

The Roadmap to Digital Signage Success

Everything
you need to ask
when planning
and evaluating
digital signage.



Planning It

Shopping for It

Implementing It

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The creation of this white paper was a partnership of:



The Digital Signage Experts Group
An impartial and technology-agnostic organization, the DSEG works in cooperation with the manufacturers, distributors, content creators, and resellers to provide education and certification standards programs for the complex digital signage industry, and the technologies driving it. Through its Digital Signage Certified Expert (DSCE) Program and other offerings, the DSEG works in concert with an advisory board of recognized digital signage industry experts to advance the level of professionalism within the community.



Black Box Network Services
An industry-leading digital signage and multimedia solutions provider, Black Box serves 175,000 clients in 141 countries with 195 offices throughout the world. Black Box offers more than 118,000 products, including integrated hardware/software platforms for affordable, easy implementation of digital signage, LCD screens, AV extenders, splitters, switches, and converters, as well as cabinets, racks, cables, and other AV and data infrastructure products. No one is better suited to bring you the total digital signage solution than Black Box.

We're here to help! If you have any questions about your application, our products, or this white paper, contact Black Box Tech Support at **724-746-5500** or go to **blackbox.com** and click on "Talk to Black Box."
You'll be live with one of our technical experts in less than 30 seconds.

Introduction

The Enigma of Digital Signage: Help You Can Count On!

Digital signage can truly be an enigma. Today, it seems to be all around us in forms as diverse as interactive flat-panel displays, scaling up to digital signs the size of buildings, and, most recently, scaling down to smartphones and mobile devices we carry around with us.

The concept is clouded by the overabundance of terms describing it: digital out of home (DooH), captive audience networks, in-store media, video advertising networks, narrowcasting, and audio visual signage, to name a few of the more popular references.

Regardless of what it's called by the ever-expanding number of vendors and industry insiders, there's one simple fact that we can all agree on: Digital signage can be an extremely effective and surprisingly affordable communications medium for businesses and institutions of all types and sizes.

Customers, employees, and visitors respond well to a medium where the message is tailored to the viewer on a personal level and, more often than not, with the message or call to action amplified on a larger, more attention-getting scale.

Putting aside all the "buzz and hype" about digital signage, when it comes right down to it, you may still be wondering if it's right for you, your business, or your organization. As a basic guide, if you answer yes to any of the following questions, chances are, it's something to consider more closely:

- o Are you spending money printing posters, flyers, and other paper-based signage that have to be updated or changed on a periodic (weekly, monthly, yearly) basis?
- o Do you have to distribute marketing and communications materials to multiple departments, offices, or stores on a regular basis—and are you often unsure if these materials are being promptly displayed or distributed?
- o Do you feel you're missing opportunities to educate visitors and passive audiences (i.e., those in your lobby, reception areas, or other areas where they wait) about what you have to offer?
- o Do you often feel your target audience (internal or external) is beginning to ignore existing methods of communications (traditional signage, static retail PoS/PoP or trade show displays, loudspeaker announcements, and even e-mail and other forms of electronic notification)?
- o Do you feel your existing channels for emergency notification are lacking and if a critical situation arises, warnings will be ignored or drowned out by the noise of competing media?
- o Do you feel all of these deficiencies will only worsen over time and that by not embracing newer forms of communications, you'll be perceived as being out of touch with customer needs?

You may have already entertained these questions and decided to move forward with a plan to implement digital signage. You may even be shopping for the

system at this time. If you are like the majority of people considering digital signage, you have discovered that the marketplace is filled with vendors coming out of the woodwork touting their technologies and software as the latest and greatest solution. Evaluating the competing systems can be a daunting task. With no clear way to compare all that's out there and how it relates to your objectives, long-term budget, and requirements, you may be suffering from what we call "decision paralysis."

If this is not complex enough, you also have to determine whether a given supplier will meet your specific needs not only in products but also selection, availability, price, and service after the sale. In short, are they who they say they are, and is this someone you'll want to be working with as a supplier/partner moving forward? Remember that it is not if but when a problem arises and how a supplier/partner takes care of these issues determines the success or failure of that relationship.

Sorting It Out.

