

Inmarsat BGAN



**Presentation to EBU
Networks 2007
To IP and Beyond**

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Outline of Presentation

- About Inmarsat
- Broadband Global Area Network
- Broadcast Media Applications

About Inmarsat

- Leading Provider of Global Mobile Satellite Communications Services
 - Established in 1979 as an inter-governmental organisation
 - Mobile Communications for the Maritime, Aeronautical and Land Mobile sectors
 - Over 230,000 active terminals world-wide
 - Services delivered via a worldwide network of approximately 500 distributors and service providers in over 180 countries
 - Extensive network of suppliers of services and equipment
- Global Provider of Safety Services
 - Maritime GMDSS and Aeronautical Safety
 - Privatised in April 1999, but we retain IMSO oversight to ensure safety service obligations



Inmarsat Global Satellite and Network Operations

Satellite Control Centre

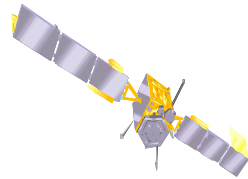


Network Operations Centre

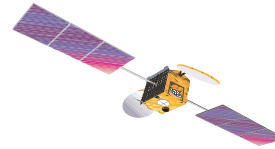


Inmarsat Satellites

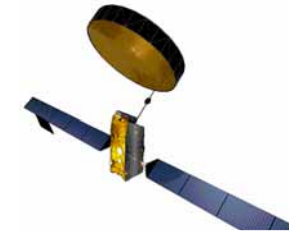
Inmarsat-2



Inmarsat-3



Inmarsat-4



No. Satellites

(4) 3

5

3

Coverage

1 Global Beam

7 Wide Spots
1 Global Beam

228 Narrow Spots
19 Wide Spots
1 Global Beam

Mobile Link EIRP

39 dBW

49 dBW

67 dBW

S/C Launch
Mass

1500 kg

2050 kg

6000 kg

Solar Array Span

14.5m

20.7m

48m

Operational
From:

