

# TDSAT SEMINAR

# DIGITALISATION –THE WAY FORWARD

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# PRESENT SCENARIO

Million	2004	2005	2006	2007e	CAGR	
					2004-07	2008*
<b>TV households</b>	<b>102.0</b>	<b>109.0</b>	<b>112.0</b>	<b>115.0</b>		<b>120</b>
<b>% Change</b>		<b>7%</b>	<b>3%</b>	<b>3%</b>	<b>4%</b>	<b>4.5%</b>
<b>Pay TV households</b>	<b>50.0</b>	<b>62.0</b>	<b>70.0</b>	<b>74.0</b>		<b>78</b>
<b>% Change</b>		<b>24%</b>	<b>13%</b>	<b>5%</b>	<b>14%</b>	<b>5%</b>
<b>Cable TV households</b>	<b>50.0</b>	<b>61.0</b>	<b>68.0</b>	<b>70.0</b>		<b>72</b>
<b>% Change</b>		<b>22%</b>	<b>11%</b>	<b>3%</b>	<b>12%</b>	<b>3%</b>
<b>DTH households</b>	<b>0.1</b>	<b>1.0</b>	<b>2.0</b>	<b>3.5</b>		<b>6</b>
<b>% Change</b>		<b>900%</b>	<b>100%</b>	<b>75%</b>	<b>227%</b>	<b>71%</b>

Source: FICCI – PWC report 2008

\* TRAI Consultation paper no. 14/2008 dt. 1/12/08

# FUTURE PROJECTIONS

The Broadcasting Sector in India is undergoing a process of sweeping changes driven by advent of new distribution technologies such as DTH, Broadband, CAS, HITS, IPTV, etc.

## MPA ESTIMATES (2008)

- Pay TV market to grow from 82 ml. homes (2007) to 137 ml. (2012) & 164 ml. (2017)
- Digital Pay TV to grow from 4 ml. subs (2007) to 38.2 ml. (2012) & 57 ml. (2017)
- Pay TV industry will grow at an average annual rate of 16% to generate US\$ 11.3 billion in revenues by 2012. Total Pay TV industry revenues could ultimately reach US\$ 18.5 bil. By 2017.
- Pay TV industry subscription revenues could climb from US\$ 3.8 bil. at the end of 2007 to reach US\$ 7.8 bil. By 2012 & US\$ 12.3 bil. by 2017

