

ISCe

Satellite &
Communications

a CeBIT Event

ISCe 2008

Continuity of Government: Network Solutions in Peace and Crisis

Organizers



Hannover Fairs USA, Inc.

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Expecting the Worst: Emergency Management Communications in Uncertain Times

Moderator: **David Hartshorn**, Secretary General – GVF

Speakers: **Edwin Evans**, Director, Medical Communication Systems – Hospital Association of Southern California

David Myers, Senior VP, Marketing and Corporate Development – Spacenet

Dr. Nongluck Phinaitisart, President – Thaicom Public Company Limited

Stefan Jucken, VP of Business Development & Marketing – ND SatCom Inc.

Scott Rau, Director of Western Region Sales – Newpoint Technologies

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Expecting the Worst: EM Communications in Uncertain Times

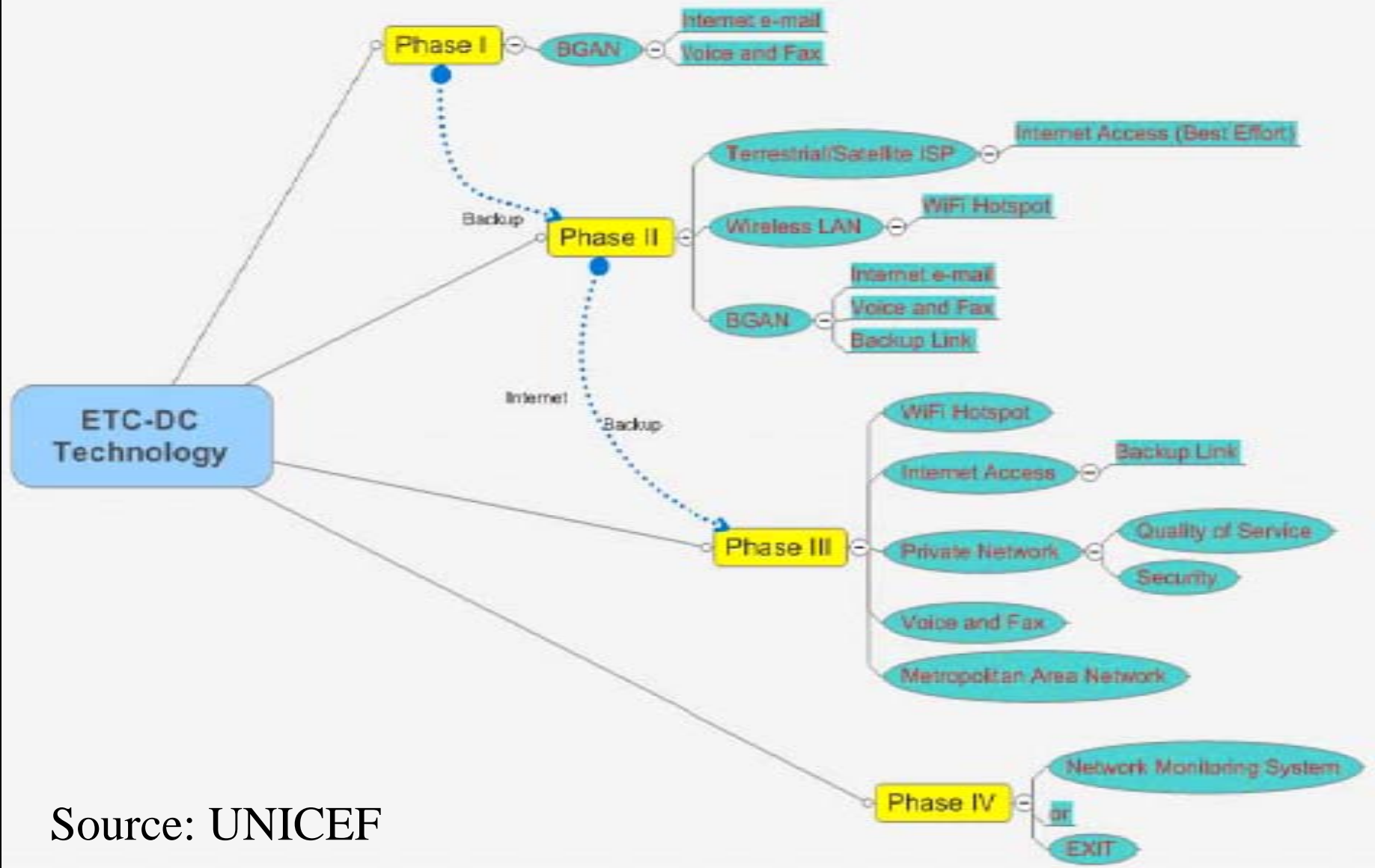
David Hartshorn
Secretary General
GVF

GVF: Awareness, Training, Liaison

- Involvement With:
 - UN-WGET
 - NGO-NetHope
 - Local, State Federal Agencies
 - Private Sector



