



innovating communications

EURO-CASE ANNUAL CONFERENCE 2010

Value Creation through Innovation – European Best Practice Case Studies

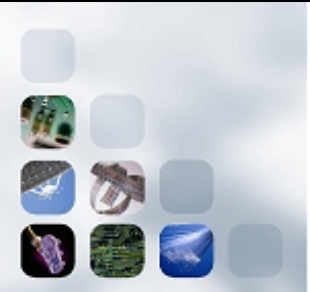
Imagenio Movistar - A case of a service innovation

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España/CTTC)**

An adequate time for Innovation?

- .com bubble burst
 - No investments on the productive sector
 - Demands to externalize R&D activities
 - From PHY technologies to service applications
 - Uncertainty on the evolution of telecom operators
-
- Entertainment centered around the TV set
 - Cable TV (bandwidth +/return channel -)
 - Satellite (32 Mbps/transponder + / return channel -)
 - LMDS (2.5-3 GHz.) only for special scenarios
 - PLC (Experience on telecom service operation,???)

IP-TV



Preliminary Audio-Video activities in Telefonica do not help

Audio Visual technologies in Telefónica (I)

Initial steps:

1990: Multimedia first laboratory trials

1995: Video over ATM

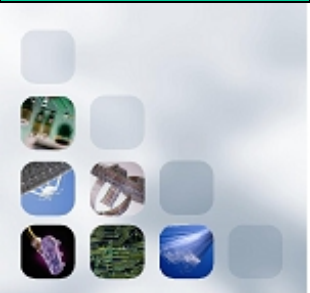
1998: Broadband Services Promotional Phase

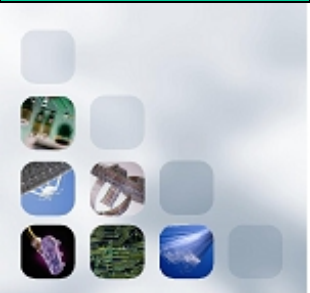
(Fase Promocional de Servicios de Banda Ancha, FPSBA).



Trial aborted:

- **Still Immature Technology**
- **Non Acceptable Costs**
- **Project Cancellation**





Problems, problems, problems....

- IP not oriented to QoS in front of ATM (Ethernet).
- Operators focused on providing Internet access but not TV and VoD.
- As usual, regulation was not friendly with innovations.
- Over-passing previous failures
- Probably 2-3 years before 2002 any attempt of telecom operators on the field of entertainment was condemned to failure.
- BUT, ADSL, TDT again major changes in communications come from the lower layers (ADSL, Turbo codes, OFDM, CDMA, [IP],....)

The roadmap of an innovation

Video over IP:

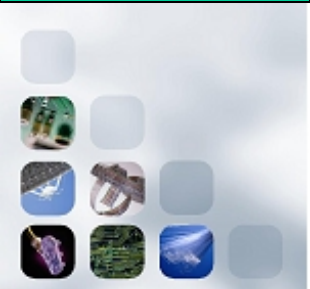
2000 : Switch to a different Technology

2001: Video over IP Proof of Concept

2002: 1000 subscribers Commercial pilot in Alicante



- IP/ADSL TV was feasible
- Imagenio service development kick-off



“IMAGENIO”

Basic IPTV Services

Broadcast TV

- 180 TV channels, DTT, 15 audio, PPV events, HD
- EPG and Miniguide
- Subscribe/unsubscribe via remote control

VoD

- Large library of titles
- Search engine, trailers
- Flat rate for series, documentaries and music



Advanced IPTV Services: Personalisation and Interactivity

Time Shift TV

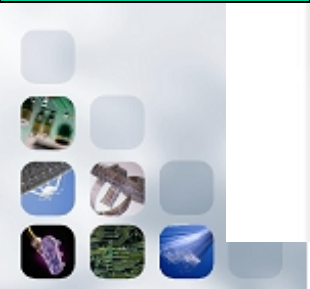
- Based on last 7 days content for most popular channels