1990

1996

2005

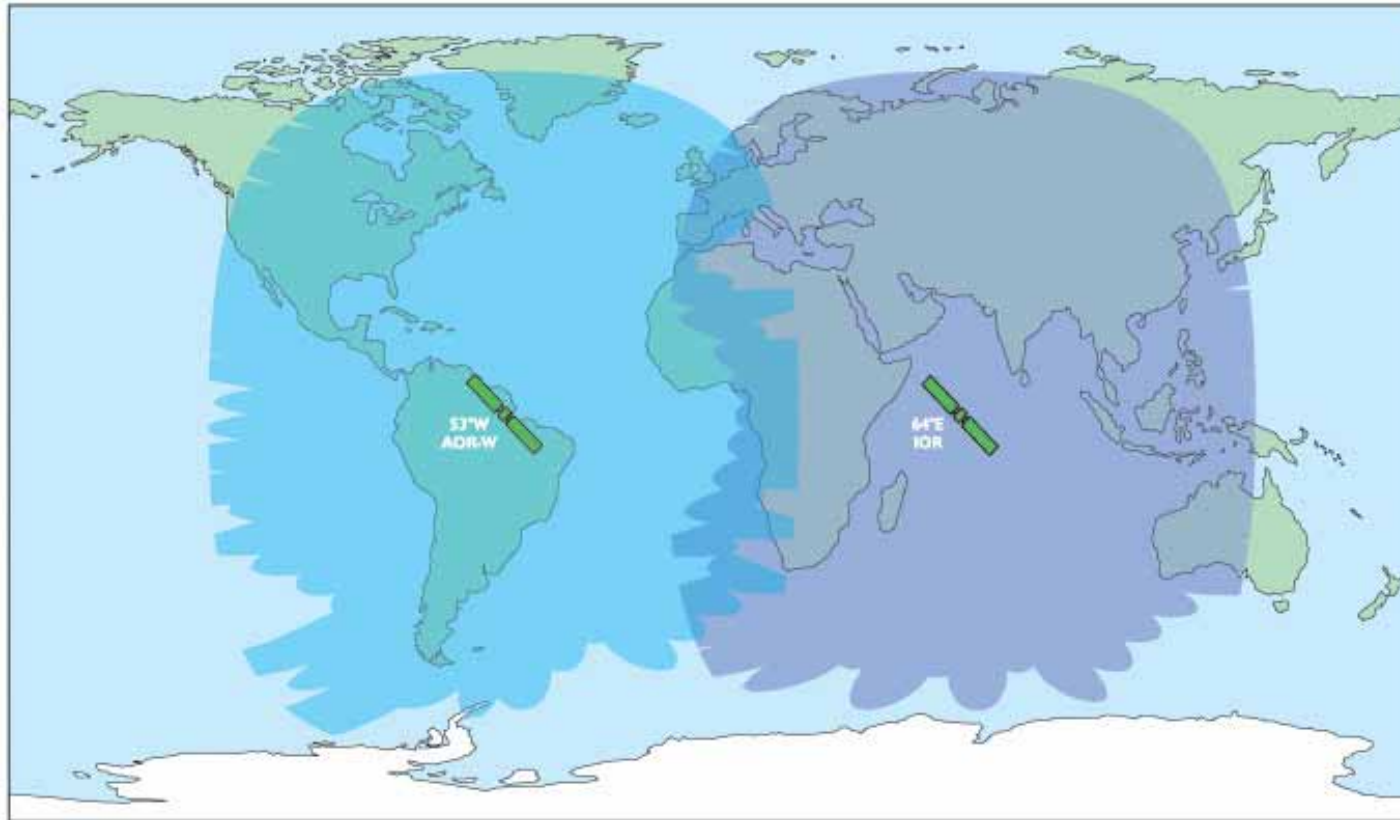


Inmarsat-4 Satellites

- Communications Transponders
 - C to L band
 - L to C band
 - L to L band
 - C to C band
 - Navigation



