Leveraging broadcast networks to broaden the reach of OTT services – an introduction to DVB Native IP

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Broadcast distribution benefits

COST EFFICIENCY

- Fixed distribution costs regardless of audience size
- For the end user, the cost of setting up satellite reception is low

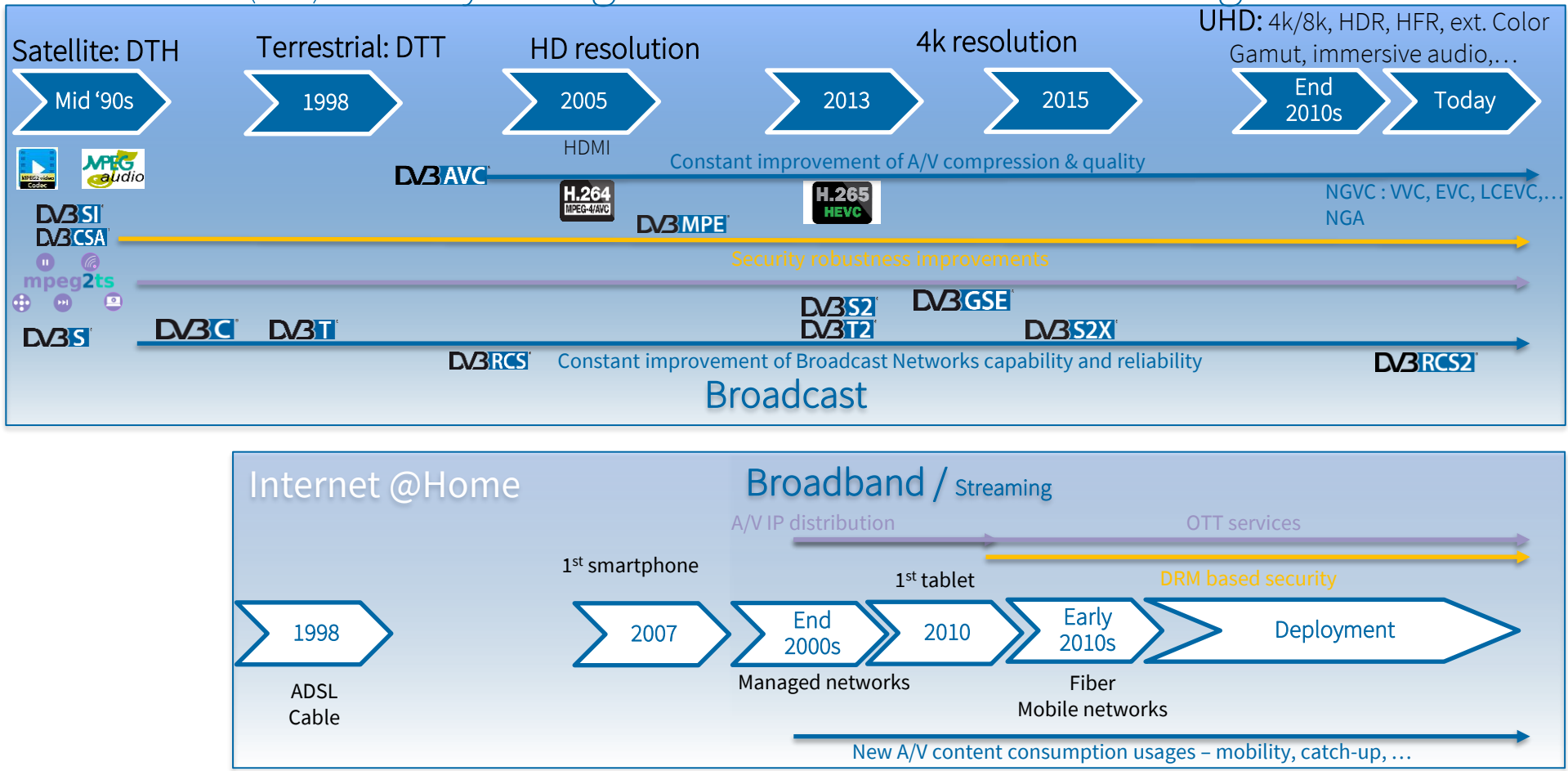
UNIVERSAL REACH

- High cost of broadband infrastructure roll out
- Full coverage of target market

