

Digital Signage Market Segment Overview



It's estimated that there are more than two million digital signs in the U.S. alone and the numbers are growing by about 20 percent per year.³

Wherever you go today you are likely to encounter digital signage. From the big box retailer at the mall, to getting a routine tune-up for your car at a gas station or a comprehensive check-up for yourself at a doctor's office, digital signage helps communicate important messages. This big market only continues to get bigger. Now, Ingram Micro* offers an end-to-end digital signage solution expertly bundled for the non-expert so you can easily capitalize on this broad market business opportunity.

What is Digital Signage?

A digital sign is a display that shows any of the following information:

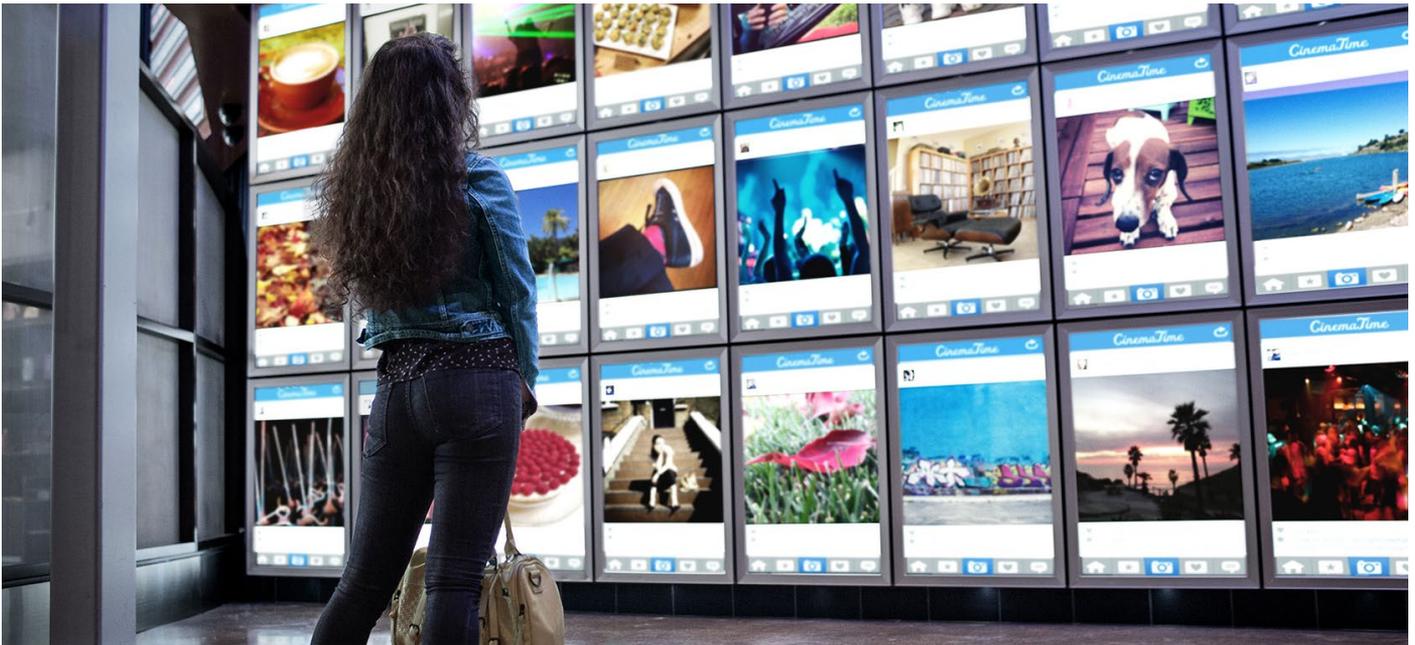
- What's on sale (retail)
- What's on the menu (restaurants)
- What's happening that day (hotels and colleges/universities)

The possibilities for how and why digital signs are used are infinite: from increasing sales in a retail store, to conveying information and entertainment in an airport, to providing emergency alerts on a college campus.

