The Value of **BrightSign**®

The Global Market Leader in Digital Signage Players



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About BrightSign

BrightSign, LLC is a privately held company founded in 2002 by Anthony Wood, the inventor of the digital video recorder (DVR). We are headquartered in Los Gatos, California, with offices in Europe and Asia. BrightSign designs media players and provides free software and cloud networking solutions for the commercial digital signage market worldwide, serving all vertical segments of the marketplace. BrightSign products are known for their signature reliability, affordability, market-leading technology and unsurpassed performance.



More information on BrightSign can be found online:



Website: http://www.brightsign.biz



Our History



Market Leadership

BrightSign has sold over 1.9 million media players to date, and is the global market leader in digital signage media players as named every single quarter since IHS began publishing its "Global Market for Digital Signage" research study. These quarterly studies report on global market share of all media players and PC-based signage solutions combined.



Brand	
Others	59.19%
BrightSign	10.4%
Stratacache	8.0%
iBASE Technology	5.0%
Advantech	3.4%
IAdea	2.5%
Shuttle Computer	2.0%
Amino	1.7%
Axiomtek	1.6%
RMG Networks	1.5%
AOpen America	1.5%
NEXCOM	1.2%
ViewSonic	0.5%
Gefen	0.4%
Black Box	0.3%
LG	0.3%
Planar	0.2%
Samsung	0.2%
Kramer Electronics	0.0%
BroadSign	0.0%
Cisco	0.0%
Enseo	0.0%
HP	0.0%

Data provided by the IHS "Digital Signage Industry Market Tracker

IHS (NYSE: IHS) is the leading source of information, insight and analytics in critical areas that shape today's business landscape. IHS has been in business since 1959 and became a publicly traded company on the New York Stock Exchange in 2005.

Awards

BrightSign continually strives to reach the highest levels of corporate and product achievements as is shown from these many prestigious awards that have been granted to us.



Our Players

At our core, BrightSign is a hardware manufacturer. The BrightSign product line offers a wide range of players offering varying levels of video and HTML performance, features and connectivity options so that you can select the model that meets your specific needs. BrightSign models range from the entry-level BrightSign LS supporting simple looping videos to those offering advanced interactivity, built-in wired or wireless networking for remote content updates, powerful video engine capabilities, HTML5, PoE+, the ability to play Live TV (even HDCP protected content), and true 4K HDR content playback.



The BrightSign Advantage

- **Purpose-Built, Solid-State Platform:** BrightSign manufactures players specifically to run digital signage that are reliable, scalable, affordable, and easy to use without the hassles of a PC. Our players have no moving parts to fail and don't require a fan to operate allowing it to run 24/7 with complete confidence and achieve an operational longevity twice that of a PC.
- **Patented aluminum enclosure:** Allows all of our players except the LS to operate dependably in harsh environments. They can withstand temperatures from -20 C to 70C by efficiently dissipating heat without a fan, the can withstand 90% relative humidity non-condensing and they are energy-efficient which keeps operating costs down
- **Commercial grade BrightSign OS 8:** Our dedicated operating system is built specifically to run digital signage not a suite of office applications. We offer free, regular updates as we continue to innovate allowing you to keep pace with market demands to future-proof your investment.
- **Open architecture:** Our players and BrightSign OS are built with open APIs which allows our partners to easily integrate with our players, software and services. For CMS partners, this makes it easy to integrate, together we can deliver a robust and reliable solution both on the player side while offering a choice of CMS that best fits your needs.
- **BSN.cloud:** Our BrightSign OS also includes leading-edge web technology that connects all BrightSign players to the cloud using our newly built-in BSN.cloud platform. Every player includes a free Control Cloud subscription to BSN.cloud that let's you access real-time player health and controls from a remote location. The optional fee-based Content Cloud subscription adds cloud-delivered content services and extensive network management tools.

BrightSign by the Numbers



Player Security

The network settings of a BrightSign player are highly flexible and configurable. As a result, the integrity of a player is the direct result of the publishing and network configuration specified during the player setup process. Some configurations are best for networks where security is of little importance, while other configurations give the player a significant amount of resilience to outside attacks.



