



USAV Group

Industry Report

How to Implement a Digital Signage Network to Improve Your Business Results

The purpose of this USAV Group Industry Report is to help organizations better understand what Digital Signage is, what the benefits as well as challenges are, and to share an approach to successfully implementing Digital Signage that's been proven to work in almost any organization.

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How to Implement a Digital Signage Network to Improve Your Business Results

By Kevin Mindenhall and Mike White, USAV Group

Digital Signage networks are growing at an impressive rate. We see examples almost everywhere we go, shopping malls, stadiums, retail outlets, financial institutions, universities, building displays, movie theaters... Stanford Resources predicts the market for Digital Signage will nearly quadruple from 2004 to 2009. There are several reasons for the explosion:

- Availability of low cost bandwidth,
- Mature and affordable content management software,
- Low cost PCs,
- Declining display prices and, most importantly,
- The ability of full motion digital video, audio and real-time information to attract, engage, educate, entertain, and sell prospects.

A recent study in the retail convenience store industry by SPAR showed that digital signage with a concurrent price promotion could increase average product sales up to 24%. Some brands achieved sales increases of over 40% during the study.

According to CAP Ventures research, two-thirds of all of buying decisions are made at the point of purchase, in the store. With TV fragmented into hundreds of channels, and many consumers bypassing the advertising with technologies such as TIVO, advertisers are looking for new and more powerful ways to attract customers. What better way than by making their pitches and promotions through full motion, dynamic video at the point of purchase to a captive, self-qualified audience?



Office Depot uses Digital Signage to promote small business products and computer accessories.

Many organizations are testing the water with Digital Signage projects. There have been successes and there have also been failures. Those organizations who have implemented Digital Signage projects have learned that they are complex, that they require substantial initial and ongoing commitment, and need multiple value-adding partners to be successful.

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What is Digital Signage?

It's known by many names including dynamic signage, electronic signage, narrowcasting, captive audience networks, digital display devices and electronic display networks to name a few. We want to discuss Digital Signage Networks in this report.

We define a **Digital Signage Network** as the management and delivery of robust digital video, audio and information through a network to display devices to attract or reach a captive audience.

The Digital Signage Network is made up of 6 major components:

Content: Content represents the full motion video, audio, promotions, messaging and information you wish to deliver. It may include pre-recorded information, news feeds, or pricing and merchandising information delivered from the POS system.

Servers: Servers are the computers where content is stored, managed and distributed to players via a network.

Content Management Software: This is specialized software used to schedule the delivery and playing of the content at multiple devices as well as to monitor performance, and track and report on the execution of the scheduled events. Some content management software also includes authoring features and most includes screen formatting and production capability for screen crawlers and other information feeds.

Distribution Network: The distribution network provides the delivery and feedback infrastructure to pass information to and from the display locations. The network can take multiple forms, for example, it could be satellite, Internet, LAN, WAN or wireless.

Players: Players are typically PCs or special purpose media PCs used to store and deliver content to the display devices on the defined timetable.

Display Devices: These may be Plasma or LCD displays, projection onto a screen or holographic device, interactive kiosks or CRT devices.

There is no "one size fits all" with Digital Signage. Effectively assembling the components into a working Digital Signage network requires an audio/video and systems integrator who understands the available products and how to design and integrate them to meet your particular needs.

Case Study: Brown Harris Laser Eye Care

Dr. Alan Brown of Brown Harris Laser Eye Care wanted to reach his market with a media so new, so dynamic and so futuristic that the media itself would powerfully convey an unspoken message of high tech, first class refractive surgery care. Independence Mall is a large, upscale mall, and is the perfect place to reach the right demographic of prospective patients. We needed to provide a display so different and new it would attract and engage potential patients in the highest traffic area without being intrusive or disrupting other mall vendors. The entrance to the food court was the perfect spot.