To help navigate through this often complex evaluation process, we've put together this white paper, which is partially based on "The 7 Key Elements of Digital Signage" from the Digital Signage Experts Group (DSEG) certification program and some of the most important questions to ask yourself, your team, your customers, and prospective supplier partners. In it, we explore the numerous considerations you will face as you begin to evaluate the various systems and vendors. We focus not only on what you need to evaluate in terms of system capabilities, but also how a particular system will help you ensure digital signage success.

The First Step.

The entire concept of digital signage revolves around delivering a message more effectively than a traditional static sign. Because of this, the need to understand and, most importantly, to articulate the specific objectives of what you are trying to achieve with the signage system is critical. And you need to do so before you begin the actual design, select hardware and software, and start creating the content to be displayed on-screen.

It is not only imperative to understand what you want the digital signage system to accomplish but also how it will be evaluated. Once the objective has been set, the second most important question revolves around what we call the criteria for judgment. In short, "How will the success or failure of the system be judged and by whom?" What metrics of judgment will be used: ROI, ROO, or other qualifiers? How much time do you have to succeed and what are the repercussions if you do or do not meet your objectives? If you do not meet your objectives in short order, will you have time to regroup and try again? On the reverse side of the coin, if you are wildly successful, are you prepared to go from 5 screens to 50 or even 500 in a large deployment?

Caveat:

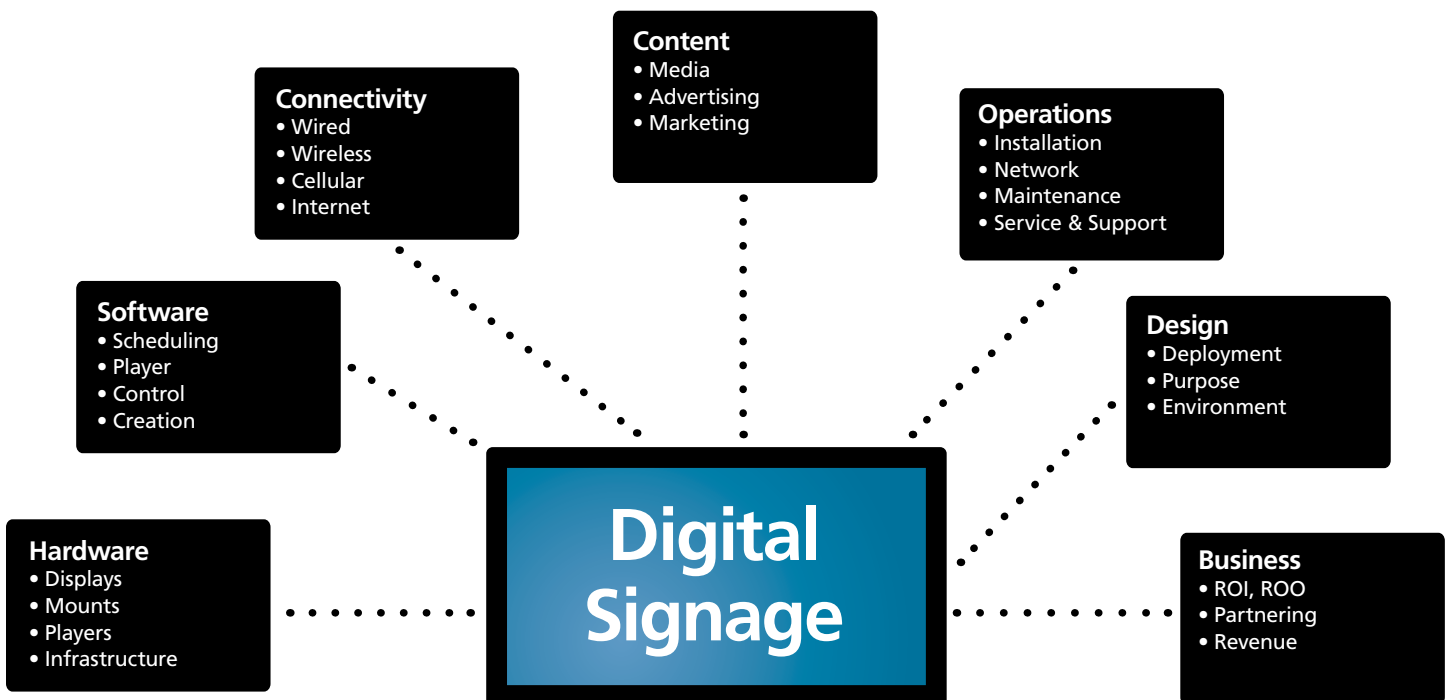
Do not proceed without answering these critical questions!