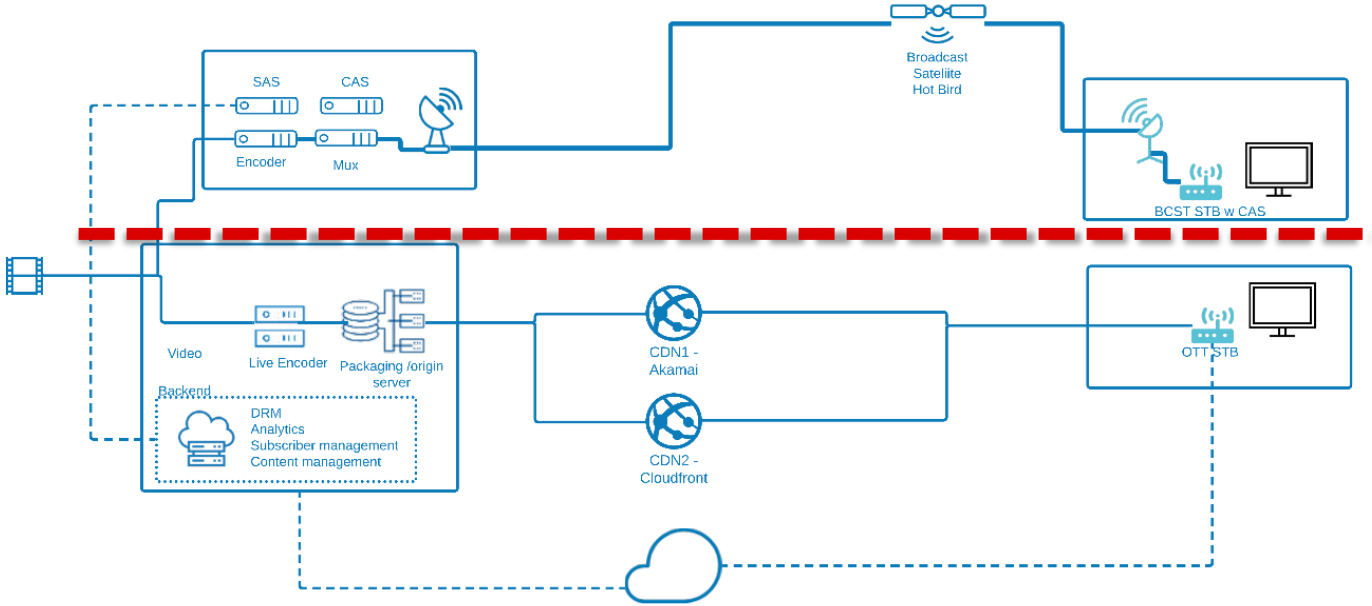
SERVICE QUALITY

- Congestion of terrestrial networks
- Satellite and hybrid solutions give unimpaired viewing experience