UN 'Cluster' & Applications



Source: UNICEF

NGO Collaboration & Apps - Stage 1

Stage 1 – Within hours of disaster striking:

First relief worker(s) arrive in hostile environment to survey and assess damage, **transmit pictures, security information, relief materiel and personnel requirements to Head Offices.**

Agencies decide at this stage how deeply involved they will be with relief efforts. This stage characterized by highly **individualized, mobile, temporary and transient computing, communication and power solutions.**

NGO Collaboration & Apps - Stage 2

Stage 2 – Within two weeks of a disaster striking.

Teams begin to arrive on the scene as risk of disease and malnutrition escalates. Requirements are continuous **monitoring** of disaster, **assessment** of victim needs, **management** of relief material deployment between and across aid agencies, personnel **security**, application and **reporting** of donated funds, **uploading** of case studies, pictures and relief reports.

This stage is characterized by small (up to 10 people), often roving groups who need easy-to-setup-and-takedown **computing, communication and power** solutions

NGO Collaboration & Apps - Stage 3

Stage 3 – From one month following disaster to multiyear.

Agencies provide resources for **building reconstruction, counseling, family reunification, food distribution, water purification, etc.** thus becoming part of the community over a long period of time.

This stage is characterized by larger (20 or more people) groups in fixed office scenarios with the **potential of moving** to different office locations as the situation unfolds.

Source: NetHope

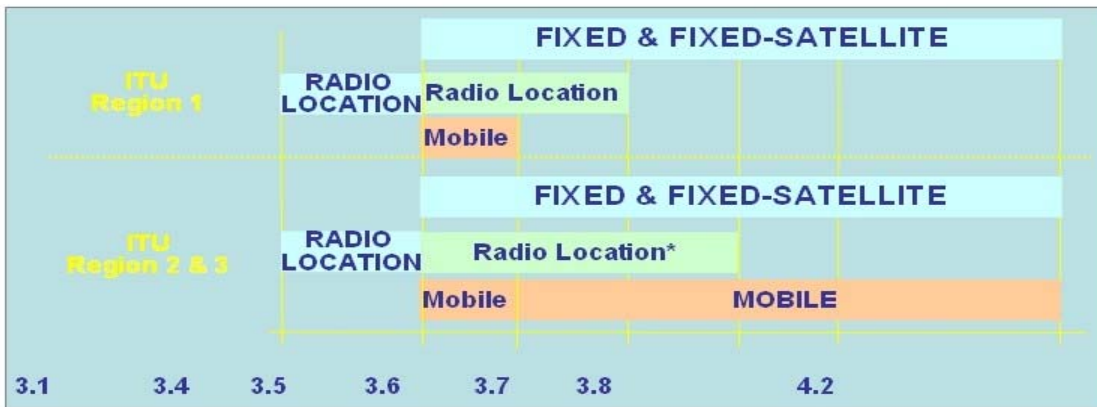
Addressing The Global Spectrum Crisis



ITU WRC-07 C-Band Spectrum



ELECTROMAGNETIC & SENSOR SYSTEMS DEPARTMENT



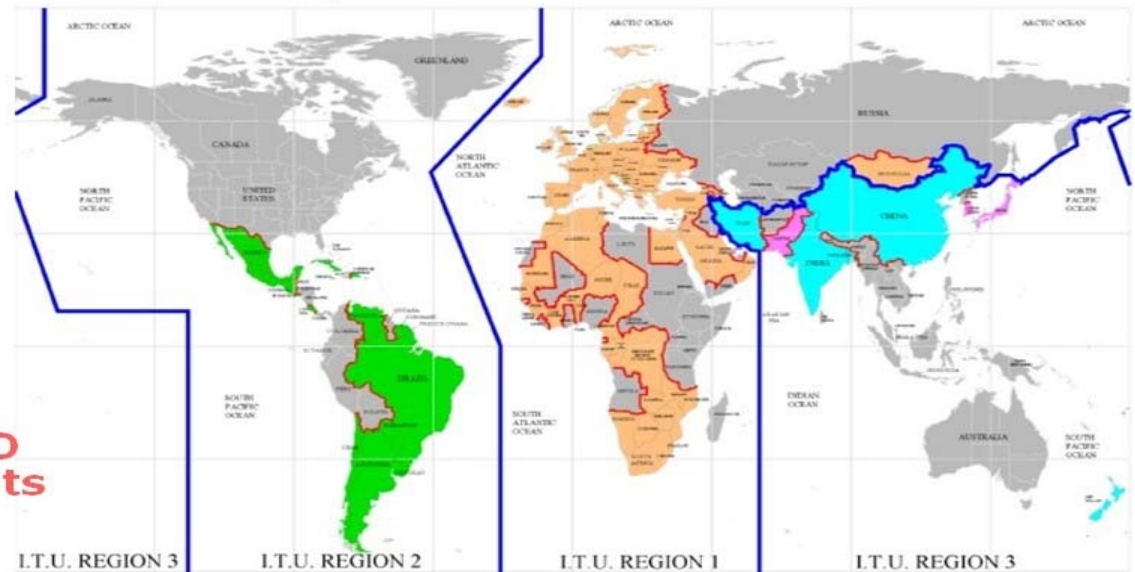
**No Change in ITU
Radio Regulations
Table on 3400-4200
(victory?)**