“The 7 Key Elements of Digital Signage”

Once the objectives and the criteria under which the judgment as to the success or failure of the digital signage system is fully understood, and a very cursory needs analysis completed, we turn our attention to the disparate “parts” of a digital signage project.

The parts can become a tangled web of technologies if not understood as standalone elements and then as a whole as they will exist in a digital signage system. Each element converges with one another and understanding the interaction between the parts is mandatory. “The 7 Key Elements of Digital Signage” provides clarity and a way to connect the dots on any and all digital signage projects. Keep in mind that every digital signage system contains all of the 7 Key Elements in one form or another and if ignored, can become the weak link in the chain.



The Needs Analysis

No matter what size system you may have in mind, efficient and effective design is of great importance, and it begins with the needs analysis and asking questions critical to the eventual design. Even if the graphics are bright and colorful and the resolution is high, if the system is not designed through a careful needs analysis, it will not reach its full potential, and it will end up costing more than it should.

Several factors need to be considered when performing a needs analysis on a potential digital signage project, and they follow a deceptively simple process. Understanding what the needs analysis tells us, and applying the information to the hardware and software selection is a key to eventual success. The ultimate design criterion is for the end user to realize and receive true return on investment or return on objectives.

The following questions are broken down into "The 7 Key Elements of Digital Signage." By answering each one, you increase your knowledge about the requirements of a project and you increase your probability of success.



Design

- o What is the objective or purpose of this installation?
 - A call to action
 - To sell a product or service
 - To inform the viewer
 - To entertain
- o Who is the intended audience/viewer?
 - Customers
 - Employees
 - Visitors
 - Passers by
- o What information do you want to communicate?
 - Product advertising
 - Current information
 - Personalized messages
 - Instructions or directions
- o How many displays will be required?
- o Are you looking to deploy the signage in more than one location?
- o Looking to deploy your digital signage internationally?
- o Do you have the buy-in from all offices and departments?
- o Are you planning an incremental roll-out?
 - Can the platform you're considering be scaled easily to support an expanded system or will you have to upgrade and sign a contract for more advanced technical support?
- o Do you have a lead person designated to evaluate and test the system?

Content

- o Are there existing content resources to draw from?
- o Who exactly will this information come from?
- o Who will be responsible for the overall “look and feel” of the content to ensure it reflects your organization’s branding?
- o Do you have graphic designers on staff or the services of a design firm?
- o Can suppliers, vendors, or partners of yours help supply content?
- o Do you need any special approvals, permissions, or waivers?
- o What mix of content will make your signage attention-getting and memorable?
 - To be truly engaging, combine marketing content with informative, even entertaining, content.
- o Will you need to add audio with your content?
 - Is audio permissible in the environment that you have chosen for the digital signage system?
 - Have you planned for the control of audio in the limited area of the display so as not to disturb others not viewing the screen?
- o Are you prepared for the investment of time and money required to keep the content fresh and relevant?

Connectivity

- o What is the network configuration?
- o Are there any bandwidth limitations?
- o Will you be sharing a network with other applications outside digital signage?
- o Do you have special security concerns?
- o Do you need to integrate your digital signage with in-store or company-centric databases?
- o Who specifically will be responsible for installing the equipment and connecting it to the network?
- o Where will primary servers reside? Centrally or remotely?
- o What are the distances between the displays and your players?
- o For screens located far from a source, what kind of signal distribution are you considering?
- o Are you looking to integrate video from another source into your content feed?
- o Will you be locating signage in an island kiosk or aisle end caps? Will wiring this equipment present any special challenges for cabling?
- o How do you plan to distribute audio as well as serial control signals?
 - Will these signals travel over their own wiring or use the same cabling used for the video distribution? Does your cabling support these multiple channels?

