

WHITE PAPER:

SEVEN DIGITAL SIGNAGE TRAPS...

And How to Avoid Them





EXECUTIVE SUMMARY

Digital signage has become a mainstream technology in a variety of industries. Driven by increased adoption in the retail, hospitality, transportation, healthcare, and financial services environments, the global market size is anticipated to reach \$45 billion by 2030, according to a new report from Grand View Research.

Digital signage has the potential to generate customer traffic, boost sales, and enhance a company's brand. Unfortunately, it also has the potential to consume significant amounts of manpower, bandwidth, and capital with returns that are difficult to quantify. The key to ensuring maximum ROI is to avoid the missteps, slipups, and traps that can undermine signage initiatives.

Following is an overview of the seven common digital signage traps, and suggestions on how to avoid them.

TRAP #1: PUTTING THE CART BEFORE THE HORSE. NO CONTENT STRATEGY.

Too often organizations focus almost entirely on the hardware, software, and networking requirements of a signage initiative without defining the overall content strategy. While displays, media players, routers, and gateways are all key components, audiences only care about the content being presented. Place-based media requires fresh, engaging content in order to attract viewers and inspire them to notice and take action.

Don't put the cart before the horse. Define your content strategy first, then select the technology that best enables its delivery. Key questions to consider when developing a content strategy include:

- What are your organization's overall goals and objectives for the digital signage initiative?
- Who are you trying to reach? What actions do you want the audience to take? What type of content and messages will initiate the desired action?
- Will audience demographics vary by location, time of day, season, or other factors?
- How often will the content be updated? Who will be responsible for creating, updating, and managing content?
- How will you measure success?

The content strategy will drive many decisions regarding hardware and software selection, in-store/branch infrastructure considerations, and LAN and WAN connectivity. Proper content planning in advance of technology selection will reduce frustration and increase the potential for the sustainable success of the digital signage initiative.

TRAP #2: LACK OF IT/MARKETING COLLABORATION

Failure to bring IT and Marketing teams together in the planning stages is another common mistake. Digital signage requires Marketing's creativity and customer knowledge as well as IT's technical expertise and critical-thinking skills to develop solutions that can reach potential customers, increase brand awareness, and create new opportunities.

Digital signage began as a Marketing department initiative. Early deployments relied on DVD players or VHS players attached to television sets, but those days are long gone. State-of-the-art digital signage is versatile, relevant, and IT-dependent. While most digital signage initiatives are still driven by Marketing, sustainable success requires early and consistent collaboration between Marketing and IT.

While the IT and Marketing disciplines have shown signs of growing mutual respect, both organizations continue to harbor old stereotypes. Marketing at times sees IT as obstructionists, while IT often views the Marketing team as prima donnas.

The solution is communication. Have your Marketing team provide a presentation to IT on the reasoning behind, and aspirations of, the digital signage initiative, and solicit IT's input and insight. Ask your IT team to provide an overview of the data center and network infrastructure and its role in supporting the overall enterprise.

A few questions that might spur IT/Marketing collaboration include:

- **Content Management Systems**
 - Should your CMS be hosted in-house or in the cloud? The IT team will need to evaluate the benefits and requirements of cloud-based versus traditional software models.
 - How will the Marketing team benefit from either approach?
- **Displays**
 - What type of display best suits Marketing's content strategy AND works within individual store/branch infrastructure? While Marketing knows every inch of display space on, around, and above the retail floor, IT knows what's behind the scenes, above the ceiling, and in the walls.
- **Connectivity**
 - How will the digital signage initiative impact LAN and WAN connectivity?
 - How can IT ensure Marketing gets the bandwidth it needs?
 - What strategies might minimize negative impacts on other crucial applications and systems?

Working together, IT and Marketing can further the goals of the overall organization – aligning business, marketing, and technology objectives while respecting the demands and nuances of the two dynamically changing disciplines. What is required is early and clear communication. Understanding the opportunities digital signage offers and the challenges both Marketing and IT face can create an environment of innovation and collaboration to align business, marketing, and technology objectives toward a common goal.

TRAP #3: CUTTING CORNERS ON HARDWARE

Avoid the temptation to use consumer-grade hardware components for signage projects. They simply weren't designed to meet the rigorous demands of commercial usage. Great content will be wasted if the signage system cannot deliver and display it to the right people at the right time.