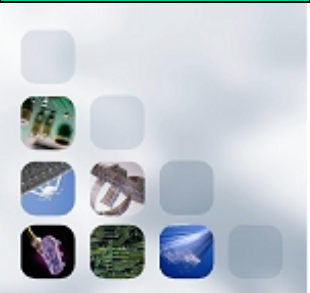
Information Applications

- Walled garden pages: lottery results, weather etc
- Street maps

Interactive Applications

- TV magazine channel, email, internet access, home banking



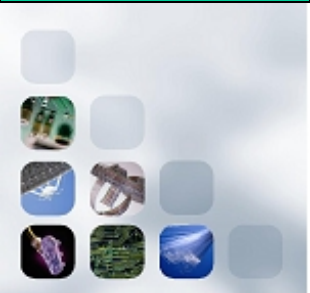


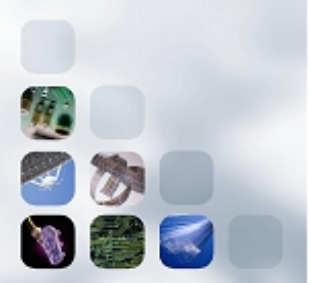
Innovation Fields

- **Systems and equipments:**
 - Coding (JPEG->MPEG)
 - Network Architecture (IP and multicast, A new access network)
 - Terminals (From a decoder to a PC)
- **Service:**
 - Functional performance
 - New business marketing and sales policies
 - Suppliers relationship
 - Deployment
 - Operation and maintenance (SMEs)

Open Innovation

- **Tight cooperation among the different technologically innovative companies involved made Imagenio design possible**
- **Companies owning technological solutions were detected**
- **Modules for internal development were identified**
- **Modules to be designed and developed by other companies were identified and subcontracted**
- **Project groups were created involving experts from several companies**
- **The multicultural project team was formed by experts from Spain and other countries, mainly working for partners from Israel, United Kingdom, Sweden and the USA**