* Primary U.S. by Footnote 5.433

**Post WRC-07 'Opt-In'
Foot Noted Countries
(Mobile 3.4-3.6 GHz)**

- 3400-3500 Mobile
- 3400-3600 Mobile
- 3400-3600 Mobile
- 3400-3500 Mobile

**PFD
Limits**



From Uncertainty to Certainty

- Response vs. Preparedness
- Where's the ROI?
- Sharing Resources?
- Multi-Use?
- Interoperability?

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High Performance Networking Anywhere

Emergency Management Communications in Uncertain Times

David Myers, SVP Spacenet Inc.
ISCe Conference June 10, 2008



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Emergency Response Extends Beyond Government Agencies

Emergency Management

First Response

On Scene In Minutes

Deployed For Hours

- Federal, State & Local Agencies
- Law Enforcement
- Emergency Medical Services
- Fire, Rescue & HAZMAT
- Utility Services

Relief Deployments

On Scene In Hours

Deployed For Weeks

- Commercial & Civilian Agencies
- Red Cross/Relief Shelters
- Mobile Insurance Claims Centers
- Grocery & Pharmacy Supplies
- Financial – ATM, Pay Checks
- Equipment, Fuel, Logistics



Communication Challenges in Emergency Management

Minimize Complexity → Focus On The Mission



Are Your Emergency Communications?

ReDITM

- **Redundant Connection**
 - “Hot Standby” link ready to take-over critical applications almost instantly
- **Diverse Path**
 - Separate route in-case primary link is physically severed or inoperable
- **Independent Infrastructure**
 - Ability to stay online even when common carrier services out of commission

