

# Satellite Connectivity in Zimbabwe

## Key Experiences and Lessons

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# Drivers of Satellite Broadband Pivot

## Regulatory Licensing

The Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) granted formal approval to Low Earth Orbit (LEO) satellite provider Starlink in late 2024. This ended traditional VSAT bottlenecks and established high-speed satellite broadband as a mainstream national priority.

## Market Impact & Traffic Shift

**>30%**

Fixed Internet Traffic Share

### Rapid Market Shake-up

Within quarters of licensing, LEO satellite connections captured nearly a third of Zimbabwe's total national fixed data traffic, driving a 30%+ quarterly surge in subscriptions (exceeding 104,001 active terminals).

# Satellite-related connectivity data collected and the data sources

| Satellite-Related Connectivity Data                     | Data Sources                                                              |
|---------------------------------------------------------|---------------------------------------------------------------------------|
| Leo satellite subscriptions                             | Leo satellite operator i.e. Starlink Zimbabwe                             |
| VSAT Subscriptions                                      | Other operators using geostationary satellites                            |
| Internet/data traffic                                   | All operators                                                             |
| Internet speeds                                         | All operators using Ookla speed test                                      |
| Equipped International Internet Bandwidth Capacity      | From all Internet service providers except for the Leo satellite operator |
| Used Incoming International Internet Bandwidth Capacity | All operators                                                             |
| Used Outgoing International Internet Bandwidth Capacity | All operators                                                             |

**How does satellite  
data help with policy  
or market monitoring?**

# At Policy level

- **Subscriptions:** Reveal technology adoption gaps, especially in remote areas lacking terrestrial options (mobile, fibre) — guiding deployment priorities to close the digital divide.
- **Equipped international bandwidth capacity:** Signals infrastructure strength and regional/global connectivity — informing when capacity expansion is needed.
- **Used international bandwidth (incoming vs. outgoing):** High incoming usage signals reliance on foreign content — pointing to the need to incentivize local content and invest in data centres.
- **Internet speeds and traffic:** Inform national broadband strategies, usage targets, and quality-of-service standards.

# At Regulatory Level (Market Monitoring)

- **Subscriptions:** measure market share, competition & concentration → informs competition regulation
- **Equipped bandwidth:** reveals bottlenecks → prompts infrastructure sharing & new gateways
- **Used bandwidth:** tracks utilization ratio → ensures buffer capacity for peak demand  
$$\left( \frac{\text{Used Capacity}}{\text{Equipped Capacity}} \right)$$
- **Internet traffic:** tracks usage trends → measures sector performance & growth
- **Declining speeds:** signals network congestion/underinvestment → enables Authority to enforce license deployment targets

**How is the data  
compiled, and at what  
frequency. Is it verified  
before dissemination?**

# Data collection and validation

- **Collection:** Sector-wide Online Data Collection (ODC) system — operators submit data, Authority stores & downloads by filtered period
- **Frequency:** Submitted monthly, reported quarterly
- **Validation:** Checked against ITU standard definitions & submission anomalies, in coordination with operators

# Explanations of any methodologies, definitions, or classifications applied

- Data submitted follows/is aligned to ITU definitions.

# Challenges encountered in data collection and reporting

- Since the Leo operator (Starlink) has no ground station in Zimbabwe, we are unable to know its Equipped/lit capacity i.e. they don't report.
- Data submission delays from operators which in turn result in delayed reporting by the Authority.
- Manual validation to check for inconsistencies, inaccuracies and anomalies further delay reporting.
- Online Data Collection system downtime due to congestion during submission periods delays submissions.

**Any good practices or  
lessons learned**

# Good practices and lessons learned

- Measure adoption/uptake since Q4 2024: LEO satellite subscriptions incorporated into quarterly and annual sector performance reports
- Compare speed testing data for LEO with other ISPs in quarterly market watch reports
- Distinguish registered terminals from quarterly active subscriptions (to align reporting with ITU standards)
- The Authority has licensed many Starlink resellers across the country for convenience to users outside urban centres.
- We have included questions on Starlink access and use in our surveys and consumer satisfaction reports

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**THE END**