High Security

Follow these steps during the BrightAuthor unit setup process to ensure the player has a high level of resilience to outside attacks.

- 1. Disable the Diagnostic Web Server: The password-authentication system for the Diagnostic Web Server is vulnerable to brute-force dictionary attacks. Access to the Diagnostic Web Server allows an intruder to copy, rename, and delete contents from the local storage, as well as reboot the player or force it into recovery mode.
- 2. Enable the Local Web Server with password protection: The authentication system for the Local Web Server is just as vulnerable to brute-force hacking as the Diagnostic Web Server, but the Local Web Server does not grant access to critical system processes.
- 3. Do not use Local File Networking: A player set up for Local File Networking will listen for scheduling and publishing commands from a PC running BrightAuthor on the local network. It may be possible for an attacker to use this responsiveness to gain access to system processes on the player. If you would like to publish presentations over the network, use the BrightSign Network or a Simple File Network instead.
- 4. Do not enable basic authentication: If you would like to securely publish content using Simple File Networking, make sure to use a server that is compatible with digest access authentication.
- 5. Do not enable the Chromium Web Inspector: See the Advanced Topics section below for more details.

Additional information can be found here: <u>https://docs.brightsign.biz/display/DOC/BrightSign+Player+Security</u>

BSN.cloud

BrightSign is highly experienced in delivering digital signage and network management in the cloud since 2008. We have thousands of accounts and players running on our cloud-based network services and our newest BSN.cloud platform uses the newest web-socket technology to deliver real-time access to players at anytime, anywhere.



Connect Connecting BrightSign players to the cloud for network management and control



Secure, robust and scalable network and content management service



Deploy, author and manage one player to thousands









Diagnose Real time player, health, diagnostics &

Network Networking options to match your connected environment

Manage

Manage your presentations anywhere, anytime using BrightAuthor:connected or an integrated CMS

BSN.cloud Subscriptions





Control Cloud

The BSN.cloud platform includes a free Control Cloud subscription for all BrightSign players that truly puts users in control of both their players and their digital signage network operation with access to real time player health & controls.

- Streamlined player setup
- Monitor & manage signage in real time
- Instantly view what's playing from afar
- Control players remotely anywhere, anytime



Content Cloud

Content Cloud is an affordable annual subscription to BSN.cloud that includes all the features of Control Cloud for real time player health and controls plus it adds a complete set of digital signage content, network management and administration tools in a secure cloud environment.

	Control cloud	Content cloud
Real Time Player Management	•	•
လိုပ် Network ကို Management		•
Content Management	¢	•
Presentation Authoring	BrightAuthor connected OR	

- Delivers timely content updates instantly.
- Create network groups of players
- Apply tags to delivery highly targeted content
- Player data and reporting over time

Content & Presentation Authoring

BrightSign players supports a prolific array of content types and formats including H.265-encoded video at 60 frames per second, HDR (High Dynamic Range) color, HTML5, images, audio and much more. Our free BrightAuthor:connected software offers a unified experience, feature set and workflow and can run as a desktop application on both PCs & Macs as well as in a Chrome browser so you can work wherever and whenever with ease.



BSN.cloud Enterprise Edition



BSN.cloud Enterprise Edition is a new installable software version of BSN.cloud that is currently under development. It allows customers to host their own private, on-premise server infrastructure to run a network of BrightSign players. This solution is intended to run a highly reliable version of BSN.cloud on a secure, private server infrastructure that you setup, manage and operate all within the security of your own server and firewall.

