Case study

Intel® Core™ 2 Duo Mobile Processor P8400 and Mobile Intel® GM45 Express Chipset

Digital Signage

DT Research
www.dtresearch.com

Digital Signage Beautifies the Future of Interactive Marketing

Intel is in conjunction with DT Research to develop industry leading digital signage solution

Overview

Digital Signage, a brand-new media concept, is the professional multimedia audio & video system that releases commercial, financial and entertainment information to specific people groups at specific times through large-screen terminal displays in shopping malls, supermarkets, hotels, restaurants, cinemas and other people traffic-intensive places for the purpose of advertising. How to provide clients with easy-to-operate and to maintain solutions with higher multimedia processing capability and sound upgrade space have become a huge challenge facing the industry at present.

Closely working with Intel, DT Research, Inc. provides complete solutions—WebDT* broadcasting devices, LCD as well as remote management software for devices and of content to clients including Terminal 3 of Beijing Capital Airport, Philippine restaurant group Jollibee and Chowking, Portland International Airport, Columbus Technical College, etc. DT Research has earned unanimous praises from users by virtue of its rich experience in digital multimedia information and its stable and reliable industry product performance.

Challenge

- **Provide stronger multimedia processing capability to meet the playing of HD advertisement and ultra-large screen display.** With the advent of multimedia files in various formats and of dynamic advertisements, more and more customers require digital signage with mainstream computing platform functions.
- **Ensure system stability.** It is inconvenient to maintain digital signage as they are usually deployed in public places. Moreover, the cooling fans of previous-generation products have become one of unstable factors of the system, increasing the rate of product replacement and repair. Therefore, operators need to ensure that new products have sound cooling designs to reduce machine fault rate and to lower system maintenance cost.
- **Achieve intelligent management.** To cope with dynamic advertisement, customers need to automatically update contents of hundreds of devices through background management software, and, more importantly, they need an intelligent management technology to track hardware operation status in real time, so as to troubleshoot problems in time and effectively lower costs for manual checks.

  To meet customers' demand, DT Research launched the stable WebDT SA3000 with higher broadcasting performance through in-depth discussions and cooperation with Intel.

Solution

- **Intel® Core™ 2 Duo Mobile Processor P8400 and Mobile Intel® GM45 Express Chipset.** The system, featuring high performance and low power consumption, meets high-definition video broadcasting requirements and minimizes the power needs. Mobile Intel® GM45 Express Chipset is equipped with the Mobile Intel® Graphics Media Accelerator (GMA) 4500MDH, Intel® Clear Video Technology, with graphics core speeds of up to 533 MHz. Furthermore, the integrated HDMI and DisplayPort* supports up to 1080P resolution, improving HDTV connectivity. The 45nm Intel® Core™ 2 Duo Mobile processor P8400 and the Enhanced Intel Speedstep® Technology make it possible for WebDT SA3000 to realize a fan-less design.

Intel® Active Management Technology (Intel® AMT) ** provides out-of-band management capabilities, allowing the system to remotely recover after OS failures; alerts and event logging help to reduce downtime. Intel® Active Management Technology (Intel® AMT) also stores hardware and software information in non-volatile memory for retrieval or updates at any time.

Advantages

- WebDT SA3000 launched by DT Research has been followed with interest and favorably received by customers like AirMedia* at its experimental and promotional stage, and will be deployed in high volumes in traffic hubs such as Terminal 3 of Beijing Capital Airport.
- WebDT SA3000 has the computing capability equal to current mainstream computing platforms and flexible screen layout options with multiple zones and layers, and supports numerous mainstream formats (e.g. FLASH, compound video, component video and HDTV) and hybrid display modes. It is capable of displaying up to 1080p HD content, improving display definition, and can shorten the advertisement redesign to adapt to the low performance of traditional embedded playing devices by offering the same performance as the hardware platform of advertising companies, enabling the ever-changing dynamic advertisement content.
- With just 39.5W of system TDP and new fan-less design, WebDT SA3000 overcomes the obstacle of device installation in places with poor cooling conditions, while reducing fault rates arising from cooling and fan rotation and decreasing system maintenance cost.
- Thanks to Intel AMT and compatibility with background management systems, SA3000 can intelligently carry out content updates and hardware checks for over 1,000 devices at the same time. Besides, DT Research provides a complete set of solutions for WebDT Digital Signage, including display hardware, Content Management and Device Management, which brings high value-added applications at lower costs.

Beautify the Future of Interactive Marketing with Digital Signage

"Digital signage is an approach that effectively combines static and dynamic information. In the future, the way to enhance the interaction of and attention to digital signage and reduce operation costs will be the key in the competition,." Guo Jiasheng, Director of operation development of DT Research, said, "The reason is simple, because all advertisers are racking their brains on how to leave a deep impression on customers in communication."

As the increasing requirements for image quality and visual effects of digital signage, HD films and screens have gradually become the benchmark in purchasing. Therefore, in terms of customer experience, the direct quantitative result is large screens (large screens lead to more dazzling advertisement content with greater visual impact); high definition (full high definition, delicate image quality, and vivid scene) and networking (remote update and real-time release).

To adapt to this trend, Intel will be designing high-performance processor products in line with the embedded market demand, while digital signage based on the X86 server-compatible architecture will further enhance the performance of the entire system and reduce the cost of management and system upgrades.

Both Intel and DT Research agree that a billion-dollar networking device market will come into being as increasingly, embedded devices such as in-vehicle information entertainment, family automation, digital signage, IP camera and remote medical system become part of the Internet. Now, the provider of better interconnection devices and content will lead the market. Thus the parties will strengthen technical innovation and cooperation to provide customers with more efficient solutions, helping them to create new development opportunities and to realize business growth.

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