The Solution:

Multi-Media Solutions, a USAV Group Dealer, provided a dynamic solution that included a unique transparent screen and directional speakers. The screen flies high in the air and grabs the potential patient's attention as a video message is projected on to the screen from a hidden projector. The resulting effect is one of a moving, glowing image floating in air. Most people have never seen a transparent HOLOGRAPHIC image. It draws attention from a distance and causes potential patients to stop and investigate the futuristic technology. The crowd gathers beneath the screen where they unknowingly walk under a discreet directional umbrella speaker. Suddenly the floating holographic image is accompanied by stereophonic sound. The two effects generate a significant "WOW" factor which is instantly associated with the "Brown Harris Laser Eye Care" name and logo which surround the video message. The marketing video message is intermixed with videos of community interest and weather reports in order to keep the holographic screen an interesting source for repeat messages.

The Results

Results to date have shown a remarkable increase in the name recognition of the Brown Harris Laser eye surgery practice with a concurrent increase in the number of phone inquiries and surgical consults. "This high tech display is light years beyond what is available with other technologies and sets our practice apart as a technology leader in a way that print ads and radio could never hope to convey. When I buy newspaper space or radio time I get a single impression for my marketing dollar. The money I have invested in the holographic projection system allows me to constantly present new information about eye surgery and our practice in the most dynamic high tech media available anywhere. It is proving to be the most economical marketing method with the highest visual impact, and isn't that what refractive surgery is all about...visual impact!" -Dr. Alan Brown

How Digital Signage Can Improve Your Business Results: Benefits and Advantages

The results from the early adopters of Digital Signage networks are being reported almost daily. Reported benefits are extensive. Clearly identifying the desired benefits and how to measure and quantify the ROI (which can range from improved customer satisfaction to increased sales of promoted items) are crucial to the overall project's success and the ultimate large scale roll out. Here are some of the benefits realized with Digital Signage implementations, benefits that could have a significant impact on your business:

1. Increased sales.
2. Increased customer satisfaction.
3. Increased brand and product offering awareness.
4. Greater impact through video and attention grabbing graphics and sound than static images.
5. Ability to change messages fast, easily and less expensively in multiple locations in multiple time zones.
6. Centralized management of content.
7. Reduced time to deploy new products and promotions.
8. Message delivered to point of purchase decision where two-thirds of purchase decisions are made (CAP Ventures).
9. Ability to use the architecture for corporate communications, education and training.
10. Improved efficiency.
11. Multi-media, high tech branding.
12. One-to-one marketing to captive, pre-qualified audience.
13. Appeals to generation of technically astute buyers who want info now.
14. Attract, engage, educate, and close sales.
15. Potential residual revenue from advertising



Barriers and Pitfalls to a Successful Implementation

Along with the successes being reported are the lesser known failures. Each failure is a learning experience, but you don't need your own failure to learn from others. Here are some of the major reasons for failure seen in the past and what you can do to make sure your project doesn't step into these pitfalls.

1. No clearly defined plan.

Many projects fail because of the lack of proper planning. Establish clear, measurable goals with defined ROI expectations to put you on the road to success. You can then design a system to collect results and evaluate performance while your project is underway. Building a project plan helps to ensure that all required partners and internal departments are coordinated effectively. **Make sure you have a project plan with goals, roles, budget, ROI expectations and success criteria clearly defined before you start.**

2. Lack of commitment to content.

Content is the single most important success factor. You must make the commitment to content before you begin. You can't just replay existing commercials and expect results. You need content geared to the viewer's attention span to attract interest, educate and sell. It must be refreshed regularly as well as varied by day, time and location. **You must make the commitment to CONTENT and select a content developer and management system that delivers what you need.**

3. Equipment that is not up to the demanding task.

There's a big difference between devices used at home or occasionally in a conference room and the day-in, day-out continuous use of systems for Digital Signage applications. A recent study found that 3 of 10 project failures were due to equipment or maintenance problems.

Partner with a professional Audio Visual systems integrator experienced in digital signage applications who understands the hardware and software options available and can design the right architecture for your specific application. This partner can also provide the service and maintenance programs you need to keep you operating.

