

Content Distribution

World Services Congress 2001

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AsiaSat



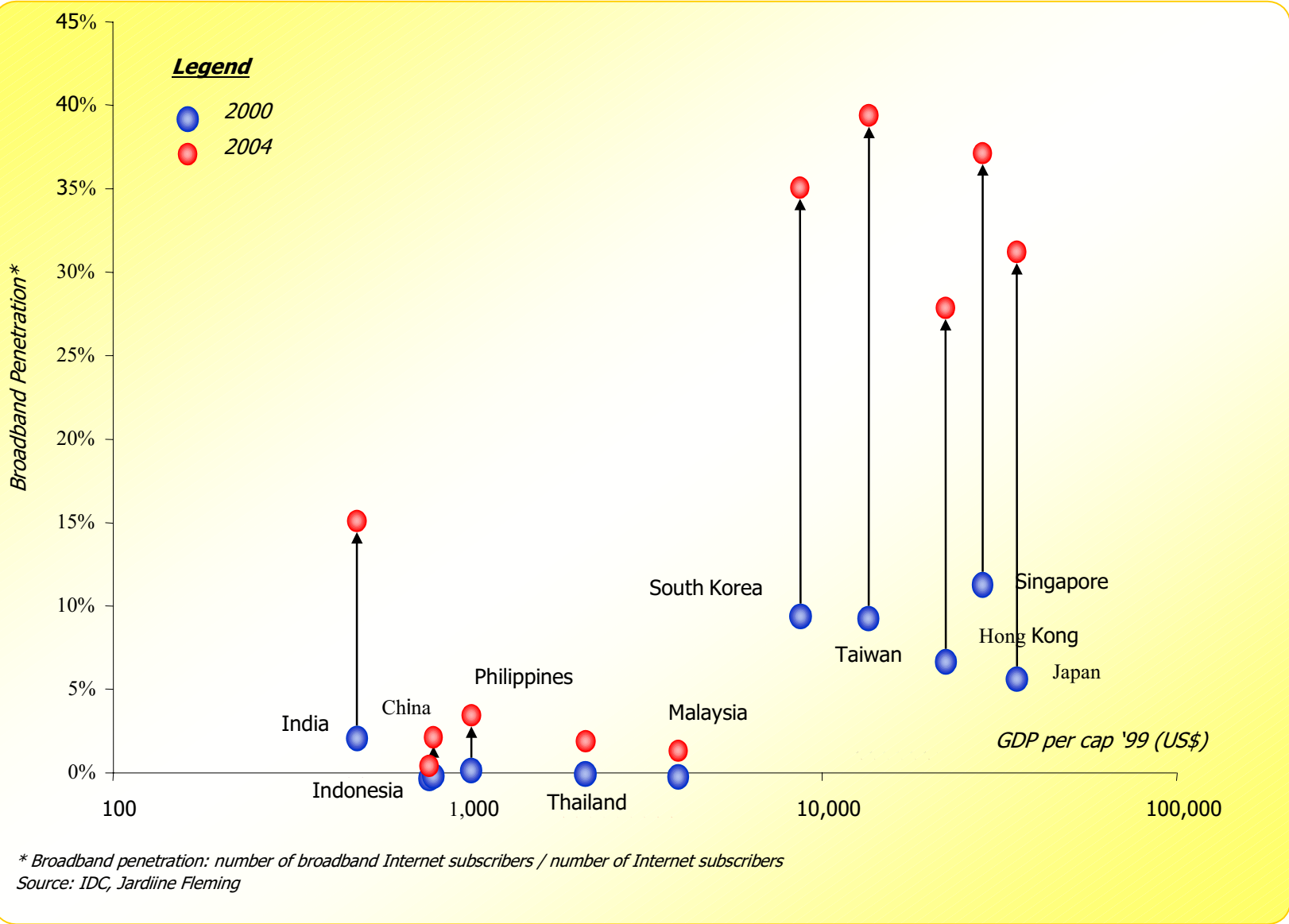
▶ Type

- ▶ Television content
- ▶ Radio content
- ▶ Internet content