## SSKI ESTIMATES (June 2007)

	Digital Cable	DTH	IPTV
Year 2010	14 million	16million	7 million

# FUTURE - MULTIPLE LAYERS OF CONVERGENCE

**YESTERDAY**

*(Silos into the home)*

**TODAY**

*(Convergence of services, networks & devices)*

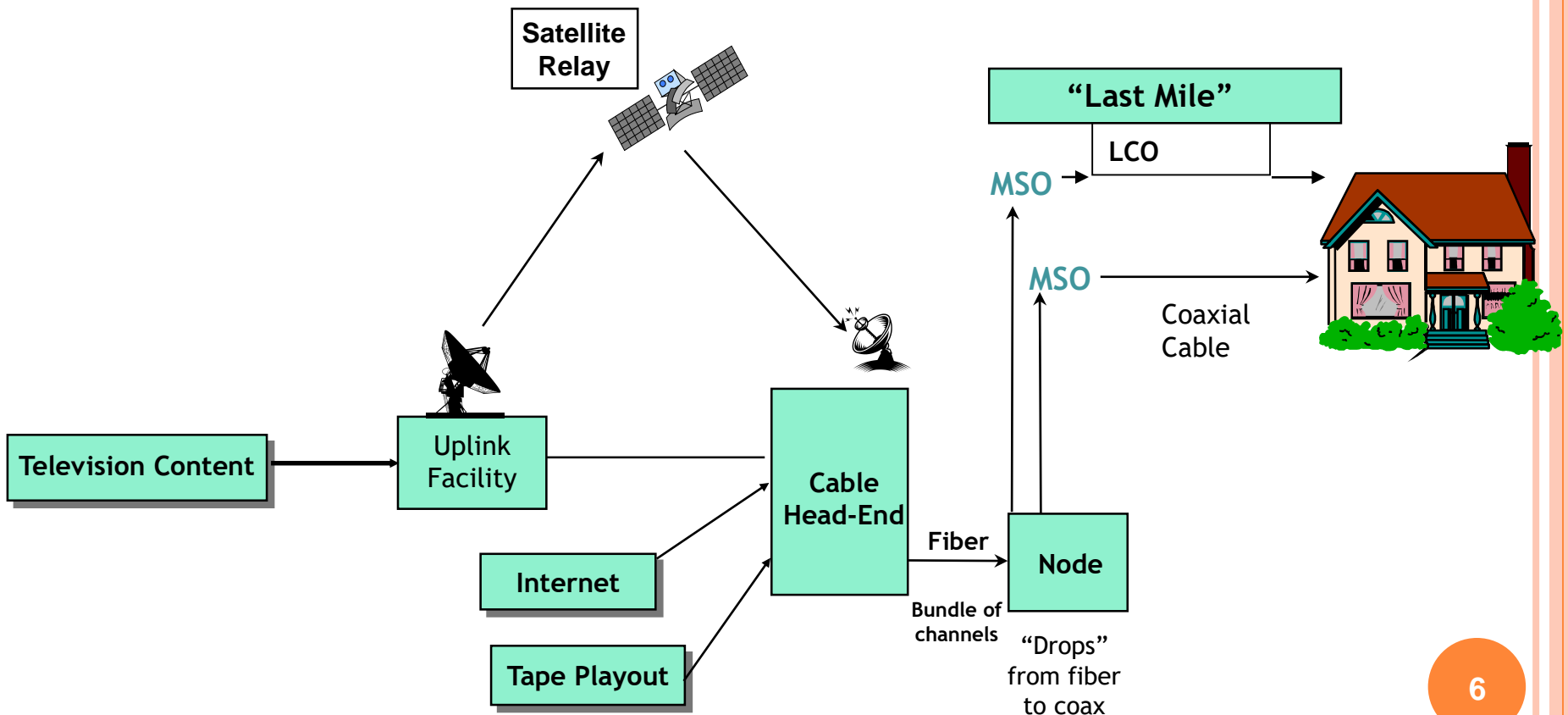
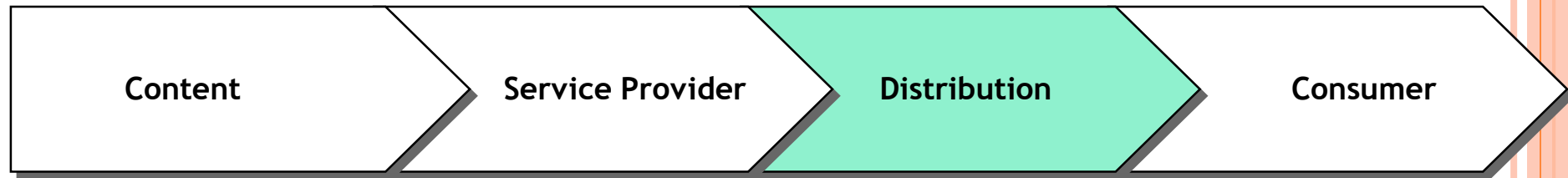


“With digitization of content and entertainment it is now possible to bridge the digital divide effectively bringing in triple play and using the home TV or mobile phone as the bridging device.”-Subgroup on Going Digital-Planning Commission. 2006.

# EXISTING SCENARIO IN CABLE SECTOR

- **Over 350 Channels are available over Indian Sky.**
- **Most of the cable plants are analogue and have limited channel carrying capacity. At present 65-75 channels are being delivered by most of the cable operators.**
- **Pay TV channels are encrypted till the MSO/Cable Operator head-end and then supplied on Free-To-Air (FTA) basis to the subscribers. Hence they are ‘Pay’ to the cable industry and ‘FTA’ to the customers.**
- **No choice to consumers. All channels (Pay & free-to-air) bundled together whether one likes or not. Lumpsum amount is charged by LCO from consumers.**
- **Cable TV rates varies even in the same neighbourhood**
- **Frequent disputes on subscriber base between Broadcasters & MSOs and MSOs & Cable Operators as there is no technological mechanism to ascertain true subscriber base in non-addressable environment. Lack of transparency at various levels in the value chain. Results in frequent “switch off” causing consumer distress.**
- **Traditionally, the bulk of cable TV subscription is retained by local cable operators (LCOs) who only declare a negotiated amount of subscribers to the MSOs paying a portion of subscription fees. The distribution of revenue in non-addressable environment is highly skewed in favour of distributor of channels and the broadcaster get only a fraction.**
- **CAS implemented only in limited notified areas of Delhi, Mumbai, Kolkata & Chennai and according to TRAI estimates has achieved a penetration of 40% (0.8 mil).**
- **In certain cities MSOs have voluntarily introduced digital services (without addressability) to offer better quality services & more number of channels to consumers**