Operations

- o Will you have a single person administer or multiple people who require passwords and permissions for any specific content?
- o Who ultimately will be the “owner” of the information?
 - Will it be HR, corporate marketing, MIS, a Web content/design team, product marketing/sales, or your AV department?
- o Is IT involved in the project, and who is the primary contact for IT issues?
- o Will any ad agencies or multimedia production companies be involved?
- o Who will be responsible for content sourcing and the actual uploads?
- o What are their skill sets? Who are their backups? Are they technically skilled?
- o Will you need to update content frequently so it’s relevant and timely?
- o Is local input from remote sites required to allow users at the screens to make updates?
- o Will you need to integrate additional building operations, such as paging, security, or fire alarms into the digital signage?
- o Who will be notified if a display or player goes off-line?
- o Will you have someone on-staff to troubleshoot issues and be dispatched to get a screen or player up and running?
- o Will you have to perform real-time status checks and log reporting of content?
- o Does the system support troubleshooting from a remote location or will it require an on-site service call from someone who’s hundreds of miles away resulting in lengthy system downtime?
- o Are their provisions for proper system backup for operation and storage of content?
- o Have you properly estimated the amount of time it takes not to just implement a system, but also manage it and update it with fresh, relevant content later, after the novelty wears off?
- o What are your service and support requirements?
- o Will your service provider support the entire system?



Software

- o Are you considering a hosted or software as a service (SaaS) solution or a single-purchase, licensed software solution?
- o Will you need to reformat your existing content for the display?
- o Will you be streaming multiple media streams and files simultaneously?
 - Does the software interface support this (and will your player have enough CPU processing and memory to prevent lag)?
- o Do you plan to send HTML content and XML feeds to your digital signage?
- o Do you want to display information crawls or RSS news feeds to audiences?
- o Does the player software support this? Is it a standard feature or an add-on?
- o If you’re considering a system that uses preloaded templates and layouts, have you test driven the system for ease of use and to explore its creative potential?

- o Is the system capable of generating automated e-mail alerts in case of system and/or screen failure?
- o Does the system perform status checks of connected devices and log content play out for reporting purposes?
- o Does the software support image rotation for portrait and landscape layout orientation?
- o Thinking of stretching an image across multiple screens in video wall? Does the software support video wall processing?
- o Will touch screens be used in your application, and will the software support them?

Hardware

- o Will the media player reside on a PC, thin client, or dedicated device?
- o Will the players be mounted in or behind the displays, or in a data closet?
- o Does the system need to interface with external hardware, such as a PoS system?
- o What screen size(s) and resolution(s) will be used?
- o Do you plan to orient displays in both portrait and landscape configurations?
 - Does the player solution you have in mind support the rotation of images?
- o How exactly will the displays and appliances be mounted? On the ceiling, floor, or wall?
- o Do aesthetics play a major part in how you mount screens?
 - What is your wall or floor made from? Do you have a way to wire the hardware in an inconspicuous way?
- o How many hours a day will the screens be in use?
- o Do you have round-the-clock access to the equipment or do you have to wait until non-business hours to service equipment?
- o Based on display locations, will you have potential security issues?
- o Do you want to remotely control the display(s)?
- o Are there safety considerations with the signage and/or player installation?
- o Are there space and heat-dissipation issues?
- o Will you need to protect screens and equipment from dust, debris, and the elements, as well extremes in temperature or moisture?
- o Are there power outlets near your screen(s) and player(s)?
 - What electrical codes apply? Do you have any power consumption limits?
- o Will you have to contend with images being seen in brightly lit or sunlit areas?
- o Will your digital signage installation meet all local and federal codes and requirements?

Business

- o What are the objectives of the digital signage project?
- o How will the project be judged in terms of a failure of success and by whom?
- o What is the timeline for judgment and what are the repercussions for failure or success?

- o Is the digital signage system based on revenue generation, aka ROI, and if so, what is the business plan for revenue generation?
- o Is the digital signage system based on attainment of objectives, aka ROO, and if so, what is the business plan and strategy?
- o Are there participating partners in the project and if so, what is the division of responsibilities and metrics of completion of tasks?
- o Have specific vendor/partners been chosen and properly vetted?
- o When evaluating a supplier for your digital signage system, also ask:
 - What does the price include? What are the options?
 - Is technical support extra, and who provides that support?
 - What are the shipping terms, return policies, and warranties?
 - Is training available at no charge, and how good is it?
 - How is customer service handled, and how are complaints adjudicated?