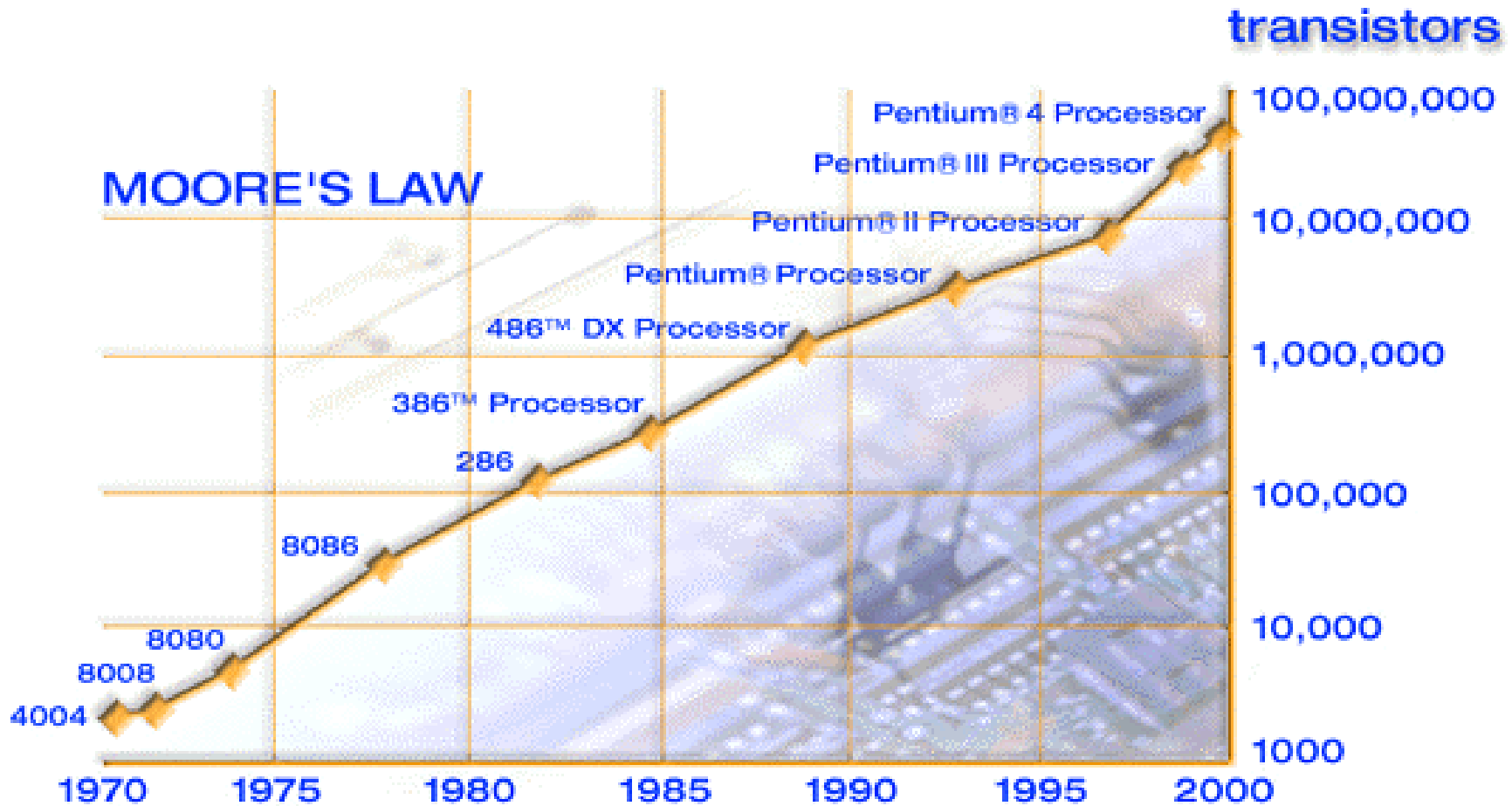
▶ Factors

- ▶ Economic
 - ↑ GDP, ↑ appetite for TV/information
- ▶ Technical
 - ↑ computer processing power, ↓ memory price, ↑ affordability
 - ↑ digitalisation, ↑ choice of content