4. It's difficult to make a "team" out of the various "players".

Digital Signage applications are complex. People inside your company from marketing, sales, IT, merchandising, design, facilities, finance, and accounting as well as content development, AV systems integration, and content management software partners from outside may all be required to bring your project to fruition. **Make sure you have a project manager who can integrate the various project team members as well as the technology.**

5. Failure to understand the investment required and how it can be structured.

Design and installation, bandwidth, display devices, computing network, and content costs can be significant. It's important that you understand alternatives such as wireless content distribution, as well as life cycle costs, ROI, lease financing and revenue producing options. Being able to properly structure the financial investment required is often as important as any single factor in being able to succeed, and the one that can limit a full scale deployment even if the beta results are significantly positive. You also need to make an investment in the ongoing management of your digital signage network. **Select a pro AV systems integrator who knows how to design the system and structure the transaction to meet your budget, available resources and desired results.**

Implementing a Digital Signage Network

Implementing a Digital Signage network is a complex undertaking. A major difficulty is that it requires multiple, diverse skills and capabilities. Content providers, who are typically marketing or advertising agencies, don't normally understand Information Technology (IT), networking and professional Audio/Video (A/V) technologies. IT professionals don't usually understand content or professional A/V technologies. And professional A/V system integrators don't usually understand content creation.

These diverse areas of expertise need to be assembled into a working team to achieve success. Partner integration and project management skills are needed to establish the structure and communications necessary for creative, effective and efficient execution of the project. It's a production and the producer is critical to the success of the project.

Assembling a Digital Signage Project Team

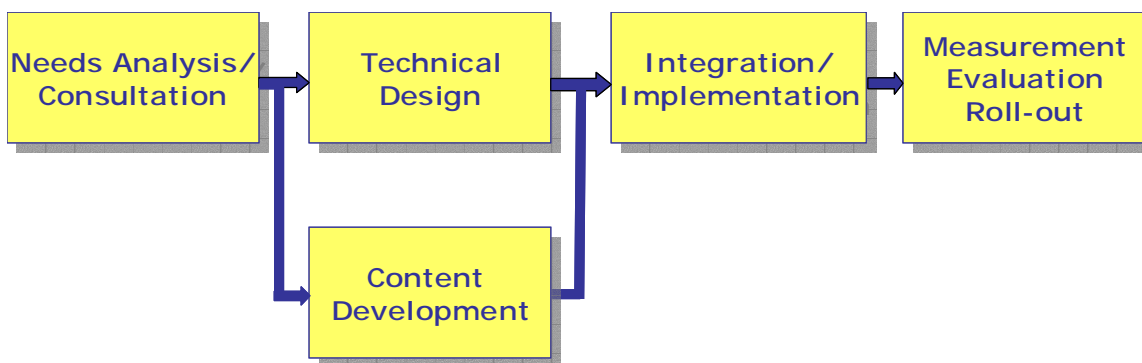
Once you've decided you want to explore Digital Signage, you must assemble a multi-disciplined team. One entity must assume the role of Project Integrator. This company or individual will be

responsible for bringing together the necessary partners and resources at the right time to make the project successful. The Project Integrator will coordinate initial activities such as defining goals, budgets, needs analysis, bids and contracts, and project milestone schedules. Once the project is underway, the Project Integrator will manage the project and coordinate messaging, content development, IT requirements, software selection and training, selection and procurement of hardware and display devices, system integration and installation.

The USAV Digital Signage Implementation Process

Digital Signage projects go through a phased development process. The major phases are shown in the following diagram and described briefly below. Large implementations will normally be broken down into a pilot test project and then refined prior to a larger scale rollout.

Digital Signage Implementation Process



Phase 1. Needs Analysis and Consultation

The work done in this phase pays for itself several times over in later phases by avoiding mistakes and miscommunication of desired results. The needs analysis is an evaluation and planning phase. Client needs are identified and documented through an extensive, formal needs analysis. USAV Group members use our proprietary 20 page questionnaire and needs analysis document to accurately and efficiently define client needs. Goals and objectives are defined at this time and preliminary budgets are developed to ensure that all involved clearly understand the scope and financial investment required to be successful.