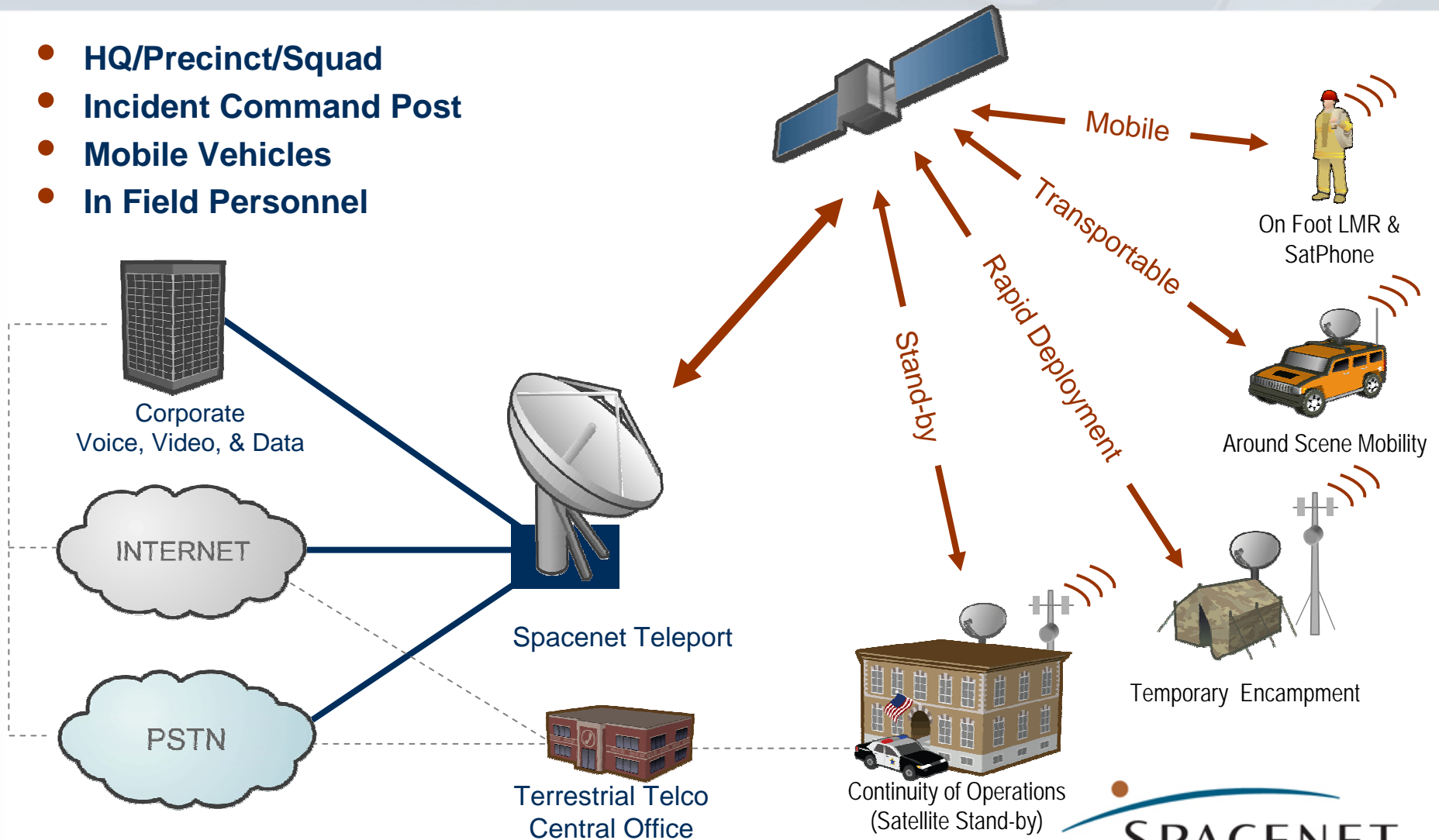
**Satellite is the Only Technology
That Can Meet All Three**



Emergency Communications

Integrated VSAT Satellite Solutions

- **HQ/Precinct/Squad**
- **Incident Command Post**
- **Mobile Vehicles**
- **In Field Personnel**



Solution is Much More Than Equipment

Success Requires Integrated Service

- **Application Considerations**

- # of users
- Voice lines
- Internet, secure data, two-way video
- Bandwidth
- Length of deployment



Cisco iComm System

- **Budget Considerations**

- On-scene equipment cost = \$50,000+
- Service charges = \$150 - \$2500+ MRC
- Full-time or Part-time Service Plans



Spacenet ECV

Case Study: Telemedicine

On-Demand Transportable Communications

● Customer Need

- Fleet of 16 vehicle mounted solutions
- Highly reliable voice & video conferencing
- On-demand access requirement
- Easy rapid deployment



● Solution

- Integrated into RV sized vehicle
- Connexstar Performance Series
- Part-time “5 Day” service plan
- Push button auto acquire antenna

CUSTOMER VALUE

- On-scene “live” medical treatment
- Go anywhere communications
- Pay only for bandwidth when needed



Case Study: Law Enforcement

Independent, Redundant & Diverse Network

● Customer Need

- Continuity of Operations
- Complete voice, video, & data support
- Support for HQ and 100+ sub-stations
- Integrated into existing IT infrastructure



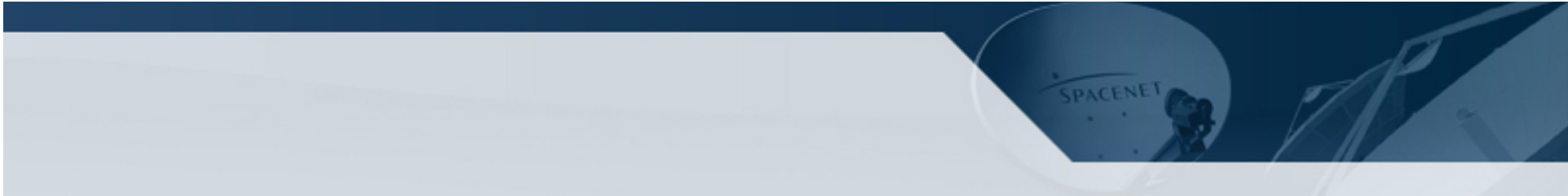
● Solution

- Custom high security VSAT network
- Always-on “hot stand-by” solution
- Custom satellite network (TDMA & SCPC)
- Employs Cisco® Network Module

CUSTOMER VALUE

- Total network back-up solution
- Independent from terrestrial network
- Near 100% network availability





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