GDP vs Broadband Penetration

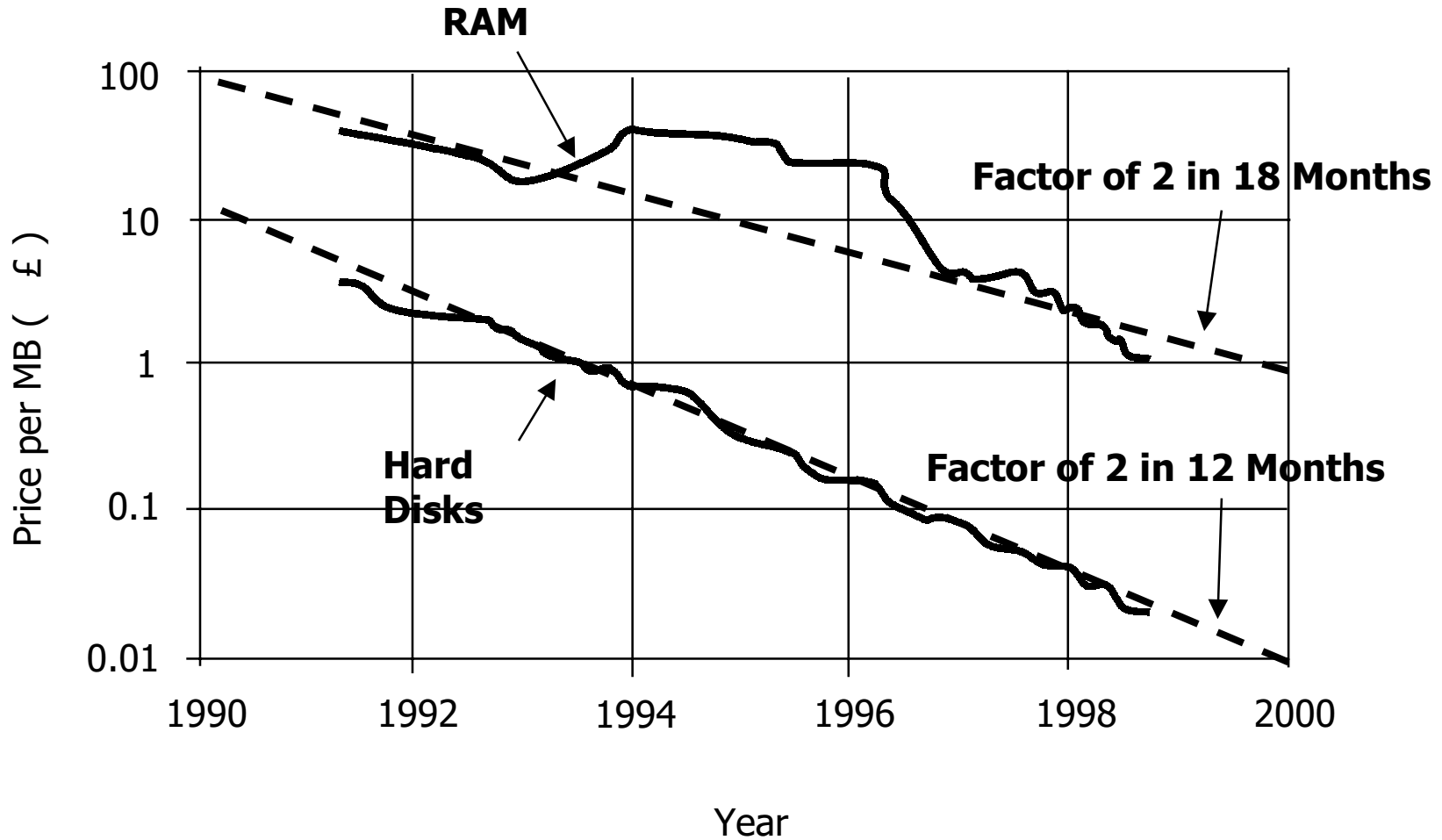


Computer Processing Power



Source: Intel

Memory Price

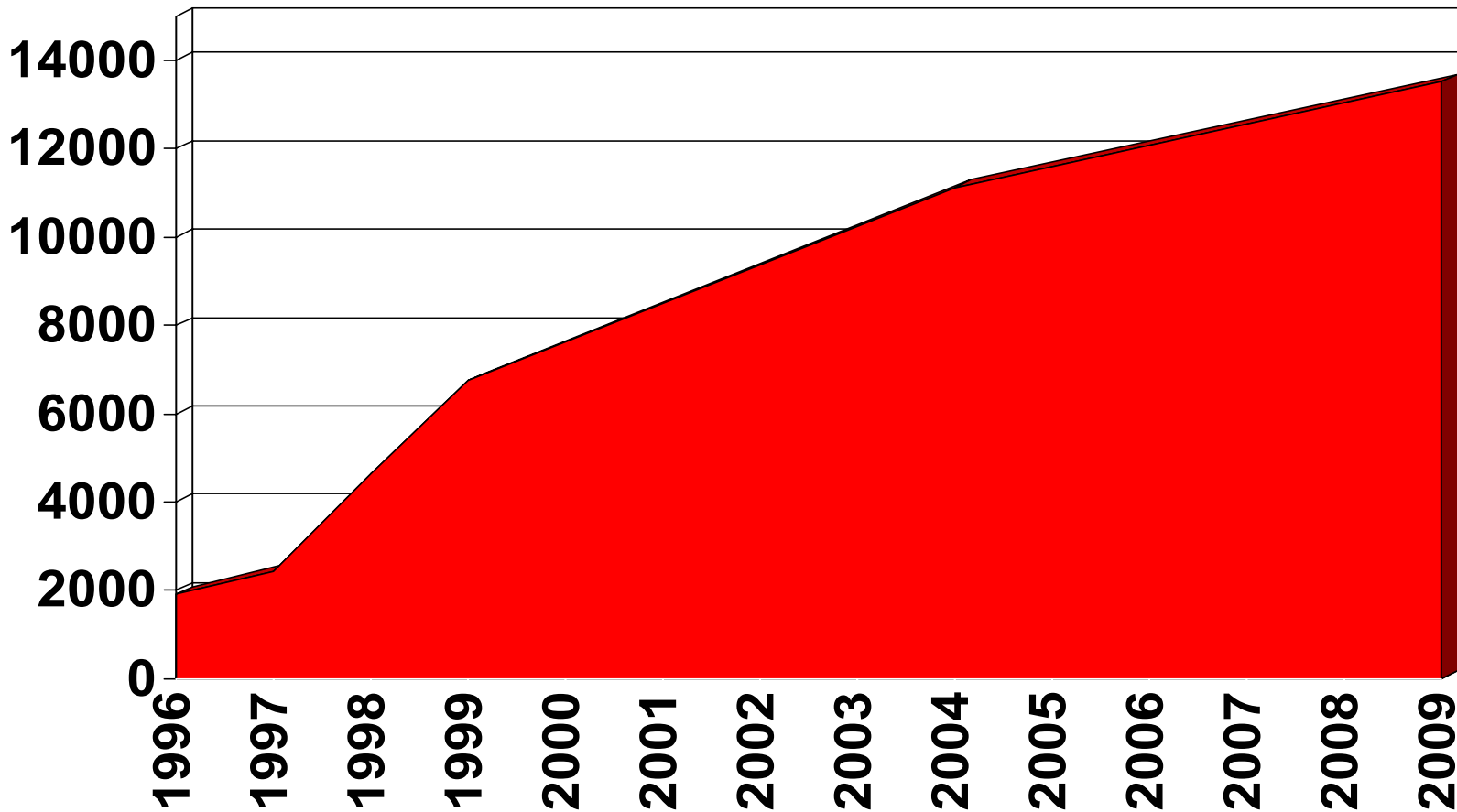


Digital Changes the Landscape



- ▶ Increasing TV channels

Projected Satellite Television Channels (1996 - 2008)



Source: Euroconsult 2000

Digital Changes the Landscape



- ▶ Increasing TV channels
- ▶ Increasing Internet content - moving from static web pages to video

The screenshot shows the Bloomberg website interface from Thursday, Oct 5, 2000. The top navigation bar includes 'SpeedCast Home', 'Bloomberg TELEVISION Asia-Pacific', and menu items for 'BUSINESS / FINANCE', 'NEWS', 'ENTERTAINMENT', 'LIFESTYLE', and 'CULTURE'. A 'CHANNEL GUIDE' button is also present.

The main content area features a video player on the left with a Bloomberg logo and a 'pop-up' button. Below the video is a 'Bloomberg Stock Quotes' section with an 'Enter symbol:' field and a 'Lookup symbol' button.

On the right, there are three news sections:

- North Asia News** (Thu, 10 Aug 2000, 04:07am HKT):
 - Cathay Pacific Posts Record 1st-Half Profit, Travel, Cargo Demand Rebound
 - Asian Stocks: Taiwan Rises on Tax Delay, TSMC Leads; Japan, Korea Advance
