Space Applications for International Development:
Commercial Satellite Applications Yesterday, today and tomorrow

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Intelsat: Global Leader in Satellite Operations

- **Leading provider of fixed-satellite services (“FSS”)**
  - **Approximately 1,800 customers**
  - **More than 200 countries**
- **Unparalleled, resilient and flexible communications network**
  - **51 satellites**
  - **7 strategically-located teleports**
  - **More than 50 points of presence in 37 cities**
  - **More than 28,000 miles of leased fiber connectivity**
- **Robust fleet investment program**
  - **11 satellites currently in development**

Intelsat’s Operations Headquarters, Washington, D.C.

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Intelsat's Heritage: Many firsts – example Africa

- First to introduce satellite services in the region
- First to launch pan-regional broadband networks to Africa
- First to support a DTH platform over Africa
- First to bring cellular backhaul services to the region
- First to provide free-to-air public television service to the region
- First to train nearly 1,000 engineers throughout Africa

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Intelsat's Applications Help Achieve Government Policy Goals and Business Objectives …

Wireless Extension Services

Maritime Communications

Mobile Video

Corporate Networks

Telemedicine

Internet Connectivity

VoIP

IPTV

Disaster Preparedness

Distance Education

Intelsat's applications increase teledensity rates, provide distance education and telemedicine, provide broadband to rural areas, and more

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… because of the Unparalleled Benefits We Provide to Our Customers

- **Available everywhere:** ideal for simultaneous distribution of bandwidth-intensive information
- **Versatile:** supports all of today's communications needs
- **Reliable:** allows constant and uniform quality of service to hundreds of locations, regardless of geography
- **Fast:** rapid, inexpensive network roll-out to hundreds or thousands of locations
- **Flexible:** can complement, augment or extend any communications network, without terrestrial limitations
- **Expandable:** Intelsat's satellite / hybrid networks are easily scalable as service needs grow

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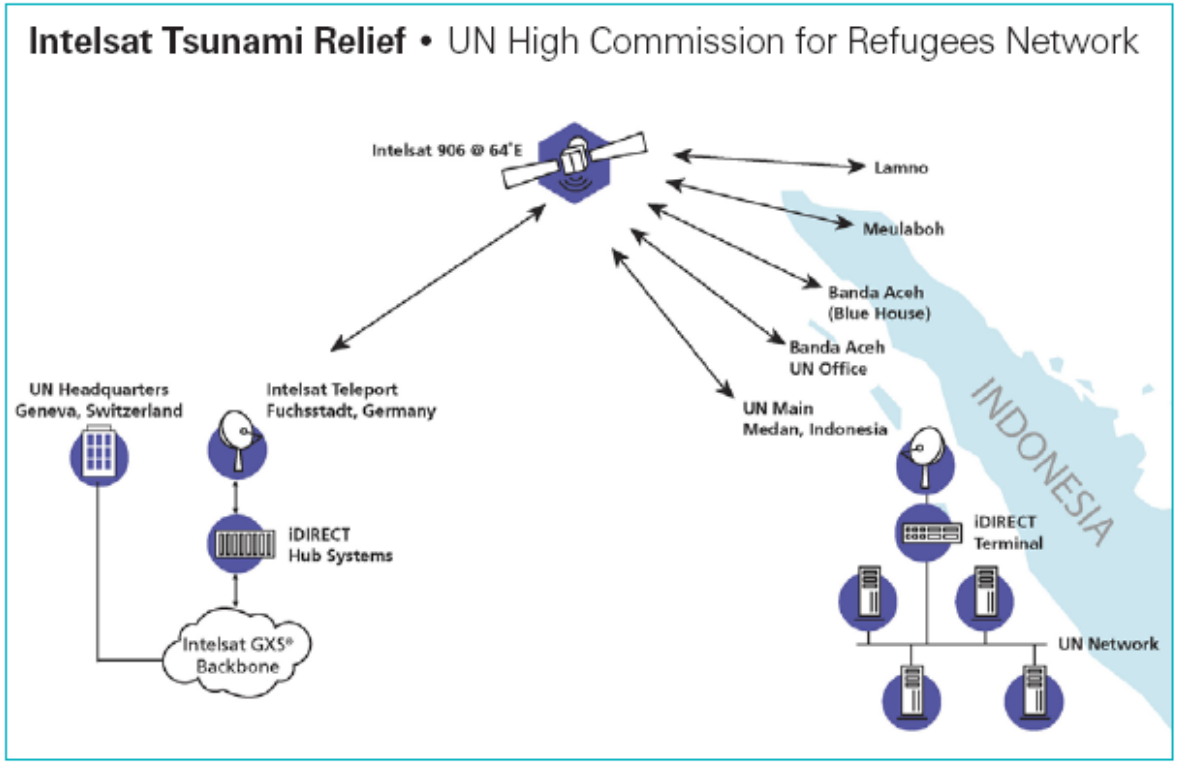
Realities and Applications

