



NIGCOMSAT
AFRICAN ROOTED GLOBALLY POSITIONED



A NIGCOMSAT PRESENTATION

TO AFISNET MEMBER
COUNTRIES



Overview

- Introducing NIGCOMSAT Ltd
- NIGCOMSAT-1 Satellite
- AFISNET
- Unified Solution for AFISNET



Introducing NIGCOMSAT Ltd(1)

- Nigerian Communications Satellite (NIGCOMSAT) Limited is a company under the Federal Ministry of Science and Technology with a special ownership structure.
- It is structured as a public private partnership company with the private sector envisaged to have a controlling share.
- The mission is to be the leading communication satellite operator and service provider in Africa.



Introducing NIGCOMSAT Ltd(2)

- NIGCOMSAT Ltd is a vibrant, innovative company that manages and operates the first geostationary communications satellite (NigComSat-1), in Sub-Saharan African launched 13th May 2007.
- Our services span C, Ku, Ka and L bands transponder leasing services.
- We are committed to effective delivery of secure, qualitative and value-added satellite services to Africans through a pan-African product: NigComSat-1 satellite.

Introducing NIGCOMSAT Ltd(3)

- NIGCOMSAT is positioned to provide comprehensive application services via digital or analogue system, operate same by either fixed or mobile satellite, direct broadcast satellite services, end-to-end solution and also engage in transponder leasing services.
- More importantly we have well trained personnel to handle our services and ensure high quality service delivery.



