

Case Study: 4G in More Places in the UK than Any Other Network

A partnership to fulfill a national commitment



Executive Summary

The Challenge

- Cover 95% of the British landmass with 4G
- HTS-compatible solution for cellular backhaul over satellite
- Delivery within a narrow timeframe

The Solution

- SkyEdge II-c hub with X-Architecture
- High-speed capacity even for encrypted data
- Built-in LTE acceleration

Benefits of Gilat

- Full LTE speeds for cellular handheld devices
- Quick deployment of a wide range of future applications



By 2020, EE has promised to extend coverage to 95% of the British landmass.



Gilat's world-class cellular-backhaul-over-satellite solution will play a key part in enhancing our 4G network resilience and helping us to extend the network even further into rural areas as we carry on our journey to cover 95% of the UK landmass.



Mansoor Hanif,
Director of Radio Access Networks at EE

The Challenge: 4G Coverage, Wherever You Go

With the proliferation of smart phones and the need for data connectivity, LTE networks that reach the most remote areas have become a requirement. EE is making it a priority to ensure that subscribers across the UK can connect to a superfast network for delivery of high bandwidth content.

To help meet its goals, EE put out a tender for a cellular-backhaul-over-satellite solution based on high-throughput satellite (HTS) technology. HTS enables the cost-effective delivery of the bandwidth capacity sought by EE. In addition, EE required reliably high speeds across its network, even for encrypted traffic.

“The expectation now is to be able to access the Internet wherever you go and we want to cover 95% of the UK landmass,” said EE CEO Marc Allera at a press briefing 4/2016. “We have a phenomenal network that had more 4G customers than any other in Europe, yet we only cover 60% of the UK landmass today. So we’re going to increase our 4G coverage to 95% of the UK by 2020, which is further than anyone has gone before and will put us on a par with countries like Japan and South Korea. We’re declaring war on notspots.”



SkyEdge II-c Capricorn-Pro

The Solution: Cellular Backhaul over Satellite

Gilat answered the bid with a unique solution: Cellular backhaul over satellite using Gilat’s one-platform/multiple-application X-Architecture and its Capricorn VSATs.

Gilat’s Capricorn VSAT, now enhanced with Mobile-Edge Computing (MEC), is a technological game-changer, enabling Mobile Network Operators (MNOs) to deliver true LTE-over-satellite performance. With this network, EE can provide dedicated voice, data and video services at high speeds using satellite backhaul. To this end, Gilat VSATs have been deployed at fixed and portable sites throughout the UK.

Mansoor Hanif, Director of Radio Access Networks at EE, said, “The world class cellular-backhaul-over-satellite solution provided by Avanti and Gilat will play a key part in enhancing our 4G network resilience and helping us to extend the network even further into rural areas as we carry on our journey to cover 95% of the UK landmass.”

The Gilat Advantage

Gilat’s MEC-enabled Capricorn VSAT is a disruptive technology, propelling the cellular backhaul over satellite approach into the mainstream by providing terrestrial-quality broadband service at a price competitive with terrestrial solutions. Capricorn includes Gilat’s patented cellular data acceleration technology that enables true LTE speeds for cellular handheld devices.

Gilat’s renowned acceleration technology is embedded in the Capricorn VSAT, thus delivering highest service quality and speed. This is achieved by a complete software integration of the acceleration with the QoS.

Gilat’s solution for EE provides the highest rates on the market for transferring encrypted data, maintaining IPSec data security at unprecedented speeds without packet loss under fade conditions. It also allows for quick deployment of a wide range of applications in the future.



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