



BGAN Solutions Seminar

Japan, 09

Agenda

- ➔ What is BGAN?
- ➔ Network & devices
- ➔ End-user requirements
- ➔ Propositions & solutions
- ➔ Live demonstrations
- ➔ Summary





BGAN in a nutshell...



Worlds 1st mobile communications service to offer:



Broadband data (up to 492 kbps)



... plus voice

accessible simultaneously

through a single compact device

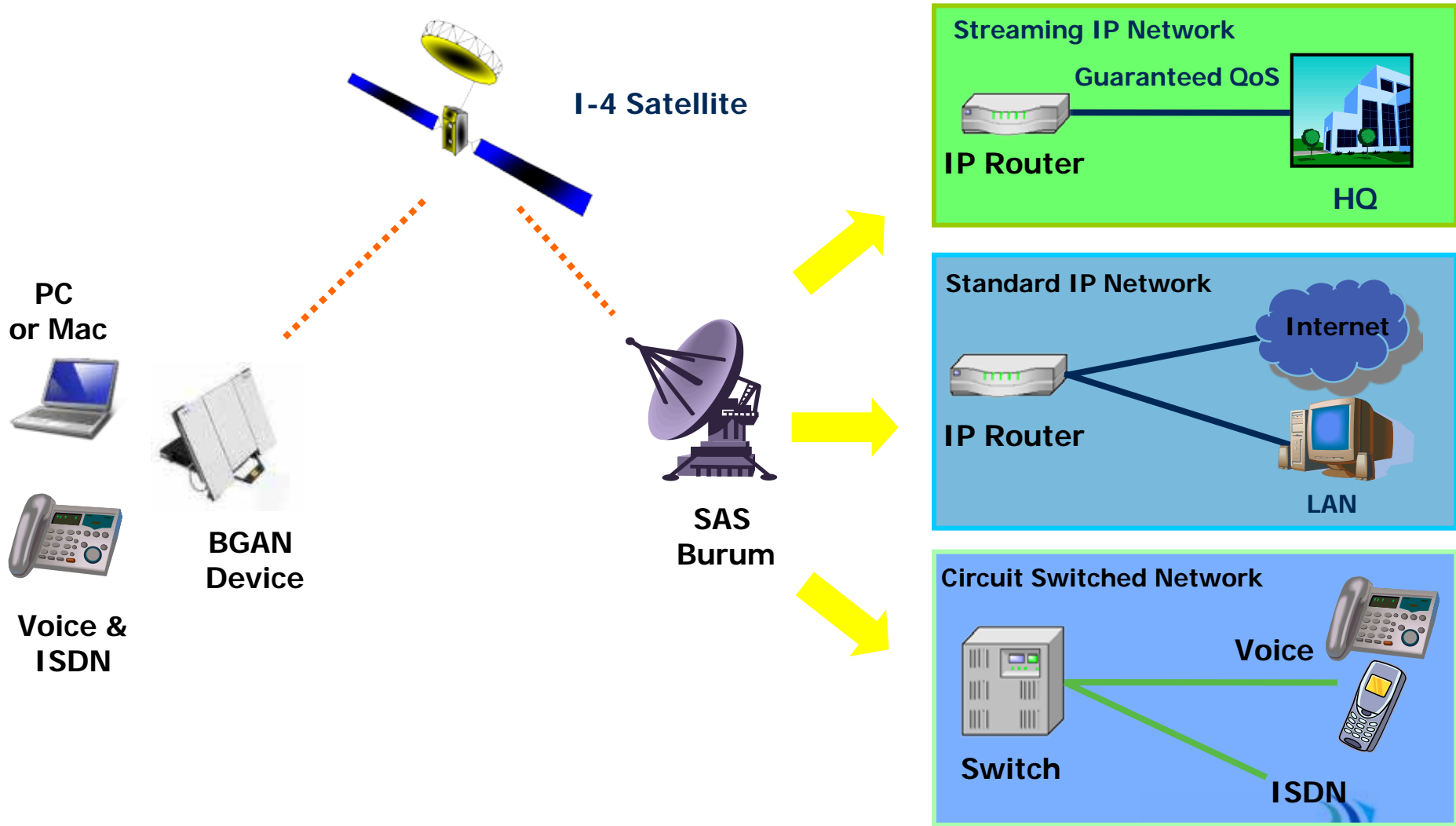


with guaranteed data rates on-demand



NOW available worldwide!

BGAN Network connectivity...