A short(en) history of digital TV distribution technologies



As a consequence…



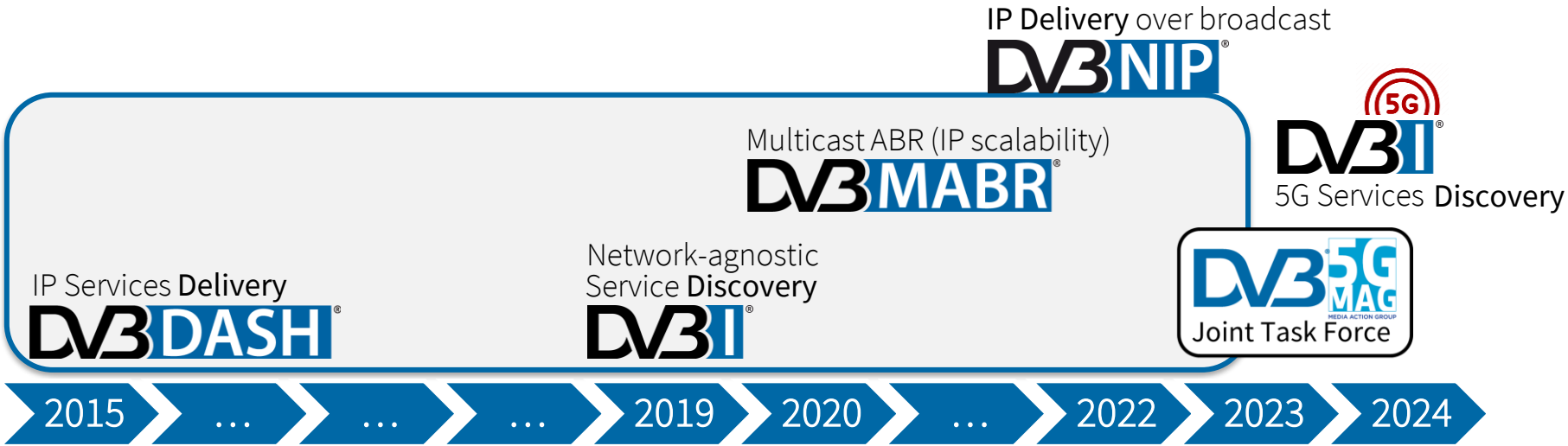
2 ecosystems to address 2 receiver populations

2 platforms and networks to address user/subscribers consumption usages

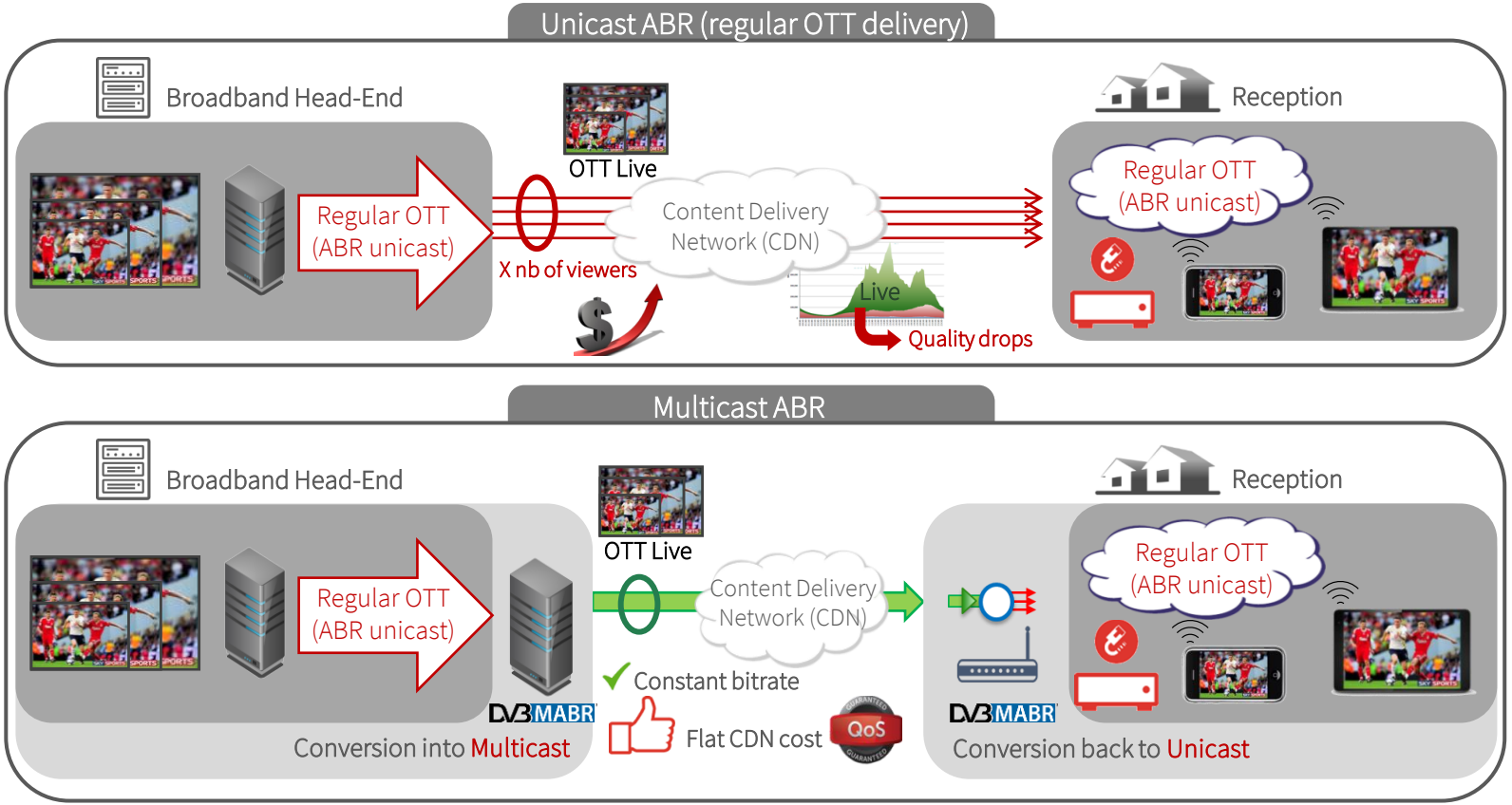
Building solutions for true broadcast-broadband convergence

