TURNKEY RURAL NETWORKS

A Single Address for All Your Needs

BENEFITS

- **Experience deploying and operating networks in any terrain**
- **On-time delivery, within budget and fulfilling the project scope**
- **Single point of contact**
- **Leading technology**

In nearly 30 years of delivering rural solutions, we've learned a few things. One is that rural deployment is never simple. Another is that no two deployments are alike. Dealing with the unexpected twists – weather, poor roads, spotty fuel supplies, bureaucratic runarounds – requires determination, patience, and know-how.

Fortunately, Gilat has the experience to improvise where needed and get the job done. This, along with deep industry expertise and vast technological knowledge, is how Gilat successfully delivers end-to-end rural communications worldwide, on time, year after year.

MODELING RURAL CONNECTIVITY

The mandate for rural connectivity often takes the form of a government initiative to deliver public or fixed telephony, or broadband, to a rural area. The most common model for accomplishing this is the Build, Operate and Transfer (BOT) model. The specifics for each of these steps are discussed in the section below.

Project Life Cycle

A VARIETY OF SKILLS

Having a single point of contact for network delivery makes life easier for the telco. It also means that Gilat provides expertise throughout the project life cycle.

The collaboration begins in the earliest planning stages. Gilat works with governments to identify international sources of funding (see sidebar). In addition, revenue can be realized once the network is in place; allowing recovery of investment expenses or expansion of the network to new areas.

When mapping out the project, Gilat leverages its experience to estimate costs, offer technical solutions, anticipate legal issues, and suggest business models appropriate for rural communications.

The first step is network design, in which transport and access solutions are determined. Will the network be satellite-based, terrestrial, or a combination of both? What is the topography of the coverage region? What are the time and budget constraints? What is the required quality of service?

In the implementation phase, the network becomes a reality. In a satellite-based implementation, Gilat is responsible for the following:

- Renting an amount of satellite bandwidth capacity appropriate to the customer's needs
- Securing hub services
- Procuring, testing and deploying ground segment equipment

In a terrestrial-based implementation, Gilat is responsible for the following:

- Extending infrastructure to reach remote areas
- Establishing a point of presence at the edge of the network that communicates directly with end users
- Ensuring integration with the core network

Once the network is up and running, it needs to be monitored and maintained, ensuring that agreed-upon service levels are met. Operations ensure that any failures in the network infrastructure are swiftly discovered and handled. The Network Operations Center (NOC) includes a Helpdesk, network surveillance, end-to-end service responsibility and OSS/BSS activities. In addition, our Field Operations team provides onsite maintenance for issues that cannot be handled remotely.

A key service Gilat provides throughout the project life cycle is Internet Computing Technology (ICT) end user education. By teaching basic computer literacy on a large scale, Gilat ensures that new broadband consumers maximize the benefits of Internet access.

Collectively, these activities represent the core elements of the Build and Operate models. Transfer may occur according to a prearranged agreement.

WHY IS RURAL CONNECTIVITY TRENDING UP?

The path from broadband to increased GDP is easily traced. Broadband increases opportunities for commerce, and enables businesses to provide services without requiring payment in hard cash. Governments are better able to connect with their citizens and provide access to information. Local investment grows, and populations become upwardly mobile. Other benefits of connectivity further contribute to improved quality of life: education, political freedom, eco-friendliness and health care.

Governments have noticed this trend, and are taking steps to implement broadband solutions for all residents. In many countries Universal Service Obligations/Funding (USO/USF) have grown in scope to include broadband, as it increasingly becomes viewed as a need almost on par with basic utilities like electricity and running water.

In some cases, this support is explicit: the government incentivizes or awards tenders to operators willing to expand their operations to underserved areas. In some cases, the support is more subtle, but in all cases the direction is clear: providing broadband access is considered a national priority. In both developed and emerging nations, governments are willing to put their weight behind initiatives that achieve this aim.

What is true at the national level is true at the international level as well. A 2015 UN summit meeting adopted goals for sustainable development, in which internet connectivity is a key factor. "Transforming Our World: The 2030 Agenda for Sustainable Development" encourages universal Internet access. Accordingly, the World Bank and other international funding agencies have allocated financial resources to making this vision a reality.

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