Operation Span

- **UPSTREAM**
 - Bandwidth Sales
 - Satellite NOC & SCC

- **DOWNSTREAM**

TELECOMMUNICATION

INTERNET

TELE-EDUCATION

TELEMEDICINE

E-GOVERNMENT

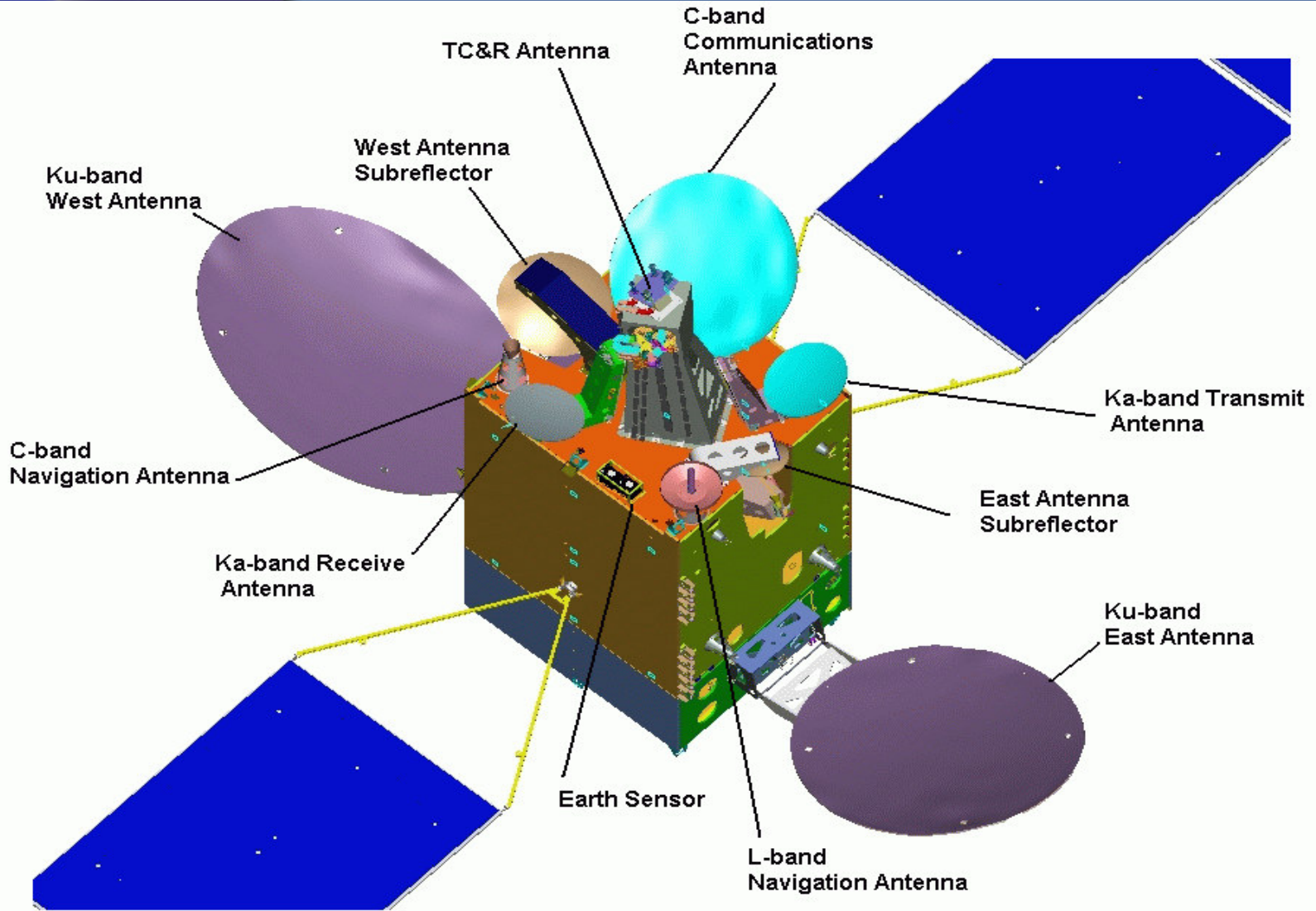
E-COMMERCE

REALTIME MONITORING SERVICES

**NAVIGATION & GLOBAL
POSITIONING SYS.**



NIGCOMSAT-1 SATELLITE(1)



NIGCOMSAT-1 SATELLITE (2)

- ❑ NigComSat-1 Satellite is a huge high powered modern spacecraft machine weighing more than 5 tonnes at lift-off and spans more than half the breadth of a standard football pitch in orbit after deployment of its solar arrays and stowed antennas located 42.5 degrees east.
- ❑ The spacecraft launched by LM-3B launch vehicle was built on 3-axis stabilized DFH-4 Platform with heritage from DFH-3 and European spacecraft series.



NIGCOMSAT-1 SATELLITE (3)

The 9 kW spacecraft is a quad band spacecraft comprised of :

- C-Band Transponder
- Ku-Band Transponder
- Ka-Band Transponder and
- L-Band (Navigation) Transponder
- A Seven (7) Service Antennas

NigComSat-1 with service life of more than 15 years has a designed life of 22.5 years with more than 0.70 reliability value at the end of its service life.

NIGCOMSAT-1 SATELLITE (4)

- C-band Payload 4 transponders meant to address broadcast and communication needs
- Ku-band Payload 14 transponders for broadcast and communication needs
- Ka-band Payload 8 transponders for address trunking and broadcast needs
- L-band Payload 2 transponders for navigation and global positioning system

AFISNET

- Network covers 24 member states currently having 55 VSAT points of presence
- The vision of the Network : 99.9% availability and reliability-An utopia for the present Network
- The Network Vs Legacy Equipment
- The Network Vs Interconnectivity
- Is there a way out of this Logjam?





