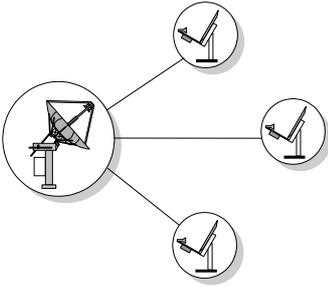


VSAT Networks

Developing A Private Network

Star



When an organisation has complex connectivity and communications needs, in an environment where fibre and ADSL are not readily available and sites are too far away from each other for wireless links; VSAT networks can solve local telecommunications issues, enabling organisations to focus on their core activities without becoming constrained by infrastructure.

Management must decide whether they can operate key applications over a

Public Network with:

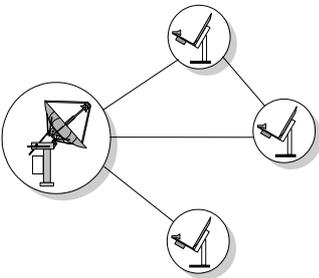
- Shared features
- Best endeavours rather than guaranteed performance

Or, if their needs demand a:

Private Network with:

- Control over Quality of Service (QoS)
- Better data security
- Fixed bandwidth costs

Partial Mesh



Private Networks provide:

- Site-to-site data links
- Dedicated bandwidth
- Low data rate to start the service, but a flexible expansion route to higher bandwidths
- The satellite network bypasses bottlenecks, or unreliability in terrestrial infrastructure
- Ability to run voice over the same circuit
- Potential to integrate PBX's and short-code dialling between sites
- Ability to route all external calls via a central PBX to control costs
- VPN, other encryption of data possible
- Minimum latency solution for a satellite network

Topology & Connectivity

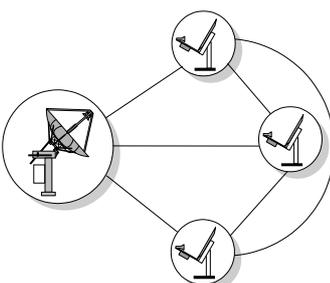
Installed networks usually grow organically but can be understood as fitting one of three general configurations which will determine the best choice of hardware for the requirement.

Networks usually begin as a "star", where all the traffic is either for a central site, or routed through that site.

As regional offices develop, there may be congestion, or simply additional functionality needed at a regional office, so the network may become a partial mesh.

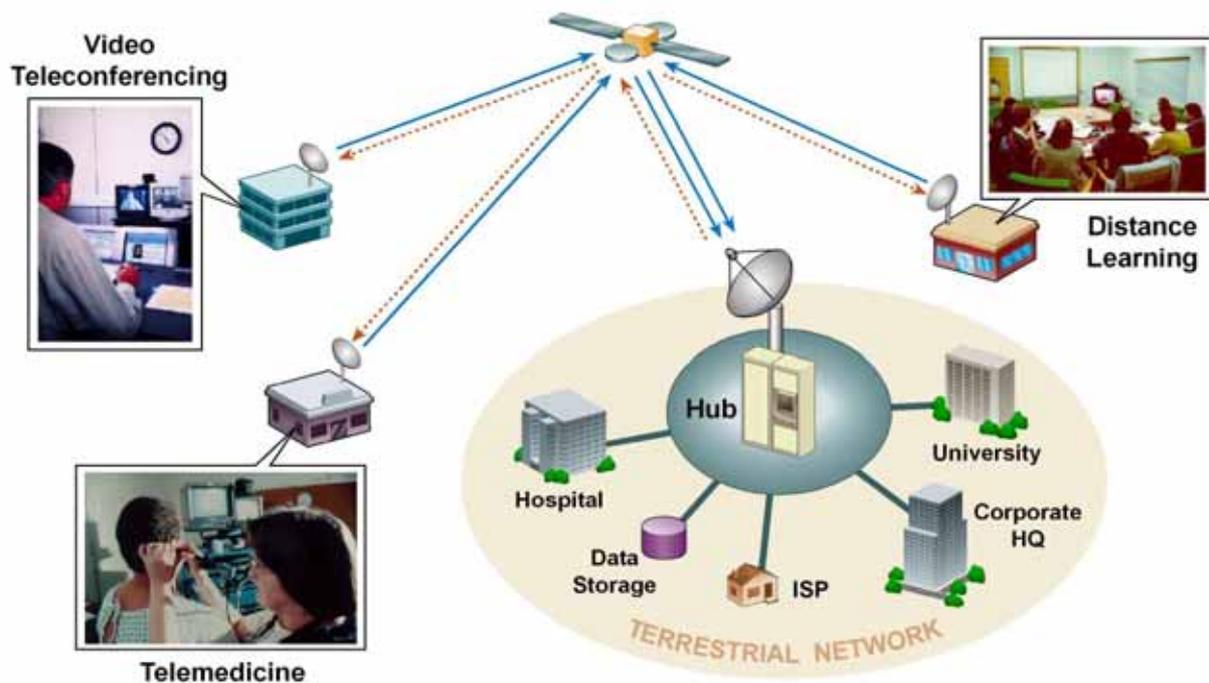
Finally the applications (multimedia) or the volume of network traffic may demand a mesh topology.

Full Mesh



Private VSAT Networks

- Private VSAT offers “organisational level” connectivity solutions and bandwidths
- Or flexible connectivity if telecommunications and IT is not centralised function
- Many of the variables and pricing have now been simplified
- More complex networks can be engineered
- Higher bandwidths at lower cost available on demand
- High level business applications can be supported



International & Internet Connectivity

VSAT connectivity can also provide connectivity outside the organisation, enabling:

- Web browsing & E-mail
- Web applications and server hosting
- VPN connectivity available – including IPSEC
- Multicast services
- VoIP where legally permitted

IT Services

Beyond the basic site-to-site connectivity, the organisation must make decisions about the level of IT service and support they require. Considerations include:

- Firewalling (where needed)
- Anti-virus updates
- Webmail or POP accounts, or company addressing schemes
- Local LAN cabling
- Power, UPS, and back-up
- Site security for the satellite system, and computers