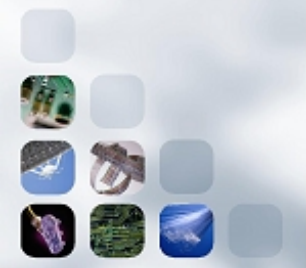
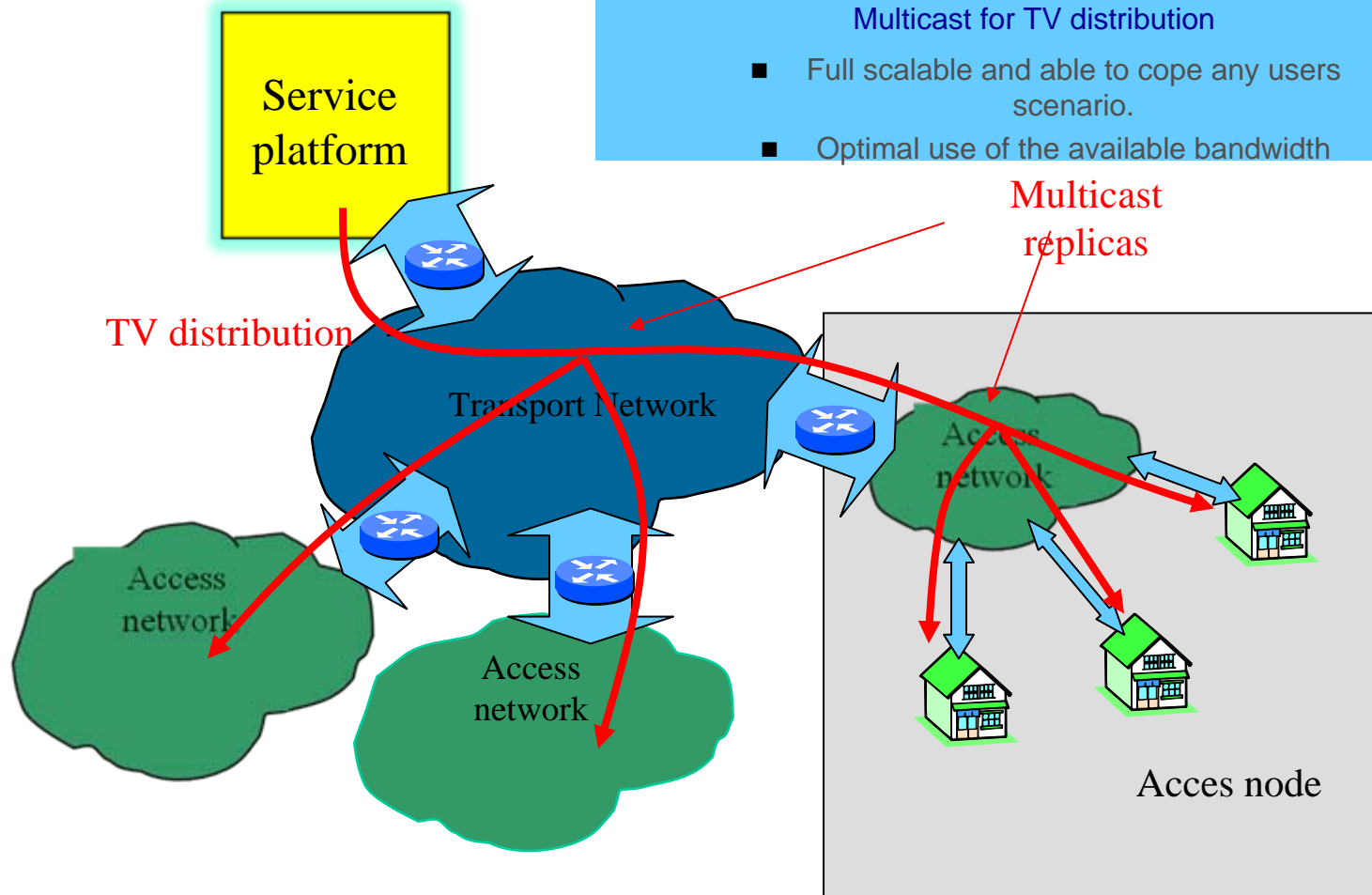
Major Features

- Broadcast TV (IP multicast address, IGMP client to address, dedicated channel)
- VoD (Video server, Management and maintenance, RTSP)
- Home DVD performance.
- Fully integrated as a global service of the telecom operator (single contract and single invoice)
- Minimal (Only STB) at the user premises
- Massive use of standards (IGMP, RTSP, HTTP, XML, MPEG2, MPEG4)
- HTML user interface