What can you do with BGAN?



Standard Data

- ➔ Background IP
- ➔ Variable bit rate
- ➔ Up to 492kbps (send & receive)
- ➔ Pay for data sent and received
- ➔ Web access, file transfer, e-mail



Streaming Data

- ➔ Guaranteed bit rate
- ➔ 32, 64, 128, 256 kbps (symmetrical) & 384 kbps (June 09)
- ➔ Pay for duration of connection
- ➔ Ideal for streaming video
- ➔ Also supports ISDN



Voice

- ➔ 4 kbps
- ➔ Voicemail
- ➔ 3G enhanced services - call waiting, forwarding, barring









Text (SMS)

- ➔ Send / receive text messages to / from any mobile phone

A range of BGAN devices

To suit your voice and data requirements...

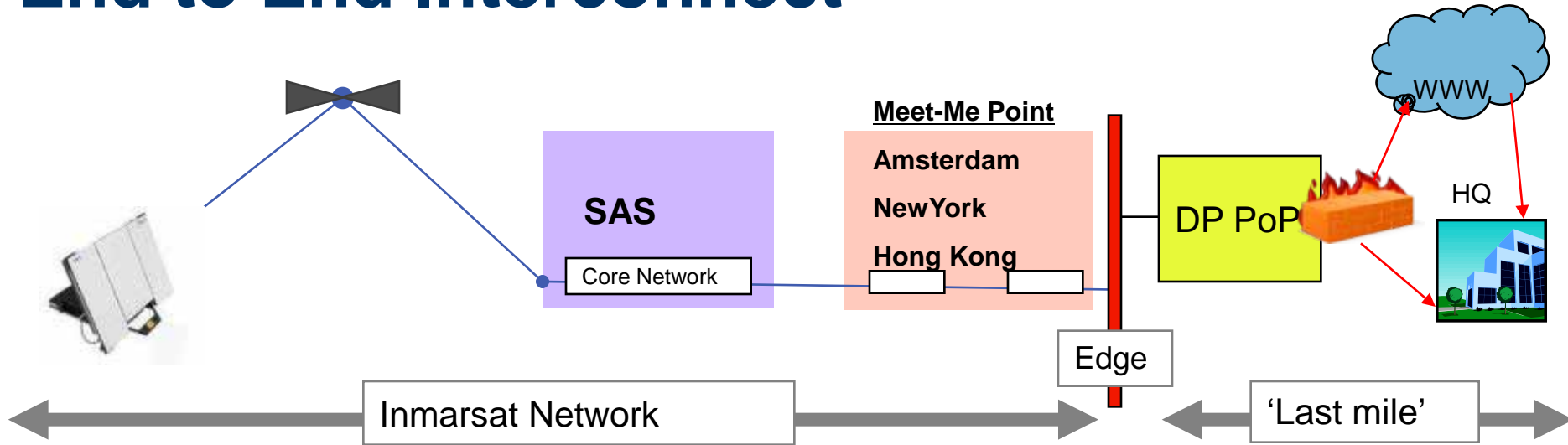
	HNS	Thrane & Thrane	AddValue
492 / 492 Kbps			
464 / 448 Kbps			
384 / 240 Kbps		 	