Evaluate the long-term cost of temptingly inexpensive hardware. Consumer-grade screens, while perfectly suited for your living room, are not designed for the near constant use most digital signage applications require. Commercial displays are engineered to operate practically continuously, in higher temperatures and harsher environments than your home. In addition, commercial displays offer features such as brighter displays and additional inputs that digital signage applications often require.

Similarly, media players range from multi-output and high-performance players to relatively simple players that have processing power comparable to a smartphone. As with most technologies, price goes up with processing power and functionality. The choice of media player depends upon the size and resolution of the displays, whether animation, video or multi-zone applications are employed, the file types to be used, and other criteria.

Local environment and connectivity should also be considered prior to selecting the players and displays. In-store/on-site power and cabling options, as well as the presence and impact of other systems in the deployment zone, are best considered prior to locking yourself into a specific hardware platform.

Some things to consider when evaluating your hardware options:

- Will the sign be indoors or outdoors? Outdoor displays will require special screens that can resist moisture, humidity, dust, extreme temperatures, and even insects.
- What type of media player will be needed? Consumer-grade players such as Fire TV Sticks or Chrome cast devices may work fine for indoor displays with basic content requirements, but you'll want a more robust solution with more storage if you plan to run 4K video and other types of high-bandwidth content.
- What type of storage, memory, and graphics processing will your messaging require?
- Is the hardware future-proof? Newer displays fitted with system on a chip (SoC) circuits can connect to a wide range of application programming interfaces and data sources, and they can support increased automation and analytics.

TRAP #4: SELECTING A CUMBERSOME CONTENT MANAGEMENT SYSTEM (CMS)

If your CMS is cumbersome to operate and difficult to update, your digital signage initiative will become a time-consuming beast of burden. Selecting a CMS that is easy to use, yet robust enough to implement your content strategy, is crucial to a sustainable digital signage initiative.

The type of content needed to do the job, as well as the skill level of your staff, will also dictate the type of CMS that is best for you. Will you feature a straightforward video playlist or a dynamic mix of images, streaming video, web content, and advertising?

A centralized CMS allows the messaging to be updated as frequently as needed and customized according to location, time of day, and other criteria. The CMS also allows for uniformly formatted content across all customer locations. Content and program scheduling information are sent via the WAN to media players attached to the digital signs.

A web-based CMS offers a platform for remotely creating playlists and distributing content to the right displays at the right time, simplifying management of even the largest digital signage network. Activity can be logged to a central database for tracking usage and creating customizable playback reports.

Other questions that influence CMS selection include:

- Will you need to support touchscreens and other interactive options?
- Do you require features such as live feeds, automated playlist creation, and/or day-parting?
- Will you need content performance tracking, proof of play, and reporting metrics?
- Have you considered the pros and cons of an in-house hosting solution (dedicated hardware/software) versus a cloud-based solution?
- How will the CMS impact network performance? Would you benefit from time-of-day delivery capabilities?

TRAP #5: AN EYES-WIDE-SHUT APPROACH TO THE WIDE-AREA NETWORK

Trying to squeeze one more application onto an already overburdened network can be the straw that broke the network's back. The most effective digital signage is targeted, dynamic, interactive ... and network-dependent. And while the level of bandwidth required by each digital signage system varies, the dramatic expansion of mobile devices, in-store applications, and increasingly sophisticated back-end systems have made bandwidth a precious commodity.

The bandwidth required for digital signage is driven by a number of factors including the type of content delivered (e.g., video, audio, still, HD, or SD), the level of interactivity, the scope of deployment, and how often content is updated or refreshed. Few digital signage deployments require real-time content streaming, which minimizes the bandwidth burden placed on already overtaxed networks. In these cases, content is downloaded, often overnight, and stored on a player attached to or within the flat-panel display. The content is then played back on a predefined schedule and updated again the following evening when bandwidth demand is typically lower.

Another technique for reducing bandwidth requirements is streaming reduced-resolution video content to only a portion of the screen with non-streamed content such as ads and tickers surrounding the video. Multicast capabilities can also dramatically reduce overall strain on the network.

Several key WAN considerations include:

- Will the proposed digital signage system necessitate any WAN upgrades?
- What is the security impact of providing content creators and administrators access to the CMS?
- Are there options available to schedule content updates during off-peak hours?
- Is a secondary network a mutually beneficial option to the enterprise as a whole?

