

5 user applications that are ideal for satellite technology

By [Dawie de Wet](#)

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The rapid growth of fibre networks in South Africa is inspiring and is enabling the drive for all businesses and consumers to be online.

A recent article in MyBroadband cited the International Telecommunications Union and We Are Social, reported that South Africa added 2 million internet users in 2017, growing to 30.81 million and placing the country's internet penetration at 54%.

Additionally, the results of Google's Connected Consumer Study found that 65% of South Africans over the age of 16 are now online.



Google reveals findings of the 2017 Connected Consumer Study

20 Nov 2017



South Africa's internet penetration is three percentage points above the Southern African average and one percentage point above the global average.

Based on these statistics, South Africa's internet user base grew by 7% in the past year. This places South Africa 13th in the world in terms of relative internet user growth.

With this growth in broadband users and the related growth in fibre network infrastructure, it can be expected that satellite technology is considered as a "past generation" solution and not fit for the demands of today and tomorrow.



First fibre network from Cape to Cairo to be completed

17 Jul 2018



Although this might be true for the metropolitan areas, and all users who can be connected with fibre really don't want to consider satellite, in reality, there are a number of applications which still must be provided by satellite solutions.

New developments

For context, we should first comment on the latest space segment technology developments and give an update on HTS (high throughput satellite) services. Recent developments in satellite spacecraft have resulted in new models of frequency re-use and power optimisation to enable a “cellular-type” of satellite network architecture, generally referred to as HTS services.

HTS services provide higher data rates at lower unit price points and this further opens end-user applications and market sectors.

Leveraging the advantages of HTS services satellite networks provides elegant solutions for the following user applications:

On-the-move

The higher signal power available in HTS networks, linked with the development of metamaterials-based composite antennas, makes satcom-on-the-move solutions so much more effective with streamlined antenna installations.



Working on the “connected-car” of the future, Kymeta is one manufacturer that has already completed tests with Q-KON in South Africa. The next generation HTS satellite platforms currently being developed will enable such solutions for special events and IP newsgathering applications.

Short-term fibre restoration services

Providing “on-demand” 100Mbps connectivity links using rapid deployment terminals is now possible. Operating on the latest Intelsat EPIC HTS network, these solutions can ensure business continuity services during cable network disruptions or as an interim solution while the fibre networks are being implemented.



What's needed for large-scale satellite networks is not only technology

Dawie de Wet 29 Jan 2018



The high data rates, linked with favourable commercial costing structures, will see this market growing as more providers realise the benefits of “on-demand” high capacity alternatives.

“Off-grid” sporting events

The growing demand for “always-on” also applies to outdoor adventure sporting events, where organisers are challenged to ensure connectivity for event staff as well as participants and the public. Satellite is ideal for this application and is known to be available “anywhere and always-on”, with rapid deployment equipment that can be moved from stage to stage.

The technical performance of the new HTS service can also meet the demand and ensure user satisfaction and service quality.



Branch backup services

Yes, fibre cable networks do provide high-quality services. As long as the cable is not damaged, or stolen.

Being a physical medium technology, it will always be prone to theft and other risks along the route, and business needs to take precautions against these possible service disruptions.

Since satellite solutions are implemented by a satellite terminal at the user premises, and with no route dependency, it is ideal for back-up services. Added to this, commercial and contractual options for “pay-per-use” services make it a very attractive option to ensure business continuity at all times.

The recent development in satellite spacecraft and the associated end-to-end networks has led to new levels in maximum data rates and lower cost points. This link with the mobility, anywhere and always-on benefits of a satellite will continue to enable user applications and solutions which can only be provided using satellite services.

ABOUT DAWIE DE WET

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