

# Succes Story

## Pelephone Goes mmWave for their Mobile Network Backhaul

### Introduction

As the first mobile operator in Israel, Pelephone has been offering services for over 30 years. Starting with AMPs all the way through to today's 5G NR, Pelephone's network has changed over time with more and more bits moving about as the access radio technologies evolved. Today Pelephone has over 2 million LTE subscribers, most if not all of whom will move to the much higher bandwidth 5G network.

### Challenge

Similar to many mobile operators around the world, Pelephone had an extensive transmission network of point to point microwave solutions (18, 23GHz) to backhaul their cell sites. While roughly 70% are connected with fiber for backhaul, 30% were using microwave for a total of more than 500 microwave links.

As the Radio Access Network added capacity with the introduction of LTE and the latest 5G NR, the microwave links began running out of capacity needed to connect these cell sites. While range was good with traditional microwave, the capacities topped out at 400Mbps which could only be achieved with advanced technologies. Three years ago the Israel government opened the E Band (70/80GHz) to operators, and Pelephone as a leader and innovator did not wait. E Band radios can support anywhere from 1Gbps full duplex up to 10Gbps full duplex. A massive increase over microwave capacities.

“ We have seen the traffic levels on our network experience huge growth with each new cellular technology” said Pelephone's Transmission Network Senior Director, Yaniv Shahar. “We believe that mmWave, and specifically Siklu mmWave, is a must for our Mobile Backhaul network to support today and tomorrow's data tidal wave”.

### Yaniv Shahar

Transmission Network Senior Director at Pelephone

## Solution

With an initial roll out of 250 E Band links replacing existing microwave systems, Pelephone started with gigabit connections and a roadmap to multi gigabit as 5G is deployed. Not only are the E band radios faster but they end up being cheaper as well.

Pelephone decided to go with Siklu for these E Band radios as Siklu has the longest range, carrier class systems backed by Siklu's industry leading customer support team. Initially Pelephone chose Siklu's EtherHaul™ 1200 series, a carrier grade 1Gbps mmWave radio. One year later they started deploying the EtherHaul™ 2500, again a carrier grade radio but this time with 2Gbps full duplex capacity. All microwave links under 5km will eventually be replaced with mmWave.

Upgrading these backhaul connections not only provides a much needed capacity boost, but is also more economical from both a CAPEX and OPEX perspective. License fees for E Band deployments are significantly lower than those for microwave hence the company saves money with every microwave link they replace.

## Result

Today Pelephone continues replacing microwave links with Siklu EtherHaul™ products, with an expected 350-400 links total being upgraded. In addition to lower OPEX costs from reduced licensee fees, the EtherHaul™ 1200 and 2500 offer an integrated 4 port switch. This small but critical addition means less equipment to be mounted, maintained and integrated. As an innovator, Pelephone will continue to use mmWave as the prime wireless backhaul solution wherever possible.

Future plans include the Siklu 600 series carrier-class V Band (60GHz) solutions as there are no license fees for these radios, reducing OPEX even further. The Siklu 600 series are also the smallest carrier grade Gbps radios on the market delivering range and capacity, making site acquisition and installation of upcoming 5G small cells on street furniture straightforward.

Following the recent increase in mmWave experience and the massive deployment performed, Pelephone as a leader in mobile communications in Israel is ready.