The important point is to be sure you think through what you want to accomplish before you begin. Here are some possible objectives for a digital signage project pulled directly from our Needs Analysis document.

- Increase sales
- Market to prospects at the point of purchase
- Generate advertising revenue
- Improve employee training
- Improve customer experience
- Communicate with customers
- Improve merchandising
- Introduce products quickly
- Entertain customers
- Educate buyers/prospects

- Improve brand and image
- Improve efficiency by central update and distribution of information
- Reduce costs of updating print signage
- Provide interactive customer experience
- Provide customer self service
- Other: _____

It's important to define the project success metrics at this time so that provisions can be made to capture the necessary performance data during the implementation phase. Site surveys are conducted to determine traffic patterns, utility connections, internet accessibility, sight lines, site lighting, ambient light and noise conditions, and display locations and types. Once a clear understanding of needs is established, prospective providers are identified and the necessary proposals and contracts are prepared.

Phase 2. Design

The design phase actually is made of two parts:

- **Technical Design** includes the architecture and specification of servers, content management software, distribution network and display components of the system. Technical design will also include how to accommodate merchandising or real-time features associated with the network.
- **Content Development** includes developing the video and audio messages as well as branding and entertainment or information features. Content is the single most important factor in the success of your digital signage program. You will want to conduct an inventory of your current digital assets from advertising, web site, and product videos to see what you have and what can be repurposed. Factors such as viewer attention span, directed audio, interactive information, and location specific factors all need to be considered. In addition, data from inventory and POS systems may also be used to provide near real time merchandising and promotion.

Phase 3. Integration and Implementation

The integration phase is really when all the work comes together in the commissioning and operation of the Digital Signage Network. System components are integrated and tested and then installed in the field. You may contract the content scheduling, content deployment and system operation with a Network Operating Center (NOC) or host it in house. If you host it in house, your people are trained in content scheduling and system operations. In a large scale system deployment, the initial implementation will be a pilot project in one or more representative locations. The pilot is tightly managed and controlled so that maximum learning can occur and be incorporated as the system is refined and rolled out on a larger scale later. You are testing both the system and the messaging. As the system is implemented the team is actively collecting information from sources such as sales data by time period and customer surveys regarding impressions and buying habits.

Phase 4. Measurement, Evaluation and Rollout

Each day of operations yields data and new insights that are refined into the rollout strategy and plan. The measurements made during the implementation of the pilot project are used to project the expected impact of the rollout on the organization as a whole. Measurements in areas such as sales increase by time period, cross sells, operations improvement, customer satisfaction, brand awareness and customer experience can all be measured to evaluate the previously established ROI and justify continued deployment.

While the initial implementation is underway, the planning for the longer term rollout is initiated. Operations, service, and training plans are developed for the rollout. Finally, as all are prepared, the actual rollout plan is implemented. The same process of needs analysis, design, content development and implementation is continued as the system is continually refined and refreshed.

Conclusion

The potential benefits from a full scale Digital Signage implementation are measurable and significant. We're currently in the early development stage of Digital Signage Networks, but the technologies are developing to maturity and with them an understanding of the process and elements of success is developing. The design and implementation of a Digital Signage network is complex and requires the participation of a team of partners with multiple and diverse skill sets. The required commitment is also significant. Having a solid, well thought out plan, with quantifiable objectives and an understanding of how ROI can be obtained and measured is the starting place.

USAV Group

USAV is a growing national association of leading professional audio-video solutions providers. USAV dealers have designed, implemented and deployed digital signage projects in hundreds of locations throughout the U.S. for local, regional and national clients. We deliver turnkey digital presentation and display solutions integrating software, content management, and hardware from partners such as NEC, Mitsubishi, Sharp, Mercury Online and Anode. With offices in many cities in the U.S., we can scale your project from one to thousands of locations.



To get answers you can depend upon, contact us at 303.295.2232, dsrd@usavgroup.net or go online at www.usavgroup.net to locate a USAV solution provider near you.

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