Y10 LED lamp screen wireless group control solution

Functions and Requests

LED lamp screen solution provided by Shanghai Xixun Electronic Company has been widely used in southeast areas, which has helped our long-term partners to get more attention from international capital and enhanced the whole city image and also get more benefits from the ads.

Followings are some pictures of led lamp screens installed
After testing and running for 5 years, this solution has become more stable, safe and reliable. With reasonable price and good effect, this solution has also win the title of several invention patent technologies.

1. Principle of LED lamp screen

Install and fixed the mature led outdoor cabinet (about 2 square meter) to the led lamp one by one, with proper distance. Then all LED screen will display the same content in the same time to realize synchronizing images, so that all passing by will see these contents and being attracted, this will be more impressive than a moving sign.
Backside view of led lamp screen
2. How to realize the management?

There are two limit conditions for this led lamp screens, one is the long distance between each screen, second difficult is hard to wire. But Xixun company provides a perfect wireless solution for the led controller, that is, each led controller will have a 4G/3G data SIM card, so that all led controller will get access to internet through Data flow, so that the software will moniter and manage all led cotroller through internet.

In order to realize synchronizing image, the led controller will obtain a synchronizing modem and GPS modem to make all led screen keeping the exactly same clock. With this smart way, all led screens will follow the correct commands and synchronizing image automatically.
Equipment component:

One piece xixun Y10 controller (with 3G/4G), multiple number D10(D10 quantity is according to customer requirement and LED screen resolution), GPS antenna. Below is connecting picture.

Additional functions:

1. Energy efficiency: all led screen will have auto adjust brightness and auto turn on/off functions, no need people to do these work by manual.

2. With high refresh rate and meet high-speed camera’s monitor requests, the led screen should be more smooth for displaying.

3. Brightness: auto adjust brightness or add commands for adjusting brightness in the certain time, will not effect the traffics.

4. Estimate Cost:
Power consumption: 0.5KW/set * 16 hours/day *30days/month

Data flow: 200RMB/month

Maintainence: 300RMB/set/month

Followings are some examples in shenzhen city
Y10 has following advantages:

1) Supporting non-linear editing;
2) Video hardware decoding;
3) Supporting PCI-E 3G modem;
4) WiFi modem on board;
5) Supporting maximum 1280x512 pixels;
6) Supporting HDMI audio and video outputs;
7) Supporting secondary development based on Android system, for example, customer could embedded own APP to realize some special requests, no need to use AIPS platform;
8) Fast communicate rate, totally solve the 3G communication bottle-neck, Packet Switched Domain (PS for short) bearer service under WCDMA mode: maximum rate is 384 Kbit/s, HSDPA Max 14.4Mbps(DL)/Max 5.76Mbps(UL); UMTS Max 384Kbps, WCDMA/HSDPA/HSUPA/HSPA: 850 MHz/900 MHz/1900MHz/2100 MHz, GSM/GPRS/EDGE: 850 MHz/900 MHz/1800 MHz/1900 MHz, GPS L1: 1575.42 MHz;
9) Supporting continue transfer from breakpoint, adopting database warehouse management for onboard program so that could reduce dataflow extremely and optimize storage space;
10) Supporting to connect receiving cards, refresh rate will self adapt to screen resolution, adjust brightness to realize better display effect;
11) Possessing strong software----web-base multi-media publishing system
(AIPS), so that could manage all terminals, edit and publish program;

It is a B/S architecture software, supports tablet, cell phone and desktop computer automatically with perfect UI (user interface) and excellent experience, realize cross various platforms; traits as following:

1) supports group management, check online/offline status in real time;
2) Cloud network security design;
3) supports to publish real time notification;
4) supports screen shot for showing on the sign, please see picture below:
5) supports to read back programs;
6) supports to turn on/off led sign and adjust brightness remotely;
7) supports to upgrade firmware and set parameters remotely;
8) supports schedule operation including publish programs or operate led sign in schedule time;
9) supports to adjust time through sever;
10) excellent inter operate on web, no need to refresh to get the real time operate response and status
11) great concurrency by adopting the best background program and cloud database storage solution
12) adopting non linear editing way and getting rid of the constraint of traditional LED program editing, no window and program material limitation, to meet users operation habits especially for editing and publishing
advertisements;

13) advertising contents statistics on time; charging and creating report forms automatically;

14) supports user management, rights management and classification system for examining and publishing programs;

15) supports log management including user log, terminal log and bug log;

16) Make all led panels synchronizing by network timing. Can set exactly schedule and set time for each material, to realize synchronizing multiple led panels’ pictures through internet.

Wed platform, easy to use

Software platform uses B/S structure, friendly use, no need to set router, to buy domain name, to set up sever, only need user name and password to log in, then can group control all terminals. As below picture.
No limits to control terminal and operation system:

No need to install software, can open web group control display terminal at any terminal which can access to public network (includes PC, phone, pad)
1. Easy to make program, non-linear editing, professional in advertising industrial:

AIPS platform support web online editing program, weather forecast, as below picture:
2. Multilevel purview management, meet different types management needs:

Edit, publish, audit, and approve four rights.

3. Support schedule play and update:
Send program by time schedule, manage ads playing time more flexible.

4. Can control all kinds of function, like brightness control etc.
Can turn off and turn on LED screen, adjust brightness and volume etc, as below picture:
5. Supports keeping send program even paused, save internet flow.

6. Read back content, easy to monitor:

7. Insert in time message
8. On board 3G/4G, no need 3G/4G router, stable and reliable. Y10 controller has several way to access internet which has on board 3G/4G, wifi together with LAN port, no need other 3G/4G router and device. Y10 picture:
9. Use elasticity cloud sever: can update server configuration anytime when original configuration can’t realize.

Cloud platform advantage:

**Stability**

- The reliability of data and service is 99.999%.
- Automatic migration when server goes down; data backup and rollback.
- System performance alerts.

**Security**

- DDoS defense system, Security-group rule protection.
- Multi-user isolation.
- Password cracking defense.

**Elasticity**

- Boot or release 100 cloud servers within 10 minutes.
- Upgrade CPU and memory within 5 minutes during downtime.
- Constantly upgrade the bandwidth online.

**High Quality Network**

- Multi-line access to the backbone network.
- Exclusive multi-line BGP.
- Optimal routing algorithm based on BGP.

10. Server configuration for reference

**Hardware:** CUP 2 cores, Ram 4GB

**Operation system:** Windows Server 2008 R2 Stander 64 bit English

**Storage:** 100GB

**Network bandwidth:** 10Mbps
Cases

Longgang Shuiguan Highway Entrance in Shenzhen

P5 SMD screen size 320x320 pixels
Highway Entrance in Henan
A highway Entrance at Yunnan