

Cable TV in Japan

Competitive status in full digital age
Migration for IP Video

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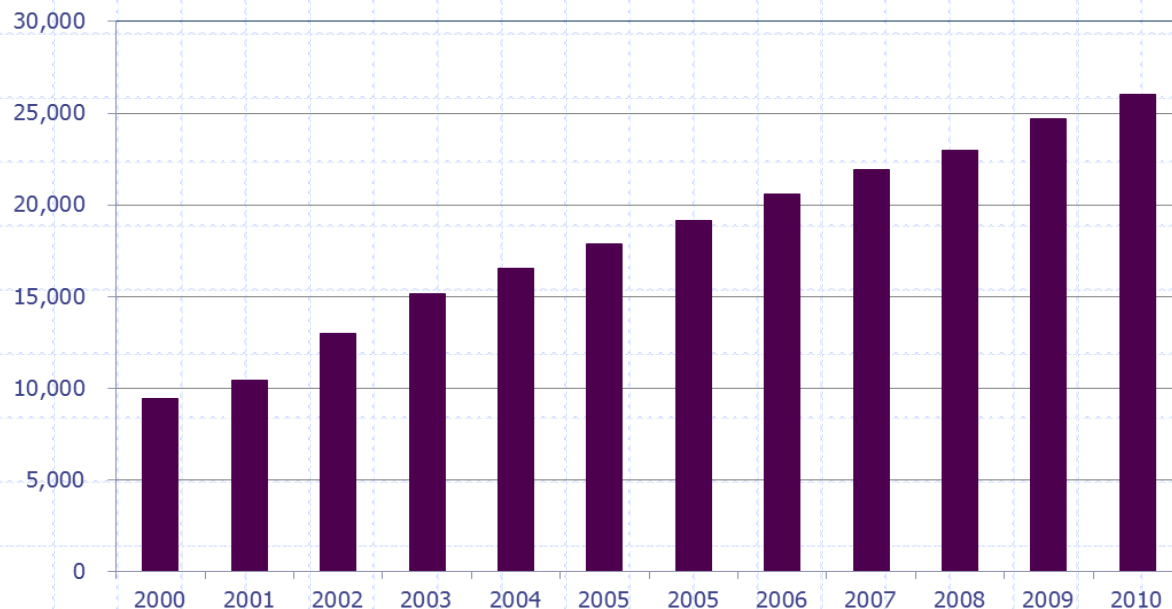
JCTEA: who we are?

- JCTEA: Japan Cable Television Engineering Association
- Mission: To promote cable related technology, research cable technology issues, human resource development through certificating Cable Engineer, and promote standardization
- Composed of 600 cable related manufactures, installers.
- Recent Standard: RFoG FTTH systems
- Similar role as SCTE

Growth of Cable TV subscribers

- Cable subscribers increasing steadily.
- Cable subscribers number reached 25 million in 2010
- Home pass connected 46.9% households in Japan