 - CyberWorld's Chairman Sells 1% of Shares on Eve of Inclusion in Hang Seng
 - Korea First Bank, 1st Lender Bought by a Foreign Investor, Turns to Profit
 - China Industrial Output Increases 12.8% in July, Fastest Pace Since 1996
- South Asia News** (Thu, 10 Aug 2000, 04:07am HKT):
 - Asian Stocks: Taiwan Rises on Tax Delay, TSMC Leads; Japan, Korea Advance
 - Mitsubishi Official Quits Proton After Criticizing Malaysian Automaker
 - Singapore Airlines Takes Three Seats on Air New Zealand's 14-Member Board
 - Malakoff to Raise \$263 Million to Finance Malaysia's Kapar Power Plant Buy
 - Indonesia's 2000 Inflation Likely to Exceed 7 Percent, Central Bank Says
- Technology News** (Thu, 10 Aug 2000, 04:07am HKT):
 - Chinadotcom's Yip: 2nd-Qtr Results, China Opportunities
 - New Zealand Ahead: Calendar Through Sept. 1
 - Gimbel Asset's Gimbel: Cisco, Amazon.com and Wireless
 - Pakistan Stocks Decline on Govt-Hydro Power Rate Dispute
 - Chinadotcom Teleconference: Second-Quarter Results

At the bottom, a banner reads 'Bloomberg Pricing, Data, and News Anywhere You Go on the Web'.

Digital Changes the Landscape

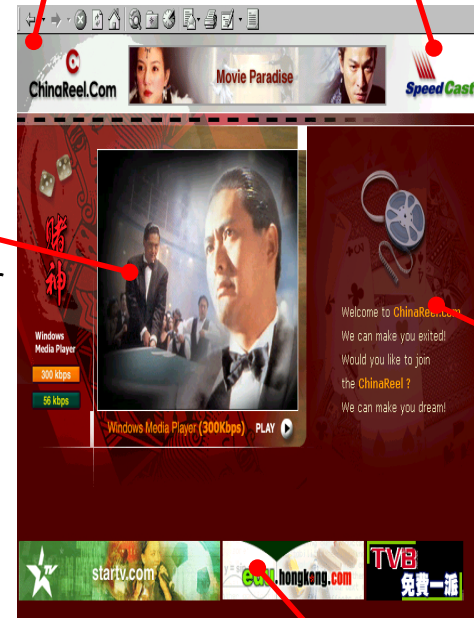
- ▶ Increasing TV channels
- ▶ Increasing Internet content - moving from static web pages to video
- ▶ Increasing interactivity