BGAN Vehicular Terminals

- ➔ Thrane & Thrane Explorer 727
- ➔ HNS 9250



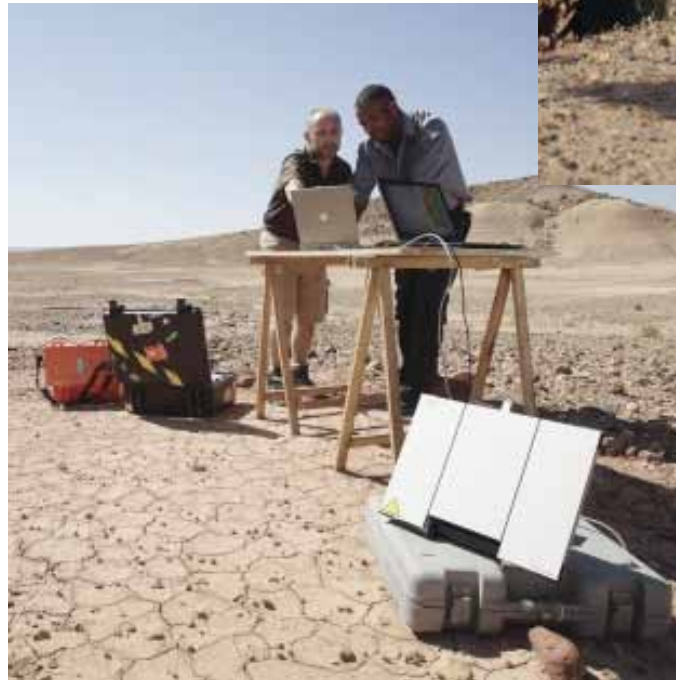
End to End Interconnect



- Inmarsat responsible for performance to edge of network
- Performance tool for Standard IP located at edge of network
- Streaming IP rates 'guaranteed' to edge of network
- Customer responsible for 'last mile'
- Dedicated connection – IP, ISDN, MPLS - recommended for video and audio streaming traffic

End-user requirements

- ➔ Access to voice & data communications
- ➔ Mobility
- ➔ Ease of use
- ➔ Rapid deployment
- ➔ Low cost of entry
- ➔ Security
- ➔ Range of terminals
- ➔ Comms 'On the move'
- ➔ Global coverage
- ➔ Dependability



A day in the life of BGAN...

Rapid/Initial Site Set-up

➔ Scenario

- Remote location with no terrestrial or cellular option. Initial site office set up. Minimal site security.

➔ Requirements

- Access to Office applications
- Provide updates/maintain contact
- Day 1 Voice/Data comms

➔ Solution

- Provide Mobile Satellite terminals to individuals or teams

➔ Benefits

- Portable device so leaves site when you do
- Instant, reliable, easy to use Broadband connectivity
- Tested and optimised to work with standard Office applications
- Easily deployed to next site – Global Coverage

Site Radio Communications

➔ Scenario

- Operatives being sent to remote locations to map site and test as required

➔ Requirements

- Need to maintain regular, consistent contact with central office and other mobile teams via UHF/VHF radios and coordinate efforts from a central office

➔ Solution

- Deploy BGAN and Iconics solution for UHF/VHF communications globally and transmit data on an ongoing basis

➔ Benefits

- Voice communications in 'real time'
- Decisions can be made instantly by all members of team no matter their location
- Can be used for GPS tracking for individuals or vehicles
- Completely independent voice solution

Iconics – Smart-Link



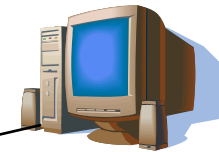
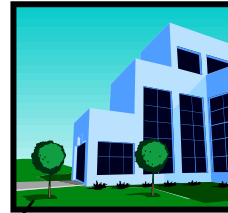
- ➔ **The Solution:** Using the power of BGAN, Iconics has evolved to bridge the gap between radio systems across the globe
- ➔ An Iconics Smart-Link box is installed locally to the radio system
- ➔ The Iconics Smart-Link box is then connected securely via Ethernet cable to a BGAN device and on to the Internet
- ➔ Once connected, the Iconics Smart-Link will automatically access the main server and become live on the Iconics platform - All data transmitted is encrypted
- ➔ Offering 'real-time' UHF/VHF radio communications - Globally

Iconics - Smart Link

Enabling two-way radio communications worldwide utilising the power of BGAN

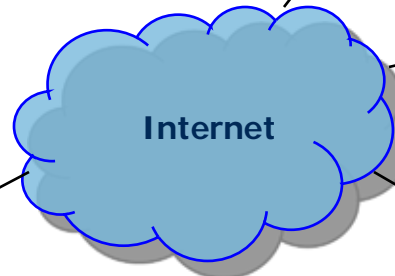


Access to Corporate HQ
via PC software client



Iconics secure
server

* All data links are encrypted



Radio Network A



Radio Network B



Network A & B can now
communicate



Remote Mechanical & Medical Assistance

➔ Scenario

- Remote location. Significant mechanical failure or medical incident.

➔ Requirement

- Urgent expert attention required to remedy mechanical failure or medical incident.

➔ Solution

- Deployment of Frontline Communicator and BGAN. Streams high-quality live video footage to remote expert. Guidance can be provided via simultaneous voice connection.

