

A CASE IN POINT GILAT SATELLITE NETWORKS

Bringing LTE connectivity to the Philippines

By Doreet Oren, Director of Product Marketing and Corporate Communications

This article spotlights Gilat Satellite Networks' fully managed satellite backhaul implementation for Globe Telecom.

With a population numbering more than 100 million scattered across some 7,000 islands, connecting people is a fundamental part of the Philippines' nation-building strategy. While high-quality mobile connectivity is readily available on its larger islands, the same cannot be said for the country's smaller and more remote islands and regions.

Globe Telecom, the leading full-service telecommunications company in the Philippines, has risen to the challenge of delivering nationwide mobile broadband services. Using Gilat Satellite Networks' managed service offering, Globe implemented a satellite-based LTE backhaul solution that covers dozens of remote rural sites across the country and managed to do so in only three months.

Extending LTE Coverage to the Philippines' Outlying Regions

Extending 3G and LTE connectivity to outlying and hard-to-reach areas has always been a complex challenge for mobile network operators.

Given the Philippines' unique geography and extreme seasonal weather (e.g., typhoons and heavy rains), terrestrial-based solutions for cellular backhaul, such as fiber or microwave, are not a feasible option for extending coverage to many rural areas and remote islands.

Globe understood that the most practical and cost-effective solution for achieving a full nationwide LTE coverage was satellite-based cellular backhaul. Accordingly, Globe sought to upgrade its satellite backhaul capabilities — both in terms of performance and the ability to support new applications — for remote sites throughout the Philippines.

In addition to providing basic voice and SMS services, Globe wanted to offer high-speed LTE broadband services for consumers, fast broadband connectivity for enterprises, as well as infrastructure support for emergency communications.

While substantially improving quality of life for rural residents, Globe also stood to benefit commercially from this ambitious project. By being the first to bring LTE broadband access to underserved areas, Globe could increase their share of the Philippines' highly competitive communications market. Thus, fast time-to-market for the new backhaul solution also became a business-critical requirement.

Gilat's Managed Satellite Backhaul Solution

Globe selected Gilat's managed satellite backhaul solution after a rigorous proof-of-concept phase, during which the solution conclusively demonstrated the company's ability to meet Globe's key performance, environmental and implementation requirements.

In particular, this phase confirmed the high reliability and performance of Gilat's Ku-band VSATs in rainy conditions, which is a commonly perceived limitation of Ku-band in delivering broadband services.

Following project approval, the deployment of Gilat's complete managed service solution required only three months. This end-to-end solution includes all the elements required to support high-speed LTE data and voice services, extend nationwide coverage for consumers and enterprises, and support emergency response teams during disasters using Gilat's quick-deploy technology.





Gilat's cellular backhaul solution consists of Capricorn-4 VSATs deployed in Mindanao and North and South Luzon regions. The VSATs are managed by Gilat's flexible and scalable X-Architecture hub platform, deployed in two different locations in the northern territories. To maximize operational efficiency and ensure compliance with an SLA guaranteeing 99.5 percent network availability, Gilat supports these sites with a 24x7x365 Network Operation Center (NOC) service for network monitoring.

With Gilat's VSAT technology, Globe has been able to cost-effectively deliver broadband data services to rural areas that previously did not have mobile services, as well as regions that only had basic voice and SMS services. In addition, as Globe continues to build out its 4G network, Gilat VSATs will also be used for transmission capacity augmentation for some of Globe's 4G sites until fiber capacity comes online.

Simplifying and Accelerating Backhaul Deployments

One of the salient benefits of Gilat's managed service is that it takes end-to-end responsibility for the entire project — from the network planning stages through ongoing operations and service management.



Gilat's scalable X-Architecture platform.

Globe defined the SLA and KPIs, while Gilat provides all the services and resources necessary to ensure smooth and cost-effective operations. Specifically, Gilat's managed service offering includes satellite network design, capacity setup and bandwidth management, network integration and onsite installation, NOC, call center, service level management and program management activities.

This business model allows Globe to focus on its core mobile network, while Gilat's experts handle the satellite backhaul and associated tasks as a fully outsourced service, i.e., a "black box." Equally important, by reducing project complexity for Globe's

network engineers, this managed services approach enabled Globe to achieve faster time-to-market than competitor solutions.

Unprecedented LTE Performance over Satellite

Gilat's satellite backhaul network was deployed on time and on budget, delivering unprecedented LTE performance to Globe subscribers.

Gilat's patented and field-proven acceleration technology, embedded in the hub and terminals, accelerates the high bandwidth application traffic inside the LTE GTP tunnel. As a result, Globe's rural subscribers now enjoy true LTE user experience on their handheld devices, without packet loss and regardless of weather conditions.

In addition, the scalability of Gilat's network allows for easy, cost-effective expansion to additional remote areas in the future to support a wide range of applications.

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Oren has more than 20 years of industry experience and has held management positions in R&D, product management and product marketing, for international high-tech companies. In this capacity, she contributed to next generation product definition and was responsible for delivering the company's vision to the media and analyst community.

Oren has published thought leadership articles in renowned international journals, and has spoken at numerous industry conferences worldwide. Oren received a BSc in Computer Science from George Washington University.