Current I-4 Satellite coverage

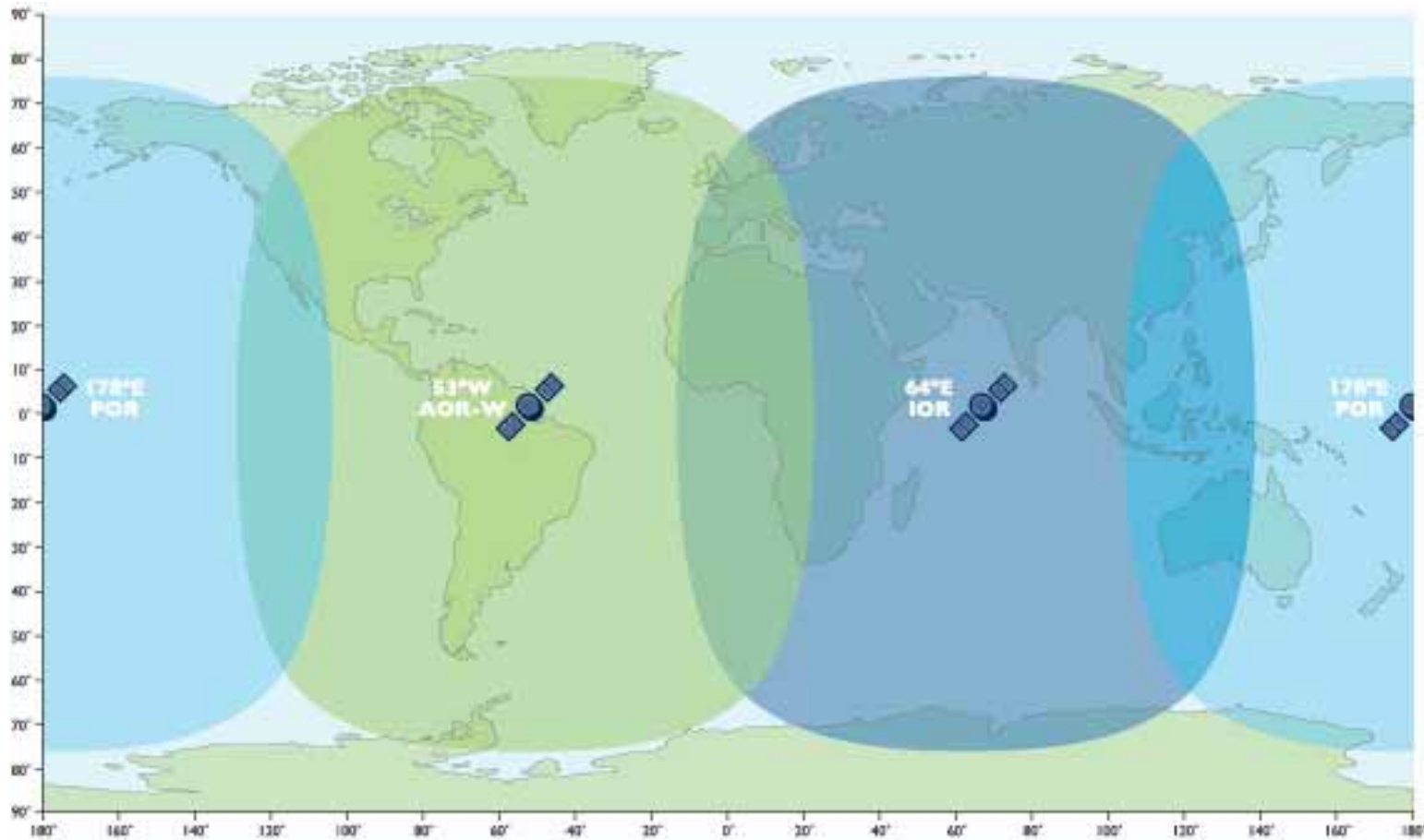


- 85% of world's land areas covered by the first two I-4 satellites

■ F2 I-4 Satellite ■ F1 I-4 Satellite

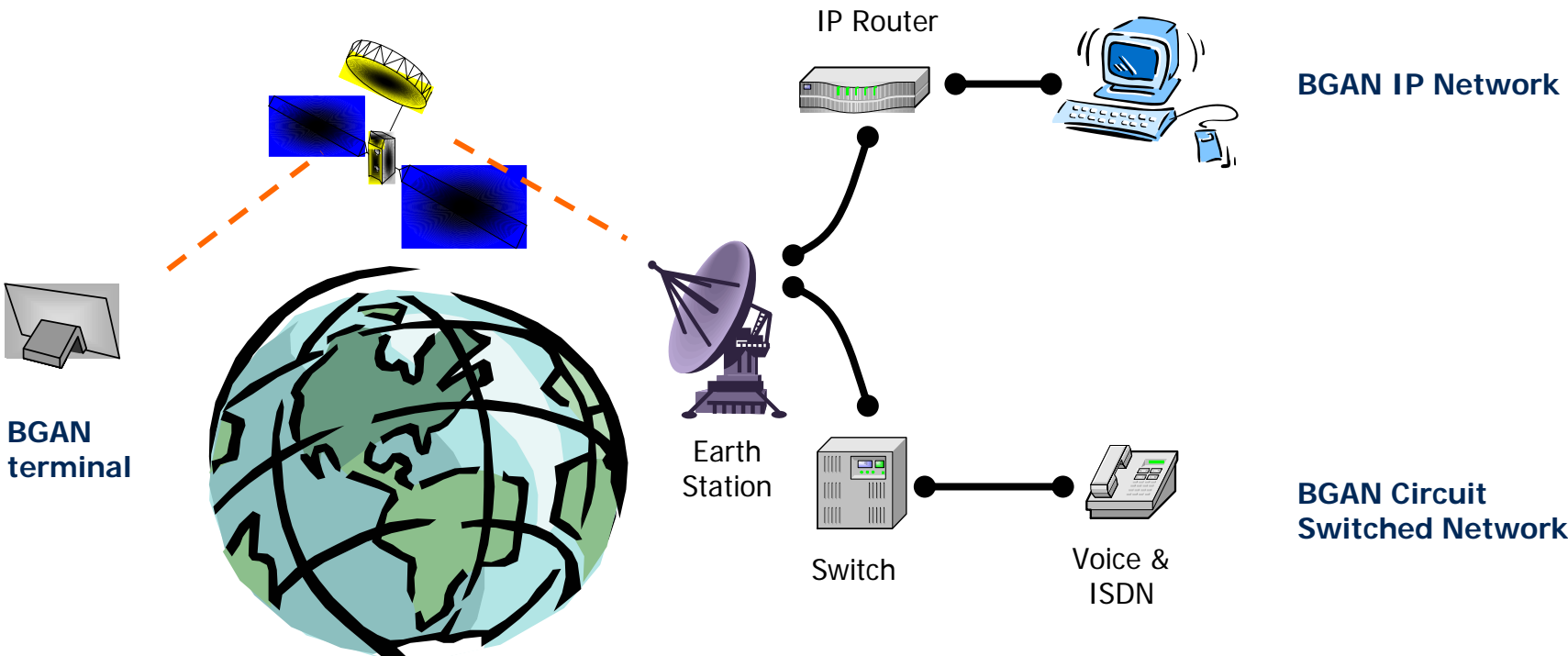


Full I-4 coverage



Orbital locations will be reviewed for further optimisation after the launch of the F3 satellite