DVB focused heavily on **IP-centric solutions** to tackle migrations to IP-based platforms and to allow stakeholders to build on a **converged 5G/IP/broadcast** ecosystem

Building the right tools allows broadcasters to transform this challenge into a **new wave of opportunities**

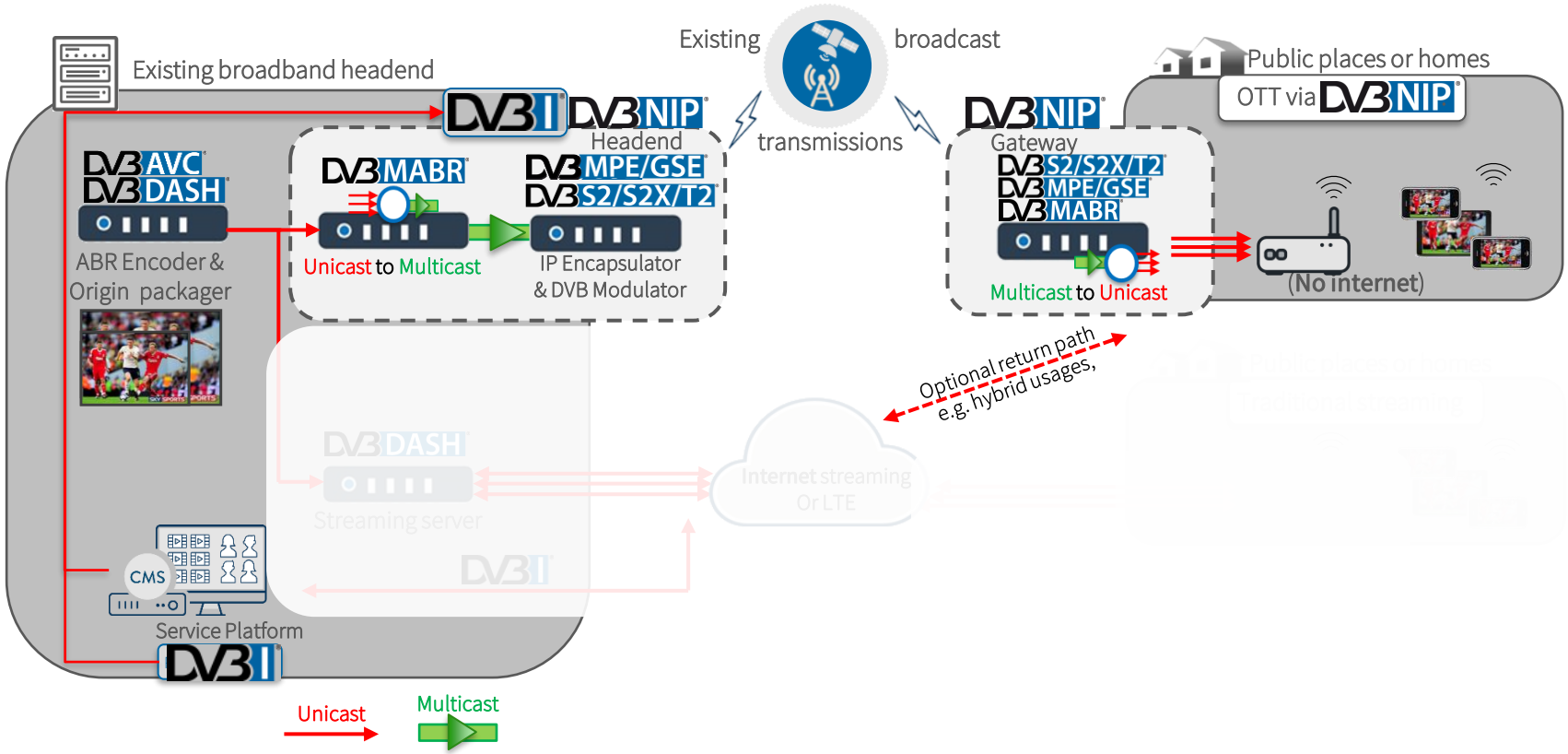


DVB-MABR enriches broadband with the scalability of broadcast



DVB-NIP brings TV to All devices where IP networks fail