Features

- Host, manage and maintain an on-premise server infrastructure running BSN.cloud to support your own private network of BrightSign players
- Includes an installable software version of BSN.cloud with access to all of its network features
- Uses BrightAuthor:connected to gain flexible, remote access to your BSN.cloud network
- Manage your network within the security of your own server and firewall
- Supports the option to sell subscriptions for the use of your hosted network
- Recommended for large networks with special hosting requirements, advanced technical skills, and a dedicated IT staff
- Supports all series 3, 4 BrightSign player models as well as our next generation models

Managed Services

The BSN.cloud Enterprise Edition Managed Services solution runs a network of BrightSign players on a private, cloud-based Amazon Web Services (AWS) infrastructure for a highly secure, reliable and scalable solution. The customer-owned AWS infrastructure is setup, maintained and monitored by BrightSign to run all the features and capabilities of BSN.cloud, while customers operate and administer their digital signage network of BrightSign players. With BSN.cloud Managed Services, you can depend on BrightSign to take care of the hosting infrastructure complexities for your private BSN.cloud network so that you can focus on delivering your digital signage to end-points across the globe.

Network Architecture

The BSN.cloud Enterprise Edition architecture includes all the functional elements as detailed in the diagram below to deliver a secure, reliable and scalable solution. It can be appropriately scaled to match your size of deployment and there are no limits to the network size it can support. Ultimately, the servers selected for your BSN.cloud Enterprise Edition architecture must meet the criteria listed in our documentation and BrightSign can help recommend options with collaborative discussions.



Technical Documentation

BSN.cloud Enterprise Edition is being modelled after our current BrightSign Network Enterprise Edition (BSNEE) solution, therefore please visit the BSNEE section of our <u>technical documentation website</u> for further information on what to expect with BSN.cloud Enterprise Edition.



Pricing & Availability

BSN.cloud Enterprise Edition is currently under development. BrightSign is targeting an installable package to be available in Q1 2022. Please contact your BrightSign sales representative for the newest information on availability and pricing.

Expected Pricing

- Software only 500+ units : \$17,250 + \$5,625 yearly maintenance
- The maintenance fee, which is included in the first year, is mandatory and it includes software updates and technical support.
- The cost of the BSNEE assisted installation starts at \$2,500.

Support

BrightSign offers dedicated support of our players, software and services directly and through our partners. We have a wide range of online and direct support services to ensure you get the help you need. We also offer an extensive set of tutorial videos and training options.

Ticket System

BrightSign offers an email ticketing system for online tech support. https://brightsign.zendesk.com/hc/en-us

Paid Support

Priority support is also offered for a fee. https://brightsign.zendesk.com/hc/en-us/articles/218067877-Priority-Support

Approximate Service Levels

BrightSign shall use commercially reasonable efforts to respond to error reports within 1 (one) business day for Urgent and High errors. BrightSign will use reasonable means to repair the error and keep the End User informed of progress. BrightSign makes no representations as to when a full resolution of the error may be made.

The reported	errors and	defects	are cla	assified in	n the	following	manner:

Т

ERROR CLASSIFICATION	
Urgent	Software is down or there is a major malfunction, resulting in a business revenue loss and impacting the Software functionality for a majority of users.
High	Critical loss of Software functionality or performance, impacting the Software functionality for a high number of users.
Medium	Moderate loss of Software functionality or performance, impacting multiple users.
Low	Minor loss of Software functionality or feature in question.

ERROR CLASSIFICATION CRITERIA

ERROR CLASSIFICATION	RESPONSE & ACKNOWLEDGEMENT	FIX/WORKAROUND
Urgent	1 Business Day	3 Business Days
High	1 Business Day	5 Business Day
Medium	1 Business Day	Next Release
Low	1 Business Day	At BrightSign's Discretion

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Training

BrightSign offers a huge array of Tutorial videos, Recorded webinars all available instantly on our website and divided into bite size chunks with topics you can easily search for to get the training you need.

https://www.brightsign.biz/training-1/training_

Support Documents and Tutorial Videos

Documentation page with guides for software and hardware, community discussions, FAQs and even access to example BrightSign presentations you can download and run

https://brightsign.zendesk.com/hc/en-us

https://www.brightsign.biz/training-1/tutorial-videos



Brief

Thousands of BrightSign units actively running every retail display worldwide wherever Bose is sold (Bose, Best Buy, Target, Walmart, Sam's Club, Costco, etc.)

