Gilat

SATELLITE-TO-HOME CONNECTIVITY

Harnessing the Power of Satellite for Cost-Effective Residential Broadband

BENEFITS

- **Rapidly deployable**

- **User experience comparable to terrestrial networks**

- **Range of service plans**

- **Cost-effective**

BRIDGING THE BROADBAND DISTRIBUTION GAP

We all know that data consumption is growing steadily larger, and that network infrastructures are expanding as well to keep up. But this growth is not always even. What happens when demand for data outpaces the capabilities of existing infrastructure? In this case, a creative solution is required.

Bandwidth-intensive data such as video is particularly sensitive to infrastructure. The quality of video transmission increases all the time – HD and Ultra-HD being only the most recent examples - as does the bandwidth needed to deliver it, which in turn becomes the new standard. Particularly in rural areas, there is often a gap between the desired bandwidth consumptions and the transmission capabilities at the edge of a terrestrial network.

Broadband Satellite GEO HTS Demand by Market by Market Segment
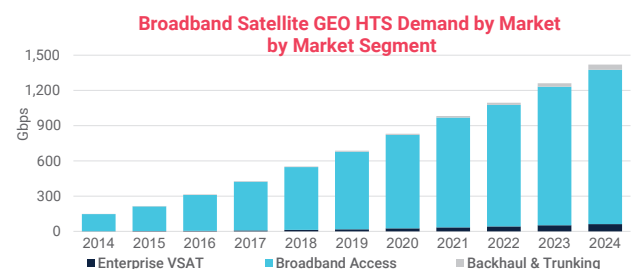
Source: NSR

HTS AND THE SATELLITE BUSINESS MODEL

High-throughput satellites (HTS) implement spot-beam technology to reuse the frequency band across the desired coverage area. This solution enables throughput in orders of magnitude more than traditional, wide-beam satellites. With the emergence of these satellites, the entire chain of bandwidth supply has been affected. Because exponentially more bandwidth is available, its cost has gone down. This in turn has impacted several markets, but none so much as consumer broadband.

According to an NSR report shown below, the overwhelming majority of HTS capacity will be used for broadband access over the next 10 years:

Gilat leverages the power of HTS as an integral part of its broadband solution. Gilat's X-Architecture enables service expansion with one platform that supports multiple markets such as broadband consumer, enterprise, cellular and mobility. X-Architecture enables multiple managed-service business models for Virtual Network Operators (VNOs). The service is easily scalable with minimal equipment to as many VNOs as required.

FAST, FLEXIBLE, AND COST-EFFECTIVE

For a fiber or microwave-based terrestrial network, expanding to new rural regions is a costly project that can take years to implement. Even when basic connectivity exists, ramping up capacity to a level that would enable true broadband connectivity often requires significant infrastructure upgrades. In Asia, for example, recent studies have shown that the average broadband rate would have to be significantly times faster to support HD-quality consumption. This presupposes that terrestrial network expansion is even feasible; in some cases, limitations of terrain and weather prevent this possibility from even being considered.

In contrast, Gilat's residential broadband solution is fast to deploy while providing quality equal to a terrestrial solution. There are many advantages for using satellite connectivity over terrestrial, due to significantly faster deployment. In the rush to expand business by penetrating rural markets, this rapidity is a decided advantage for service providers.

Gilat offers two main models for residential broadband. One is a VSAT designed for home use - such as Gemini or Scorpio - in terms of form factor, consumer price point and bandwidth capability. Another option is bringing connectivity to a central point, e.g., within a small village, which serves as a WiFi hotspot.

Our portfolio of residential VSATs connect to any standard WiFi home router. These VSATs are designed for self-installation and can be easily pointed to the satellite. With built-in, patent-pending multi-tiered acceleration, our VSATs offer download speeds, more than sufficient for even the most bandwidth-heavy traffic.

From the internet service provider's perspective, Gilat's satellite-based solutions offer a variety of services – monitoring, service creation, usage records, site statistics – all of which can be managed remotely.

FLEXIBLE SERVICE PLAN MANAGEMENT

Gilat's VSATs are managed by a comprehensive and flexible ISP management platform. This software-intensive platform supports advanced usage-based service plans, data quota management, automatic service activation and provisioning, and can be integrated into existing post-paid or prepaid billing systems. Features include:

- Flexibility in service plan definition – Multiple service plan profiles / multiple ISPs on the same network
- Premier Services – when a network is congested, determine access by enabling high priority service plans (Platinum, Gold, Silver)
- Service plans quota management – control subscribers that exceed their usage quota by either redirecting to a walled garden domain, blocking traffic or enabling browsing at lower speeds.
- Revenue-generating services – subscribers can purchase additional quota or free usage time periods

ENHANCED CENTRAL SERVICE MANAGEMENT INTERFACE FOR ISPS

SkyEdge II-c VSAT platform includes an advanced network management system (TotalNMS) including a rich GUI, and facilitates service management automation available to ISPs via an electronic B2B interface. SkyEdge II-c Service Management enables ISPs to manage their services totally independent of the satellite network operator, providing a complete management suite. This includes real-time viewing of the service status, events, alarms and statistics, as well as historic/trend analysis of the service over longer periods.

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