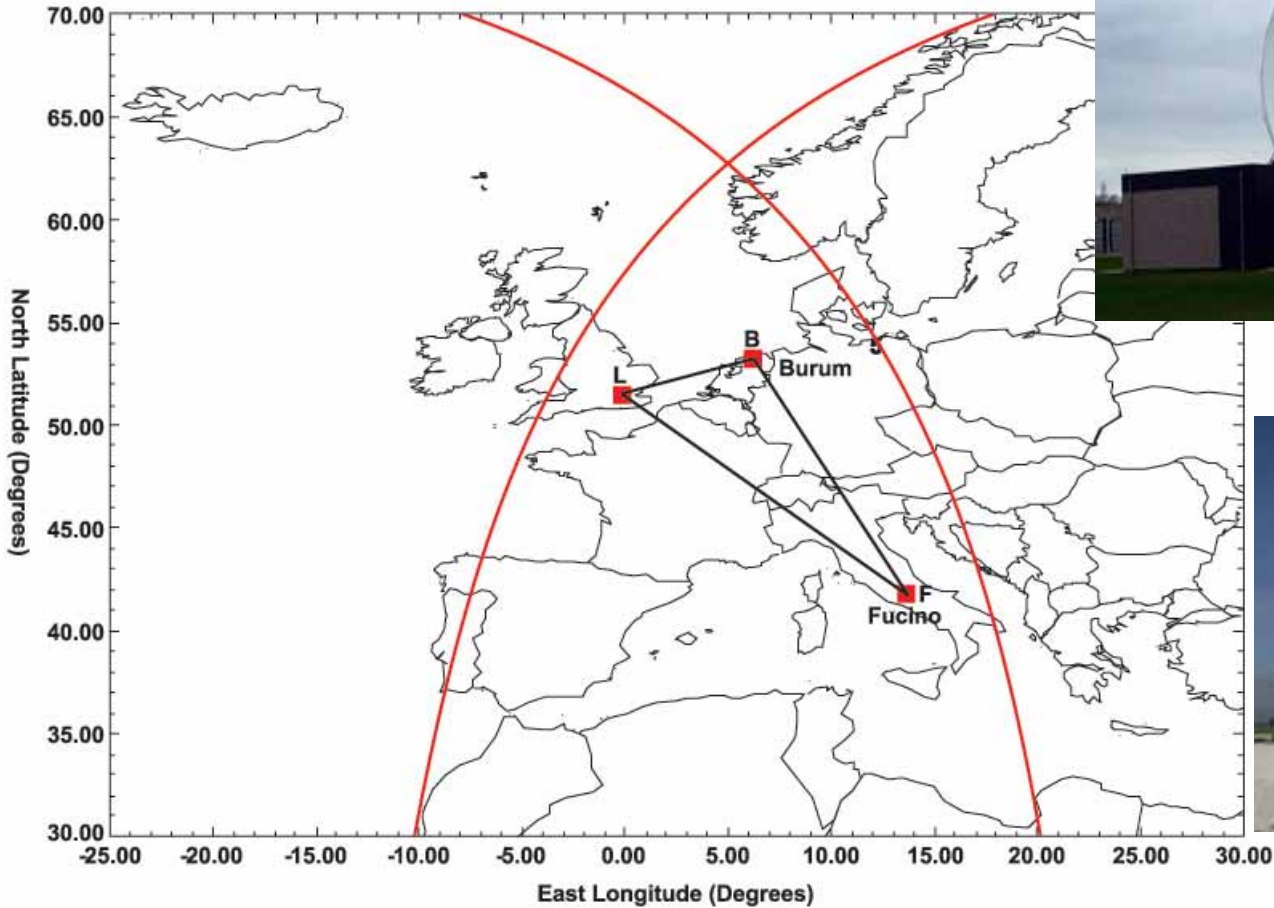
BGAN: Broadband Global Area Network



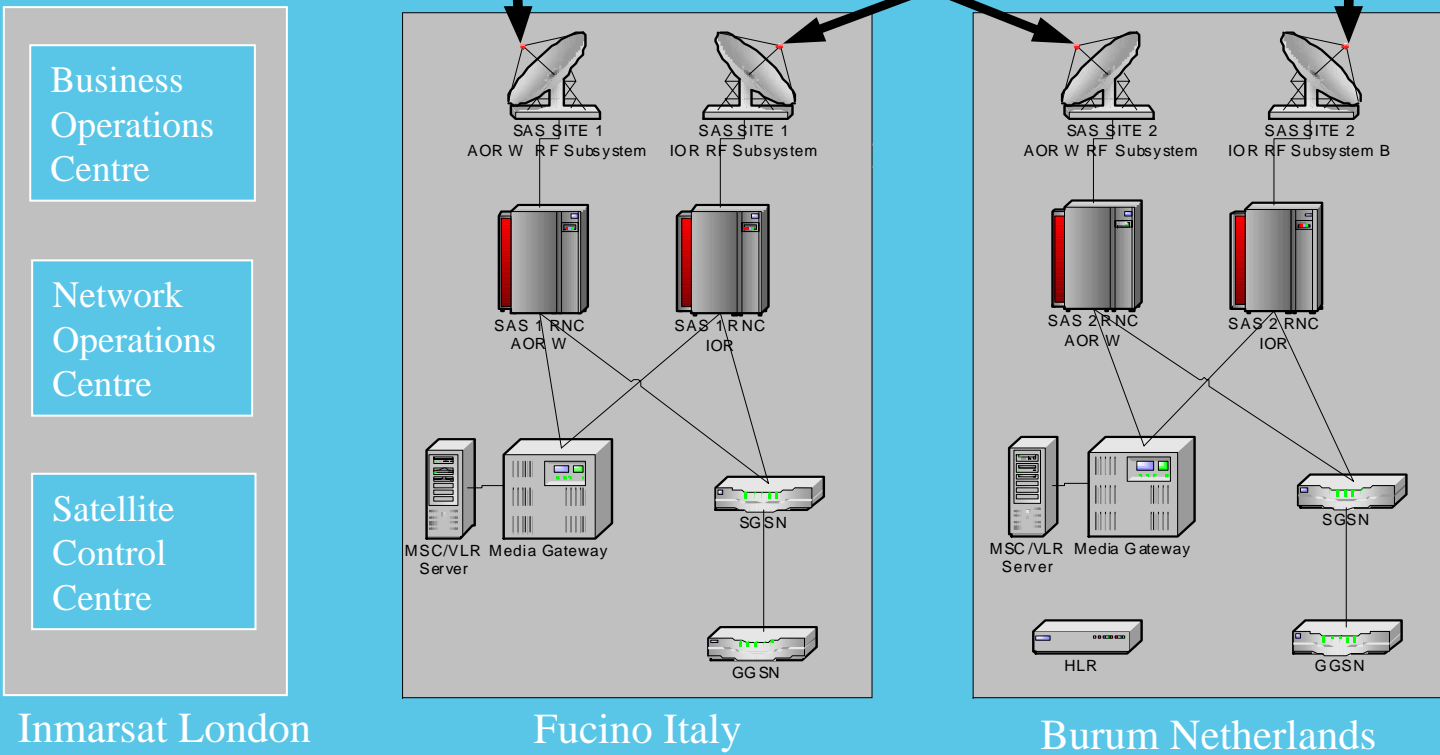
One mobile terminal connecting to two networks



BGAN: New Network Infrastructure



BGAN New Network Architecture



3G Services delivered via Satellite



BGAN: The 1st mobile communications service to offer:



Broadband IP data (up to 432 kbps)



... plus circuit switched voice

accessible simultaneously

through a single compact device



with guaranteed streaming data rates on-demand



that is available globally

Redefining Remote Office Connectivity

- High bandwidth data with simultaneous voice through a truly portable device on a global basis
- IP connectivity 'background' and 'streaming' services available on demand
- Setup in minutes
- One phone number accessible globally
 - Inmarsat subscriber number range: +870 77 *****