➔ Benefit

- Reduced down time
- Reduced centrally-located expert travel expenditure
- Personnel with manageable medical conditions can remain in job and on site

Frontline Communicator



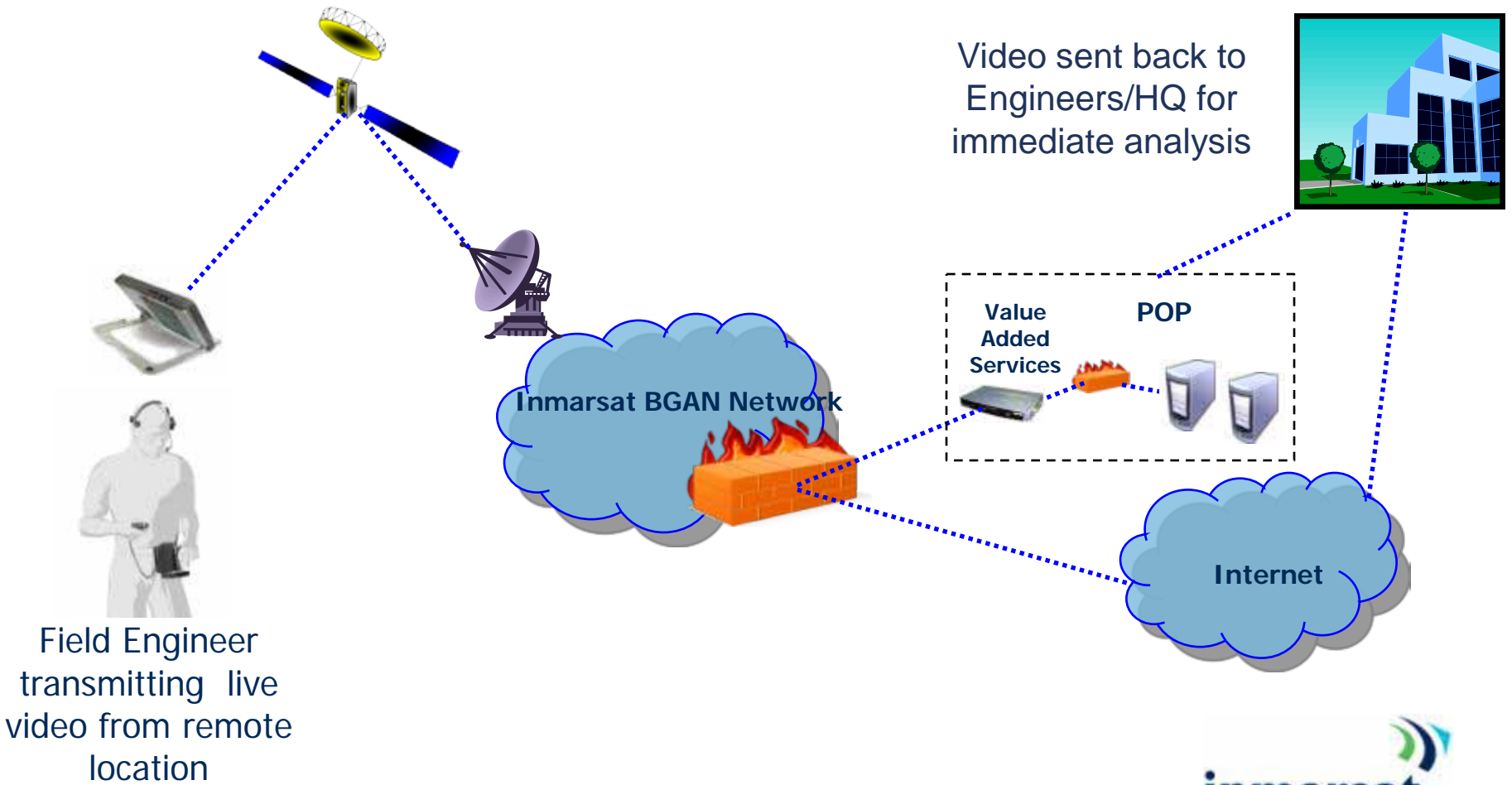
➔ The Solution

- The Frontline Communicator is a wireless, compact, ergonomic and lightweight video-communication system
- ➔ Specifically developed for remote support
 - ➔ Provides maximum mobility
 - ➔ Frontline Communicator enables transmission of video and still images from virtually anywhere via BGAN, in real-time
 - ➔ Can use Standard or streaming IP services
 - ➔ Main features:
 - BGAN Optimized, Ultra light ,Hands-free system
 - Live AV transmission, Wi-Fi, Video camera headset, Battery Operated



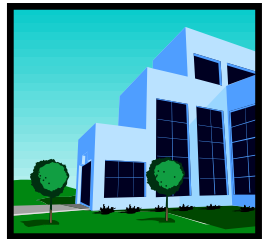
Frontline Communicator

Transmitting a live video stream...