Final Recommendations

Being able to understand and answer each of these questions will certainly help you on your journey to digital signage success. Although we cannot account for every circumstance that you may encounter, we have hit the main points.

And, as we noted earlier, all “The 7 Key Elements of Digital Signage” are inherent in each digital signage system, but some of the questions and answers may not pertain to your current system, they surely will as you evolve in the industry. Here is a short synopsis of some basic “words to the wise”:

- o Understand and articulate the objective.
- o Begin with a thorough needs analysis.
- o Take into consideration the criteria for judgment.
- o One size does not fit all. You must customize for a good fit.
- o Understand what the system can and cannot do and whether it is upgradable at a reasonable cost.
- o Remember, there is a huge difference between price and cost.
- o Recurring costs must be taken onto consideration up front.
- o Concentrate on true “value” with metrics and measurable ROI and/or ROO.
- o Form meaningful alliances and partnerships for products and solutions.

About Black Box

Black Box Network Services is a leading digital signage and multimedia solutions provider, serving 175,000 clients in 141 countries with 195 offices throughout the world. The Black Box catalog and Web site offer more than 118,000 products, including digital signage players and platforms for plug-and-play implementation of high-impact digital signage in large or small applications. Black Box also offers LCD screens, audio and video extenders, splitters, switches, converters, and scalars, as well as cabinets, mounts, cables, and other video, audio, and data infrastructure products.

iCOMPEL™

The company's premier digital signage offering, iCOMPEL, is an all-in-one, integrated hardware/software solution that gives businesses, schools, and government institutions an affordable, easy way to set up impressive digital signage without any ongoing licenses or fees.



The award-winning iCOMPEL:

- Includes FREE professionally designed screen layouts and FREE software updates for low cost of ownership.
- Can be controlled via a Web browser connection.
- Features drag-and-drop design and scheduling tools.
- Supports many media formats—scrolling text, photos, video, Flash, HTML, XML, RSS tickers, and more.
- Enables you to set up multizone layouts with each zone playing different media from its own playlists.
- Is scalable from one screen to hundreds of screens.
- Works as a standalone or networked device.

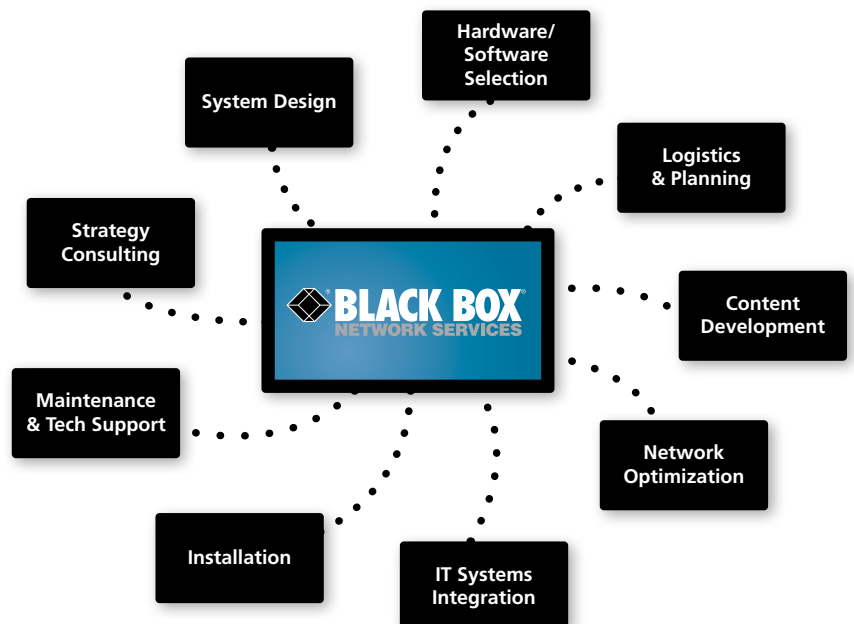
For more information, including video demos, special offers, and case studies, visit blackbox.com/go/iCOMPEL.



No one is better suited to bring you the TOTAL digital signage solution than Black Box Network Services.

We're your total provider no matter:

- Where you're at in the deployment cycle.
- What your level of technical or creative expertise is.
- The size of your business or organization—and your budget.



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