A range of Mobile Terminals

Sabre™ I

WorldPro 1000

EXPLORER™
300/500/700

HNS 9201

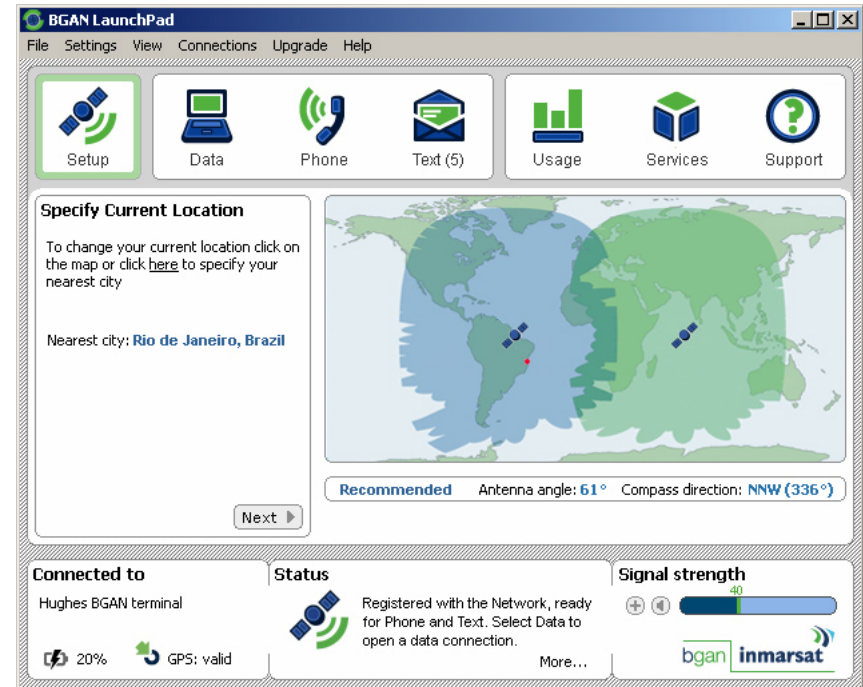


Manufacturer	Addvalue	Nera SatCom	Thrane & Thrane	Hughes
Size (mm)	254 x 180 x 59	200 x 140 x 40	217 x 217 x 52	345 x 275 x 50
Weight	1.25 Kg	1 Kg	1.5 Kg	3 Kg
Standard IP: up to	384/240kbps	384/240kbps	464/448kbps	492/492kbps
Streaming IP	32, 64kbps	32, 64kbps	32, 64, 128, 256 kbps	32, 64, 128, 256 kbps
ISDN	n/a	n/a	3.1kHz audio, 64 kbps	64kbps
Voice	RJ11 or Bluetooth handset/headset	RJ45 or Bluetooth handset	RJ11 or Bluetooth handset;	ISDN handset
Data interfaces	USB, Bluetooth, Ethernet	USB, Bluetooth Ethernet – Q2 '06	USB, Bluetooth, Ethernet	USB, Ethernet, 802.11b WLAN
Environmental Tolerance	IP 44	IP 44	IP 54	IP 55



Easy to use

- Easy to carry, quick to set up, simple to use via 'Launchpad' software supplied with user terminals
- No technical expertise required
- Consistent user experience
- Same user interface across all terminals
- 24/7 customer support



Reliable

- Dependable communications you can rely on for live broadcasting
- Robust terminals for challenging environments
- 24/7 customer support from our partners

Broadband for a mobile planet.™
Wherever. Whenever. Whatever.



Inmarsat's Broadband Global Area Network service - BGAN - is set to transform satellite news gathering with a compelling combination: small, high bandwidth terminals that can be rapidly deployed all over the world and easily used by non-technical staff.

BGAN will be the only mobile satellite service to offer broadband data - up to 492kbps - with simultaneous voice through a single, highly portable device on a global basis. It is also the first service to offer guaranteed data rates on demand - up to 256kbps - for live video broadcast.

Wherever the story breaks next, make sure BGAN is at your side.