Field Engineer
transmitting live
video from remote
location

Video sent back to
Engineers/HQ for
immediate analysis



Video Surveillance/Security

➔ Scenario

- Remote location. Initial site set-up. Lone workers/security personnel. Site security being established.

➔ Requirements

- Remote surveillance of both physical assets and personnel
- Real time alerts to central office of incidents/emergencies
- Instant access to video capture of incident

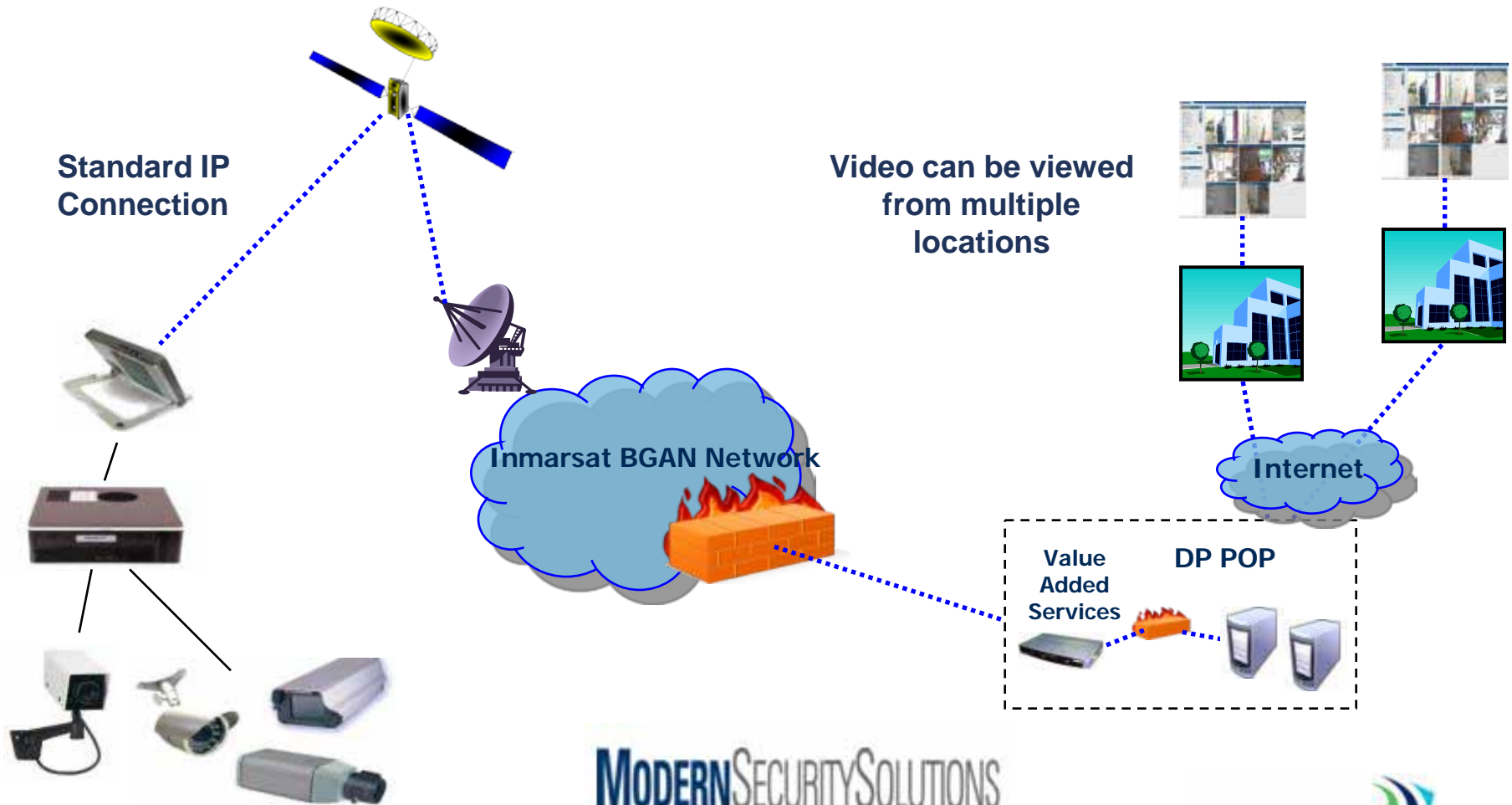
➔ Solution

- Deployment of AFIANT/Essential Viewing monitoring solution with notification and back-haul provided by Mobile Satellite terminal

