**Case Study**

# Eliminating Internet Bottlenecks: Increased Connectivity for a High-Performing Client Experience

SAF was selected by Array to provide a proprietary wireless network that increased performance and connectivity to support their client engagement software.

Read the case study below to learn how SAF used Cambium Network technology to design a well-balanced network architecture that ultimately increased revenue and profitability.

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Syn Ack Fin
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# Pre-Deployment
# Network Conditions

Recently, Syn Ack Fin Network & Computer Services (SAF) partnered with Array to provide them with a proprietary wireless network. Before the partnership with SAF, Array was relying on a subpar network that could not meet their connectivity needs.

Specifically, Array's network relied on non-enterprise class hardware. These components were deployed in an extremely complex design, creating multiple "internet bottlenecks" that drastically diminished end-user experience.

A bottleneck is a general term used to describe diminished network speed that occurs when a large number of users simultaneously attempt to access a particular resource. This occurrence creates chokepoints within the network.

While these bottlenecks can be eliminated by deploying robust hardware and refining the design of the network, this was impossible given the quality of the components that Array was currently using.

# Diagnosing the Problem

From the outset of the partnership, SAF noticed severe performance issues within the company's network. They also detected significant connectivity issues that were impacting the end-user experience.

Unfortunately, the source of these issues was not immediately evident due to the complexity and patchwork nature of the Array's network. However, SAF personnel have extensive experience in diagnosing and resolving connectivity issues.

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As a result, they were able to quickly zero in on the potential causes of the Array's network problems. Unsurprisingly, the chief culprit was believed to be the non-enterprise class hardware, as these components were simply not designed to facilitate such a large volume of traffic.

After SAF gained insights regarding the shortcomings of the current network, they were able to begin their own design process. Their strategy incorporated enterprise-class hardware and supporting software developed by Cambium Networks.

SAF acquired this technology from Jenne, a Cambium Networks supplier that also provides installers with guidance on deployment best practices.

## SAF's Unique Approach

Array set forth clear expectations for the new network. They needed to increase performance and connectivity in order to support their proprietary client engagement software.

The existing network solution was not providing a reliable or high-performing client experience. A lack of a quality user experience was damaging the Array's brand reputation, which was ultimately impacting profitability.

In order to remedy the issue, SAF needed to perform a complete overhaul of the existing design. The installation team began by replacing Array's existing server solution with a true enterprise-class server that could support their needs.

Then, they deployed enterprise-class network switching components and wireless access points.

SAF artfully configured the new network to support the requirements of the Array's proprietary application. Once this was complete, they performed extensive real-world testing and presented the results to Array.

After they confirmed that these results exceeded expectations, SAF proceeded with a full-scale rollout of the solution.

# Installation and Training

**During the entire project, SAF worked closely with the Array's in-house development team.**

Together, the two entities systematically addressed network-related issues by deploying new resources. It took approximately six months for SAF to achieve the performance levels that Array required.

Over the following six months, SAF continued to refine and perfect the network. They implemented automation technologies to streamline the management of the network.

Together with Cambium Networks, SAF provided extensive training resources to the Array's development team. They provided Array with company-wide training sessions, ensuring that they would achieve optimal results from the new network.

# Why SAF Chose Cambium Networks

**SAF is known for providing clients with dynamic solutions that address their unique pain points.**

SAF crafts every strategy with the experience of end users in mind. In order to eliminate these pain points, SAF wanted to supply the client with leading-edge technology.

To support the Array's customer engagement software, SAF had to design a high-density wireless network. They needed to provide this solution while also minimizing long-term ownership costs and offering superior flexibility to the Array's in-house development team.

That is why they chose to acquire Cambium Networks technology from their supplier, Jenne. Cambium Networks tech offered several substantial benefits to Array and SAF, including:

## #1 Low Cost of Ownership

Cambium Networks' products are known for being easy to maintain, which translates to a low cost of ownership. When coupled with Cambium Networks' management technology, the access points and other components will reliably serve Array for years to come.

SAF was also able to acquire all Cambium Networks products at a fair and competitive price point. SAF experienced further cost savings due to the lightweight design of the products, which reduced shipping costs.

## #2  Access to Expertise and Guidance

Another reason why SAF selected Cambium Networks as a partner for this project is that they offer expert guidance during the design process. Cambium Networks team members helped SAF vet the proposed solution, which was essential due to the proprietary nature of the design.

In addition, Cambium Networks offered unfettered access to training resources, including documents and images. These training resources allowed SAF to gain a more complete understanding of the capabilities of Cambium Networks products.

## #3  Best in Class Hardware

During this project, SAF's chief concern was to provide Array with a network that exceeded expectations. Cambium Networks technologies provided a clear pathway for doing just that.

Their access points, transmission devices, and other hardware were powerful enough to meet Array's needs. By selecting Cambium Networks' equipment for their design, SAF was able to create a flexible and unique network that was also easy to reproduce.

# Contact Cambium to Learn More

If your organization seeks world-class connectivity services, Cambium Networks' innovative technologies may offer the perfect solution.

**To learn more, contact Cambium Networks online.**