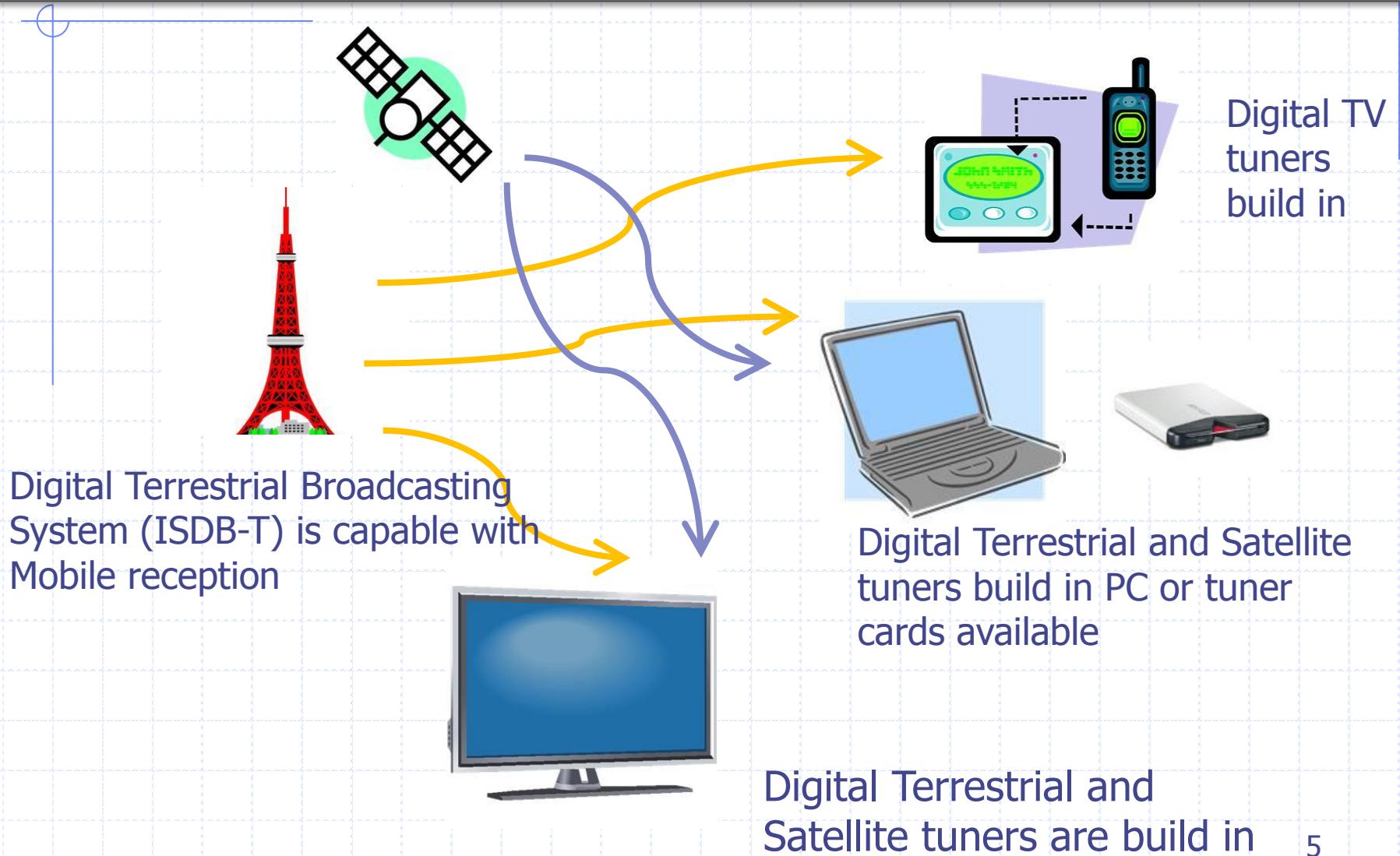
(households)



