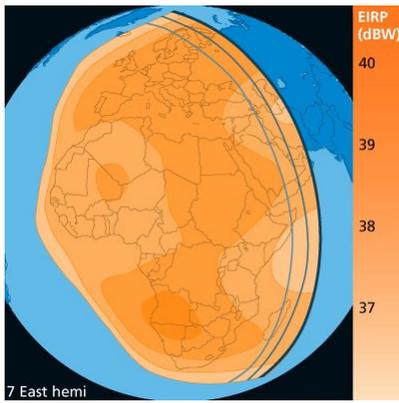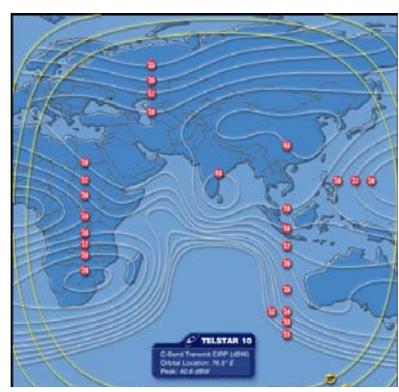# SatWidth

C-Band IP VSAT

- High Reliability Internet Connectivity
- No Phone Lines Required, No Dial-Up, "Always On"
- Built-In Firewall, Router, DHCP, VoIP Capabilities

VSAT technology represents a cost effective solution for users seeking an independent communications network connecting to the global Internet.
VSAT networks offer value-added satellite-based services capable of supporting not only access to the Internet, data, LAN, voice/fax communications, but also providing powerful, dependable private network communications solutions.
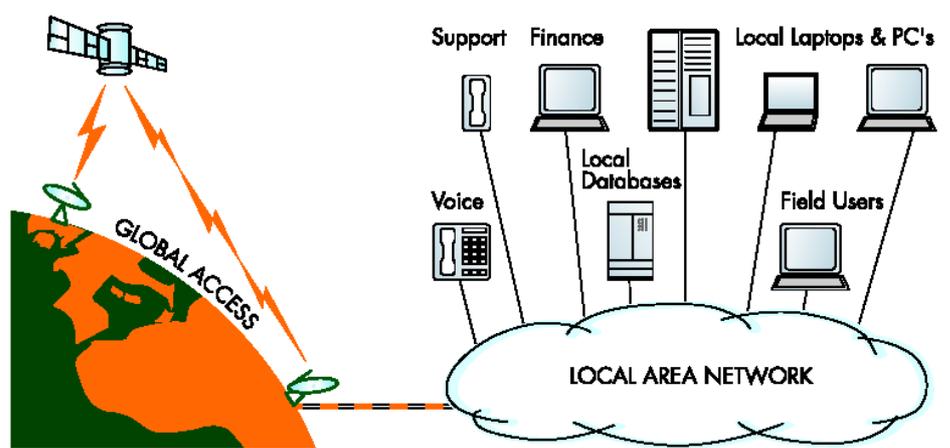

This solution is for high quality professional users, combining reliability and service features. A high speed, broadband service that operates at speeds up to 11 Mbps per second on the outbound transmission from the hub, with shared, 1 Mbps return feeds from remote sites.
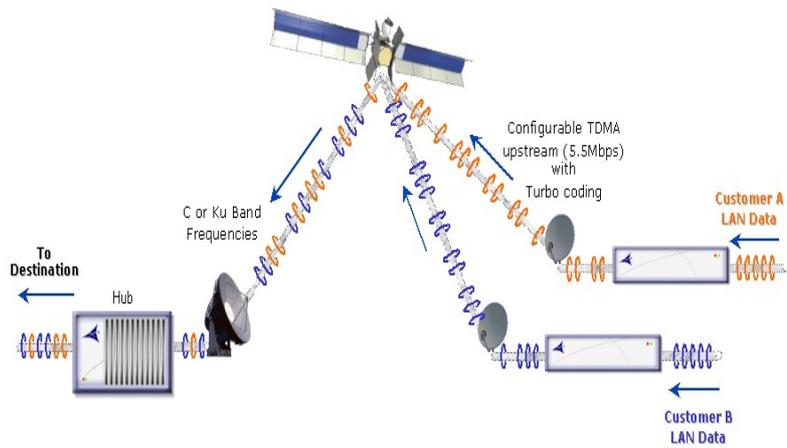
Terminal Description

The AfriConnect SATWidth service uses industry-leading technologies including unique capabilities that optimize Internet IP application performance through efficient bandwidth usage, greater flexibility, and enhanced reliability. By operating on C Band one transponder can provide coverage for the whole of Africa, and the rain fades typically affecting Ku band services will be avoided.

The SATWidth terminal can operate at speeds from 32Kbps - 2Mbps and bandwidth can be dynamically assigned to users with large files to transfer. Bandwidth is continuously dynamically assigned up to eight times the committed Information rate (CIR) in both directions to accommodate traffic variations.

The standard supplied for up to a 384Kbps return from the remote, is a 5 W L-Band Block Up Converter (LBUC) and Low Noise Block Down Converter (LNB), to receive and transmit data to the satellite, with a 1.8m dish, normally a 2.4m dish is required which allows over 1Mbps uplink depending on location.

NSS7
Downlink footprint

Telstar 10
Downlink footprint

Example 2.4M C-band Antenna

C-Band IP VSAT

A Deterministic TDMA Network Architecture (D-TDMA) algorithm allocates bandwidth among multiple remote sites, based on instantaneous conditions. Several times a second, the D-TDMA feature will allocate bandwidth based on criteria such as the queue depth at each remote, the guaranteed throughputs, Quality of Service and Prioritization requirements, as well as any Rate Limiting established at each remote. It results in industry-leading efficiency that lets the satellite carry more applications and traffic over the available bandwidth

Customer Indoor Unit

Benefits of SatWidth Terminal
- TDMA outbound and inbound carriers
- Built-in simple firewall for bandwidth protection
- TCP acceleration in both directions
- DNS caching to speed up recovery of data
- Optional CISCO Firewall and SIP support phone
- 3DES encryption chipset onboard

Interconnection to Internet and VoIP Switch
At the European end of the link there is a high speed uncontended backhaul to the Internet backbone, with built-in redundancy. There is also full 24 x 7 support, provided as part of the ongoing bandwidth provision, which is proactively monitoring the state of the link.

Project Support
- AfriConnect will manage the whole project to ensure that installation is timely and an Ethernet interface to any existing networks is operational.
- Customers will be responsible for obtaining their own VSAT licenses in some countries. AfriConnect can also provide initial assistance and examples of how to apply, and what has been successful for other users.

Maintenance & Support Options
- AfriConnect's SatWise product can also be used to provide a "network in a box" solution with many added security and management features.
- It is strongly recommended that a suitable UPS be provided for each SATWIDTH units if no generator supplied/UPS is available at each office.
- Support would normally be provided via email, or over a phone line, including remote access to the client network over the new satellite link. This support will be proactive in ensuring that the system is working and that all traffic is getting through in timely fashion.

		Service Level			
		Silver	Gold	Gold Plus	Platinum
Performance	Technical Support	Mon - Fri Office Hours	7 Days Per Week Office Hours	7 Days Per Week Office Hours	365 days 24 hours
	Remote Access	No	No	Yes	Yes
	Hardware Replacement	No	No	No	Within 48 Hours
	Hardware Warranty	12 months	12 months	12 months	12 months
	Software Warranty	3 months	Yes	Yes	Yes

connectivity solutions for a developing world