TRAP #6: IGNORING IN-STORE CONNECTIVITY CONCERNS

With so much attention being paid to content management, hardware selection, and broadband connectivity, the very real onsite details of placing, mounting, powering, and communicating with the media player and screen can sometimes take a back seat. However, digital signage is place-based media and “local” is where the rubber meets the road.

Installation of electrical circuits, cabling, mounting of the display and audio and media player, physical security of the systems, and impact on the LAN and/or Wi-Fi network are real-world considerations that will be played out on dozens of screens in each of hundreds of stores/branches. The ability to plan, streamline, and systematize the deployment and operation of the digital signage system is essential.

Signage systems can consume significant amounts of bandwidth, which can disrupt or slow the performance of other business applications if your network isn't up to the task. Delivery over WAN connections to remote or branch offices requires special considerations. You must have a plan for properly monitoring, managing, and maintaining the equipment. Involving IT, facilities, corporate, and store management teams early in the process is essential to proper planning and seamless rollouts.

A few key questions to ask when considering in-store/branch concerns:

- What is the ideal location of each display, and how will power and cabling reach each location?
- Is the physical structure (walls, ceiling, shelves) ready to support screens and players?
- Does the existing LAN have the required features and capacity?
- How will the digital signage system affect LAN performance and security?
- Where will the displays and media players reside within the network topology?
- Are there access, security, and compliance issues to be addressed?

TRAP #7: MAKING SERVICE AND SUPPORT SUBSERVIENT

Too often, support considerations only take their place on the priority list after a problem arises. Even high-quality, expertly installed systems require support to operate at peak efficiency and adapt to changing requirements. The time to prepare for onsite support is before the trouble starts. From content management software and networking to onsite displays and media players, the digital signage ecosystem comprises a variety of interconnected pieces.

Ongoing maintenance must also be considered with any digital signage rollout. Equipment failure and communication problems will occur and system updates must be applied from time to time.

Because digital signage is a customer-facing technology, any display errors or breaks in service must be addressed and resolved quickly. A service provider that offers remote monitoring, management, and troubleshooting can address problems immediately.

Consider a managed network services provider with help desk support from fully redundant Network Operations Centers (NOCs), as well as comprehensive network management, and 24x7 monitoring and management of digital media players and displays. Qualified third-party NOCs deliver the support needed to cover every contingency, including troubleshooting, site-level support to nontechnical staff, and nationwide break/fix maintenance and field support.

Some key questions to ask the third-party service provider include:

- Is the organization large enough to support large, multi-location, multi-vendor networks?
- Do they offer a single point of contact?
- Can they provide 24x7 support coverage with redundant NOCs?
- Are the vendor's Service Level Agreements on availability, mean-time-to-repair, and other parameters compatible with your digital signage strategy and goals?
- Have they deployed and supported large networks in the past?

TURNING TRAPS INTO TRIUMPHS

Digital signage has the potential to increase sales, strengthen brand awareness, and enhance customer loyalty programs. However, capitalizing on this potential requires avoiding or overcoming the traps outlined above. Awareness is the first step. Approaching the digital signage initiative with an understanding of the challenges will minimize mistakes, accelerate deployment, and provide a foundation for a sustainable program that provides long-term ROI.

About SageNet

SageNet is passionate about trusted connections. The company believes that by creating, discovering and nurturing trusted connections with its customers, associates and community, SageNet enhances the world that connects us all.

As a leader in managed network, digital signage and cybersecurity services, SageNet connects, manages and protects technologies and devices across the enterprise. SageNet's collaborative approach provides peace of mind and systems-confidence that empowers an organization to focus on its core mission.

The company offers world-class service and support via its three US-based 24/7 Network Operations Centers (NOCs) and Security Operations Centers (SOCs), geographically-diverse teleports, a central National Logistics Center, multiple data centers, and a nationwide field service organization.

With a three-decade track record in managed services, SageNet boasts a long-term customer base that includes the nation's largest retail, healthcare, financial, utilities and energy organizations. SageNet manages communications at more than 220,000 endpoints. Headquartered in Tulsa, SageNet has regional offices in Atlanta, Chicago, Philadelphia, Toronto and Washington D.C.