Dual Branding

- Logo of content provider and SpeedCast

Streaming Video

- 300-500kbps for IP-Multicasting
- 33.6kbps for narrowband



Hyperlinks

- Generate traffic to content provider
- e-Commerce
- Additional information

Banner

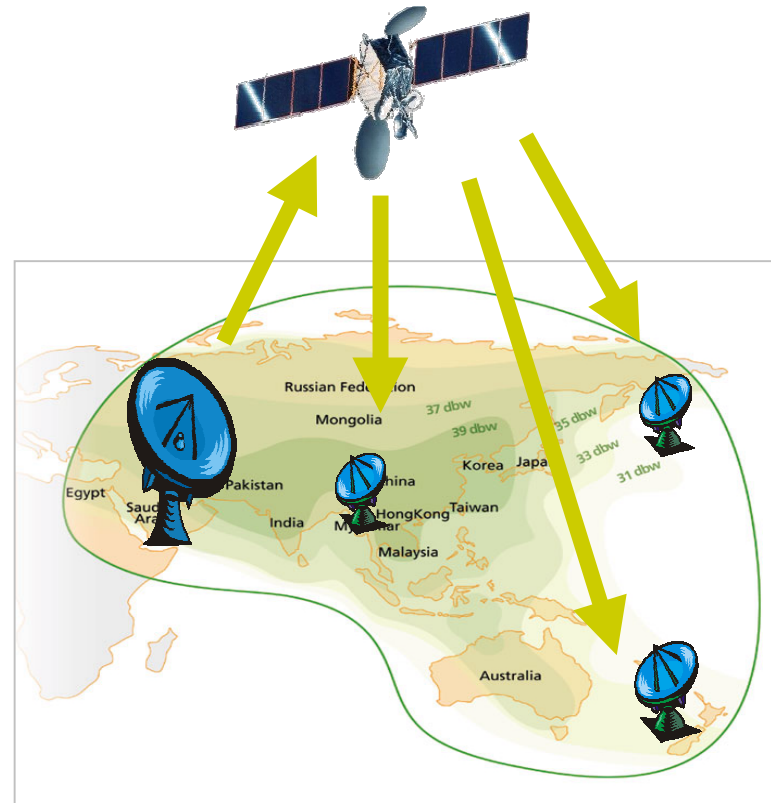
Advertisement & Sponsorship

- Revenue shared with content provider

Advantages of Satellite in Content Delivery



- ▶ Most cost effective point to multipoint distribution
- ▶ Provide instant ubiquitous coverage - wide coverage and fast deployment
- ▶ Relatively much lower end-user deployment costs - only invest in areas where subscribers exist