➔ Benefit

- Reduced site shrinkage
- Health & Safety/Insurance compliant
- Instant assessment of situation and liaison with site personnel

Security – Remote Video Surveillance



Delivering Live Audio/Video/Imaging over BGAN

Nikon D2H - Remote digital Imaging

➔ Scenario

- Remote location. Continue working without interruption

➔ Requirements

- Photographer needs to be able to send photographs immediately from any location

➔ Solution

- Nikon D2H camera with Wi-Fi to FTP photographs to FTP server automatically

➔ Benefit

- Ease and speed of set-up
- Access to images from anywhere to anywhere

Live Video Broadcast

➔ Scenario

- Remote location. Journalist needs to do a live piece to camera to cover major breaking news story

➔ Requirements

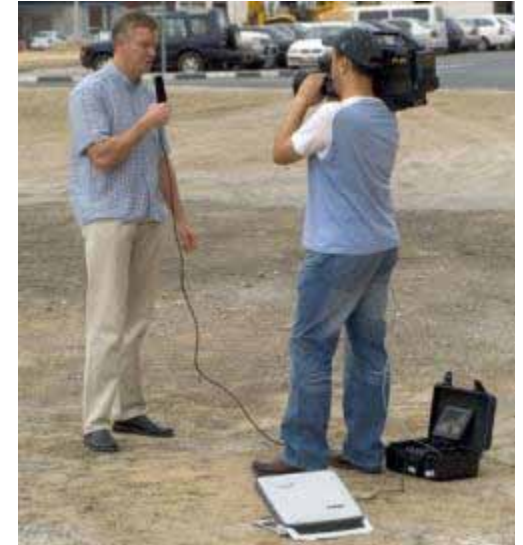
- Rapidly deployable satellite link
- Live video link to television HQ or agency

➔ Solution

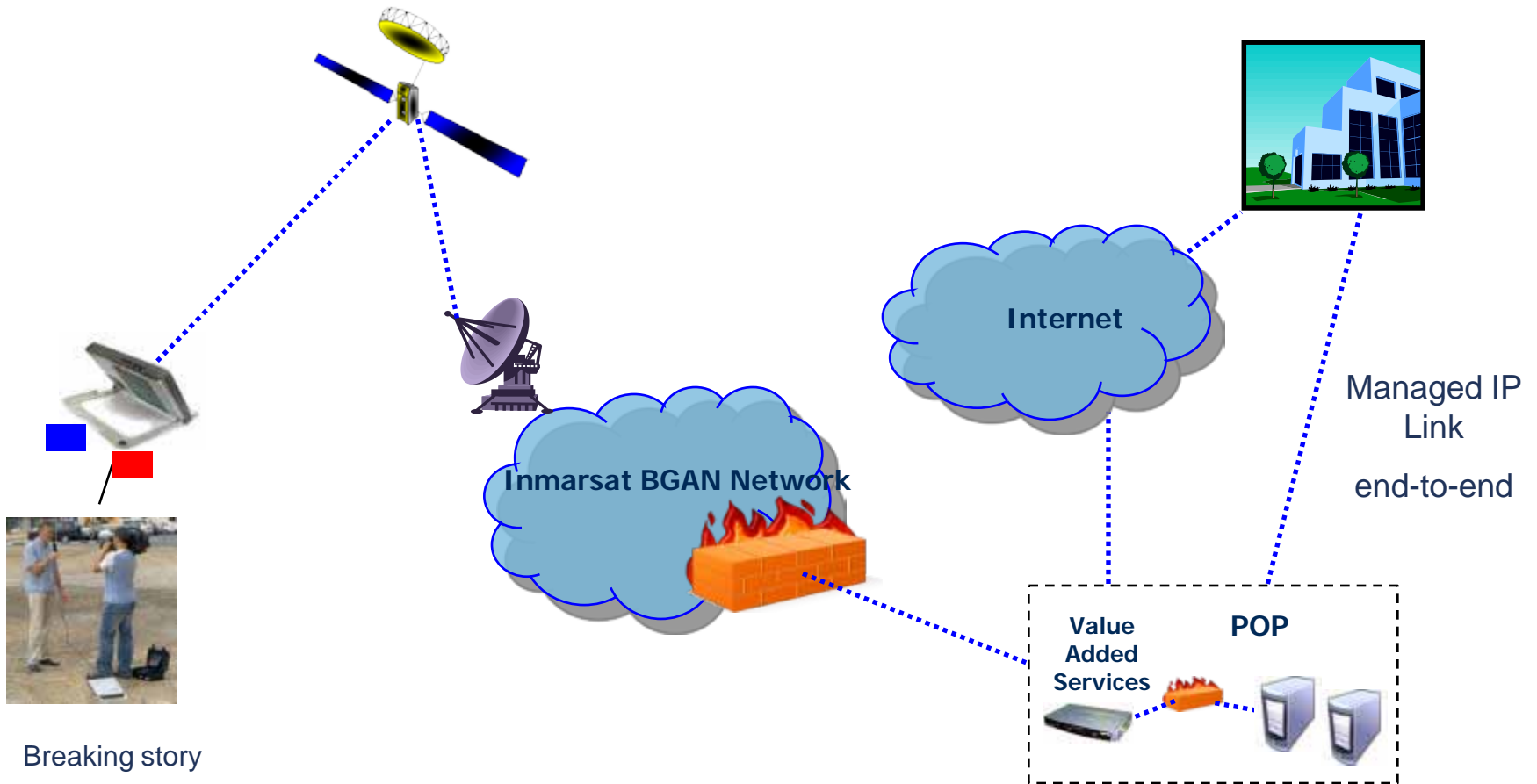
- Broadcast solution sets-up a streaming connection ready for live piece in seconds with excellent quality

