

Improved productivity in tower inspection & repair using Assisted Reality

An AR-driven solution to simplify processes and enhance efficiency for technicians.

Industry

Telecommunication

Company

A1 Telekom

Technology

Vuzix Smart Glass

Engagement

8 weeks pilot phase

Client Profile and the Initial Situation

A1 is Austria's leading telecommunications provider, with 5.3 million mobile and 2.1 million landline customers across seven countries. A1 provides telecommunications services, along with entertainment, payment, and business solutions, to large swathes of Europe. The work of the company's 18,000 employees ensures, each and every day, that businesses and people can reliably connect. A1 prides itself on speedy and stable service for all of its millions of customers. A1 Telekom Austria Group has a history of telecommunications knowledge, but always seeks to stay on the cutting edge. This drive allowed them to reach revenues of 4.5 billion in 2020.

The context

In an increasingly connected world, workers no longer face the pressure of solitary decisions. There are great opportunities for employers to increase safety and worker productivity in equal measure using new technology. But is there a way to integrate cutting-edge tech into day-to-day worker life without large training lift? How can you improve processes without muddling them? Can companies invite broader employee collaboration without adding to daily task complexity?

The challenge

A1 needed a new technology solution to provide end-to-end support for its technical teams. While working on transmitter masts, maintenance employees needed to be able to connect with on-the-ground experts. Nagarro and A1 needed to create a process that simplified procedures for transmitter mast maintenance. This process needed to allow for oversight from those not physically on transmitter masts, prioritize worker safety, and increase productivity of maintenance workers. Additionally, maintenance jobs would need to be documented, without creating a paperwork backlog.





The Solution

Nagarro and A1 implemented the Connected Worker model, which utilizes wearable technology and assisted reality.

Each field technician was outfitted with smart glasses. These glasses allow the field technician to connect with in-office staff, following the maintenance procedure and working on solutions collaboratively. Worker safety is prioritized by offering a “hands-free” solution, unlike a phone or camera. In-office technicians are able to communicate with their colleagues, and new approval protocols allow for a second layer of security.

Field technicians are also able to use the smart glasses to create high-quality photo and video evidence of any transmitter mast defects that are not able to be fixed in real-time. This data is used for documentation and allows technicians to look back on past issues but also analyze future solutions to similar problems.

The solution was easy to implement for all involved. The smart glasses and accompanying assisted reality are simple. On average, technicians needed only three days of training before they had mastered use of the smart glasses. The wearable technology delivered good results even under severe weather conditions, such as wind and rain.

Impact to Business

1. Due to ease of communication between field and in-office staff, maintenance plans are approved in a quarter of the time.
2. The proof-of-concept, going from decision to implementation, was managed in only eight weeks.
3. Enhanced worker safety by providing a hands-free communication solution that worked even in inclement weather.



Client Testimonial



“We have a pioneering project at the start here; one of the best practices for handling new workflows in the age of digitization.”

*Reinhard Faber,
Director Network Strategic Planning
A1 Telekom*

About Nagarro

In a changing and evolving world, challenges are ever more unique and complex. Nagarro helps to transform, adapt, and build new ways into the future through a forward thinking, agile and caring mindset. We excel at digital product engineering and deliver on our promise of thinking breakthroughs. Today, we are 12,000 experts across 27 countries, forming a Nation of Nagarrians, ready to help our customers succeed. www.nagarro.com