



## Partner Communications Powers Fiber Optic Network Planning with Simplex3D



Partner Communications leverages Simplex technologies to strategically plan, develop, and build fiber optic networks at new sites in Israel



### Use Case

Network Planning and Control



### Industry

Telecommunications



### Location

Israel

Founded in 1997, and publicly-traded on the Tel Aviv Stock Exchange (TASE: PTNR), Partner Communications Company (Partner), is a leading communications operator in Israel, providing a broad range of cellular communications. With 25% of the market share, and ~3 million subscribers, services include internet, cellular, fixed-line, international telephony, OTT, and IPTV. As the first operator in Israel to deploy fiber optics, Partner currently holds 33% of this market.



**~3M**

subscribers nationwide



**33%**

fiber optics market share



**807K**

households reached



**250**

field technicians

### Challenge

#### Meeting the surge in demand for fiber optic networks – on time and on budget

To keep pace with the fast-growing adoption of fiber optic networks in Israel, and the vast number of consumers deploying fiber optics, Partner had to act fast, and quickly deploy networks in new areas throughout the country. This led to the company's launch of its state-of-the-art Partner Fiber, and the critical need to expand its fiber optic infrastructure nationwide. "With Partner Fiber, fiber optic networks aimed at the mass market, we were able to go the 'extra mile' for our customers, and deliver consistent high-quality communications, at the best available speed," said Pavel Kleiman, Infrastructure Manager at Partner. "But, evaluating the feasibility of expanding our fiber optic networks, especially designing networks at remote sites across the country, is easier said than done."

For Kleiman and his team, planning the network involved collecting and analyzing reams of data from various sources before even laying the network foundations. In the early planning stages, the infrastructure team had to take critical information into consideration. This included current physical restrictions in a sector area, such as buildings, power stations, electricity poles, and other structures. Even more important, they had to be aware of planned future buildings, and projected population growth in the area. "There are several different types of fiber optic networks, but they all begin with optic cables running from the network hub to the curb near a residence or office building, or alternatively, directly, to provide a fiber optic internet connection. Not being fully prepared in advance, can potentially halt project deployment, and incur additional costs and manpower", said Kleiman.

To date, when planning the distribution of its fiber optic networks, and the best possible locations of fiber optic cables, the team had to manually collect the information from various sources. This arduous, time-consuming process was prone to manual errors when the team created, analyzed, and mapped geographical and structural data by hand, and all in a limited 2D format. "It's our job to understand patterns, relationships, and geographical context to strategically plan our next steps," said Kleiman. "For the most part, we could no longer manage the reams of data, nor sufficiently view critical areas of the country in real-time. We needed a shared platform that would enhance our communications, overall efficiency, and decision making. It was time to upgrade to an advanced 3D system."

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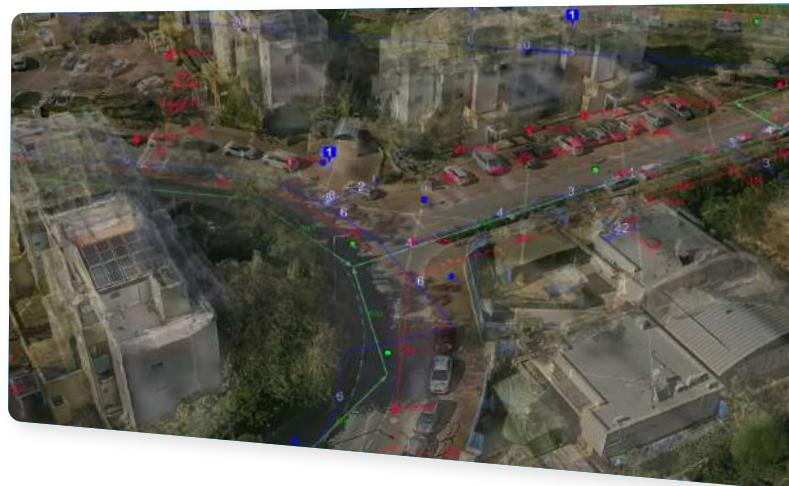
## Solution

### Fiber optic network planning, development and implementation – all on a single 3D platform

Partner was introduced to Simplex just one year ago, and today, the Simplex3D system is utilized by nearly 250 Partner Fiber professionals, including network planners, engineers, on-site developers and technicians, and installation support teams. An advanced web-based 3D mapping and modeling solution designed for communications network planning, namely 5G and fiber optics, Simplex3D provides Partner with a multi-layered solution. “For network planners like myself, Simplex3D has changed the way we work,” commented Kleiman. “Prior to network development, not only are we able to view high-resolution images of even the most challenging remote sites, we’re able to see our entire infrastructure via the Simplex3D platform. The images are crystal clear, down to the finest detail, 3D quality I’ve never seen before.”

Powered by smart algorithms, Simplex3D’s SaaS-based planning and management platform delivers a unique combination of the company’s patented aerial photography technology, advanced 3cm per pixel 3D modeling capabilities, and photorealistic 3D mapping quality and accuracy. Easy to learn and use, Simplex3D provides the highest available resolution 3D GIS platform to plan, analyze, and manage complex design and planning projects. Simplex3D’s geo-accurate models, combined with advanced analysis and measurement tools, include camera angle coverage, sniper view shed, and dynamic GIS layers, such as real-time GPS tracking, with integrated live video feeds on the models.

Kleiman comments, “Today, many operators rely on fiber network design software programs to plan their projects, but with Simplex3D, we’re one step ahead of the game. With real-time, highly-accurate 3D models of an entire city, a specific sector, be it residential or business, at our fingertips, we’re able to reduce design time, evaluate different network layouts, and collaborate with other stakeholders throughout the planning process. With Simplex3D, not only do we work faster – we work, smarter!”



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## Results

### Visually appealing, accurate, real-time information when we need it – on every project

“To coin the popular phrase, ‘it’s all about the data,’ and with Simplex3D, it’s the precision and quality of the data that we’re able to retrieve, analyze, and share from the system,” said Kleiman. “With Simplex3D, our teams can see the entire infrastructure displayed in photorealistic 3D, together with all of its associated data. With a few simple clicks, our network planning, from the get-go, becomes clear, where I just upload the project data into an easy-to-read Excel.”

For Kleiman and his team, the ability to upload entire databases for every mapped area, and every building into an Excel, allows them to view the Partner Fiber network in its initial planning stage. All Simplex3D users at Partner can click on a specific building, and drill down to view the data – see precisely where the fiber optic cables were installed, who performed the installation, what each line or cable is connected to, and the start date and time of operations.

With Simplex3D, project managers and other stakeholders benefit from real-time 3D views of multiple levels, including the foundation of a specific area, a citywide view, and a modular 3D view of the buildings. “I can quickly and easily upload each project manager’s data to Simplex3D, and view it in real-time,” said Kleiman. “Similarly, for each and every Partner customer, I can view the data associated with their project, see the type of equipment they have, and how and when it’s used – all via the Simplex3D system. What’s Simplex3D’s real added value? Simplex3D is not only visually appealing and accurate, it gives us the information we need, when we need it, on every project.”



**“Today, many operators rely on fiber network design software programs to plan their projects, but with Simplex3D, we’re one step ahead of the game. Not only do we work faster – we work, smarter!”**

Pavel Kleiman, Infrastructure Manager



15°N : 30°W