What Goes into a Digital Signage Solution

The possibilities for using digital signage to convey information, entertain, increase retail sales, provide emergency alerts, and more continue to grow. An added benefit of digital signs is the ability to remotely manage them from a central location. Whatever the size or scope of a digital signage solution, the basic components include:

- **Display:** HD flat-panel screens (LCD or plasma) handle a wide range of media inputs, increasingly with touch capabilities and the ability to interact with mobile devices
- **Content Management:** Today's powerful digital media players have the capability to manage video graphics, web feeds, and other sources of content
- **Content:** Sources include video, graphics, web feeds, and more; developed in-house and/or by a media agency; may include third-party advertising
- **Network:** LAN and/or WAN, wired, or wireless



Digital Signage Market Size

The large market for digital signage continues to grow. IMS Research estimates that hardware supporting digital signage (displays, media players, etc.) generated nearly \$5.5 billion in revenue during 2011 and anticipates an 8.5 percent CAGR through 2016.¹ The United States is the largest regional market worldwide; Asia-Pacific is the fastest-growing.²

It is estimated that there are more than two million digital signs in the U.S. alone and the numbers keep growing by about 20 percent per year.³ There are an estimated 1,000 large networks (with 10 or more displays) owned by organizations and used exclusively to support their internal communications needs, with a further 10,000 smaller networks.

Advertising

With more digital signs in place, advertisers have a better opportunity to reach intended audiences. More people now watch video on digital signs than on Internet sites or Facebook, and these numbers will only grow.⁴ As a result, advertising on digital signs is taking its place alongside TV, radio, and the Internet. It's estimated that there are more than 350 ad-based,

digital signage networks operating on a for-profit basis in North America. Total advertising revenues on all outdoor digital media increased 11.4 percent to \$7.88 billion in 2012—better than any other media channel (including the Internet), according to PQ Media.⁵ The ten largest networks deliver nearly two-thirds of all advertising.

Top Vertical Markets

With millions of digital signs now operating worldwide, it becomes increasingly difficult to find a venue without digital signage. Major verticals include:⁶

- **Retail:** Big department stores, specialty stores, small retailers, malls
- **Entertainment:** Movie theaters and entertainment complexes
- **Transportation:** Airports, bus and train stations, subways
- **Hospitality:** Restaurants, hotels, and motels
- **Corporate:** Office buildings, lobbies, and elevators
- **Health Care:** Doctors' offices, clinics, and hospitals
- **Banking:** Branch banks and brokerage offices

- **Education and government:** Colleges and universities, K-12 schools, and government offices

Why Use Digital Signs

Business can achieve a wide range of goals using digital signage. Here are some of the most common objectives:

- **Lowering costs:** Replacing slower, costly, and less efficient printed methods of distributing information
- **Increasing sales:** Increasing awareness of products, services, new offerings, promotions, etc., linking digital signage with inventory to make it possible to automatically update pricing for products that are reaching their expiration date
- **Informing or wayfinding:** Providing information or directions for specific locations, including events, transit centers, hospitality, schools, large retail complexes, and many other locations
- **Merchandising:** Making a virtual product presentation to enable the consumer to view a product from all angles, see videos, get information, etc.
- **Enhancing the customer experience:** Showing "how to" videos to give people new ideas about using your products, or using multi-touch-screen signs/kiosks

that enable people to get quick access to information they need

Enhancing/extending the brand:

Offering HD video, animated and/or glassless 3D graphics, glassless 3D graphics and new levels of interactivity to create high-impact brand messaging