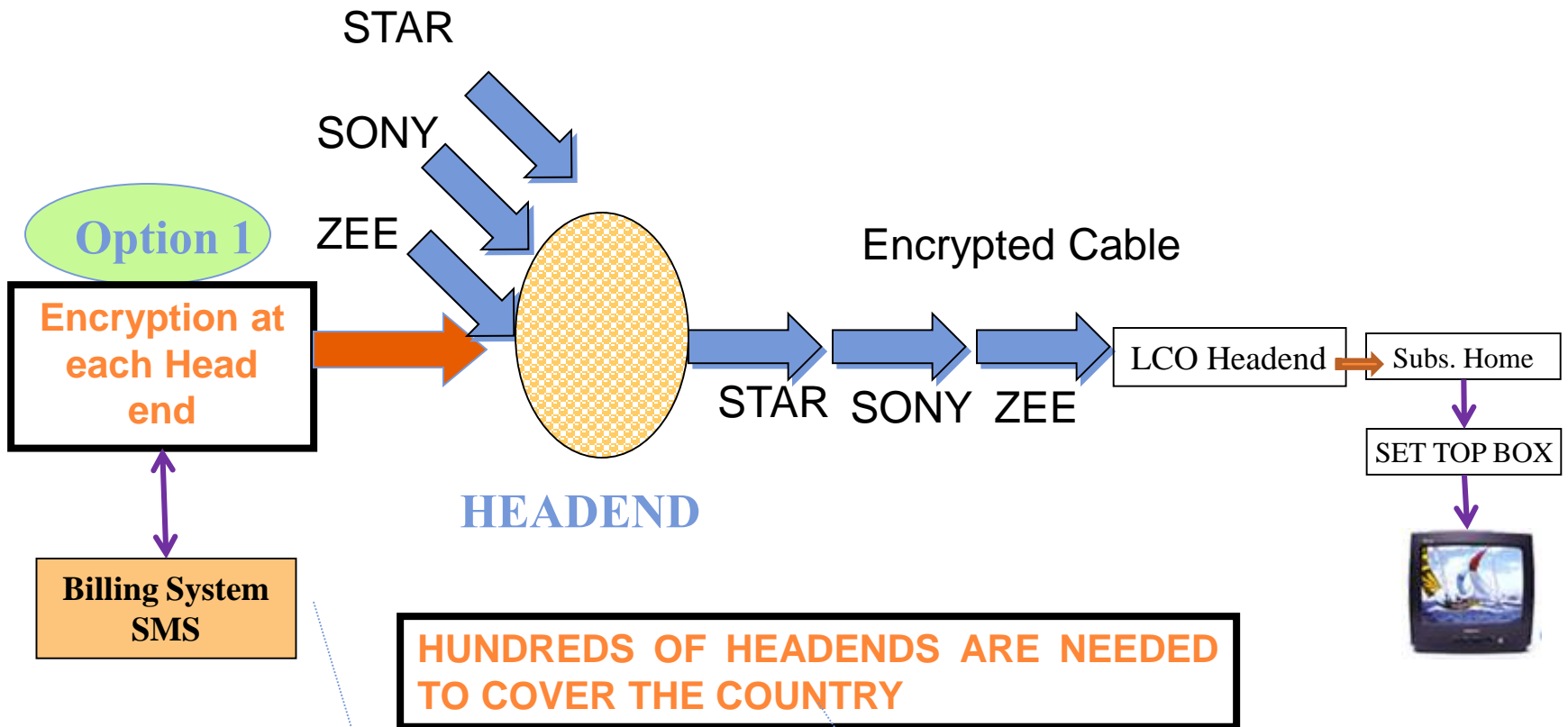
# CATV ANALOGUE DISTRIBUTION SCHEMATIC



## FORWARD

- **World wide there is a migration from analogue to digital regime because of various associated advantages.**
- **There are 4 ways in which TV services can be received by consumers**
  - **Terrestrial (DD services)**
  - **Cable**
  - **Direct-to-Home (DTH)**
  - **Headend in the Sky (HITS)**
  - **Digital Subscriber Line (DSL) or IPTV**
  - **Mobile TV**
- **Globally, most countries have identified digitalisation of TV services as a critical component of their national communications and economic policies**
- **Digitalisation of TV services would result in signals from the point of broadcast to the point of final reception in a consumer's home to be wholly digital.**
- **All the Broadcasters are transmitting their content in digital format.**
- **DTH as a digital delivery platform has achieved considerable penetration –6 service provider in the sector.**
- **IPTV is likely to take off as a digital content delivery platform in near future. BSNL & MTNL have already started IPTV services**

