

Customer Profile:



digEcor manufactures the digEplayer XT In-flight Entertainment (IFE) player. The company was bought by Wencor, a 55-year-old leader in the aircraft parts distribution business, in 2004. digEcor's portable, lightweight in-flight entertainment players provide passengers with a wide selection of movies, TV shows, music and games. Based in Springville, Utah, digEcor has offices in Seattle, Atlanta, Miami, Amsterdam, Shanghai, Singapore, and Toulouse, France.

www.digecor.com

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- Steve Hurst, Product Development Manager digEcor

digEcor Designs Optimal In-Flight Entertainment Device with D-Link® 802.11 a/b/g Wireless Adapter

The Challenge

When digEcor was designing their award-winning digEplayer XT In-Flight Entertainment (IFE) player, they needed to include wireless capability to meet its airline customer requirements. The digEplayer XT is a portable player that enables passengers to watch movies, listen to music and play games while traveling.

The device needed wireless built-in because some airlines want to download credit card and usage data to terminal networks on the ground when the planes are connected to skyways. Wireless allows them to transfer small data files quickly and increase efficiency, because the staff does not have to waste time connecting ethernet cables or otherwise manually downloading data from memory cards, USB drives or hard drives. "If you only have a small amount of data, it's much more convenient to use a wireless interface," said Steve Hurst, digEcor's Product Development Manager. In addition, some airlines are now installing in-flight Wi-Fi hotspots, so players with built-in connectivity are expected to connect to those networks, as well.

"Right now we need to connect to these devices when the planes are on the ground," said Hurst. "We can update content on the player or offload credit card data and usage statistics."

digEcor needed the wireless adapters to feature 802.11 a/b/g functionality to allow maximum flexibility and avoid competition for bandwidth at airports with existing b/g networks. The ideal device needed to have a small form factor, consume minimal power, and come free of retail packaging. As a manufacturer, digEcor just wanted the guts of the device. They needed an OEM arrangement. "We didn't even want the plastic housing on it," said Hurst. "We just wanted the raw PCB [pc board] with the components on it."

Most of the suppliers that digEcor researched didn't typically sell outside the retail market, however. They were also unwilling to act as an OEM supplier.

There was one other piece to the puzzle. The adapters digEcor needed contain Atheros® chips that are fairly unique, and the existing drivers on those chips were not suitable for digEcor's design. So, they needed to license some source code from Atheros to get the hardware to work. This process in itself would prove challenging. Communicating with Atheros and pushing the licensing through was difficult for digEcor.

"We had to have wireless functionality designed into the device, and there was definitely a lot of time pressure to get this done," said Hurst.



The digEplayer XT from digEcor is a portable player that enables airline passengers to watch movies, listen to music, play games and more while traveling.



DWL-AG132 - Wireless 108AG
USB Adapter

- Up to 108Mbps* Using 802.11a/g
- Convenient USB 2.0 Connectivity
- Protect Your Network with WPA and 802.1x Security

The Solution

While researching potential suppliers, digEcor noticed that D-Link's commercial product, the D-Link DWL-AG132 Wireless USB 2.0 Adapter, fit their technical requirements. They contacted D-Link to see if the hardware could be supplied in a non-consumer format – minus the retail packaging and form-factor casing. "There are lots of consumer retail wireless adapter devices," said Hurst. "D-Link was the only company willing to sell their product in an OEM capacity."

D-Link's pricing was also very attractive. "Price was a big issue," explained Hurst. "We looked at having another company design a custom radio, but the cost was prohibitive. To get an equivalent package from one of those guys would have been significantly more. A custom radio is going to be a lot more expensive. If you can find an existing product that fits your needs, and if the company, in this case D-Link, is willing to sell it stripped down, bare bones, then that's great."

D-Link also helped digEcor with the Atheros licensing issues. "We were quickly bogged down in a big, bureaucratic process with Atheros, and D-Link essentially pushed that through," explained Hurst. "At one point we had to throw our hands up. Then D-Link's people came in, contacted Atheros and worked it through, making sure that we got the deal done in a timely manner."

"There was a lot of time pressure to get this done," he continued. "D-Link's additional assistance was instrumental."

Results – Airplanes and Ambulances Get the Right Solution

digEcor has found more applications for the digEplayer wireless solution. In addition to the airline application, the company is using the devices in ambulances where idle crews can view instructional videos and take quizzes while on the job. When ambulances are parked near Wi-Fi hotspots, they can easily connect to training content with the digEplayer. Once they are near their local network, the DWL-AG132 wireless adapters connect to the network and send in the results.

"Overall, D-Link really hit a homerun for us," said Hurst. "They worked out a deal with Atheros, eliminated all the bureaucratic red tape, made sure we got the licenses, and delivered a complete solution in a timely manner and at a reasonable price."



With D-Link's wireless functionality designed in, the digEplayer can be used to improve patient satisfaction in the healthcare industry.

* Maximum wireless signal rate derived from IEEE Standard 802.11a and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range. D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States and other countries. Copyright © 2003 - 2008. All Rights Reserved. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies. Copyright © 2008 D-Link Corporation/D-Link Systems, Inc. All Rights Reserved. 17595 Mt. Herrmann Street, Fountain Valley, CA92708 • www.dlink.com.

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