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James Berger
Chief Information Officer
BACS Consulting Group, Inc.



Solutions & Success
The Inside Story

Rapid Wireless Deployment Helps Pave the Way for Business Expansion

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The Inside Story



Summary

After relocating into a new, more expansive office building, one of the first priorities for Eargo, a West-coast-based hearing device manufacturer, was quickly establishing reliable wireless connectivity. Working with BACS, the company was able to install the required infrastructure and activate a new wireless network in a matter of days. The rapid installation helped ensure the continuity of its business operations while creating an IT foundation that would help drive business growth in the years to come.

Introduction

Growing a business from a small startup operation into a large-scale manufacturing enterprise doesn't happen without a few obstacles along the way. A frequent challenge for many companies is navigating the complexities of technology deployment and scaling up IT infrastructure quickly and efficiently. That was the scenario facing Eargo, a Silicon Valley-based designer and developer of small and virtually invisible direct-to-consumer hearing aids.

While this was not the first challenge of this type for Eargo, the degree of urgency, in this case, was more intense and the scope of new infrastructure required for this expansion was on a much larger scale. Having quickly outgrown its previous office, the new facility would provide the company with more than 30,000 square feet of new office and manufacturing space.

With only minimal IT infrastructure in place, Eargo's first order of business was establishing wireless access to the building as quickly as possible. To help them find a solution quickly, they turned to BACS—the same IT provider who had helped them overcome previous expansion hurdles and one they knew they could trust.

Challenge

After signing the lease on its new building, Eargo's first task for BACS focused on how quickly they could get a wireless network installed. The infrastructure not only needed to be ramped up quickly but also needed to be carefully planned to allow easy scalability as the company began to add new staff and scale-out its manufacturing operation.

To define exactly what Eargo meant by "quickly" and provide more precision to the timeframe they had in mind, company executives posed to BACS a simple and pointed question: "Would it be possible to install a wireless network and get it up and running within a week?"

For a company like BACS that prides itself on ingenuity and thinking outside the box, the question instantly became a challenge. Initially, the BACS team wasn't sure if the goal was feasible. But as they weighed their options, the idea of a phased approach emerged as a potential option.

"The plan that emerged was that we would install a temporary wireless network first, giving them the quick connectivity they needed as they continued to relocate staff, install equipment, and prepare the facility for full-scale production," said James Burger, CIO, BACS. "At the same time, this staged approach would give us the extended runway we needed to lay the groundwork for a more robust, permanent wireless solution."

Solution

With the scope of the challenge more clearly defined, BACS began to work on the solution. That same day, BACS ordered the core infrastructure it would need for the initial deployment. The following day technicians ran the cabling. Two days later they installed the firewall, access points, along with a 4G wireless access card. Within five days, BACS had the infrastructure fully installed and the wireless service activated, providing Eargo with fast the connectivity it needed along with sufficient speed and bandwidth to meet its immediate needs.

"We used a 4G access card we had on hand and were able to negotiate a 60-day temporary wireless connection at a substantial discount with one of our preferred vendors," said James Burger, BACS. "This allowed us to get the company up and running quickly as we continued to plan and configure the supporting infrastructure they would need to support a high-speed fiber connection."

While establishing the wireless connectivity was at the top of Eargo's priority list, other needs quickly rose to the surface. One of those was installing a new business telephone system, as well as adding a cloud-based server to support the company's rapidly growing volumes of data.

Results

Before the temporary 60-day wireless plan had expired, BACS was able to install a new 100 Mbps fiber-optic network and remove the temporary 4G connection. Thanks to smart planning and diligent effort on the part of BACS, Eargo now enjoys optimized and seamless wireless connectivity through its facility.

The phased approach helped provide Eargo with a smooth transition into its new space, allowing it to scale out of its office and manufacturing environment at a controlled pace with minimal business disruption.

As the company began to ramp-up its engineering operation, Eargo relied on BACS to help it build out its IT infrastructure, including installing a new cloud-based server that could run its various engineering tools. Thanks to BACS's extensive experience working with SOLIDWORKS, Mathcad, and other engineering tools, BACS was able to help Eargo install these applications at substantial cost savings compared to specialized third-party integrators.

BACS's deep technical expertise also proved instrumental in helping Eargo select and implement a new business phone system, deploy new call center infrastructure, as well as implement the cabling to conference rooms to run flat-screen monitors for online meetings and video conferencing. The new business phone system and call center infrastructure are designed to meet Eargo's current needs while allowing room for expansion.

From its initial site analysis and needs assessment to planning and implementation, BACS was able to provide a fast and efficient infrastructure deployment, integrating complex technologies in multiple phases that all work seamlessly together. The rapid wireless installation and carefully planned infrastructure build-out have had a profound impact on helping Eargo drive business growth, boost productivity, and strengthen its network and IT security.

Like with many expansion projects, IT and infrastructure needs can be easily overlooked until the last minute. One advantage BACS brought to the project was its deep business planning expertise and its insistence on scheduling quarterly meetings, which were vital in helping to gain a clear insight on upcoming priorities, potential roadblocks, and what the team needed to be preparing for next.

"Our quarterly meetings proved instrumental in helping to eliminate many of the last-minute surprises that often arise in rapidly-evolving IT projects," said James Berger, BACS. "Another advantage was our early involvement with the client from their small start-up stage. Our scope and depth of engagement with Eargo factored heavily in terms of our ability to clearly understand their goals, their timelines, and what they wanted to accomplish."

Like many growing companies, Eargo is well-aware of the complexities, delays, and obstacles that are all-too-common in the world of technology deployment. But in this case, the company also discovered that with the right support, some creative thinking, and diligent effort, it is possible (though indeed rare) for events, timelines, and tasks to fall into place precisely as planned.

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