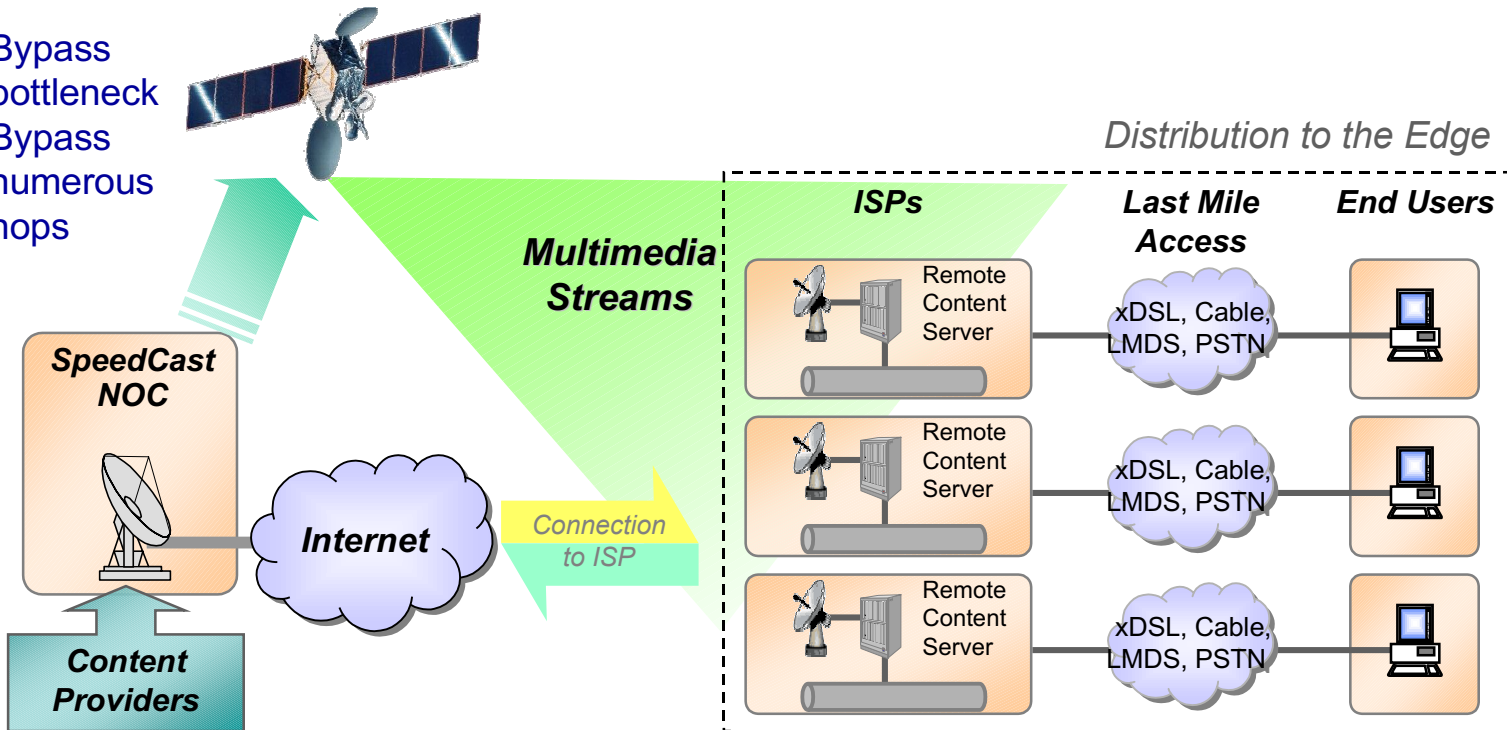


Advantages of Satellite in Content Delivery



► Distribute content to the edge - bypass bottlenecks

- ☑ Bypass bottleneck
- ☑ Bypass numerous hops



- ☑ Multicast serves unlimited no. of users

- ☑ No additional strain on existing backbone

- ☑ Multicast serves unlimited no. of users

- ☑ Flicker-free multimedia content

Regulatory Environment in Asia Pacific



- ▶ Countries that adopt an unrestricted or liberal approach to DTH reception

- ▶ Australia
- ▶ Indonesia
- ▶ Jordan
- ▶ Kuwait
- ▶ New Zealand
- ▶ Taiwan
- ▶ Thailand

