose Firmware Update from MSO



Step 2. Send firmware and update command via LAN to the box

Step 3. The update is complete when you see the following message.



Update complete !  
Reboot Now .....



# Switch Client IP mode

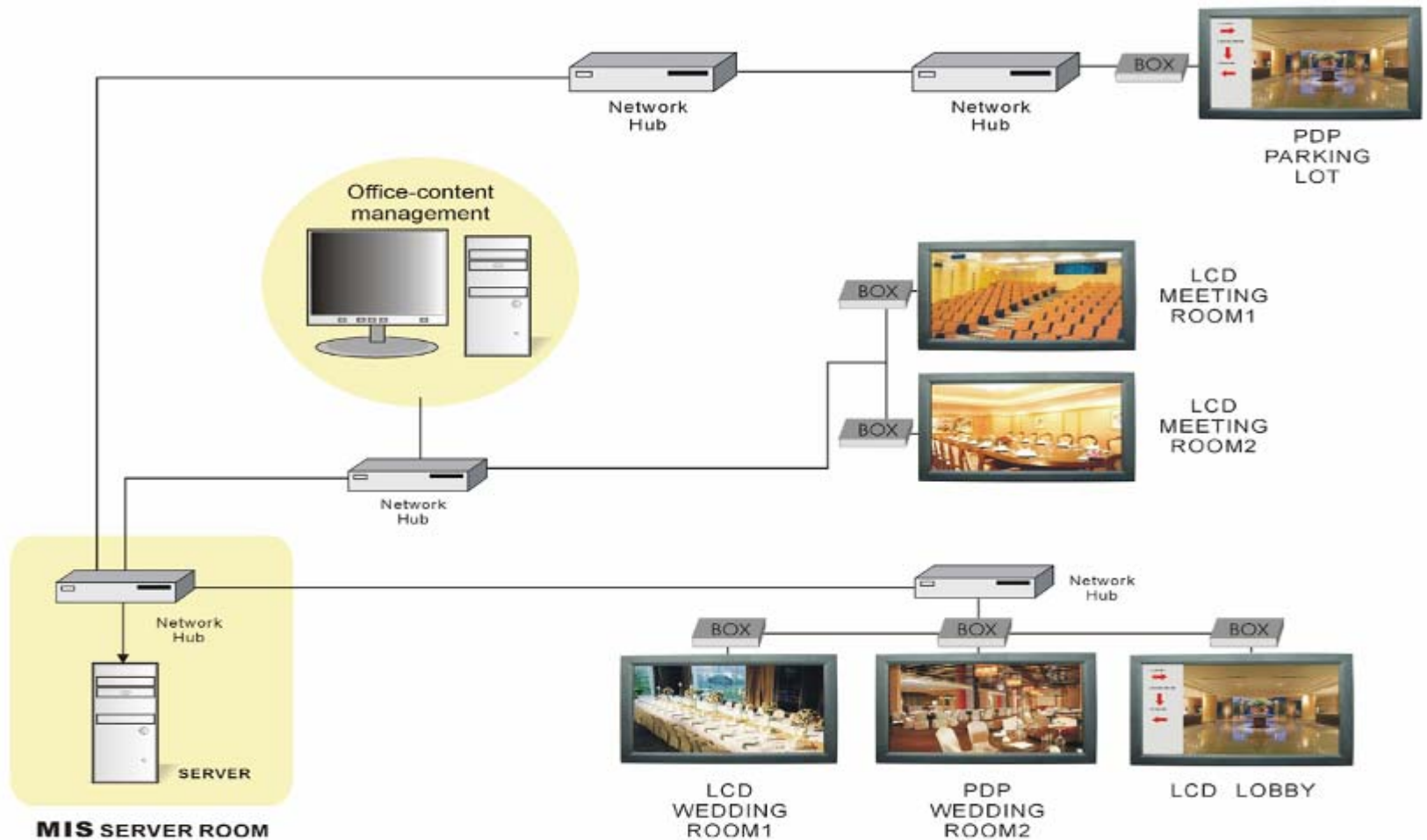
*MSO Plus-> open/create a group -> highlight a client -> switch client IP mode*

- In Signage Plus, you will be able to select different IP mode for clients.
  - Fixed mode is ideal for clients having fixed IP either inside Intranet or Internet.
  - DHCP mode is ideal for clients would like to obtain IP automatically through DHCP server.