Multicast Architecture

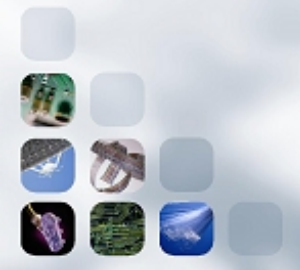
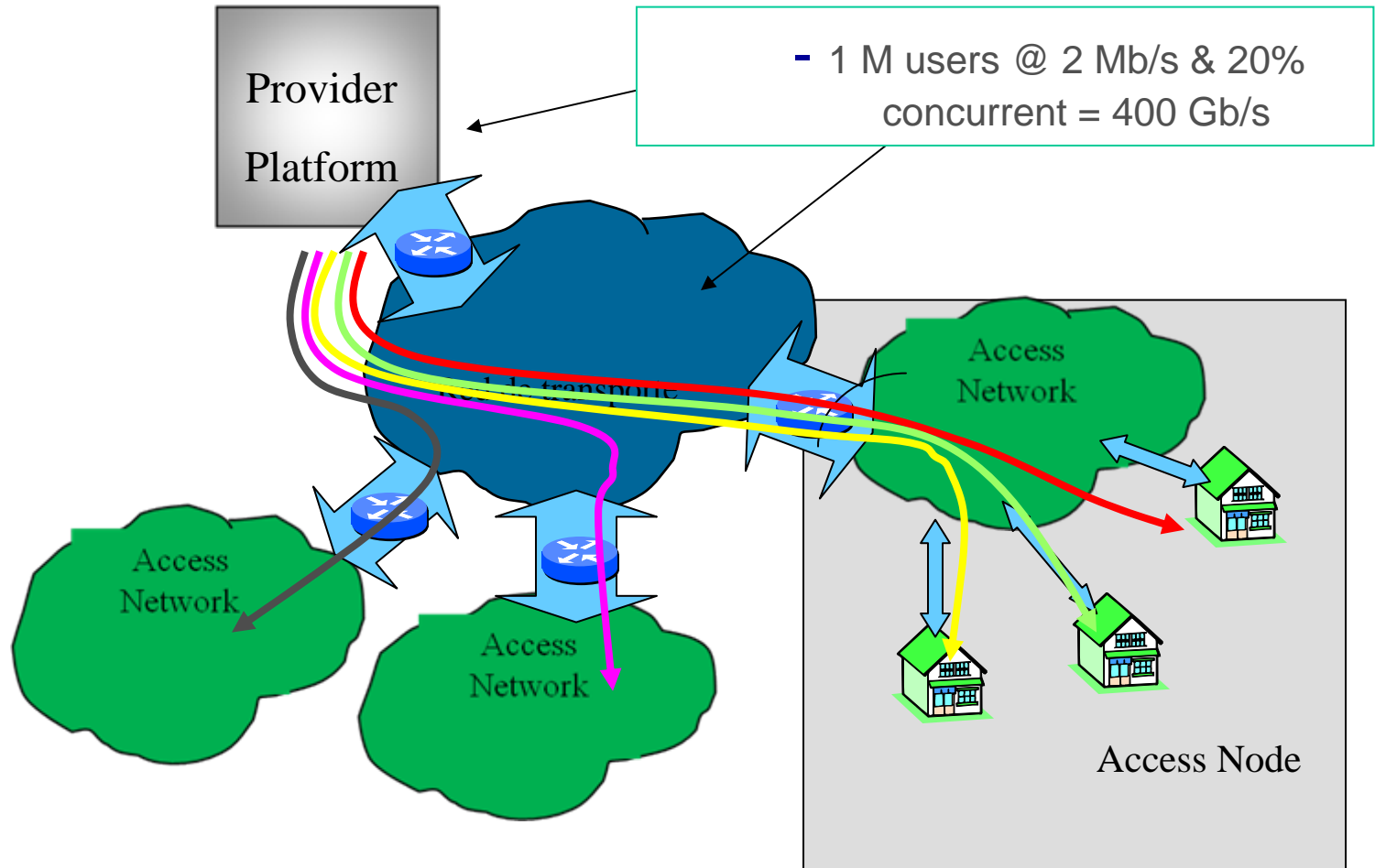
Multicast for TV distribution