Leveraging **existing** broadband and broadcast infrastructure



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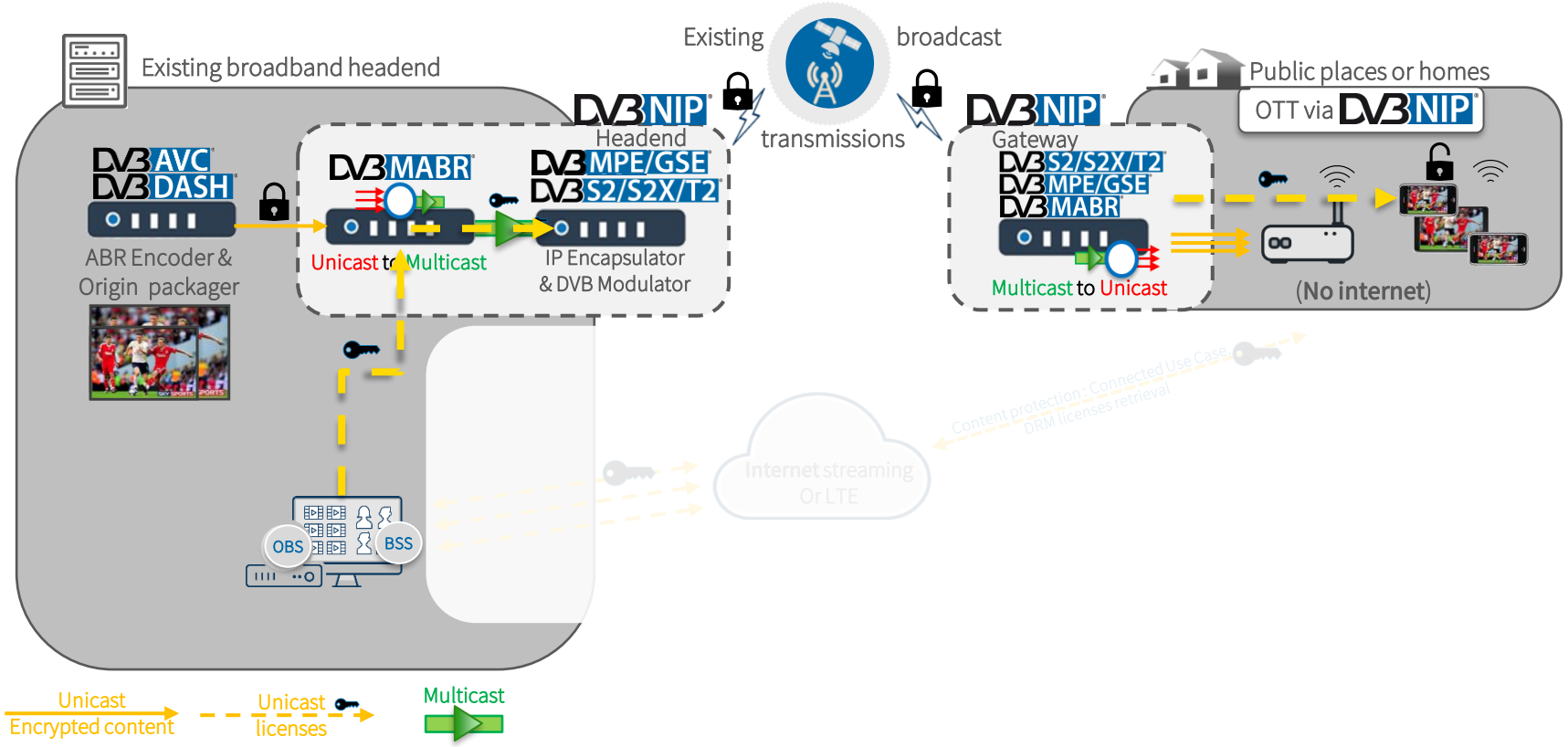
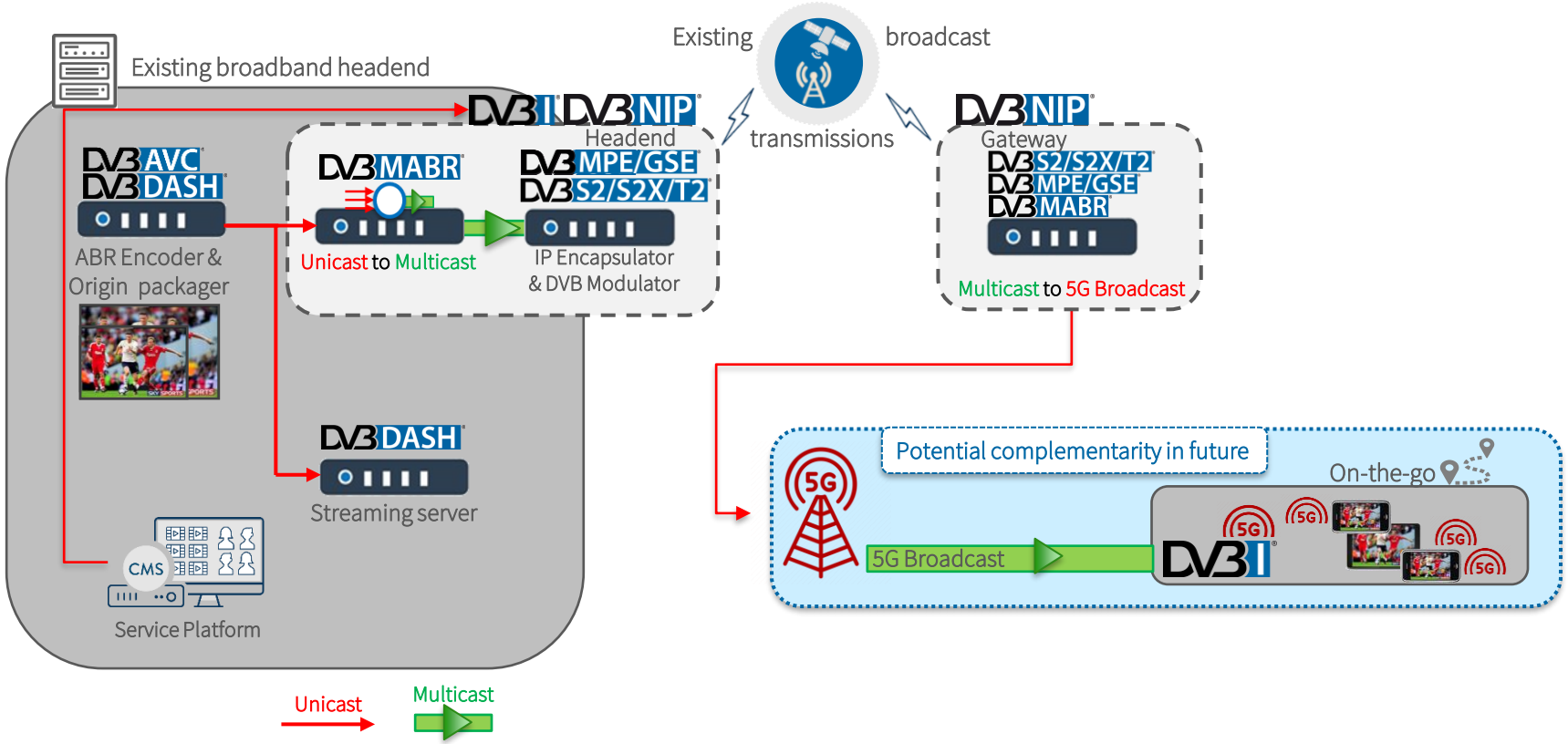
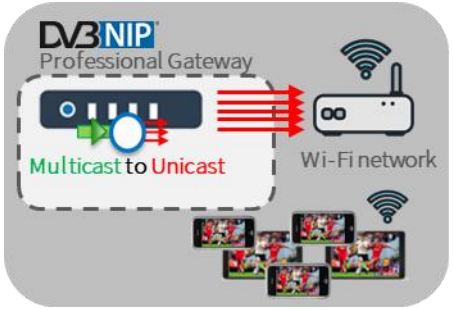