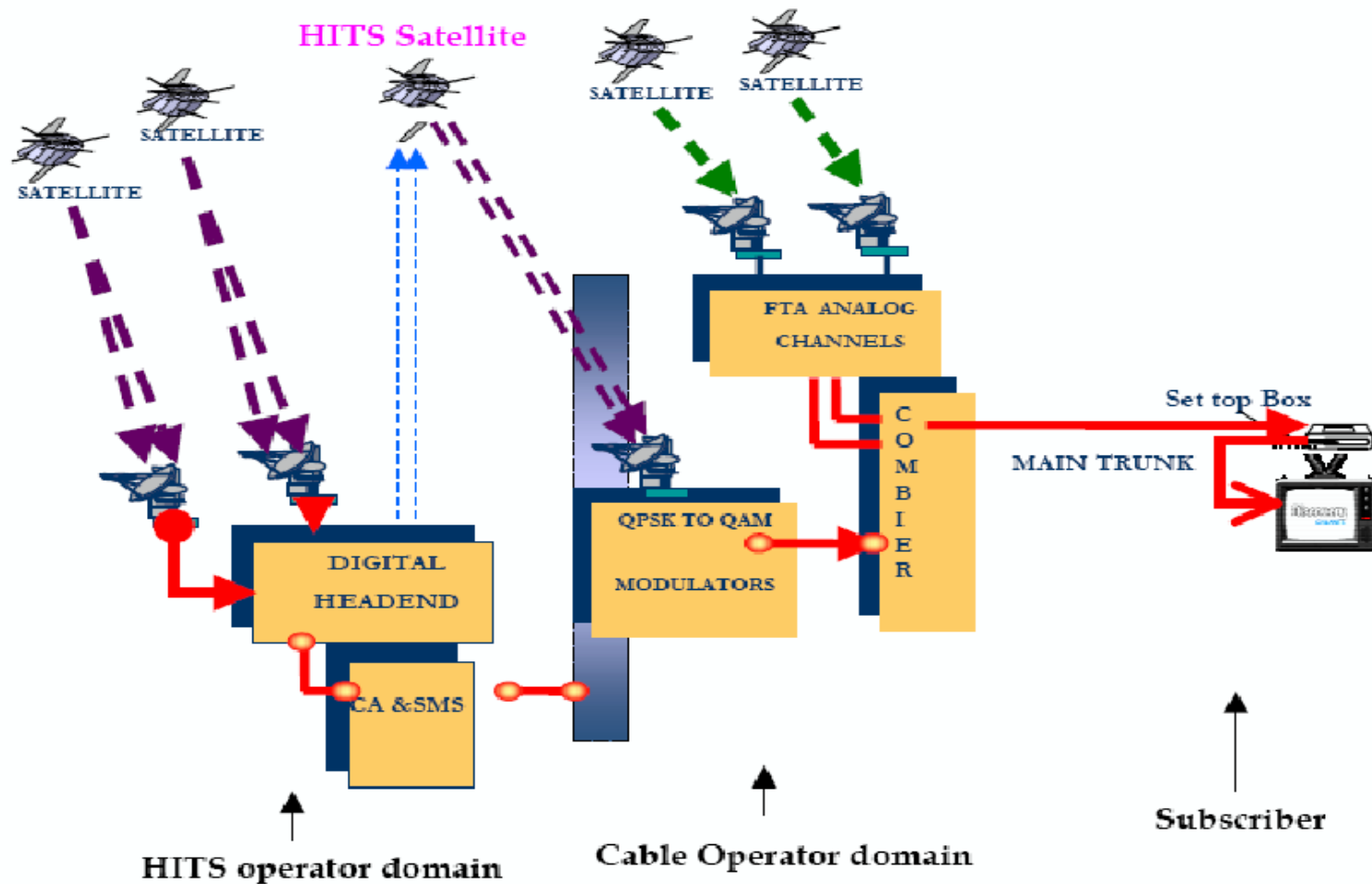
# OPTION 1 - HEADEND ADDRESSABLE SYSTEM INSERTION