Successful migration to full digital in July 2011

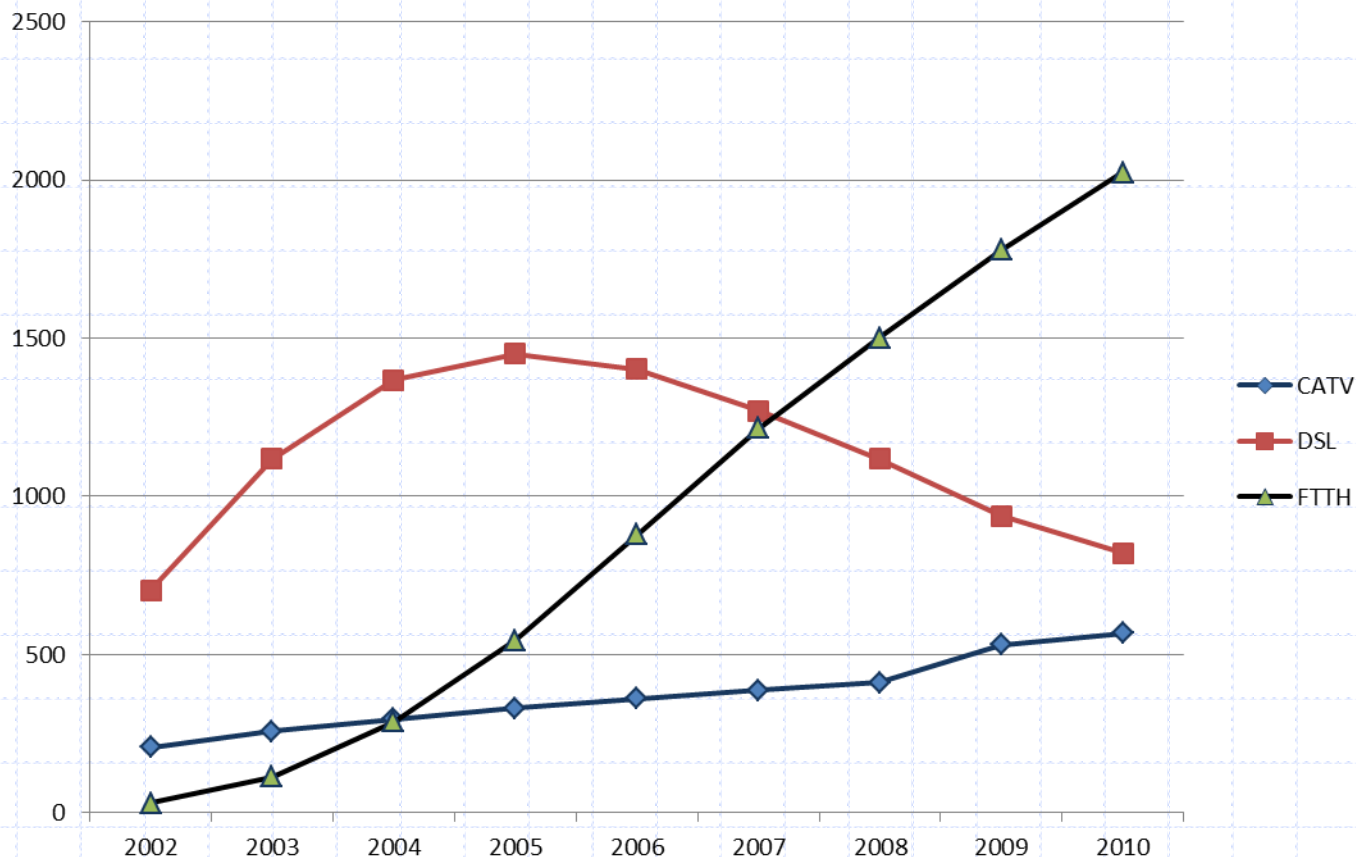
- Terrestrial analog TV has been be shutdown in July 2011
 - Digital terrestrial TV standard: ISDB-T(OFDM)
 - Digital Cable TV standard: (64)QAM
- 95% households already own digital television set with digital terrestrial tuner and HD display
- Terrestrial and Satellite programs are 100% HD
- Cable TV operators are transmitting terrestrial program by pass-through (OFDM) and/or QAM
 - In addition
 - Analog NTSC service by digital to analog conversion to save analog TV set

Three screen approach by broadcasters



Growth of Residential Broadband Connection by Technology

(10 thousand)



FTTH includes FTTP(Fiber to the premises + VDSL)

Total Broadband subscribers reached 34 million (70% household in Japan)

Source Ministry of Internal Affairs and Communications

Fastest Cable Internet in the world

To compete with Telco's FTTH, Japanese cable operators are providing internet service more than 40Mbps in reasonable price.

Example 1



What's Next!?

キャッチで快適な
高速インターネットライフを！

光ハイブリッド
270^M
コース
ついにスタート！

光ハイブリッド120Mを超える超高速インターネット。
圧倒的な速さで、ノンストレスのインターネットライフをお届けします。

Example 2

class	speed	Price(JPN/U S\$)
Speedstar160	160/10	5,800 (\$73)
premium	30/ 2	4,800 (\$60)
Standard	15/ 1	3,800 (\$48)
light	2/ 0.256	2,850 (\$36)



1M コース 120M コース
16M コース 270M コース

Price of Cable Internet (**270M**) is
JPY5,880 = **USD74**
(1USD=80JPY)

For further development of Cable TV

➤ Pay TV Market in Japan still small

- Multichannel Pay TV Cable: 8 million households (8M out of 25M)
- Satellite Pay TV: 4 million
- IPTV 1 million
- Pay TV growth still slow
- Incumbent 'free to air' broadcasters are still dominant although the market is saturated
- Competition with Internet Video services began

➤ Low share of Cable broadband in spite of fast speed

- Myth: FTTH **bright future** , Coax: obsolete

➤ Needs breakthrough

- Variety of new Service; 3D, VOD, DVR, home ICT
- Cooperation among small independent cable operators

Toward Smart TV

f Facebook

アプリキャスト

リモコンの「アプリキャスト」ボタンを押して「Facebook」を表示

テレビを見ながら、友達の近況を同時に確認したり、メッセージのやり取りもできる

Many TV manufactures already provide internet ready TV, remote control applications for Smartphone, and home network function with Blue-ray Disc Recorder.