➔ Benefit

- Ability to cover news stories virtually anywhere on the planet
- Quick set-up and tear down for vital mobility
- Beat the competition bringing the news to viewers first



Live video broadcast – end-to-end



Breaking story

Live video conferencing

Hardware/Software solutions

- ➔ Polycom PVX
- ➔ Tandberg Tactical MXP & 1000
- ➔ Motion Media MM 156
- ➔ Emblaze vpoint
- ➔ Scotty



Live Audio Broadcast



➔ Scenario

- Remote location. Journalist needs to cover breaking news story for radio

➔ Requirements

- Rapidly deployable satellite link
- Live link to radio station HQ or agency

➔ Solution

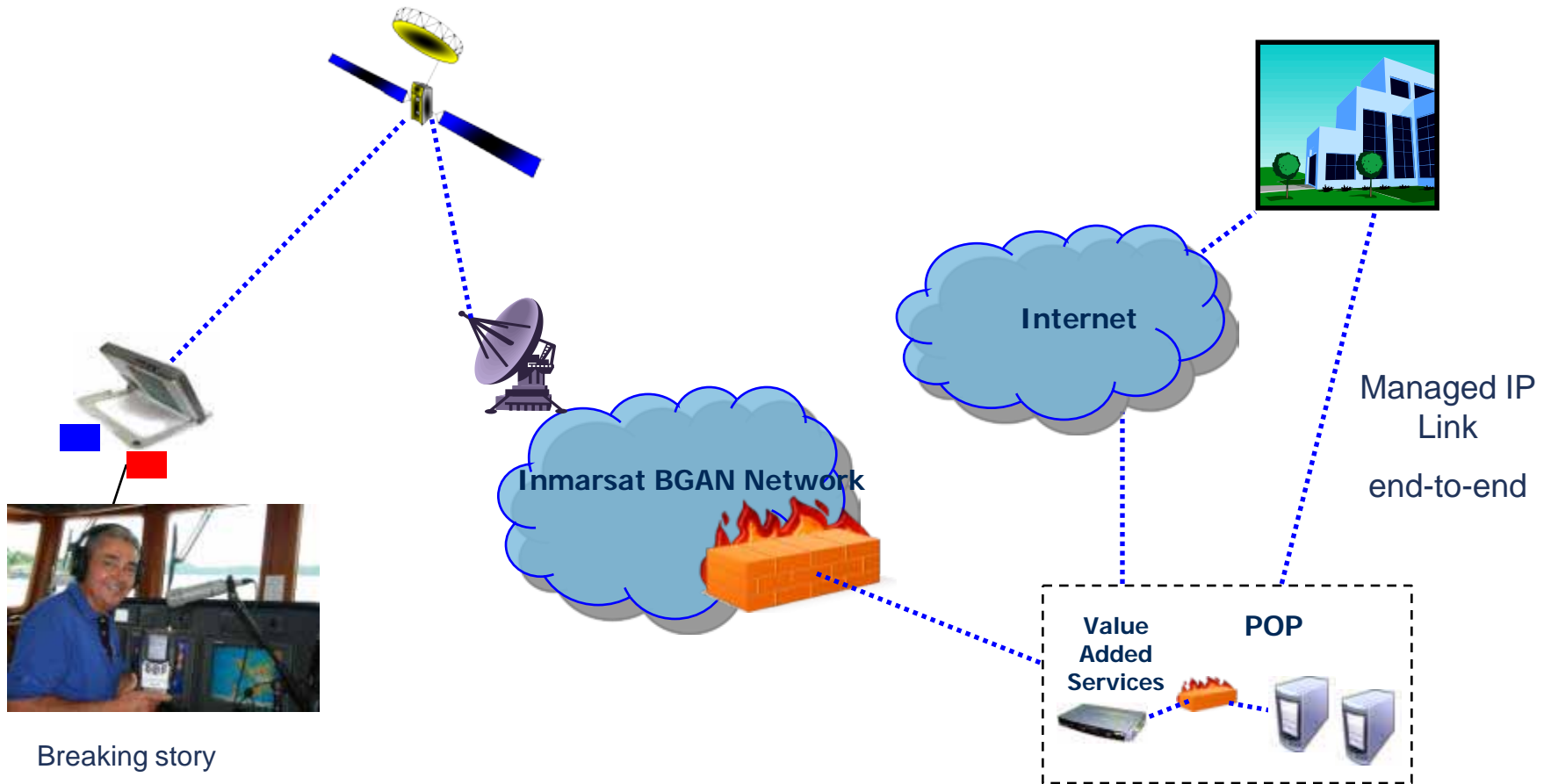
- Set-up a streaming (or background) connection ready for live piece in seconds with excellent quality