## OPTION 2- TO IMPLEMENT DIGITAL ADDRESSABLE SYSTEM

### HITS SYSTEM ARCHITECTURE



# BENEFITS OF ADDRESSABLE DIGITAL DELIVERY

## Consumers

- **Uniform cable TV rate** across all areas
- **Any make TV converts** to a 500 channel plus TV. Substantial increase in the no. of channels
- **Over 65 channels** at basic cable TV fee ( Rs. 72 plus taxes)
- **Freedom of choice**-Choose pay channels as per preference and affordability
- **Budget Cable TV bill** as per capability & choice
- **Better service**- with cost effective digital service, value added features, better viewing experience
- Superior picture and sound quality
- Enhanced services
  - Interactivity on the channels
  - Electronic programming guide
  - New services such as telephony, VOIP, pay-per-view, video-on-demand, e-commerce, internet become possible using digital networks
  - These will allow cable companies to effectively compete with telecom players who are bundling voice services with data and video services

# BENEFITS OF ADDRESSABLE DIGITAL DELIVERY

## Industry

- Transparency
- Clear indication of numbers for the pay channels chosen and viewed by customers
- Fewer disputes between stakeholders- Uninterrupted services
- Effective detection & prevention of piracy
- Better services by the Local Cable Operator
- Enhanced capacity would take care of Carriage Fee issues faced by Broadcasters in Analogue distribution system because of capacity constraints.
- Bandwidth availability will encourage Broadcasters to launch niche channels to cater to the multi ethnic tastes of Indian viewers

## Government

- Freeing of analogue spectrum used by DD- this scarce commodity can be either auctioned by the Govt. to private players or be used by defence/emergency services.
- Better Tax compliance - Entertainment Tax, Service Tax & Income Tax.

# QUALITY OF SERVICE

## Helpdesk

- 24 hours help desk, 7 days a week

## Redressal of complaints

- Within 24 -48hours
- Billing complaints within 7 days
- STB complaints within 24 hrs.

## Installation & Activation

- Within 48-72 hours

## Billing

- Monthly billing Cycle for pay channels

## Detailed information to consumers

- Products and services offered
- Prices and options of programming services
- Installation and service maintenance policies
- Billing and complaint procedures, including the address and telephone number of the MSO/LCO's office

# DIGITALIZATION OF CABLE NETWORKS

## *TRAI's objective for Digitisation*

- Cable viewers should benefit from the technological advances to the fullest possible extent.
- There should be smooth transition from Analogue to Digital transmission recognising that analogue services will continue along with digital.
- The policy should promote competition at all levels.
- The digitalisation policy should provide guidance to broadcasters, MSOs, cable operators and consumers concerning the adoption of new technology.

## **ISSUES**

- Heavy taxation burden on DTH & Digital Cable - as high as 50-55 % - needs to be rationalised.
- Tariff issues for digital services.

# COST OF DIGITALISATION

- Headend Cost, CAS & SMS Cost & Network up-gradation cost
- Cost of STB : US\$ 35 - 40
- The cost of digital headend including CAS & SMS ranges from Rs.2 cr. to 8 cr. depending upon no. of channels and sophistication of CAS & SMS.
- Total amount required for converting existing 7000 analogue headend would accordingly range from Rs.15,000 cr. to 56,000 cr. (TRAI consultation paper no.8/2007 dt. 24/7/07).
- The cost of digitalisation through HITS for the entire country would be in the range of Rs.1,200 to Rs.1,300 cr. (TRAI consultation paper no.8/2007 dt. 24/7/07).
- In India the cost for digitalisation is being borne by stakeholders mainly MSOs. What is required in this context is a clear cut nationwide policy of the Government and a will to implement digitalization. In the initial years the digitalization process should be supported by giving various incentives such as Customs duties, Sales tax, Entertainment tax, Right of way etc. to promote digitalization process.