Visit our stand in
Hall 2.117 at IBC from
9th - 13th September

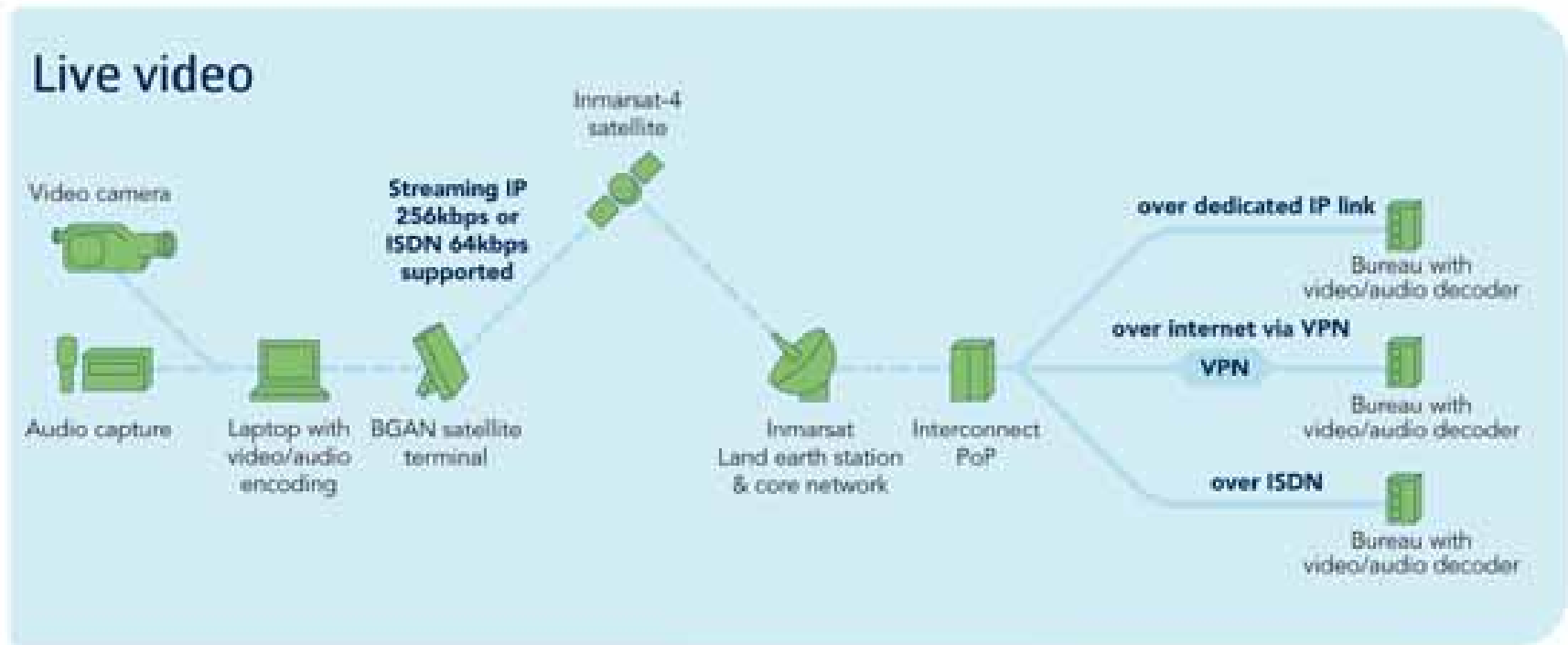


Broadcast media solution



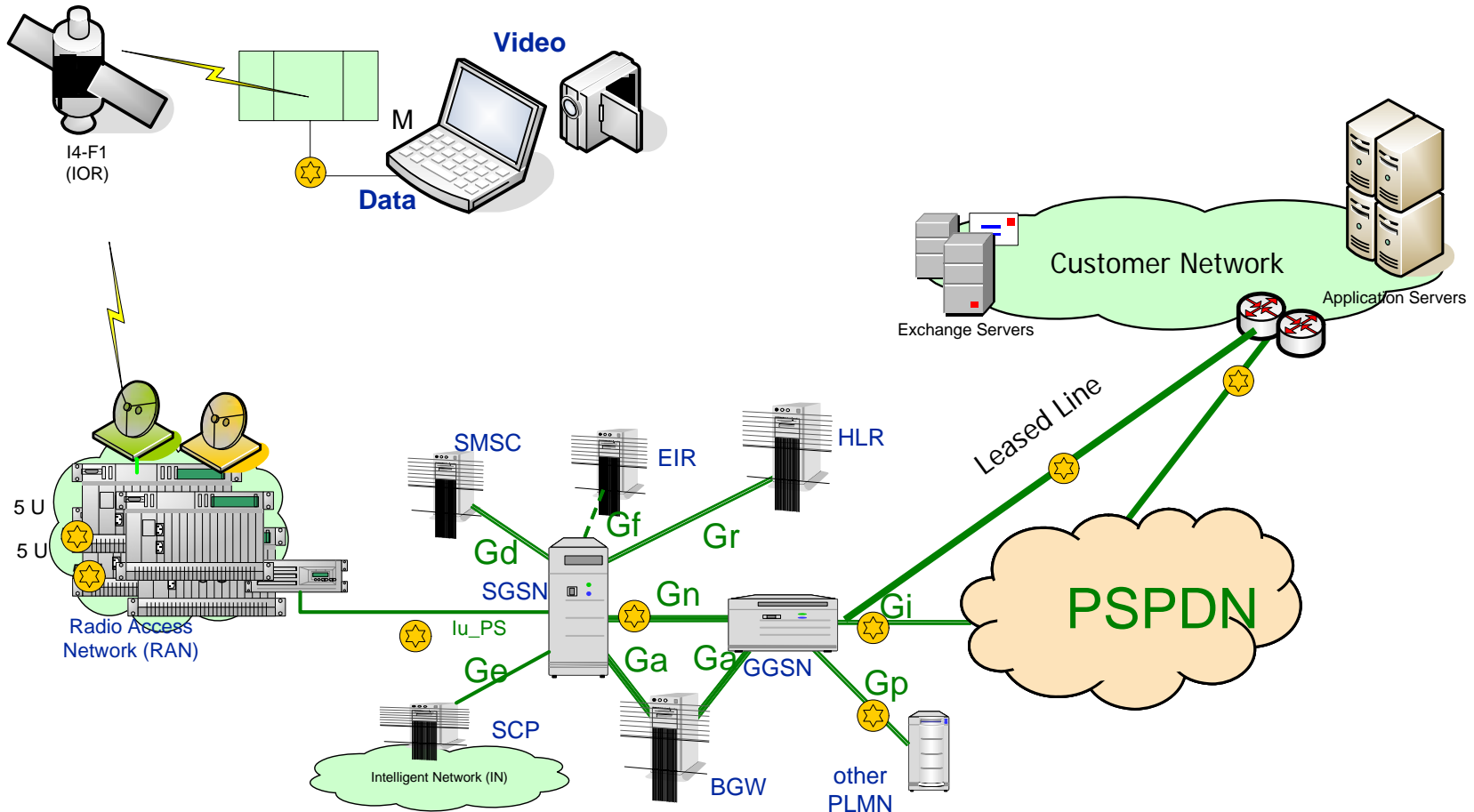
- Ideal for rapid deployment and moving quickly to wherever the story breaks next
- Sends reports quickly in dangerous situations
- Easily carried in a backpack
- Doesn't draw attention to media presence in dangerous situations
- No technical expertise required

Flexible Connectivity to Customer networks



- Supports IP and ISDN applications – supporting legacy applications while providing a smooth upgrade path
- Can choose between Standard and Streaming IP services on a session by session basis

Performance Checking for the IP Streaming services



3G IP Data: Summary of Services

1. Standard IP service

- Background Class QoS IP bearer – up to 432kbps
- Variable bit rate (dependent on traffic)
 - Web access, file transfer, email
 - Contention ratio to maintain minimum data rates
 - Pay for data sent and received

2. Streaming IP service

- Streaming Class QoS IP bearer
- Reserved capacity – guaranteed bit rate over the satellite
 - 32, 64, 128, 256kbps (send and receive)
 - Available “on demand”
 - Pay for duration of connection
 - Ideal for time critical data; streaming video

Circuit Switched Services: Summary

- Direct dial voice service
 - Landline quality voice, 4kbps vocoder
