The Story
For system builders eagerly eyeing the rising digital signage trend, complexity looms large. Many different components are needed and not all of them are application-ready. A fair amount of customization and integration is required, especially on the software side.

It was a problem Tim Beech felt compelled to solve. As a former system builder, he understood that the software hurdle was preventing many in the channel from breaking into new business opportunities like digital signage. On behalf of Bsquare, he approached Intel® with the idea of developing a Windows® embedded image specifically for digital signage. The result: within a year, well over one hundred system builders had successfully entered the digital signage market segment using Bsquare’s system-ready solution and readily available Intel® technology-based hardware components.

The Opportunity
As consumer-friendly digital technology becomes more prevalent, new business opportunities arise for channel partners traditionally focused on PCs and servers. Vending machines, kiosks, digital signage, transaction terminals, security and surveillance systems – all of these traditional embedded devices are now being built on mainstream PC technology and represent unprecedented opportunities for business growth.

Although many of these systems use the same type of components as desktop, workstation and server systems, there are big differences such as the run-time environment. “You need a different operating system for an embedded device like digital signage,” explains Beech. “The integration and applications are also different from the PC space.” Such differences include applications like user analytics, inventory management, transaction capabilities, and gesture response – to name a few.

To help system builders get started easily, “Bsquare provides Windows® embedded licensing, software integration, and other features important to embedded devices,” Beech says. “We provide the very heavy lifting, such as application and driver development, plus system engineering. For system builders who don’t have that software development skill, our solution helps them take advantage of these emerging opportunities.”

The Recipe
The idea is simple:

1. Buy an Intel® architecture-based media player solution from your existing distribution channel.
2. Buy an embedded software image from Bsquare, and request custom integration and applications as needed.
3. Deliver a complete solution to your customers.

Although the initial concept was for digital signage, Bsquare notes the same is true for digital security and surveillance systems, kiosks, intelligent vending systems, and more.
To demonstrate the full potential of this idea, Bsquare and Intel recently developed a proof-of-concept system known as the Intelligent Vending Solution. Intel delivered the hardware using a collection of parts from the ecosystem, while Bsquare did the software integration, which includes a touchscreen user interface, analytics, gesture recognition, and more. It's a digital signage/vending combination solution that interacts with customers and enables operators to more quickly and intelligently manage inventory.

One key ingredient is Intel® AIM Suite, an anonymous video analytics software solution. "Intel AIM Suite is built into the Intelligent Vending Demo to give feedback on user demographics and content consumption to the machine's owners and brand managers," explains Beech. Another important ingredient is Intel® Active Management Technology (Intel AMT), enabled on the system by Bsquare through Intel® vPro™ technology built into the processor platform. Intel AMT allows for remote management of the device including real-time inventory tracking and monitoring.

**Ingredients matter**

"Bsquare started this program with Intel because they are clearly the performance leader in embedded," says Beech. "Their technology allows customers to take advantage of the latest software innovations for PC-like solutions, such as Windows® Embedded Standard 8. That's especially important to system builders trying to break into new opportunities by putting together solutions from readily available components."

**What's Next?**

Bsquare will continue to evolve this concept into other retail devices such as kiosks and digital security and surveillance systems. Bsquare has already worked to ensure that its software images are compatible with many Intel boards, including the new Intel® NUC.

"Our model is an ideal way to utilize the Intel® NUC, which was designed to be particularly relevant for digital signage based on its high performance hardware in a compact form factor," explains Beech. "The Intel NUC provides the necessary hardware performance and compact form factor while Bsquare provides the Windows Embedded Standard 7 Operating System image that is optimized for digital signage performance and ease of deployment. Together the solution forms the foundation for a powerful digital signage solution."

**Unleash your amazing!**

Bsquare is an active partner for the Intel Technology Provider program, helping develop solutions for members who want to get started in PC-like embedded market segments. Members of the Intel Technology Provider program get invaluable marketing and technology support that helps them succeed. Already a member? Login at www.intel.com/reseller and explore today.

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Bsquare

"Bsquare provides Windows® embedded licensing, software integration, and other features important to embedded devices so that system builders can more easily get started in digital signage and other rapidly growing PC-like market segments."

- Tim Beech

Business Development Manager

Bsquare