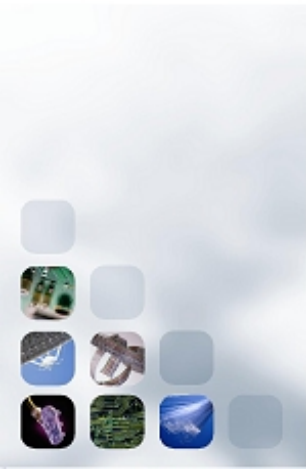
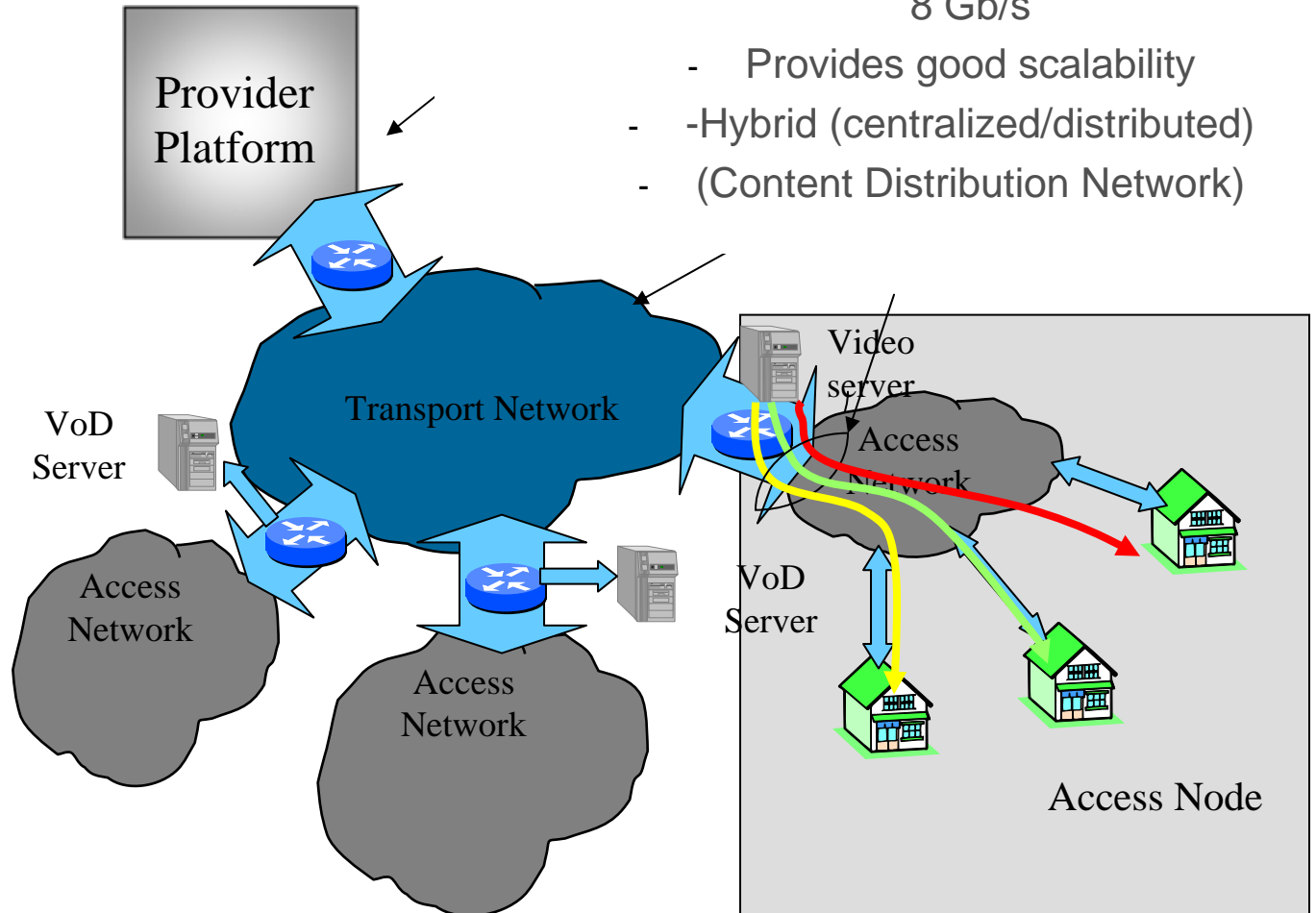
- Full scalable and able to cope any users scenario.
- Optimal use of the available bandwidth