 - To-mobile and from-mobile calls
 - Inmarsat subscriber number range: +870 77 *****
- ISDN Circuit Switched Data Service
 - Supported by selected terminals only
 - 64kbps service similar to Inmarsat GAN service
- SMS
 - Send/receive SMS to/from terrestrial mobile phones from a PC/PDA connected to a BGAN device
 - Some terminals support SMS messaging from the handset keypad also
- Voicemail
 - Shortcode dial to access messages
- Supplementary services (GSM)



Long Way Down: Hollywood star's epic bike trek beamed via BGAN

LONG way down

HOME JOURNEY TEAM MEMBERS EQUIPMENT POSTCARDS SHOP FORUM PARTNERS

AFRICA

LONG WAY DOWN
Best mates [Ewan McGregor](#) and [Charley Boorman](#) have come together again for their next epic adventure, Long Way Down. Their motorbikes will take them from John O'Groats at the northern-most tip of Scotland, United Kingdom, to Cape Agulhas, South Africa, the most southerly tip of Africa. It's two men, two bikes, the open road and an incredible journey through deserts, jungles, rugged terrain and nature's most challenging environments.

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SHOW SUPPORT
unicef riders

COMING SOON:
EXCLUSIVE MEMBERSHIP
UNSEEN FOOTAGE
ALL-ACCESS PASS

earth elixir

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Thank You!

Alan Howell

Inmarsat BGAN
Global Voice and Broadband Data