

# OPS Drives a New Breed of Media Players

The Intel Open Pluggable Specification is opening new possibilities for digital signage deployments and lowering total cost of ownership.

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## iBASE

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When Intel introduced its Open Pluggable Specification (OPS) in 2010, the idea was to make digital signage media players and other peripherals as interchangeable as car stereos.

OPS defines a standard size and interface for slots on digital signage devices and the accessories that fill them. In its unveiling of the standard, Intel said that installing digital signage equipment based on Intel® architecture creates scalable digital signage applications that can easily network with other equipment for interoperability or be upgraded to fit each customer's digital signage requirements, which can help future-proof technology investments.

“The Open Pluggable Specification was created by Intel to address fragmentation in the digital signage market and simplify device installation, use, maintenance and upgrades,” said Jose Avalos, director of visual retail platforms for Intel’s Intelligent Systems Group. “With the specification, digital signage manufacturers will be able to deploy interchangeable systems faster and in higher volumes, while lowering costs for development and implementation.”

Although some had their doubts, in the three years since the standard was introduced, OPS has become ubiquitous in the digital signage space, with dozens of companies developing OPS-compliant devices. NEC Display Solutions of America recently rolled out an 80-inch LED edge-lit display with a slim cabinet depth, lightweight design and an OPS-compliant expansion slot, while displays from Elo Touch Solutions, a supplier of touch-enabled interactive digital signage technology, support OPS as well.

Prior to OPS, many digital signage deployments were limited by the placement of the media player. A screen needed to be placed in or near an area



OPS. A new standard that simplifies the digital signage market.



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IBASE IOPS-76 Digital Signage Player.

that could accommodate the player, adding to clutter and excluding many locations where freestanding digital signage might be ideal. In addition, those players needed their own power source and cabling and, if they weren't mounted on the display, separate mounting brackets or other accommodation.

In the case of wall-mounted signage, that meant more space behind the screen, more ventilation and likely a longer installation time. For freestanding signage, that meant additional clutter on the back side of the screen. In both cases, the result is higher costs because of the increased installation times and difficulty in replacing components.

Vendors had tried slot-based players or similar schemes in the past, but those were proprietary solutions that locked the deployer into that vendor when it came time to replace, upgrade or expand a digital signage deployment, further adding to the cost of that deployment.

OPS, however, sets the standard for slot-based digital devices. Instead of being locked into one vendor for displays and media players, the deployer can source components from multiple vendors and all will be interchangeable.

“The OPS spec is very strict regarding what the interface and size of the box will be and what the ventilation arrangement will be,” said Dwight Looi, product development manager for California-based IBASE Technology. “There may be different I/O options, but whatever is plugged into the slot is uniform. It has to be the same thickness, have the same connectors and be wired the same way. This is not a new concept, but it is the most standardized attempt at it.”

Aside from the ease of installation of an OPS-compliant device, when on-site servicing, replacement or upgrade is required, all a technician needs to do is reach behind the screen, disengage the securing mechanism, slide the component out of the slot, and insert a new one. That ease of maintenance ultimately contributes to a lower cost of ownership.

Additionally, eliminating the need to provide a separate power source, cabling and mounting solution for the media player allows for the placement of digital signage in places previously thought impossible.

OPS has spawned tremendous development in media players that now can simply be plugged into a digital display. This not only lowers deployment and field maintenance costs, it also allows digital signage integrators to deploy their system solutions more quickly, with lower costs for development and implementation.



**OPS is expected to boost the number of media players by 10 million and number of digital displays by 22 million through 2015 via:**

### Standardization of display integrated players

- Simplify deployments with highly interoperable displays and media players
- Eliminate unsightly wires and employ very compact, secured media players

### Faster deployment

- Deploy solutions faster since device compatibility is built-in (i.e., plug and play)
- Upgrade systems more easily because of standard interfaces

Source: Intel



IBASE Technology, for example, recently released a new OPS-compliant digital signage player, the iOPS-76. The player is powered by a choice of 3rd generation Intel® Core™ i7/i5/i3 processors or Intel® Celeron™ processor with the Mobile Intel® QM77 Express chipset, and is designed to help implement scalable digital signage applications that can network easily with other equipment.

The IBASE iOPS-76 is compliant with Intel® Active Management Technology (Intel® AMT) 8.0 for remote management and supports up to two displays via the slot-in JAE 80-pin connector and DisplayPort signals. Two DDR3 SO-DIMM (Dual Channel), one Gigabit Ethernet LAN, two USB 3.0 and external-accessible mSATA SSD are standard, and optional Bluetooth/Wi-Fi/TV tuner connections are available.

The IBASE iOPS-76 is also available with an optional interface dock with additional I/O interface, which allows the OPS player to be a standalone operating system. The iOPS-76 can be connected with the interface dock via the JAE 80-pin connector. The evaluation kit comes with dual USB 2.0 ports, a USB 3.0 port, serial com, audio jack and additional DisplayPort and HDMI port.



The OPS Expansion Dock with additional I/O interface.

**About the sponsor:** Focused on the design and manufacturing of embedded systems and boards, IBASE Technology Inc. (IBASE) is a leader in the digital signage field with cutting edge products designed for maximum reliability and minimum footprint. IBASE manufactures slim and innovative digital signage players incorporating Intel's latest chipset technology merging with dedicated high-speed memory. Supporting full HD, multiple displays, IBASE's digital signage players deliver smooth graphic contents, reduce the Total-Cost-of-Ownership(TCO). IBASE also provides uniquely-designed integral mounting brackets for hassle-free installation. Furthermore, the players are fully compatible with most world-class digital signage software solutions from leading providers, such as SCALA, Omnivex, DISE, Signagelive, YCD and X2O Media.

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