

# Satellite Operators Panel: Bandwidth Optimisation

WBU-ISOG Forum, 28 November 2012

Sabrina Cubbon  
Vice President, Sales and Marketing  
AsiaSat



Your First Choice for Access, Quality and Power in Asia



## Some Challenges in Satcoms ( just to name a few!)



- ▶ Limited RF power on satellite due to on-board batteries
- ▶ Limited bandwidth allocated to satcoms under ITU
- ▶ High risk of losing more C-band to IMT
- ▶ Crowded skies, satellites close to each other affecting quality
- ▶ Increase in demand : HD, 4K UHD...
- ▶ Desire to use smaller antennas : lower cost, easy to operate

## Bandwidth Optimisation ( More Bits, Better Quality)

- ▶ New modems installed for customer support and evaluation in search of higher throughput, driving closer to Shannon's theoretical limit using smaller FEC steps and better roll off
  - ▶ Proprietary modem
  - ▶ DVB-S2 extensions
- ▶ Deployed wide band Ku and Ka-band transponders on AsiaSat 7 for in-orbit evaluation, savings on guard band, tubes, power and mass
- ▶ Support customers' migration from DVB-S to DVB-S2
- ▶ Promote MCPC platform for power, bandwidth and RF uplink efficiency → Better Quality
- ▶ Full transponder DVB-S2 MCPC platforms for TV service on AsiaSat
  - ▶ 4 C-band + 10 Ku-band DVB-S2 platforms vs 18 C-band DVB-S platforms
  - ▶ 2 planned C-band DVB-S2 platforms and more to come!

## AsiaSat's Future Satellites

Expanding our Fleet to Meet Increasing Market Demand for Quality Satellite Capacity

	<u>Orbital Location</u>	<u>Launch Date</u>	<u>Payload</u>	<u>TWTA</u>	<u>Coverage</u>
 <i>AsiaSat 6</i>	120°E	1H 2014	28 C	100W	Asia, Middle East Central Asia Australasia
 <i>AsiaSat 8</i>	100.5°E (Co-locate with AsiaSat 5)	1H 2014	24 Ku + Ka beam	210W	1) China beam 2) India beam 3) Middle East beam 4) SE Asia beam

## AsiaSat's Teleport Services (1)

### World Class One-stop Transmission Solution for Broadcasters and Content Providers

- ▶ Downlink, turnaround and uplink
- ▶ Fibre connectivity
- ▶ Full transponder DVB-S2/S MCPC platforms
- ▶ Encryption
- ▶ Equipment hosting
- ▶ Playout service
- ▶ *Broadway* Internet connectivity service
- ▶ 24/7 broadcast and operations centre for clients
- ▶ Satellite carrier monitoring
- ▶ Disaster recovery facilities
- ▶ Occasional use and SNG services



AsiaSat Tai Po Earth Station

## AsiaSat's Teleport Services (2)

### Enhanced Value-added Services to Support Broadcasters' Diverse Needs

#### Playout Service Features

- ▶ SD and HD
- ▶ MPEG-2 or MPEG-4 compression format
- ▶ SmartCast or PlayBox solutions
- ▶ Content and playlist remotely uploaded by client or sent via Internet or fibre for playout in Tai Po
- ▶ 24/7 monitoring service
- ▶ Customised solutions

#### Fibre Connectivity

- ▶ Connectivity in place at Tai Po with major local service providers including PCCW, HGC, Wharf T&T, HKBN and Towngas Telecom
- ▶ Can be linked to overseas countries via fibre with international carriers e.g. BT, Tata Communications and PCCW Global to provide further reach

# Thank You !



Your First Choice for Access, Quality and Power in Asia