Goal

Highly reliable platform that can be deployed worldwide & easily localized & allow them to attract customers and achieve product differentiation in a busy market

Integrator

BrightSign solution allows Bose to be highly flexible in their integrator choice for the project at hand (kiosks, pop displays) due to high reliability & simple installation

Solution

- Highly engaging presentations using USB button panels to select music and video playback
- Bluetooth enabled to pair with customer's phone for personal music selection playback
- Custom BrightSign OEM solutions engineering to meet Bose specific needs

Results

- Bose has BrightSign players well over 6 years old still running sophisticated retail demos 12 hours per day, 7 days a week
- Bose uses BrightSign exclusively for all of their retail displays because of their reliability, impeccable maintenance record, and longevity in the field
- Big cost savings, simplicity, and sophisticated functionality allowing Bose to manipulate any audio and video playback in unique ways to attract and capture customer's attention all with high reliability





Ubiquitous, stellar video quality retail displays



Solution

- GoPro has very large numbers of BrightSign players across the globe running their retail displays
- Initial installations began in 2010 with BrightSign Series 1 players that are still in use today
- BrightSign players are typically playing looping video and audio for 20-24 hours/day without fail

Results

BrightSign's high reliability is the reason why GoPro has standardized exclusively on using BrightSign players for all of their retail display projects



Brief

Best Buy Shop-in-Shop showcasing many Samsung products

Goal

Replace unreliable Android & Lynx products & add 4K HDR

Integrator

Simple to install BrightSign-based solution gives Samsung the freedom to use multiple integrator

Solution

Thousands of BrightSign players powering all Samsung retail TV displays at all 1,058 Best Buy stores, demonstrating touch panel interactivity, 4K HDR video playback, and synchronized playback.

- Both Series 2 & Series 3 BrightSign players used, all of which are regularly updated remotely with new content
- All 20,000+ units are networked with BrightSign Network Enterprise Edition (BSNEE) for regular content updates
- BSNEE connects to Samsung's custom developed dashboard to gather analytical data on how their displays are being used, which allows them to adjust their marketing strategy accordingly

Results

Over 3 years, less than 15 BrightSign units have been returned. Samsung realized significant ROI & maintenance cost savings due to BrightSign's high reliability & highly efficient network solution for content updates and monitoring player and network health from a single remote location. Samsung was able to use the cost savings to expand their displays into additional large retail and regional outlets that otherwise would not have deployed.



Impressive, interactive 5-screen display dramatically lifts sales

Brief

LG OLED & Super UHD 16-24 foot Experience Walls in Best Buy stores

Goal

Engage and draw shoppers in with dynamic content flowing across all screens

Integrator

Design Phase, (www.dphase.com), IL-based P.O.P display firm

Solution

- Thousands of BrightSign players powering all of their retail TV video wall displays inside all 1,058 Best Buy stores
- All players are running on BrightSign Network allowing for efficient content updates and network management remotely
- LG Experience project: 6 BrightSign players control the 5-TV LG Experience display | an ELO touchscreen encourages customer engagement with an "assisted selling" experience that activates multiple demo modes to playback content that highlights features of each TV as well as 3 sound systems included in the display
- LG uses sophisticated interactivity (i.e.-touch, pushbutton, UDP command, sales training tools, etc.) that flawlessly plays on BrightSign

Results

- In the 1st year of installing this new LG Experience Wall display, LG Best Buy sales lifted to 2nd place!
- LG sales in Q4 2015 was 4th place & in Q2 2016, their sales raised to 2nd place (only behind Samsung by 4 percent)
- This lift in sales and market share is directly related to the effectiveness of the new LG Experience Wall display
- LG realized significant ROI saving over \$100,000 due to reliability (no BrightSign units have returned!) & efficient, remote network management of all players
- LG used savings to expand into 150 additional outlets that otherwise would not have deployed to further sales
- LG expanded into regional, non-tech outlets since the BrightSign solution offered such high stability, reliability & ease of use
- Customer's experience dramatically improved with engagement & entertainment resulting in increased dwell time





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