Costs

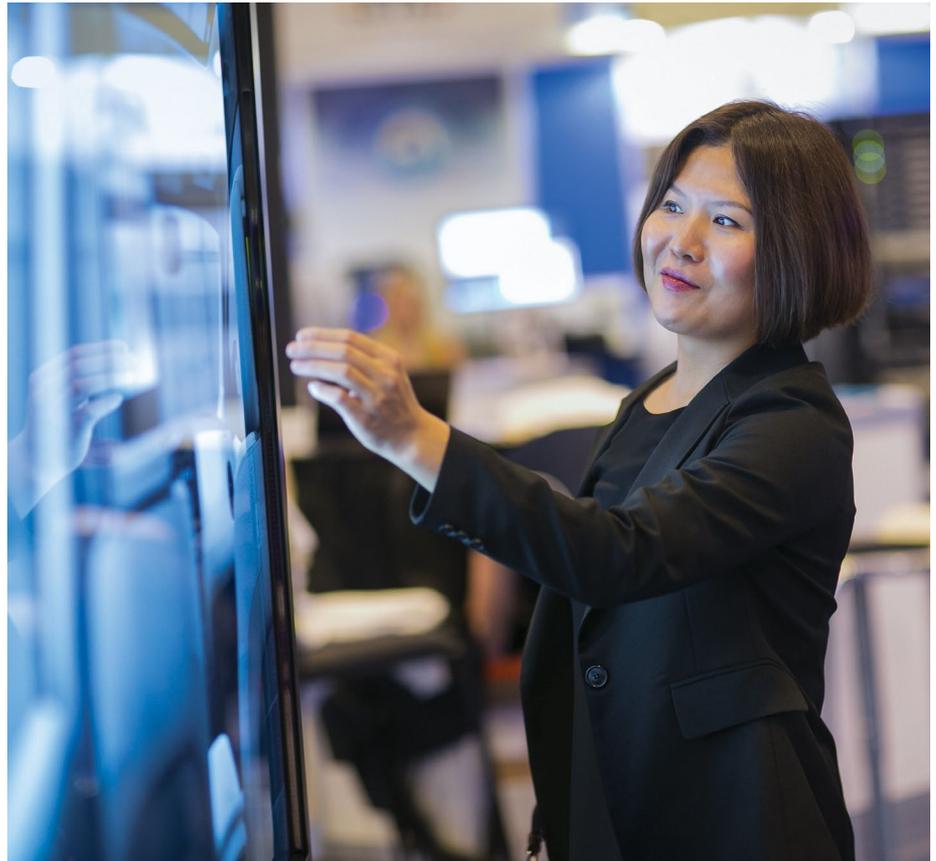
The cost of deploying digital signage has steadily declined over the years. In 2012 it was estimated at \$3,511 (for a 40" screen, media player hardware/software, mounting brackets, installation, management, and maintenance for three years), a 58 percent drop from nearly ten years ago.⁷

Technology Trends

As the market for digital signage has evolved, so has the technology.

Displays: LCD and plasma displays account for about half of revenues. The majority of installations have screens around 42 inches, but sizes over 50 inches keep growing in popularity. Smaller screens (less than 30 inches) are also seeing growth thanks to increased uptake in restaurants, schools, and health care locations. LED backlit screens (replacing cold cathode fluorescents, or CCF, screens), thin bezel displays (less than 9mm), and touch screens are also all growing in popularity.

Media players: In media players and PCs, the big trend here is toward smaller form factors, with many manufacturers designing units intended to be embedded within a display. Displays with an expansion slot to hold a media player/PD now account for 15 to 20 percent of products on the market.



Software: As digital signage becomes more pervasive, the industry sees more operating software specifically designed for signage applications. For example, Intel and Microsoft* have worked together to optimize Microsoft Windows® Embedded Standard 7 operating system on the Intel® Core™ microarchitecture. Content management software is becoming more versatile—Intel’s introduction in 2013 of the Intel® Retail Client Manager serves as an example of a scalable solution designed for the needs of both large and small digital signage solutions.

Standardization: A major goal in the digital signage industry aims to develop standard hardware formats that easily connect components—similar to the common standards for audio and video. For example, Intel introduced an open pluggable specification (OPS) to define the size of the connector and electrical interfaces for the connector in DS components. Many manufacturers have

already adopted this standard, making it possible (for example) to create media players that plug into the back of display monitors. This lowers costs for both developers and users, making it easier for digital signage network operators to swap media players if a failure occurs in the field. It also allows easier upgrades, future-proofing investments. Intel seeks the same goal with the introduction of the Intel® Retail Client Manager platform. Intel® RCM allows for the ability to play any content on any media player, simplifying ongoing content development and addressing the challenge of content management to drive the overall growth of the digital signage market.

Remote management: Because digital signage networks often involve having hardware in a wide range of locations, the ability to assure that screens can turn on and off (for energy efficiency), are running properly (critical when they are carrying ads), and may be remotely repaired are critical requirements.