- Less than 10% of the population in developing nations has access to Internet services; this is 1/6 as many as in developed nations.
- Uneven distribution: Four (Nigeria, Morocco, Egypt and South Africa) out of 54 countries in Africa account for 60% of Internet users
  - Telemedicine – connect experienced doctors to rural hospitals
  - Tele-education – enabling teachers' and students' access to educational information and material otherwise not available.
  - Disaster relief – Instant infrastructure to provide critical communication links
  - National Broadband Networks – FSS are ideally suited to provide the "middle mile" for broadband services to rural and remote areas.

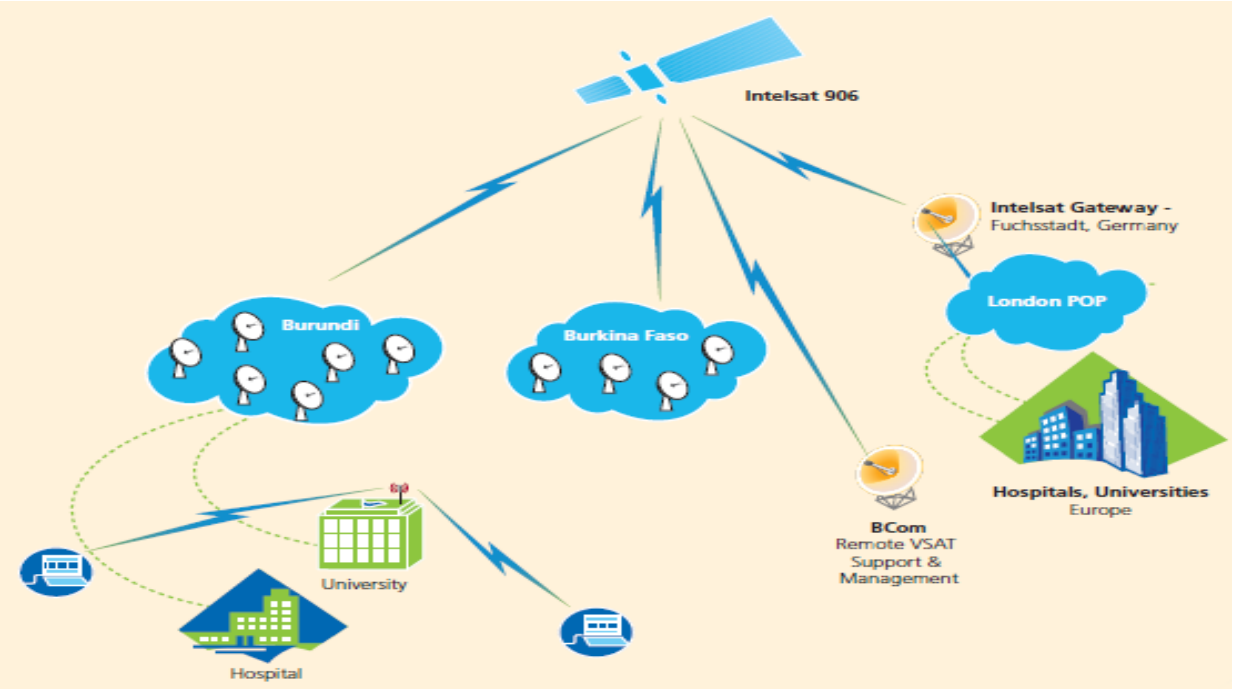
Disaster Recovery – Example Tsunami Relief

• Five 2.4 meter VSATs were installed in Indonesia and interconnected via satellite IS-906 @ 64° E.L. to Intelsat's German teleport. Traffic was the routed through Intelsat's fiber optic network and from there via VPN to Geneva.