➔ Benefit

- Ability to cover news stories virtually anywhere on the planet
- Quick set-up and tear down for vital mobility
- Beat the competition bringing the news to listeners first



Live Audio broadcast – end-to-end



GSM connectivity

➔ Scenario

- Remote location. No voice communications available with large requirement for GSM connectivity

➔ Requirements

- Users have a requirement to use their own mobile telephones on site
- Ease of using own handset, access to all contacts
- Instant access to video capture of incident

➔ Solution

- Deployment of GSM Pico Cell technology to create temporary GSM coverage in local area with access to worldwide networks

➔ Benefit

- Reduced site shrinkage
- Health & Safety/Insurance compliant
- Instant assessment of situation and liaison with site personnel

Independence of communications

➔ Scenario

- Numerous contractors and sub-contractors on site. Long delays to access the central communications hub.

➔ Requirements

- Efficient project management requires the efficient and unencumbered flow of information between the numerous parties involved.

➔ Solution

- BGAN deployment to all parties requiring interconnectivity during each phase of the project

➔ Benefits

- Build time is reduced due to increased efficiency
- Contractors operate more efficiently and leave project earlier
- Owners can exercise greater control over access to central comms



Primary Comms Back-up

➔ Scenario

- Longer term project. VSAT or terrestrial central, primary comms solution deployed.

➔ Requirement

- Back-up solution should primary fail
 - VSAT will fail in heavy rain or heavy sand/dust storm
 - VSAT can suffer mechanical failure that requires engineer visit
 - Terrestrial service can be inadvertently damaged on site or remotely
 - Seismic activity can disrupt all deployed VSAT over wide geography

➔ Solution

- Mobile Satellite terminal can be instantly set up if primary fails. Up to 10 users can work simultaneously.

➔ Benefit

- Guaranteed, easy to set-up, broadband connectivity
- Site remains connected and active – down time reduced



Summary – Why BGAN is the solution...

Flexible	<ul style="list-style-type: none">➔ Ideal for rapid deployment➔ Instant set-up on site as soon as the project starts➔ Control and Restrict access to services
Portable	<ul style="list-style-type: none">➔ Compact terminals ideal for anyone travelling alone and moving from site to site
Easy to use	<ul style="list-style-type: none">➔ No specialist technical expertise required to set up and use
Global coverage	<ul style="list-style-type: none">➔ Remote site connectivity➔ Extended team coverage
Simultaneous voice & broadband data	<ul style="list-style-type: none">➔ Send status reports while joining conference calls, track parts online while on the phone with suppliers
Reliable	<ul style="list-style-type: none">➔ Maximum reliability for critical data➔ Emergency response➔ Disaster recovery

Thank you