A solution such as Intel® Active Management Technology (Intel® AMT) makes it possible to remotely discover and repair many network problems without costly onsite service visits.

Anonymous viewer analytics (AVA) technology:

The ability to gather accurate, detailed measurements of audience engagement with digital signage will only add value and enhance their role as a provider for paid advertising. Anonymous viewer analytics (AVA) technology is now widely available and makes it possible to provide real audience measurement data: how many people looked at the content, how long they watched, and their demographics (e.g., gender and age bracket).

Security: Because of its highly public-facing nature, security remains a critical issue in any digital signage installation. Security breaches can occur as a result

of physical access to a display or media player, or even unauthorized access via network communication. The operator who manages a digital signage installation with inadequate security risks loss of reputation, lost revenue, as well as potential for litigation. Solutions such as McAfee Embedded Control and McAfee Deep Defender form key components of a secure signage network.

As mobility, interactivity, social networks, and all of their ancillary capabilities transform consumer patterns, the opportunities for creating deep, effective customer engagements anytime, anywhere keeps expanding.

Digital signage is at the heart of a revolution, creating new opportunities for the kind of smart, personalized consumer experiences that businesses need to deliver today.

The Ingram Micro* Digital Signage Bundle makes it easy to expand into new markets like a pro. Elevate your ROI with this fully-supported, turnkey bundle of products and services.

Earn \$2,000 up front for every installation you sell, and generate a recurring revenue stream selling the cloud-based services your customers want.

To get started selling the Ingram Micro* Digital Signage Bundle contact intel@ingrammicro.com



For more information on digital signage solutions visit intel.com/retailsolutions

¹http://www.imsresearch.com/press-release/Media_Players_PCs_and_Displays_Drive_Nearly_5_Billion_in_Revenue_for_Digital_Signage

²<http://www.infocomm.org/cps/rde/xchg/infocomm/hs.xsl/36280.htm>

³<http://www.slideshare.net/msftweb/connecting-your-business-to-devices-and-customers-with-windows-embedded>

⁴2010 Arbitron Digital Place-Based Video Study

⁵<http://www.pqmedia.com/about-press-20130516.html>

⁶NSR Analysis 5/09 & 2012-2015 Intel estimates

⁷http://www.wirespring.com/dynamic_digital_signage_and_interactive_kiosks_journal/articles/The_2011_Digital_Signage_Pricing_Study__Costs_Fall_Another_5_6_-821.html

Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit <http://www.intel.com/content/www/us/en/architecture-and-technology/intel-active-management-technology.html>.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

A "Mission Critical Application" is any application in which failure of the Intel Product could result, directly or indirectly, in personal injury or death. SHOULD YOU PURCHASE OR USE INTEL'S PRODUCTS FOR ANY SUCH MISSION CRITICAL APPLICATION, YOU SHALL INDEMNIFY AND HOLD INTEL AND ITS SUBSIDIARIES, SUBCONTRACTORS AND AFFILIATES, AND THE DIRECTORS, OFFICERS, AND EMPLOYEES OF EACH, HARMLESS AGAINST ALL CLAIMS COSTS, DAMAGES, AND EXPENSES AND REASONABLE ATTORNEYS' FEES ARISING OUT OF, DIRECTLY OR INDIRECTLY, ANY CLAIM OF PRODUCT LIABILITY, PERSONAL INJURY, OR DEATH ARISING IN ANY WAY OUT OF SUCH MISSION CRITICAL APPLICATION, WHETHER OR NOT INTEL OR ITS SUBCONTRACTOR WAS NEGLIGENT IN THE DESIGN, MANUFACTURE, OR WARNING OF THE INTEL PRODUCT OR ANY OF ITS PARTS.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information. The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request. Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order. Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or go to: <http://www.intel.com/design/literature.htm>

Copyright © 2016 Intel Corporation. All rights reserved. Intel, the Intel logo, and Xeon are trademarks of Intel Corporation in the U.S. and other countries.

*Other names and brands may be claimed as the property of others.

Printed in USA

1115/MB/IC-ODCMO/PDF

♻️ Please Recycle

329661-002US