



# Boxx Communications



## Location

Los Angeles, California

## Industry Vertical

Boxx Communications is a leading motion picture services company that creates advanced solutions to support technologically challenging film/TV production scenarios.

## Scope

The goal of this project was to implement a comprehensive wireless LAN (WLAN) system to support Vid-Wave Boxx, an Emmy-Award-winning digital point to multi-point video transmission system created exclusively for multi-camera monitoring and video assist.

Vid-Wave Boxx consists of up to 10 independent cameras roaming over large-scale "reality TV" sets and sending a wireless audio/video transmission to production personnel. The scope of the project was to design a highly robust WLAN that could be quickly deployed in a variety of environments to meet tight shooting schedules.

## Challenges

The Boxx Communications project featured some unique technical challenges. The system had to be highly portable and needed to be deployed in very short timeframes, sometimes less than an hour, to support TV productions, so ease of deployment was critical. Also, the set was a interference-rich environment, so the WLAN had to be capable of mitigating or eliminating RF interference.

## Why Extricom ?

Initially, Boxx Communications had used a cell-based WLAN that required individual set up and configuration of up to 50 APs, making it difficult to meet deadlines. The solution was also subject to considerable cross-channel interference, resulting in signal delays and lower data rates, and roaming latency between APs that triggered "freezes" in the televised image. Boxx Communications even built two separate networks layered over each other to try to compensate for this.

Boxx Communications decided to switch from their to the Extricom WLAN because the simplicity of system deployment meant that they could quickly roll-out a production-ready system, placing APs anywhere needed to provide coverage. From a single infrastructure, they could leverage two channel blankets, effectively multiplying capacity and ensuring that video could be transmitted at needed rates.

## Implementation Summary

WLAN design and deployment was performed by Boxx Communications personnel with assistance from Extricom. The system was fully implemented as backend infrastructure and has been an unqualified success. Among the benefits of the new system were much higher data rates, resulting in substantially improved picture quality and less delay. This is a result of the Extricom Interference-Free™ architecture, in which all APs transmit on the same channel, eliminating inter-AP interference or AP-to-AP handoff issues.

The ability to configure all APs from the switch greatly improved installation time and subsequent management of the system. The Extricom WLAN has effectively turned the Vid-Wave Boxx system into a "Plug and Play" application, enhancing its marketability.

## Current Status and Next Stages

The Vid-Wave Boxx system was successfully launched in the US and is currently being used in production on numerous major TV shows, including Hell's Kitchen USA, Nanny 911, and Tommy Lee's Rock Star: Supernova. Boxx Communications is now planning to deploy the system in Europe.

## What the Customer is Saying

*"Due to the nature of TV production, especially Reality TV, set up time is limited. When they say 'Roll Cameras' you have to be ready. The Extricom WLAN, with its zero-latency mobility, interference-free operation and ease of deployment, is a critical building block to our meeting this fundamental business objective."*

*Jeff Watts  
President  
Boxx Communications*