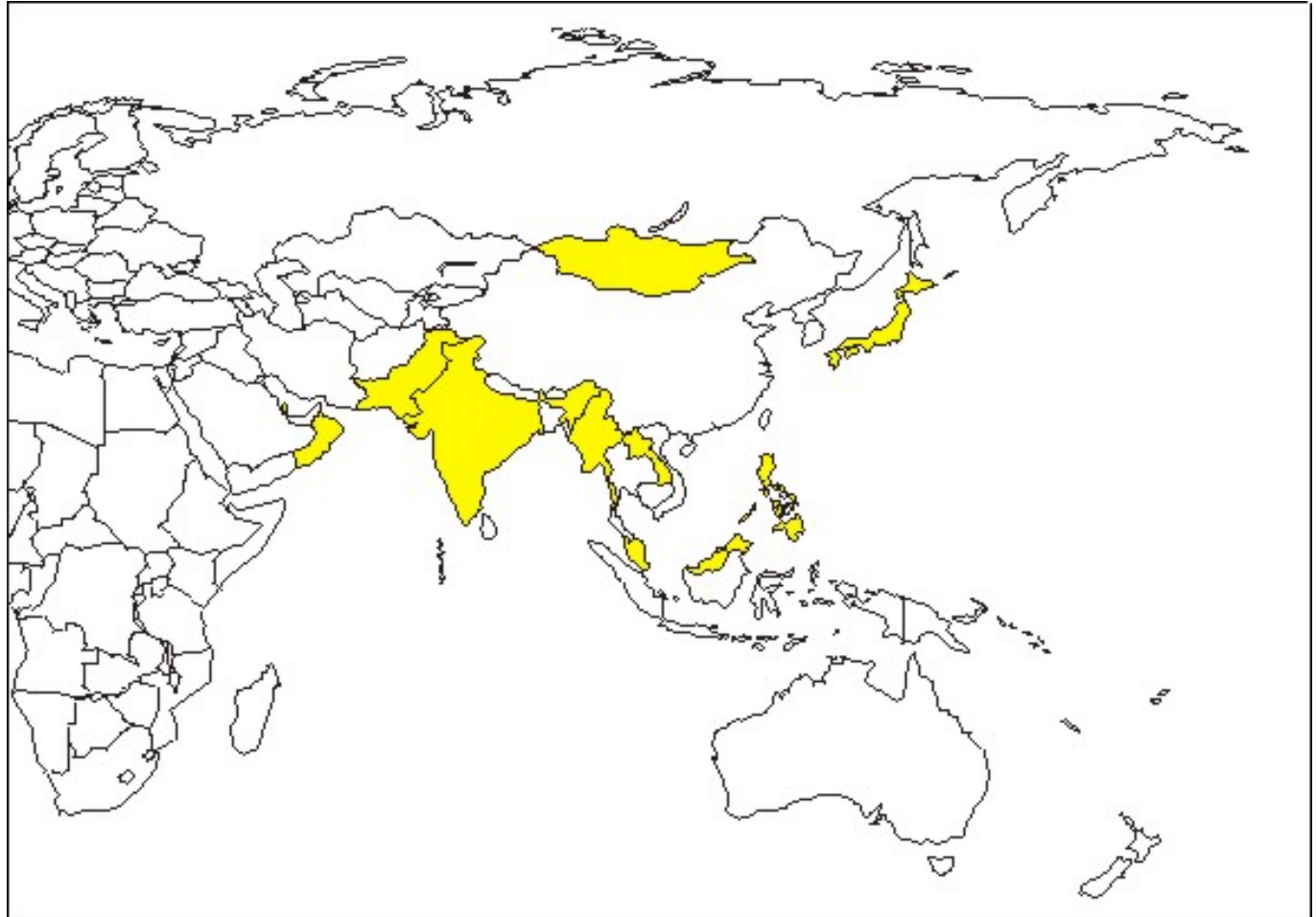


Regulatory Environment in Asia Pacific



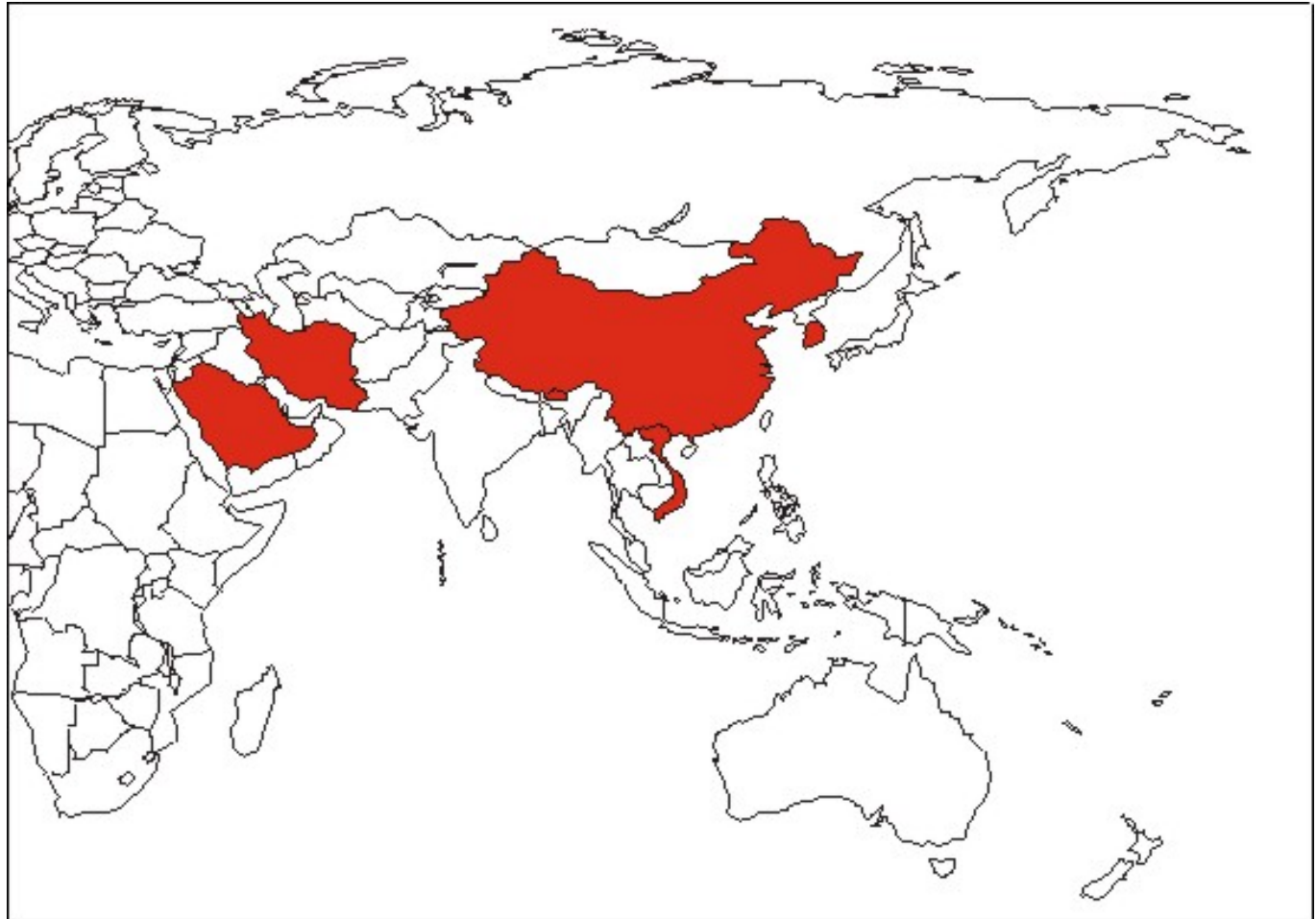
▶ Countries that permit DTH reception but subject to certain licensing conditions

