Malco Solutions

SEMTECH®

Malco Solutions Delivers Real-Time Mobile Surveillance and Threat Deterrence Using FirstNet®.

QUICKFACTS

Company
Malco Solutions
www.malcosolutionsllc.com

Customer Profile
Based in Wills Point Texas, Malco Solutions delivers 24/7/365 live remote site surveillance using self-contained security trailers. These trailers are equipped with high-definition security cameras, motion sensors and analytics for automated threat detection. When a threat is identified, local law enforcement is notified via FirstNet®. FirstNet is AT&T's first responder network for law enforcement, firefighters and emergency services.

Objectives
Malco Solutions needed a ruggedized, low-power, high-reliability communications system that worked with FirstNet.

Results
Partnering with Semtech and their partner Access Wireless Data Solutions has enabled Malco Solutions to:

- Deliver real-time, proactive surveillance monitoring systems for construction, emergency services, retail and special events.
- Operate their equipment on battery and solar power.
- Connect with law enforcement via FirstNet.
- Deliver real-time connectivity at remote sites without access to cable broadband or fiber optics.

Semtech Products and Services

- AirLink® XR60 Wireless Routers
- AirLink Management Service (ALMS) through AirLink Complete

INTRODUCTION

Malco Solutions delivers 24/7/365 real-time remote monitoring and proactive surveillance solutions for construction sites, remote facilities and event venues. The solution includes a fully self-contained mobile surveillance trailer utilizing solar/ battery power and generator backup. Four HD surveillance cameras and AI-triggered lights are mounted at the top of an extendable 30-foot mast.

Threat detection alarms and real-time video surveillance are wirelessly transmitted via a FirstNet capable cellular router to a staffed monitoring station. When a security threat is identified, the surveillance team warns the intruders that law enforcement has been notified via a "talk down" speaker. The surveillance team also informs law enforcement that a security-related event is occurring.

CHALLENGE

Traditional security monitoring systems are reactive and only record video for playback the next day, long after a theft or vandalism incident. Malco's system delivers 24/7/365 live monitoring utilizing a real-time communications link between their mobile surveillance trailers and a staffed monitoring center in Houston.

Low power consumption was a key requirement due to battery/solar operation. The routers needed to operate in a mobile environment and over wide temperature extremes. They also needed to transmit high-resolution video feeds and monitor system power and performance.

Most of Malco's mobile surveillance trailers operate hundreds of miles from any repair facility. They needed a reliable way to monitor trailer communications and system status and remotely deliver any required system and security updates.

As part of the local security infrastructure, Malco wanted to connect with local law enforcement via FirstNet communication bands. This required having a cellular router that was FirstNet capable.

> " We wanted to create a proactive monitoring system that triggered within seconds of an incident and provided visual verification for law enforcement to act. "
>
> **Bryan Malouf**
> *CEO of Malco Solutions*

> The wireless routers are the most critical piece of our systems. The Semtech routers are trouble-free enabling us to set and forget. Working with Semtech partner Access Wireless Data Solutions (AWDS) has made our life easier as I can concentrate on other parts of our business.
>
> **Bryan Malouf,** *CEO of Malco Solutions*

SOLUTION

Malco Solutions initially purchased AirLink RX55 routers for their Mobile Security Trailer. The RX55 had the reliability needed to meet their end-customer demands, low power consumption that could work with battery/solar power and the ability to connect via FirstNet. Even when the AT&T network had an outage, FirstNet remained operational to keep Malco's customers covered.

Malco Solutions moved to the AirLink XR60 when it was released. In addition to the ruggedness and low power consumption, the addition of 5G capability would enable them to improve high-definition video feeds. Malco also wanted to integrate the latest and best technology into their solutions.

Semtech's router management solution, AirLink Management Service (ALMS), delivers critical remote support especially as some trailers can be located 8+ hours from their office. With ALMS, Malco can verify critical subsystem operations including the solar power system, cameras, AI servers and communication routers.

The Power of Semtech Partners

Malco was able to leverage the experience and solution capabilities of Semtech partner Access Wireless Data Solutions (AWDS). AWDS was able to specify the right solution for Malco and provide the support needed during integration and launch.

BENEFITS

Partnering with Semtech has provided many benefits for Malco Solutions:

- FirstNet connectivity helps to maximize security monitoring delivery.

- Low power consumption of the XR60 works well with solar/battery operations.

- XR60's small footprint simplified installation.

- The XR60's ruggedness and reliability helps ensure 24/7/365 operations.

- ALMS enables Malco to remotely troubleshoot all trailer components to maximize uptime and minimize travel and repair costs.

- An additional Ethernet port on the XR60 simplifies system operations.

- The XR60 with 5G helps to future-proof Malco's solutions and expand their solution portfolio.

For more information on Semtech Solutions visit:
https://www.sierrawireless.com/router-solutions/xr60/

Other links:
https://malcosolutionsllc.com/
https://accesswds.com/malco-solutions-llc/

About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at **Semtech.com** or follow us on **LinkedIn** or **X.**

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