Contingency Planning for a Modern World

The BCom Experience

BCom Operational Structure and Services

- *BCom* focuses on satellite communications solutions and has been a succesful partner with Intelsat on many projects having installed satellite earth stations in more than 45 countries & 80 cities/regions
- *BCom* 1st started in Cyprus in 1997 and is now composed of 3 independent but complimentary entities:
  - *BCom Offshore* in Beirut, Lebanon which focuses on:
    - Field Installation, support & maintenance services of satellite earth stations through a team of highly experienced RF/IP field engineers
    - Project management of regional and global VSAT deployments and installations
  - *BCom SA* in Geneva, Switzerland which focuses on:
    - Integration and testing of equipment before dispatch to VSAT sites
    - Warehousing and Logistic support of multiple-site VSAT network projects,
    - Specialized satellite gateway services in support of Relief Organizations in Geneva
  - *BCom Ltd* rep office in Nicosia, Cyprus which focuses only on EU-sponsored projects

BCom Satellite Services - Strengths

- **Quick response** to satellite project deployments, emergencies and disasters, due to an efficient, cost competitive & a fairly small structure
- Agile intervention in many world regions especially in **hardship environments and sensitive security areas** with a team that has completed UN Safety, Health & Welfare training and went through past security clearances (4 European embassy networks)
- Quality of on-mission daily team **reporting** & the extensive post-installation **documentation** provided after each job specially when acting as subcontractor for other satellite solution providers
- **Solid experience** & technical competence of its engineers in both RF & IP having installed complex redundant large antenna installations
- **Strong language skills** of its engineers who interface with the end-customers on-site (English, French, & Arabic fluency)
- Installations have served ISPs, mining, oil & gas, disaster recovery, remote office, telemedicine, tele-education, TV uplink, & GSM satellite backhaul applications.

BCom's Involvement in Emergency Satellite Networks and Disaster Recovery

- *BCom* has utilized satellite based solutions in Emergencies and Disaster Recovery scenarios in several past occasions
- Installed a 14 VSAT Network for the UN Refugee Agency (UNHCR) in Kosovo, Albania, & Macedonia just after end of military operations in Oct 1999
- Setup VSAT links in Kabul-Afghanistan immediately after military operations to restore communications links for 2 embassy networks in 2002
- Deployed several VSAT stations for the Relief camps in Indonesia just after the Tsunami disaster in 2005
  - A 'military' process *(compressed time schedule, helicopter logistics, hardship conditions) …*with a civilian budget
  - Intelsat 906 GXS C-band coverage using 2.4mtr antennae

BCom's Involvement in Emergency Satellite Networks and Disaster Recovery *(cont'd)*

***BCom*'s other interventions in 'Man-Made' Disasters & Emergencies:**

Pristina Kosovo 1999

Kabul Afghanistan 2002

BCom's Tsunami Experience *Feb2005*

BCom's Tsunami Experience *Feb2005 (cont'd)*

VSAT's in Banda Ache, Lamno, & Meulaboh Relief Camps

VSAT Deployment in Small Mobile Relief Camps

BCom's Tsunami Experience *Feb2005 (cont'd)*

A Full Swing Logistical Operation

Afghanistan GSM Satellite Backhaul Recovery Experience

- *BCom* has installed pre-engineered satellite solutions for GSM backhaul in cities not served by reliable terrestrial links
- Latest was in Afghanistan in Aug 2006 for an Afghani GSM operator linking the BSC's of cities of Herat, Kondoz, and Mazar El-Sharif with the MSC in Kabul
- Terrestrial links to these remote cities are not reliable as they stretch over long mountainous regions. GSM services can be restored with the satellite links following terrestrial link outages
- *BCom* provided the installation services. *Paradigm UK* provided the design and equipment supply using:
  - Intelsat 902 Transponder 86/86 C-band coverage
  - Redundant SCPC modems, and redundant RF equipment
  - GSM optimization and compression equipment providing up to 70% and 35% BW savings on A*bis* and A*ter* links respectively