DVB-NIP brings TV to all networks where IP feeding fails

Leveraging broadband and broadcast infrastructure



DVB-NIP opens up new business models…



❖ DOWNLOAD TO GO (e.g., in malls)

❖ LIVE premium/sport channels in hotels

Public places

Live TV is enabled in poor connectivity and TV-less environments

❖ MOBILITY: entertainment for captive audience in buses, railways, maritime deployments

❖ EDUCATION: helping institutions to reach students in rural villages

… and enables a truly converged media delivery ecosystem

Homes

The same IP-based streams feed all screens

❖ TV platforms are unified

❖ Unified customer journey

❖ Multiscreen

❖ Multiroom

New usages

For new revenues

❖ Standardized Push VOD

❖ Targeted advertising

With DVB-NIP and DVB-I, the well-proven DVB networks are part of the converged broadcast/broadband future

LEVERAGE THE **EXISTING** TO CONNECT **LEGACY**

Existing infrastructure can be used to connect people in rural areas or to offer new services in public areas or transportation (access to live, PVOD) using **legacy devices**

STREAM **WITHOUT INTERNET**

Live OTT is served with **broadcast quality** regardless of the number of devices that are connected simultaneously

ALL PLAYERS BENEFIT FROM DVB NATIVE IP

Satellite providers stay relevant with the future DTH 2.0; Using DVB-NIP via satellite, **OTT service providers** can scale down infrastructure costs and extend market reach