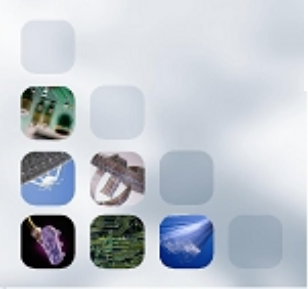




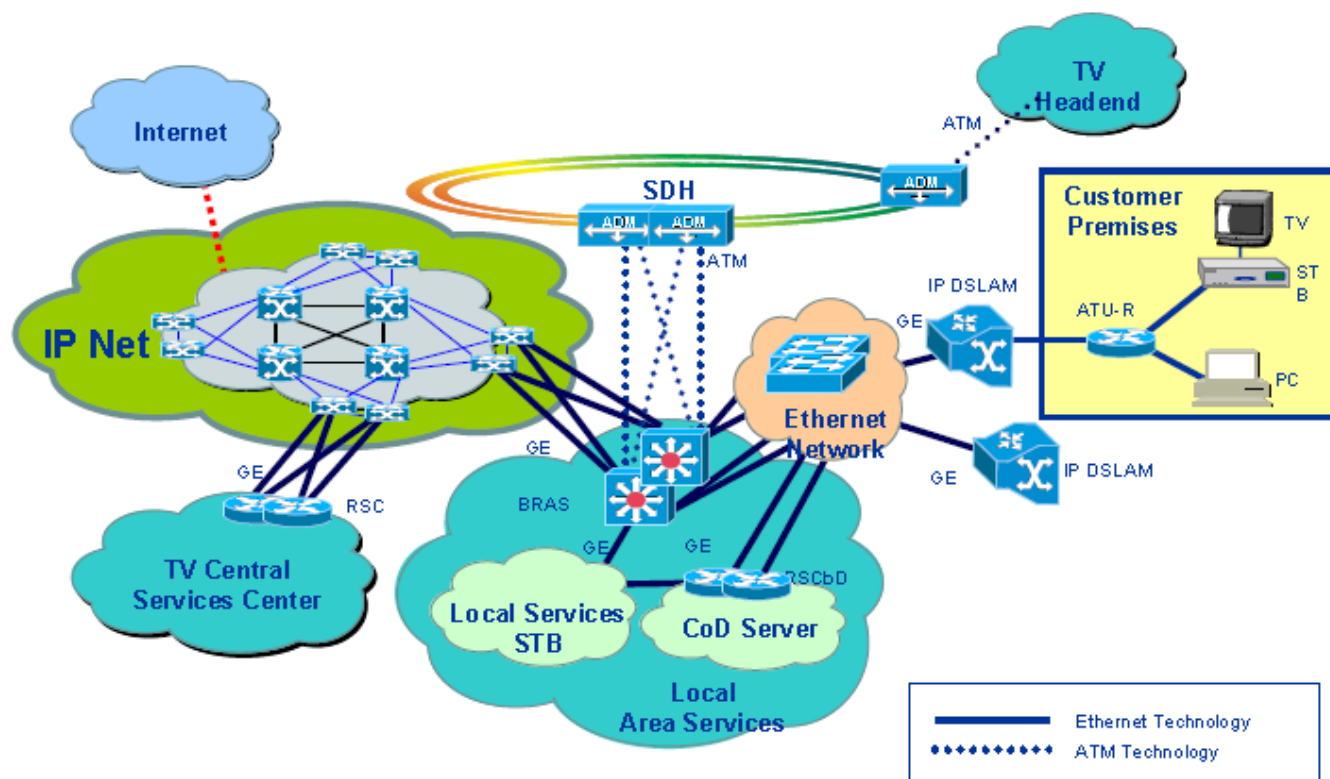
A distributed network for VoD services

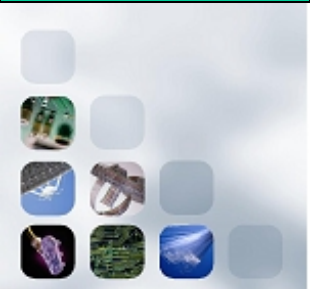






Imagenio Network and Platform Structure





Market Success

- **2005 (January 6th), First football match was retransmitted through Imagenio (PPV)**
- **2005, Imagenio deployment was completed in Spain, and it started in Check Republic (Lucent)**
- **2006, Imagenio was deployed in Brazil y Chile**

2009

<i>Country</i>	<i>Users</i>
Spain	703,000
Brasil	487,200
Chile	285,100
Peru	686,300
Colombia	127,200
Venezuela	62,800
Check Rep.	137,630
Total	2,489,230

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