インターネットスタートイメージ

Internet start image

リビング

テレビは視聴中でも...

他の部屋

AQUOS[®]2で、録画番組を視聴できる!

LAN接続

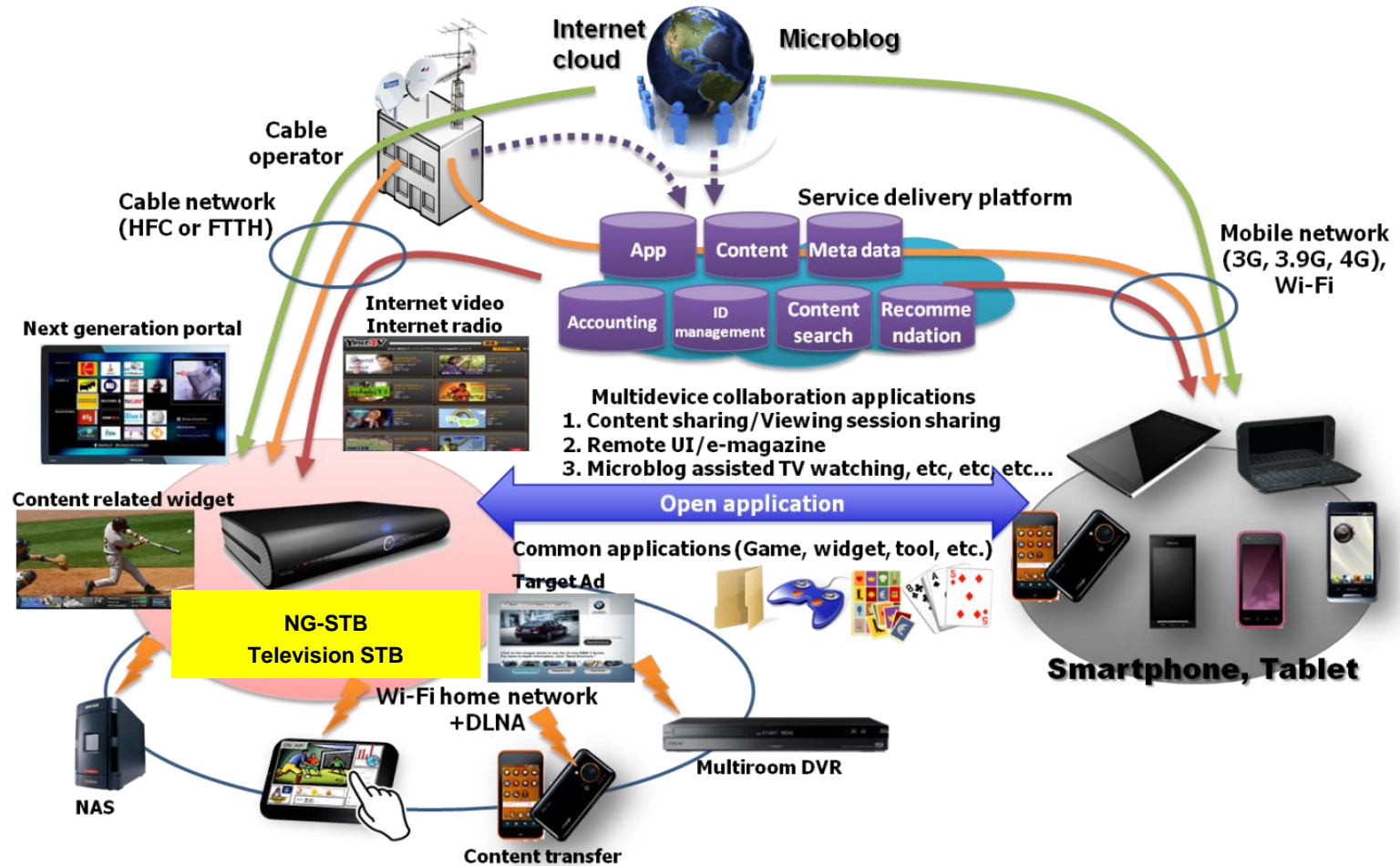
AQUOS ブルーレイ

Next Generation-STB by Japan Cable Lab

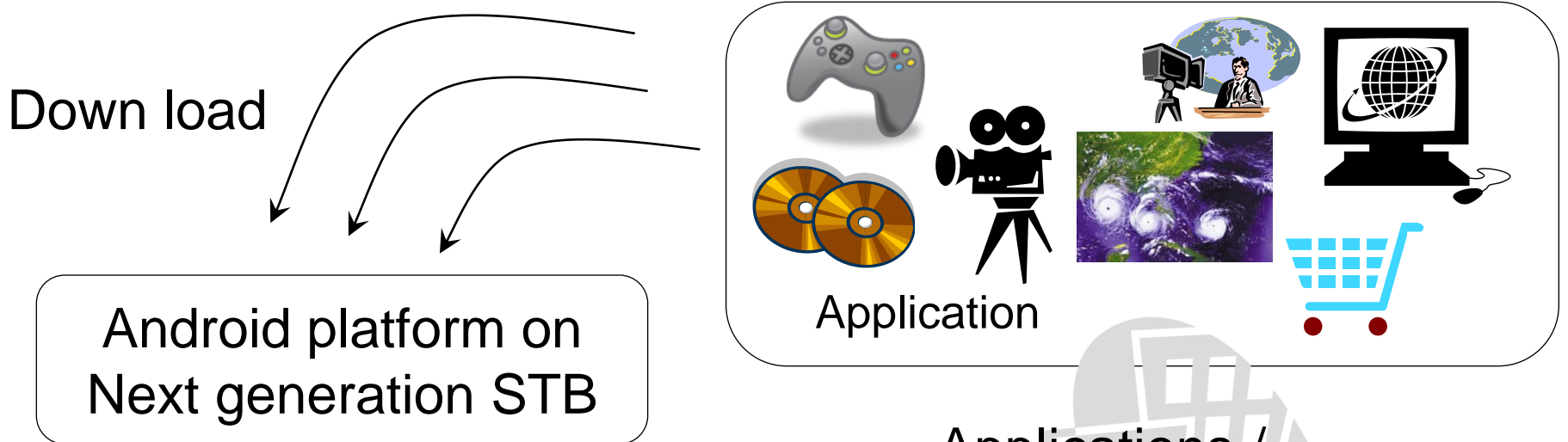
Home station for providing smart cable TV service with high competitive position in terms of cost, convenience and usability

- Low-cost and custom-made STB with hardware commonality and application software sharing
- Smart user interface adaptable to old to young aged custom
- Quadruple service by television, telephone, internet and mobile
- Audience at a distance by intelligent application, connected with AV appliance and mobile terminal
- Home ICT service connected with TV phone and infrared communication
- Security enhancement using IPv6

Over-all Service Image Supported by NG-STB

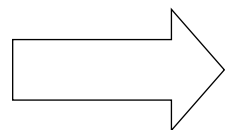


Android Platform



Applications /
Contents Provider

Collaboration with other industries



Expansion of CATV industry

All IP or Hybrid approach

◆ IP merits and demerits

- Merits: flexibility, good for on demand, longtail programs entertainment providers
- Demerits: quality control, delay, congestion, fragile network

◆ Robustness, No delay and no congestion are must for fundamental broadcasters.