# INTERNATIONAL TRENDS

- Several countries (irrespective of whether they are developed or developing) such as Brazil, China, USA, UK, Germany, Hong Kong, Korea, Japan etc have provided a timetable and framework for the switchover from analog to digital
  - Legislation has been enacted
  - Conversion dates have been defined - when analog will be switched off
  - Technology standards for the conversion have mostly been set
- The clarity of switchover provided by the govt./regulator in these countries has allowed investors to plan timing and quantum of investments
- Success in the move towards digitalisation has been due to interplay of both market forces and regulatory intervention
  - Cable operators in Japan, Korea and US have taken the lead in digitalisation of their networks in response to competitive threats such as telcos, DTH, need to increase ARPUs etc

# INTERNATIONAL TRENDS

- The govt./regulator has complemented this move by providing direct & indirect assistance.
  - **Local governments in China are actively subsidizing the STBs (35% of cost)**
  - **In 2004 & 2005, Italy paid out grants to consumers worth over Euro 200 Million in order to buy or rent digital decoders.**
  - **US Government program has issued up to two \$40 coupons per home to help pay for the costs of the TV converter boxes, which range from \$40 to \$80. US Govt. had set a budget amount of \$1.34 billion for the subsidy program**
- Berlin as a city has gone 100% digital – only such city in the world.



# SELECTED COUNTRIES – ANNOUNCED SWITCH-OFF DATE OF ANALOGUE TV

COUNTRY	ANNOUNCED SWITCH-OFF OF ANALOGUE TV SERVICES
Australia	Now commencing 2010 to 2012 (previously 2008)
China	2015 (Nationwide DTT to be offered by 2010)
Denmark	2009 (previously 2007)
Germany	2010 (Berlin switch-off has already occurred in early 2003)
Japan	2011
Italy	2008 (previously 2006)
Malaysia	2015 or earlier if 90% of population has switched to DTTB (proposed) [Phased approach from 2009]
New Zealand	Declined so far to specify a switch off date for analogue services
Spain	2010 (but pressure to push date back)
U.K.	2007-2012 (previously 2006-2010; depends on three tests)
U.S.	2009 previously (2006)

# TRAI REPORT DT.27/12/2007 ON DIGITALISATION & INTRODUCTION OF VOLUNTARY CAS TO MIB

- Voluntary CAS would be a non-starter unless the date from which CAS is to be implemented is mandated.
- 55 cities in the country have been identified i.e. all state capitals, and all other cities with a population of one million and above.
- The dates of roll out of CAS for these identified cities to be notified in advance by the Government of India in one go.
- The 55 identified cities to be covered in phases over a time frame spread over three years from Oct 2008 to Sept 2011.
- Voluntary efforts towards digitalization and introduction of CAS ahead of the mandated date for roll out of CAS to be facilitated by extending the existing CAS regulatory framework.
- Framework to facilitate voluntary efforts for introduction of CAS in cities other than identified cities also provided.

# TRAI RECOMMENDATIONS ON RESTRUCTURING OF CABLE TV SERVICES (25/7/2008)

- Each broadcaster shall provide signals on digital platform to LCOs and MSOs, who are voluntarily digitalizing their networks.
- The new LCOs may be mandated to digitize their networks in three years from date of issue of license as part of their performance obligations.
- Existing LCOs may be mandated to digitize their network in five years from the date of notification of new licensing regime.
- Digitalisation shall imply stopping of analog transmission altogether including Free to Air Channels.
- No license for new LCOs will be given for analog transmission from a date, which will be five years from the date of such notification.
- LCOs providing the broadband services after obtaining appropriate license in rural and far flung areas using two way digitalised cable networks shall be entitled for USOF subsidy/ support given to telecom operators for providing similar services if they fulfill terms and conditions laid by USOF. No discrimination shall be done based on the type of network and technology used to provide a broadband service.

# FUTURE OUTLOOK

- INTRODUCTION OF DIGITAL ADDRESSABLE SYSTEM WITH COST EFFECTIVE BOXES WILL LEAD TO RAPID PENETRATION
- CUSTOMERS WILL PAY LESS - ONLY FOR CHANNELS THEY WATCH
- CUSTOMER CAN ENJOY VARIOUS VALUE ADDED SERVICES.
- GOVT. WILL GET HIGHER REVENUES FROM TAX COMPLIANCE
- OPTIMUM BANDWIDTH UTILISATION
- BROADCASTERS WILL BE TRANSPARENTLY PAID
- RAPID GROWTH OF INDIAN ENTERTAINMENT SECTOR
- FEWER DISPUTES BETWEEN STAKEHOLDERS- UNINTERRUPTED SERVICES
- EFFECTIVE DETECTION & PREVENTION OF PIRACY

*Thank You!*