Considerations

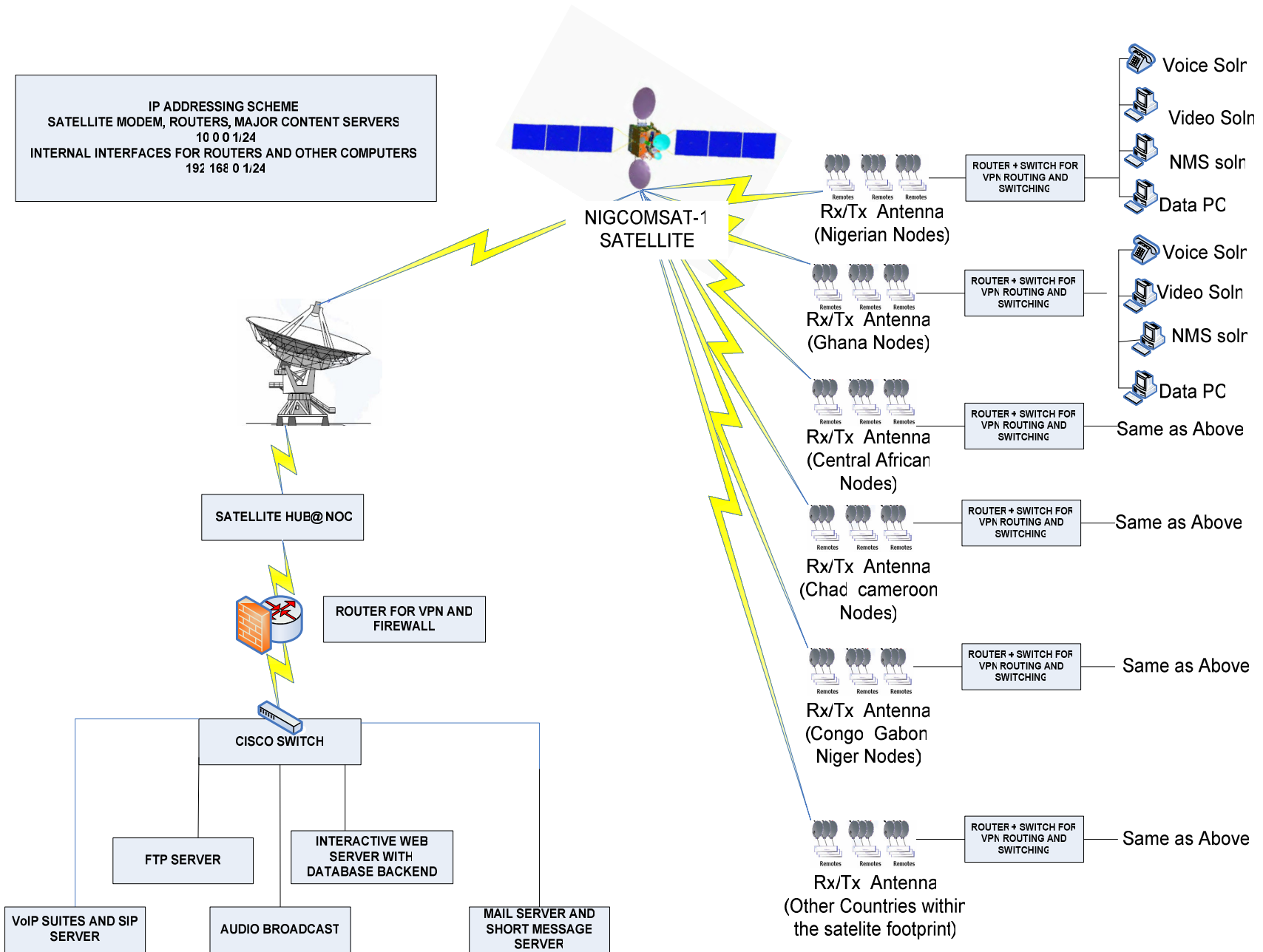
- What kind of Redundant or Failover Network is ideal for AFISNET?
- Who are the workforce managing and running the day to day AFISNET? IP savvy workforce? Willing to learn new technologies?
- Is there a need to run the legacy network as the Primary Network and the new IP based as Secondary Network (considering the criticality of AFISNET, interoperability of satellite Hardwares, envisaged downtime due to migration, geographic diversity of member countries, job protection of non IP savvy staff etc)

NIGCOMSAT Solution

- We have gone a step further than just implementing a uniformed VSAT hardware solution for Satellite Networking
- Additional Application Software Solution that will enable seamless surveillance information sharing, flight plan broadcast via data and audio, ATS coordination, GNSS and Meteorological data distribution etc will all be taking into consideration
- This is achievable due to robust server farm implemented centrally



