OPS Drives Advancements in Digital Signage

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By Richard Slawsky | Contributing writer, Digital Signage Today

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As the popularity of digital signage has grown, the technology driving that growth has changed.

The digital signage landscape was once populated by dozens, if not hundreds, of proprietary display panels, media players and other peripherals, each featuring its own cabling and power requirements. The end result was that as a digital signage network expanded and incorporated new devices, it became more costly and more difficult to make all those devices work together. Deployers faced higher maintenance costs, longer development time for software features and less effective network designs.

Today, digital displays are being designed to work with nearly any brand of component. Instead of a media player tied to a single display type, companies are manufacturing components that can be used with nearly any display that features a slot on the back designed to accept devices featuring Open Pluggable Specification (OPS) connectors.

The OPS format is opening the door to new and innovative media players and other devices while at the same time paving the way for applications that were once difficult or impossible.

Addressing market fragmentation

The Open Pluggable Specification was created by chipmaker Intel in 2010 to help standardize the design and development of digital signage devices and pluggable media players. Intel created the OPS to address digital signage market fragmentation and simplify device installation, usage, maintenance and upgrades.

The OPS format enables digital signage manufacturers to deploy interchangeable systems quicker and more easily, while lowering costs for development and implementation. OPS' standardized design means that third-party OEMs can build modules that will work with any manufacturer's displays and projectors that adheres to the Open Pluggable Specification, while the ability to internally support audio and RS232 allows for more newer and more advanced modules.

"OPS allows for more cost-effective design, deployment, and management of digital signage and other display solutions that support advanced functionality and emerging use cases, including interactivity and anonymous audience analytics," Intel says on its website.

With the popularity of OPS on the rise, hardware manufacturers are developing digital signage devices to leverage its capabilities.

IBASE Technology, for example, recently debuted its IOPS-602 OPS digital signage player. IBASE is a leader in the digital signage field with cutting edge products designed for maximum reliability and minimum footprint. The company manufactures slim and innovative digital signage players incorporating Intel's latest technology with dedicated high-speed memory.

The IOPS-602 is a slot-in digital signage player built on the benefits and functionality of Intel's OPS. The IOPS-602 is powered by 7th Gen Intel® Core™ QC/DC processors and runs both Linux Ubuntu as well as the Window 10 operating systems.

The player uses processor-integrated, high-definition graphics for crisp content playback with up to 4K resolution, providing eye-catching graphics and full-motion video.

The IOPS-602 was designed to simplify installation, upgrade and maintenance of larger digital signage applications. Advanced features to meet customer requirements include up to 32GB of DDR4 SO-DIMM support, four USB 3.0, one Gigabit LAN, an M.2 (KEY E) for optional WiFi/Bluetooth expansion cards. It uses Intel's Active Management Technology (AMT) and can be accessed remotely to troubleshoot software and hardware issues wirelessly.

Keeping costs under control

Deploying digital signage equipment that incorporates OPS simplifies scalability, making it easy to upgrade networks with new devices as they become available, future-proofing a digital signage investment. Standardized solutions mean lower costs for both displays and media players.

Because OPS media players are mounted on the display itself, digital signage deployers can save on operating costs by eliminating the need for the cabling and storage required by traditional players. And because those devices are powered via the OPS connection, there is no need for a separate power source, allowing digital displays to be placed in areas previously not possible.

Maintenance costs are lowered as well by using OPS devices. If the network owner needs to make a repair or upgrade a particular device, a technician can simply come in pull out the old module and plug in a new one. Maintenance can be performed in minutes, ensuring the displays achieve maximum uptime while reducing the time a technician needs to spend at a location.

With the combination of easy upgrading of components, lower hardware costs and ease of maintenance, there are few if any reasons not to build a digital signage network built on OPS.

IOPS-602 Digital Signage Player

7th Gen Intel® Core™ U-Series Processor-based OPS Signage Player
with Intel® HD Integrated Graphics

- Supports 6th/7th Generation Intel® Core™ i QC/DC Processors

- Intel® HD graphics engine

- iAMT compliance for remote management

- 2x DDR4-2133 SO-DIMM, dual-channel, Max 32 GB.

- 1x HDMI 1.4b

- 1x Line out / 1x Mic in

- 1x RJ45 for Gigabit LAN 1x RJ45 for RS232 serial port

- 4x USB 3.0 ports

- 1x M.2 E-Key(2230) for Wi-Fi or Bluetooth options

About the sponsor:

IBASE Technology Inc. is a reputable manufacturer and supplier of industrial motherboards, embedded systems, panel PCs, digital signage players and network appliances in the Industrial PC and fast-growing IIoT market. Since it was established in 2000, IBASE has been committed to the production of high quality products, and to the rendering of excellent services. The company is publicly listed in the Taipei Exchange (TPEx: 8050) and is now a leading global provider of innovative industrial and embedded computing products.

IBASE has a full range of digital signage system products catering across vertical markets including retail, fast food, hospitality, education and financial. Depending on their requirements, customers can choose the models based on performance, number of displays, resolution and ventilation designs. IBASE digital signage players feature advanced remote management that easily refreshes content and increases uptime while lowering costs. IBASE has partnered with leading digital signage platforms including Omnivex, Quividi and Navori. For more information, please visit www.ibase.com.tw.