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technology

When it **Absolutely Must** Connect

Silex Case Study
Delphi Display
Using Silex AV Networking Technology for Digital Signage

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For Digital Signage

🔖 **Industry:** Distributed retail/convenience stores

🔖 **Application Area:** Digital signage display connectivity

🔖 The Challenge

Developing a digital signage product with a reliable, low-maintenance wireless communication solution.

🔖 The Solution

Using Silex Technology's high-quality multicast video distribution technology to wirelessly distribute synchronized, full-HD video from one source to multiple locations.

> *"After six years of uninterrupted operation in the field, we've come to believe that Silex provides the best technology for our AV networking needs from a quality, functionality, and support point of view. Their commitment to our success gives us confidence in them as a long-term, key supplier for our product."*
> *- Mike DeSon, Chief Operating Officer, Delphi Display Systems, Inc.*

▌Finding a Reliable Video Distribution Solution for Digital Signage

[Delphi Display Systems](#) specializes in custom digital signage solutions for retail customers. For some of its display applications, it chose to release a system that not only informs and engages consumers, but also is ultra-rugged and reliable. Given the ruggedized requirements of many Delphi display products, releasing a robust solution with an extremely low failure rate was imperative to the product's success.

Delphi Display Systems needed a new vendor to provide the AV networking component for its new ruggedized display system. As a worldwide supplier of premium connectivity solutions, Silex Technology had recently developed the X-1 Multicast Video Distribution System (MVDS) for distributing HD video and stereo audio streams across wired and wireless Ethernet-based networks. This new system provided an ideal solution for Delphi, who chose Silex because initial testing with the Silex solution immediately showed much greater reliability compared to the prior vendor's solution.

❙ AV Networking That Always Works

The Silex Digital Signage connectivity solution consists of:

- A transmitter that connects to the video source (usually a media player or PC) and wirelessly sends out multicast video to all the receivers
- A receiver for each display that receives the encoded signal and outputs synchronized video and audio to the consumer

Silex's solution solved several challenges faced by Delphi and its clients. The number one issue of robustness and stability was addressed by Silex's strong commitment to releasing only top-quality products. After more than 50,000 operational hours, the Silex transmitters and receivers have seen a return rate of less than 1%. At one point, Silex discovered a minor defect in one of the components, and immediately stopped all shipments until the issue was fully resolved. Silex then expedited delivery of the new product, proving a dedication to customer success.

Finally, with multiple digital signs playing in the same vicinity, having conflicting audio can diminish the consumer experience. Silex's solution is specifically optimized for synchronizing video and audio at the highest quality. Therefore, all the displays play at the same time with no echo or lip synchronization problems.

❙ Continuous Innovation that Improves Customer Experience

Because the X-1 was still in the development phase at the start of the project, Silex engineers were able to quickly incorporate specific features to accommodate the requirements of Delphi Display's application. Since the initial X-1 product introduction, Silex is currently on its fifth generation release – with the latest version called the X-5 Wireless Digital Signage Distribution System – and Delphi Display Systems has had continued success integrating the new technology with no problems in functionality or reliability. Each new version improves on the last to add additional capabilities and enhance customer usability. For example, the initial X-1 featured a set video resolution, whereas the latest X-5 automatically supports almost any format, up to full HD resolution (1920 x 1080). Also, if the video source or transmitter signal is lost, the X-5 allows stored content on each receiver to play on a scheduled basis.

Figure 1. After five generations of MVDS products, Silex continues to innovate with new features that make digital signage usability and installation even easier than before.

Superior Support for a Superior Product

Today, Delphi display products are known as preferred and premier products because of their performance, reliability, and industrial quality. Silex's contribution helped to make this possible because of its superior AV networking technology and above-and-beyond support. Many of clients continue to use the X1 wireless system to the present day, with more than 2000 deployments in the field.

Related Links

X-5 Demonstration Videos
X-5 Product Brief