Unified Solution for AFISNET

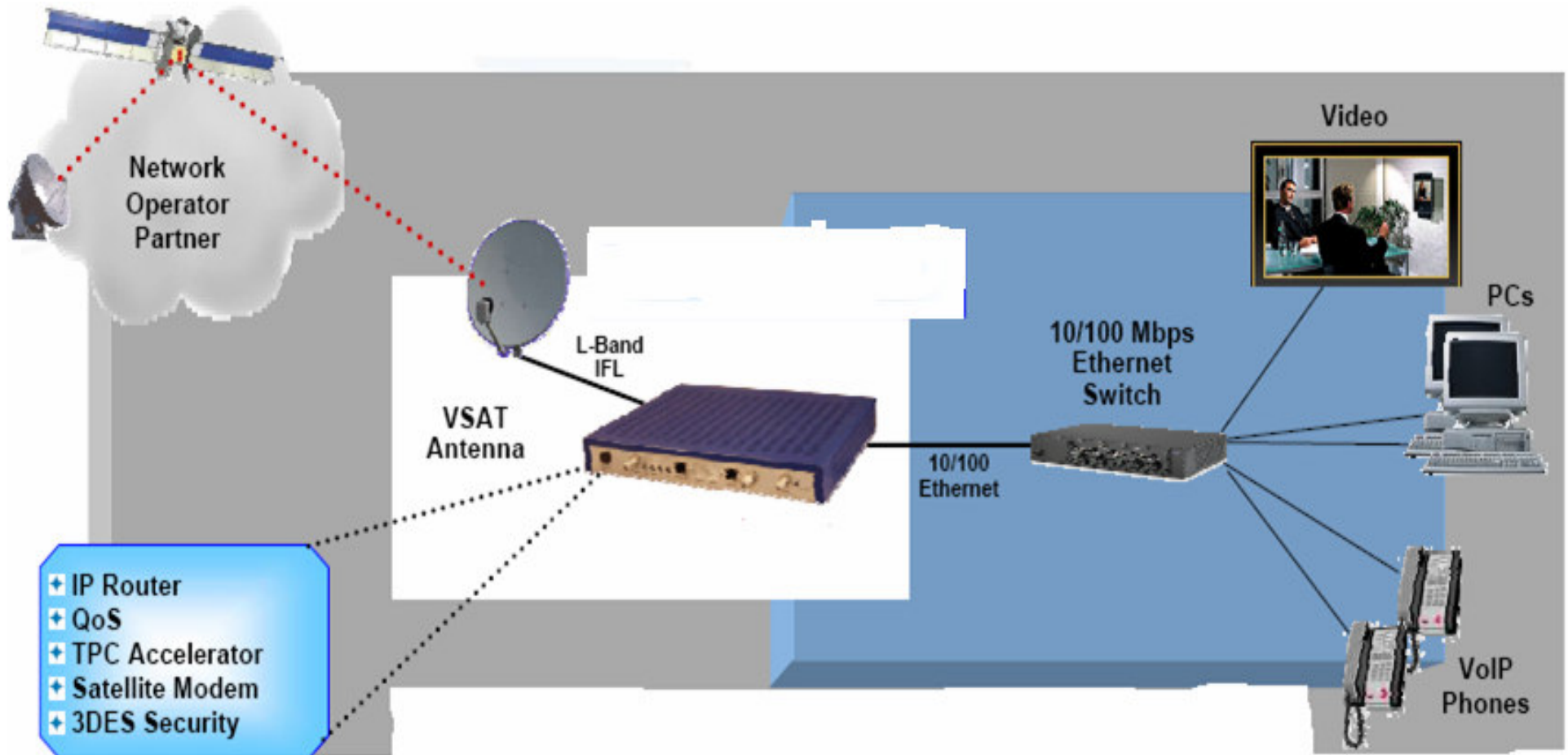


Major Network Modules

- Space segment from Nigcomsat-1 on C-Band Payload
- A satellite hub and RFT Equipment
 - Supports Star and Mesh topology Network
- Routers for Firewall, VPN and encryption
- Satellite Audio Broadcast Equipment
- Server Farm
 - FTP, Dynamic HTTP, Instant Messaging, Mail, VoIP Servers

