

## CASE STUDY

# How ALC New England Finally Solved a Slow OT Network at a Major University Using OptigoVN

### ABOUT ALC NEW ENGLAND

For over 40 years, Automated Logic Corporation (ALC) has been a global leader in building automation systems, working with customers ranging from small, family-owned businesses to Fortune 500 companies. ALC's New England branches (ALC New England) service high-profile customers, including some of the East Coast's best-known higher education institutions.

### THE CAMPUS CHALLENGE

At one client's sprawling location, ALC New England needed to find a way to increase the overall performance of OT systems spanning mixed-use campus buildings, some over 160 years old. With all this real estate comes an OT network with a mix of hardware, protocols, and vendors. As Matt Hogan, Service Project Engineer at ALC New England explains, "One of the big issues at this location is maintaining and optimizing our systems within a network with so many integrations. It's a lot of vendors."

The mix of vendors servicing their client's OT network meant conflicts and misconfigurations were frustratingly common. As vendors are contracted to add or expand network segments, they typically install all the devices they need to operate without double-checking to ensure an IP or MAC address isn't already in use. That can easily lead to unpredictable network behavior.

For the university, that unpredictability manifested as persistent network slowdowns and poor performance. Despite having facility staff working to diagnose the source of the issue, they couldn't nail it down. ALC was tasked with helping their client get to the root of the issue once and for all.



### THE SOLUTION: OPTIGO VISUAL NETWORKS

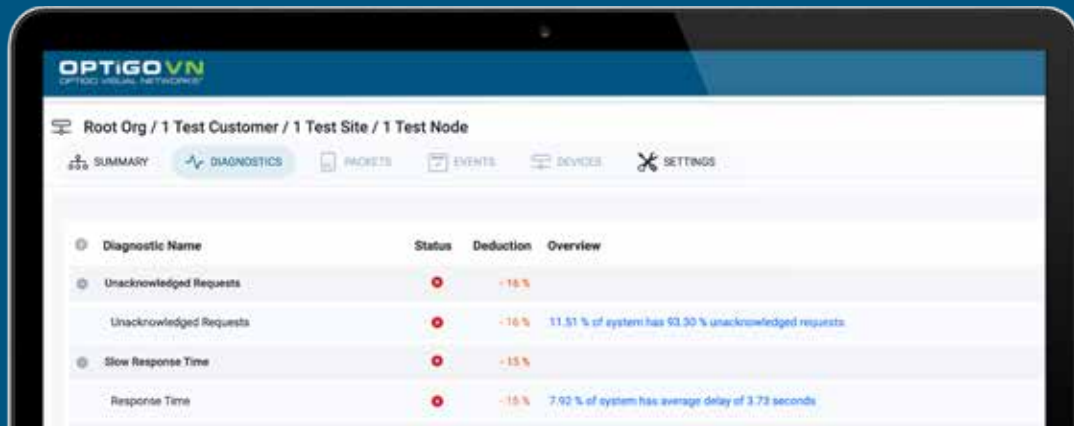
To do that, ALC New England needed granular OT network diagnostics that could provide a single source of truth and device-level results quickly. That meant leveraging Optigo Visual Networks (OptigoVN). As Matt noted, the process of getting data from the university in ALC New England's OptigoVN account was seamless. "We have remote access to [the university's] servers, so it was just a matter of configuring some URLs and API access keys. No major on-site work or downtime required."

Matt's team was now able to analyze their hourly PCAP file captures with OptigoVN's full-suite of advanced diagnostics, and the results were clear.

# THE RESULT: OPTIMIZED OT NETWORKS IN MINUTES

ALC was immediately able to identify not one but two sources causing their ongoing issues: excessive broadcast traffic from an unlikely source, and duplicate BBMDs no one could find.

Using OptigoVN's deep network analytics, the broadcast source was traced to a misconfigured occupancy lighting system on another network. "OptigoVN's diagnostics alerted us to the source of this excess broadcast traffic specifically. Because OptigoVN sees the whole network, we get visibility into other vendors' equipment as well. We were able to quickly identify that the system was reading on subscriptions instead of COV (change of value). We passed that along to our client, and it was great to be able to go above and beyond to make the whole network better for everyone. OptigoVN enabled that."



## SOLVING STUBBORN ISSUES FOR GOOD

Matt's team was also able to help solve the mystery of the duplicate BBMDs that had been dogging the in-house team. Duplicate BBMDs can wreak havoc on systems, rebroadcasting the same messages they are meant to forward onto another network segment. This kind of misconfiguration not only doubles or triples the amount of network traffic but can be notoriously hard to track down. The in-house team simply couldn't isolate the issue.

With OptigoVN's suite of diagnostics, Matt's team could pinpoint the individual BBMDs that were conflicting. Using OptigoVN's network graph, the team was able to examine historical trends from their OT network performance and confirm the issue. Matt says, "That's something we weren't tracking on a day-to-day basis. But this we were able to catch quite quickly. Their vendor was able to come back out and disable the duplicate BBMD within a few days. That was good"

## OPTIGO VISUAL NETWORKS

Optigo Visual Networks (OptigoVN) is our next-generation OT network troubleshooting and monitoring software solution. With over 28 different network diagnostics, and external sharing features with a Site Scope+ subscription, OptigoVN's robust BACnet monitoring gives you deep OT network visibility and instantly reveals problems, allowing you to resolve issues in minutes rather than hours or days, and prevent them from happening again.

## WANT TO KNOW MORE?

With Optigo Visual Networks, client OT network monitoring and troubleshooting just got easier.

To find out for yourself, visit [optigo.net](http://optigo.net) to request a demo, or create your free account and start exploring today.