Afghanistan GSM Satellite Backhaul Recovery Experience *(cont'd)*

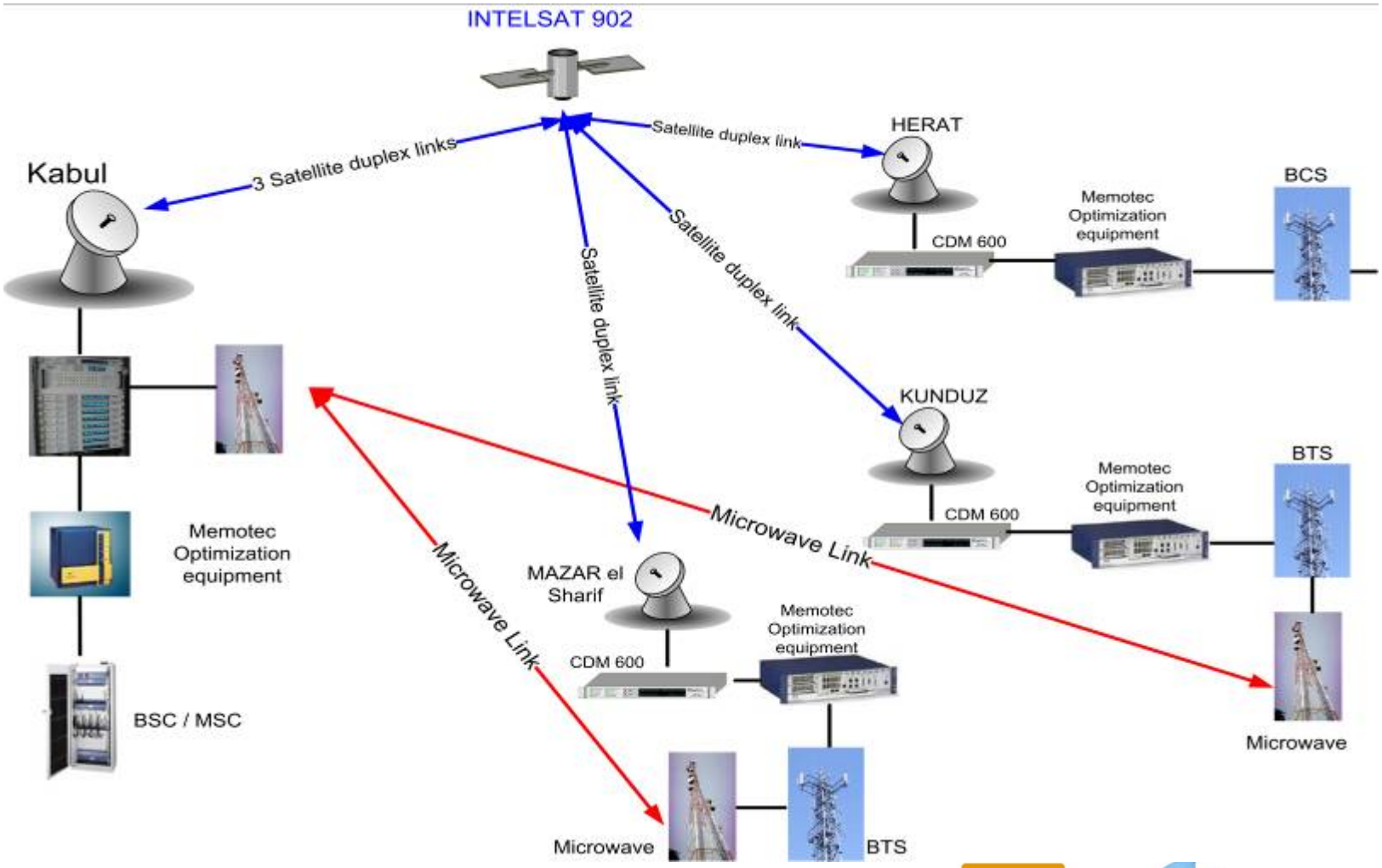
Afghanistan GSM Satellite Backhaul Recovery Experience *(cont'd)*

- Kabul 7.3mtr Antenna

Afghanistan GSM Satellite Backhaul Recovery Experience *(cont'd)*

- **Kondoz 4.5mtr Antenna**
- **Herat 4.5mtr Antenna**
- **Mazar e-Sharif 4.5mtr**

Afghanistan GSM Satellite Backhaul Recovery Network Diagram



Intelsat-BCom ... A proven partnership…

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