- ▶ Bahrain
- ▶ Brunei
- ▶ Hong Kong
- ▶ India
- ▶ Japan
- ▶ Laos
- ▶ Malaysia
- ▶ Mongolia
- ▶ Myanmar
- ▶ Oman
- ▶ Pakistan
- ▶ Philippines
- ▶ Qatar



▶ Countries that prohibit DTH reception

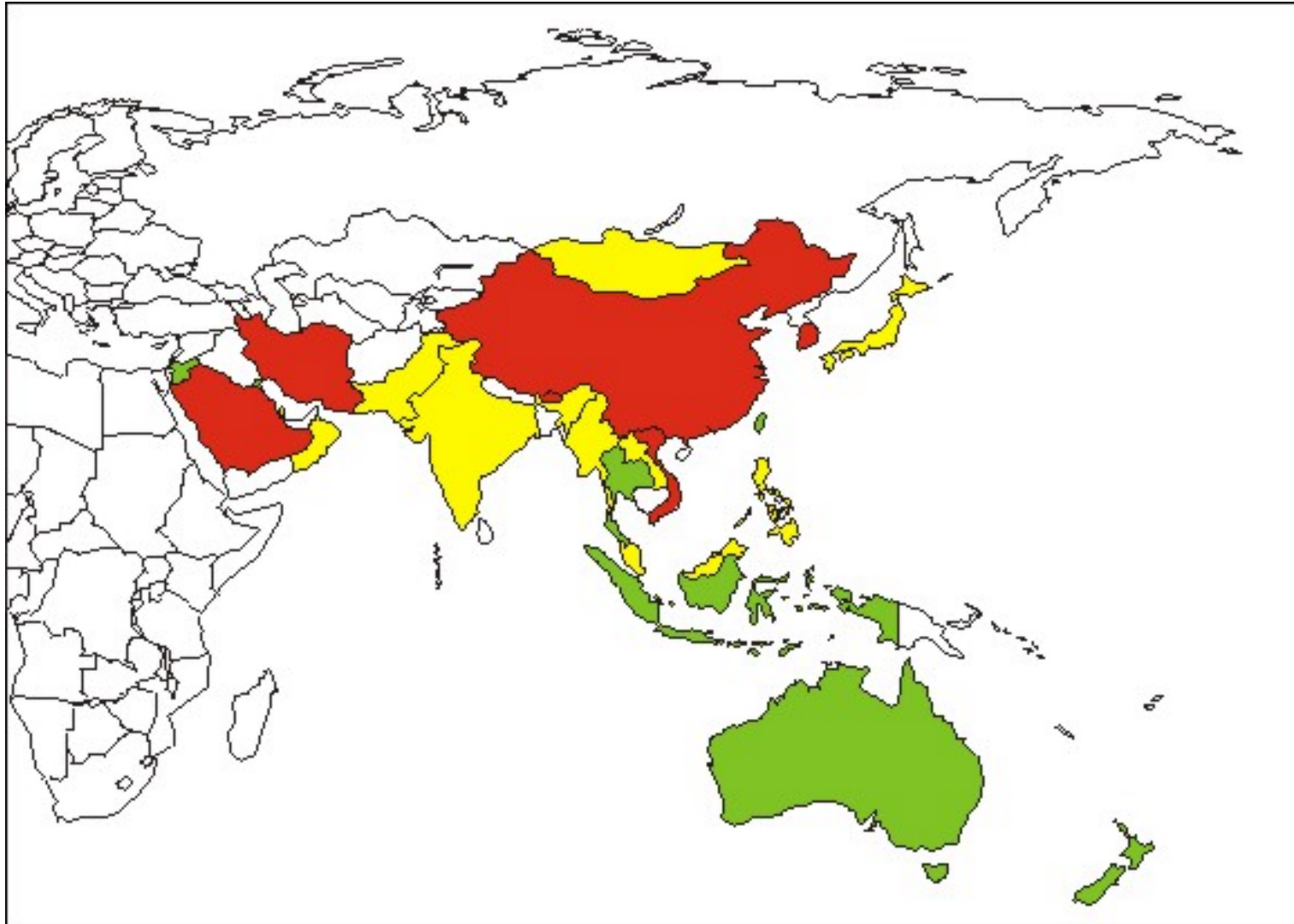
- ▶ Bhutan
- ▶ China
- ▶ Iran
- ▶ Saudi Arabia
- ▶ Singapore
- ▶ South Korea
- ▶ Vietnam



Regulatory Environment in Asia Pacific



■ Prohibited ■ Permitted ■ Unrestricted



Conclusion



Call for More Open Sky

- ▶ Relax the use of foreign satellites in some existing protected markets
- ▶ Liberalise satellite TV reception in some existing restricted markets

And as a result.....

- ▶ More content providers serving the market
- ▶ More choice of content
- ▶ More local content catering for local markets
- ▶ More affordable services available to viewers