◆ IP and RF hybrid approach is appropriate now for homeland security

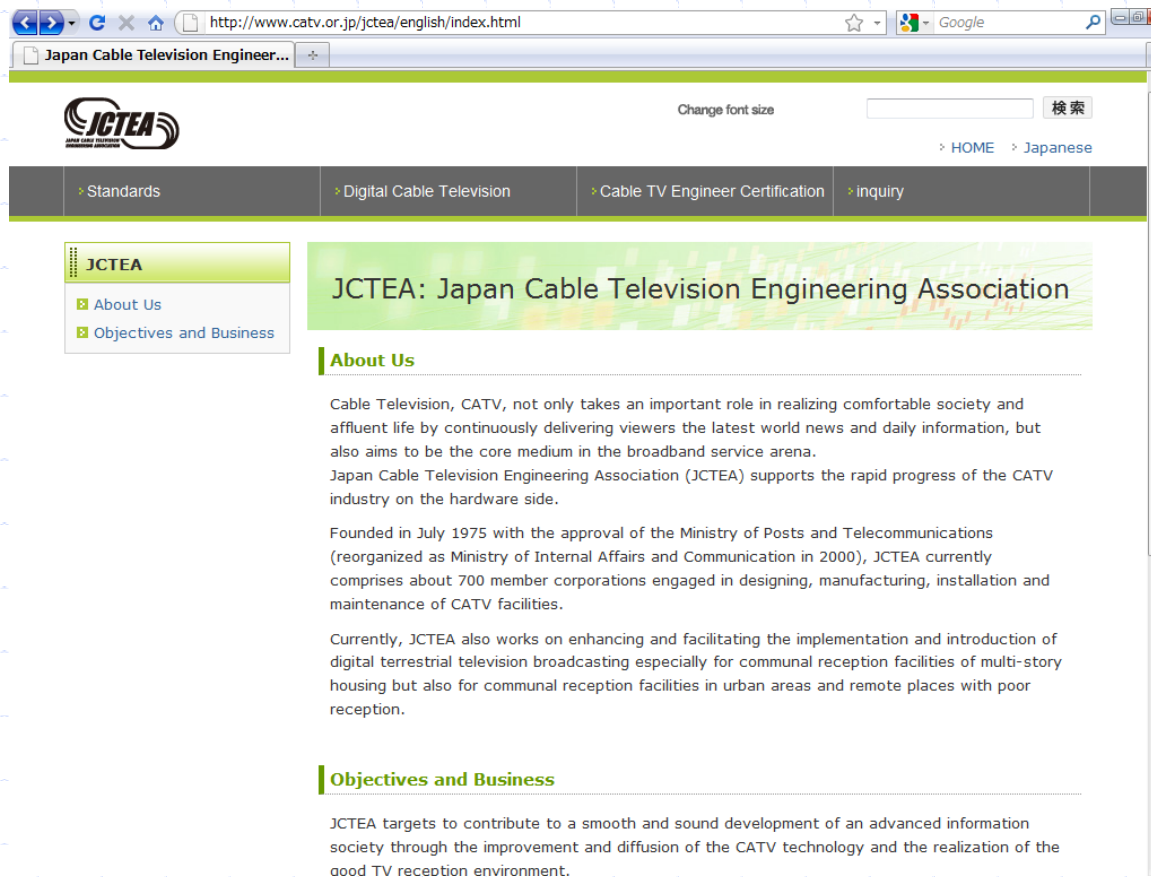
◆ Further R&D of QOS management for realizing full IP broadcasting

Cable TV in the era of IV Video

- ◆ Broadband is the essential tool for IP Video delivery
- ◆ Migration to FTTH, either RFoG or PON
- ◆ Evolutional approach rather than Revolutionary
- ◆ Provide variety of services based on IP Video technology
- ◆ Catch up with IPTV, OTT, connected TV. If not, die.

Thank You

Our website <http://www.catv.or.jp>



The screenshot shows a web browser window displaying the JCTEA website. The address bar shows the URL <http://www.catv.or.jp/jctea/english/index.html>. The page features the JCTEA logo, a search bar with the text "検索", and a navigation menu with links for Standards, Digital Cable Television, Cable TV Engineer Certification, and Inquiry. A sidebar on the left contains a "JCTEA" header and links for "About Us" and "Objectives and Business". The main content area has a green header for "JCTEA: Japan Cable Television Engineering Association" and sections for "About Us" and "Objectives and Business".

JCTEA
JAPAN CABLE TELEVISION ENGINEERING ASSOCIATION

Change font size 検索

HOME Japanese

Standards Digital Cable Television Cable TV Engineer Certification Inquiry

JCTEA
About Us
Objectives and Business

JCTEA: Japan Cable Television Engineering Association

About Us

Cable Television, CATV, not only takes an important role in realizing comfortable society and affluent life by continuously delivering viewers the latest world news and daily information, but also aims to be the core medium in the broadband service arena.

Japan Cable Television Engineering Association (JCTEA) supports the rapid progress of the CATV industry on the hardware side.

Founded in July 1975 with the approval of the Ministry of Posts and Telecommunications (reorganized as Ministry of Internal Affairs and Communication in 2000), JCTEA currently comprises about 700 member corporations engaged in designing, manufacturing, installation and maintenance of CATV facilities.

Currently, JCTEA also works on enhancing and facilitating the implementation and introduction of digital terrestrial television broadcasting especially for communal reception facilities of multi-story housing but also for communal reception facilities in urban areas and remote places with poor reception.

Objectives and Business

JCTEA targets to contribute to a smooth and sound development of an advanced information society through the improvement and diffusion of the CATV technology and the realization of the good TV reception environment.