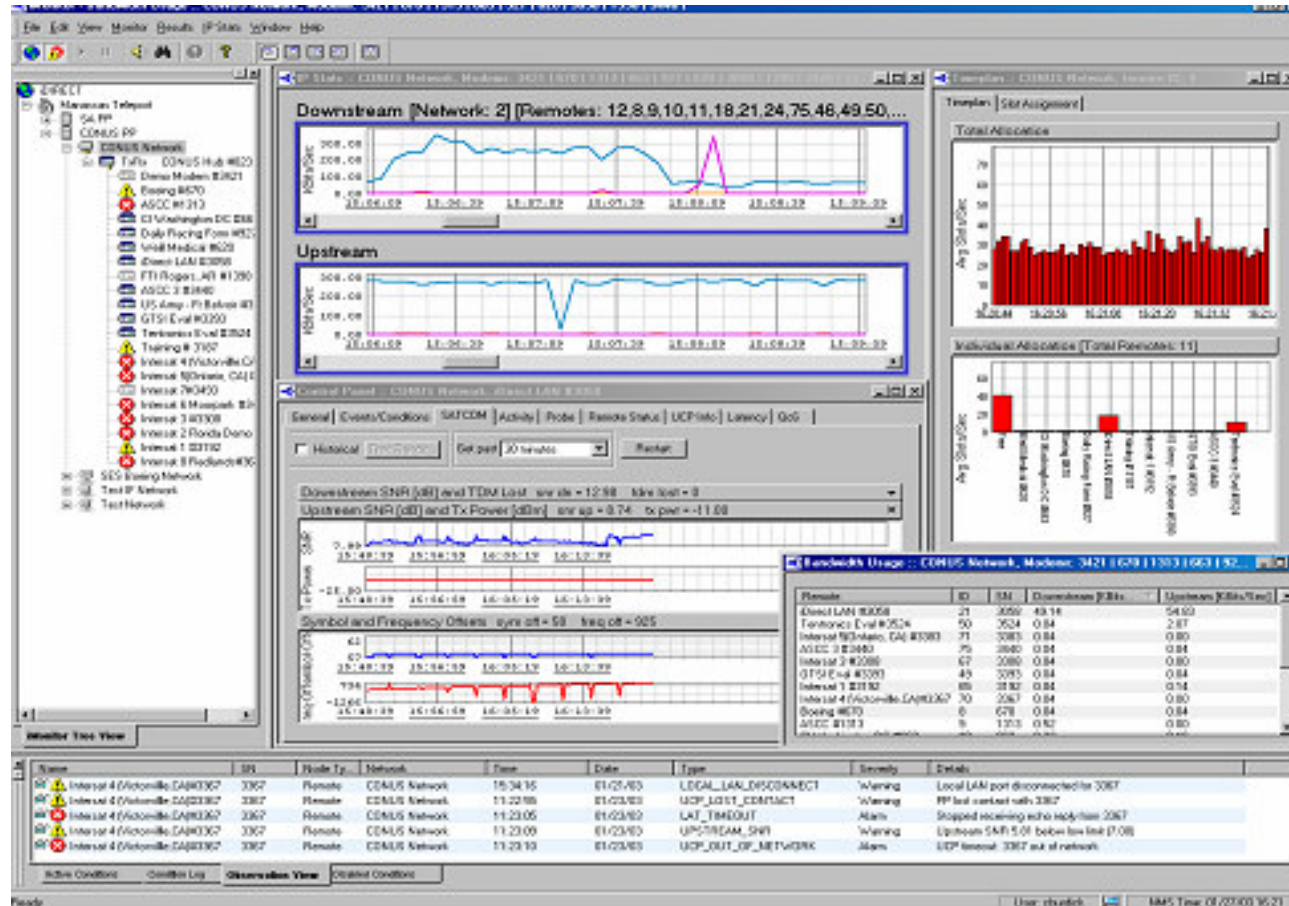


Typical Remote Site



Typical NMS

- Provides each country overview and mgt of its Networks



Envisioned AFISNET

- A complete IP Based, Open Standard, off the shelf equipment and highly encrypted Network
- Bandwidth on demand
- Automated scalability
- Ease of migration to future technology
- Reliability and ease of maintenance
- Maximum fault tolerance
- Complete automation and management of the network
- Full compliance with industry standards
- Network security on Software level with minimum hardware requirement
- Data, Voice and Video integrated on a single solution.





Conclusion

- We can't say we have mastered the AFISNET needs and requirement
- We hope to partner with every member countries in terms of:
 - Technology deployment and transfer
 - Training of Personnel and training the trainers
 - Flexible financial arrangements
 - Inter-Governmental bi-lateral Relationship



A NEW GLOBAL DISCOVERY



Thank you all