- **The Intelsat General network supported applications including voice (using VoIP), data, Internet access, intranet connectivity, file transfer and video.**

Telemedicine and Tele-education – Satellites help fight Aids in Africa



- Satellite technology is being used to support associations in the fight against HIV/AIDS in Burundi and Burkina Faso. The new Internet connections create a link with clinics located far from urban centers. Bush doctors have access to high-throughput 2-way connectivity with leading hospitals in Africa and worldwide and patients can be regularly monitored. Using WiMAX partners within a 30 km radius can be reached – also for ongoing training.

Internet via Satellite – Why Tigrisnet Is Important to Iraq

Internet trunking (ITS) to multiple sites across Iraq

- Enterprise
- Consumer
- Troop welfare

- Use 200+ Mbps of ITS
  - 25 city hubs Fuchsstadt and Mountainside teleports
  - IS-704 & IS-901 and soon IS-902

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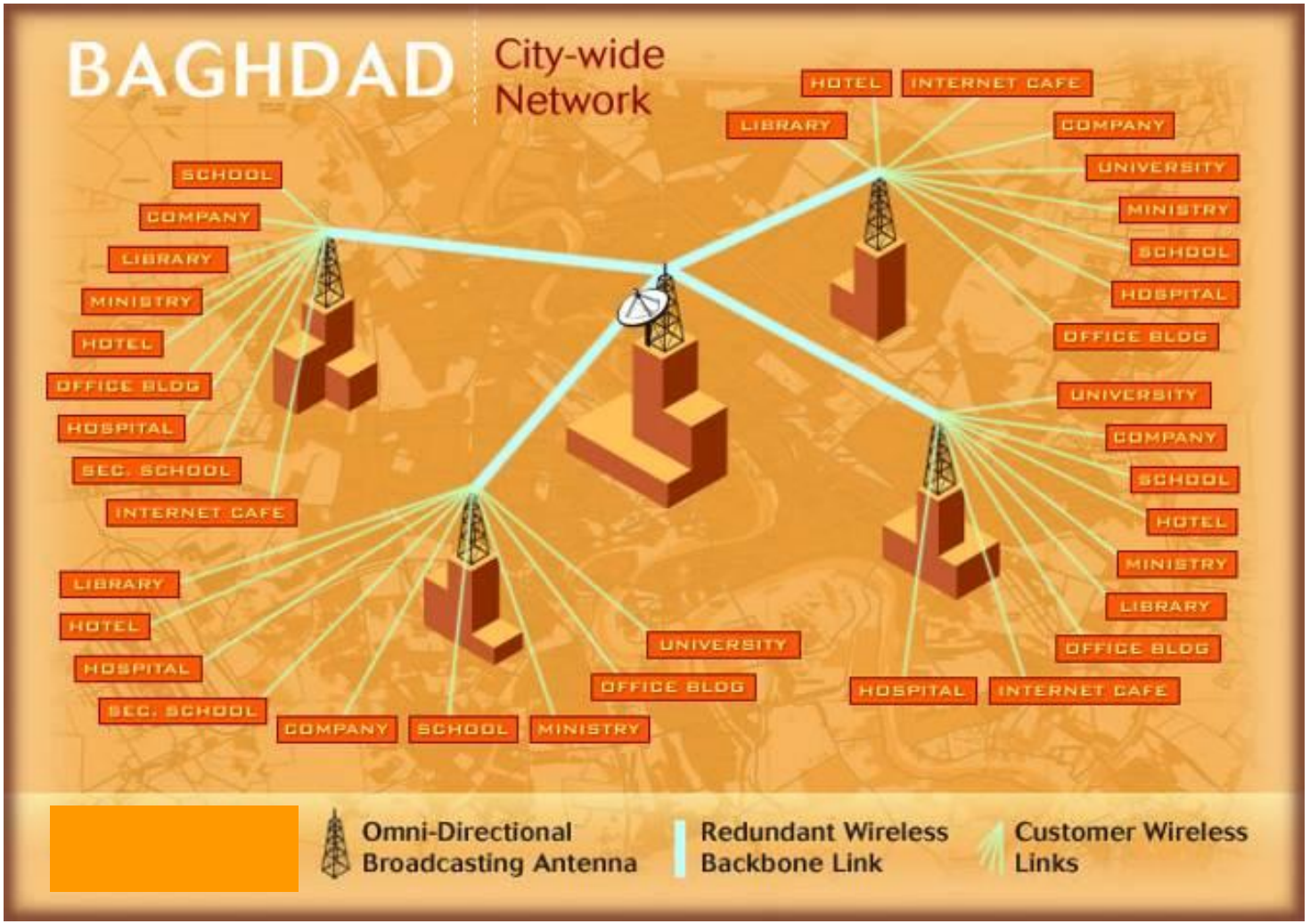
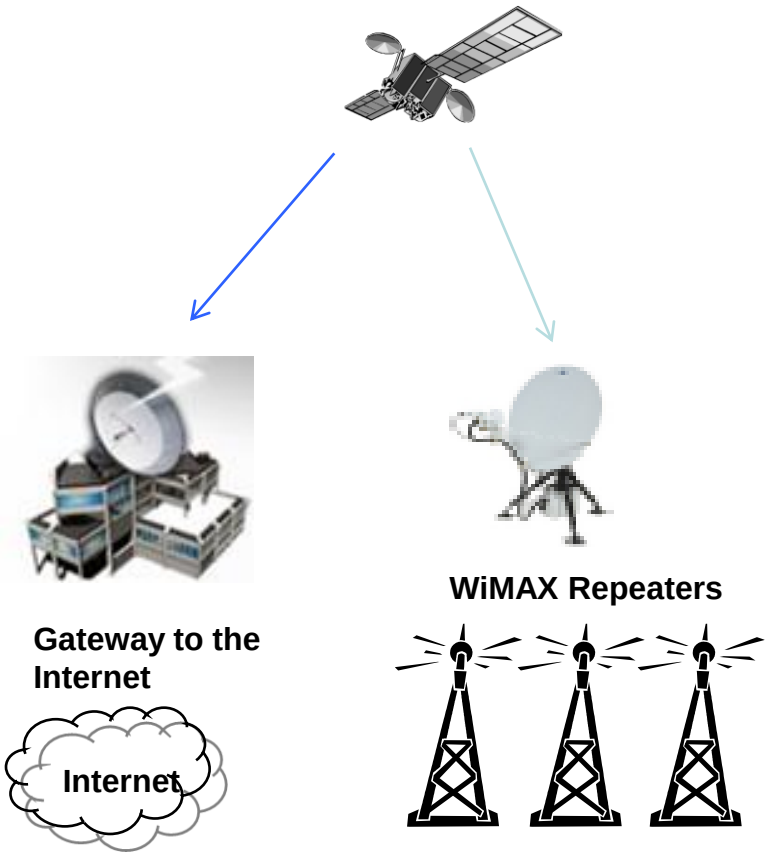
Tigrisnet's Internet Network



- Serves 25 cities, using shared forward carrier, individual return carriers
- Intelsat's Fuchsstadt and Mountainside teleports

Satellites technology helps increase teledensity rates and enables rural broadband:

- **Where there are inadequate terrestrial facilities to connect base stations to the Internet backbone**
- **In thin route, rural and less densely populated communities**
- **Satellite can expand the network reach of terrestrial wireless access systems**
- **Similar to how cellular operators use satellites to connect to their base station towers**



Reaching the [“Next Billion”]

- Technology will not be an obstacle
  - Connectivity will include voice, Internet, and video
  - Next generation high-throughput satellites will offer speeds up to 50 Mbps
- A supportive regulatory environment and spectrum management are a critical part of the solution
  - Satellites’ expansive coverage knows no boundaries
  - To maintain reliability of services only compatible services can share a band

Satellite industry is willing, ready and able to play a key role

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