The screenshot shows the 'Net Configuration' window for a device named 'Nelson1' with MAC address '00:10:E1:86:00:2C'. The 'IP Mode' section is circled in red, showing the 'Mode' dropdown menu set to 'FIXED'. The 'Server IP' is set to '192.168.0.22'. Below this, the 'Client LAN Config' section includes fields for 'Fixed IP' (192.168.0.128), 'Subnet Mask' (255.255.255.0), 'Gateway' (192.168.0.1), and 'DNS' (192.168.0.1). The 'Client WLAN Config' section has 'Enable WLAN' checked, 'Fixed IP' (192.168.252.249), 'IP Mask' (255.255.0.0), 'Gateway' (192.168.1.254), 'ESSID' (winmate), 'Channel' (6), and 'WDNS' (192.168.1.1). It also includes a 'WEP' section with 'DEFKEY' (2) and four 'KEY' fields (KEY1-KEY4) all set to '1234567890'. At the bottom, there are buttons for 'Time Sync', 'Reboot', and 'Exit'.

# Application Scene - Hotel

- Lobby, Wedding room, Meeting Room,...



# Application....

- Restaurant



- Airport Signage



- Corporate Front-Desk



- Office building/ Elevator



# Application...

- Night club



# Application

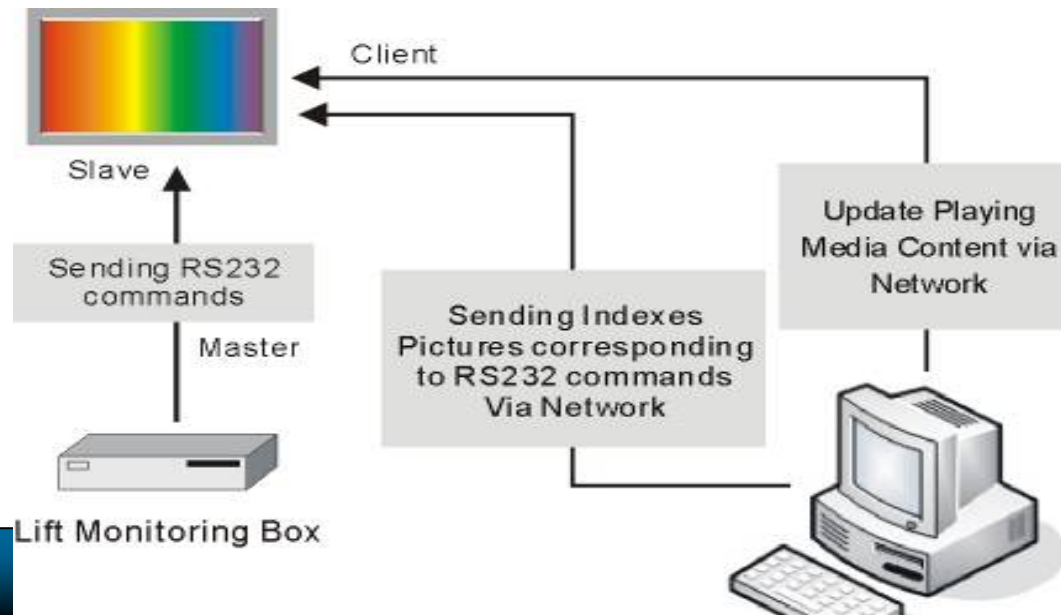


China mobile



# Add-on Play Control

- RS232 control in elevator
  - Sending RS232 commands to the signage box so that the signage box will react some pre-determined actions (paste picture, paste index, pause, fast forward,...)
  - RS232 connection channel is for sending command only.
  - Ethernet connection channel is for sending Media contents and pre-determined actions' data (pictures/ indexes want to paste)
  - The re-act of the signage box to the RS232 command is real-time.



# Product Outlook

- Box



# Package /Accessories

- Main System x1
- DC Adapter x1
- Power Cord x1
- User Manual CD x1
- DVI to VGA cable x1 (Box only)



**Thank You**