HELP ENVIRONMENTAL **SUSTAINABILITY**

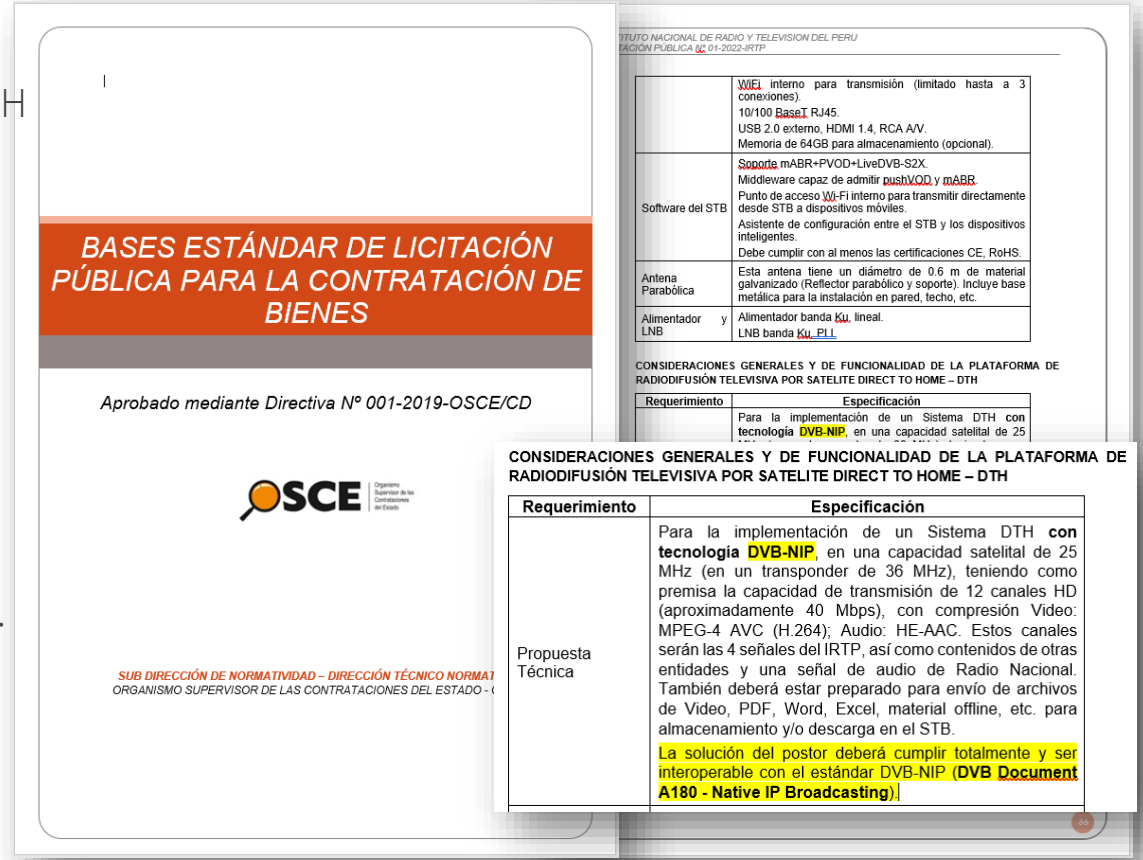
Thanks to its broadcast nature, this approach is the most **sustainable** way for IP services to reach millions of devices

PAVE THE WAY FOR A **CONVERGED 5G/IP/BROADCAST** FUTURE

"**DVB-I over 5G**" enables a future **combination with 5G** Broadcast (more appropriately 5G Media Streaming) for new devices that support 5G and in areas that may progressively offer 5G coverage

In Peru, DVB-NIP was selected as the new DTH platform

- Government tender for the new DTH platform, to run initially in parallel
- Educational content to homes
  - ✓ Consumer Gateway
- 50 000 schools (hotspots)
  - ✓ Professional routers for 200 users
- Commercial channels to follow
- Neighboring countries will follow…



BASES ESTÁNDAR DE LICITACIÓN PÚBLICA PARA LA CONTRATACIÓN DE BIENES

Aprobado mediante Directiva Nº 001-2019-OSCE/CD

OSCE

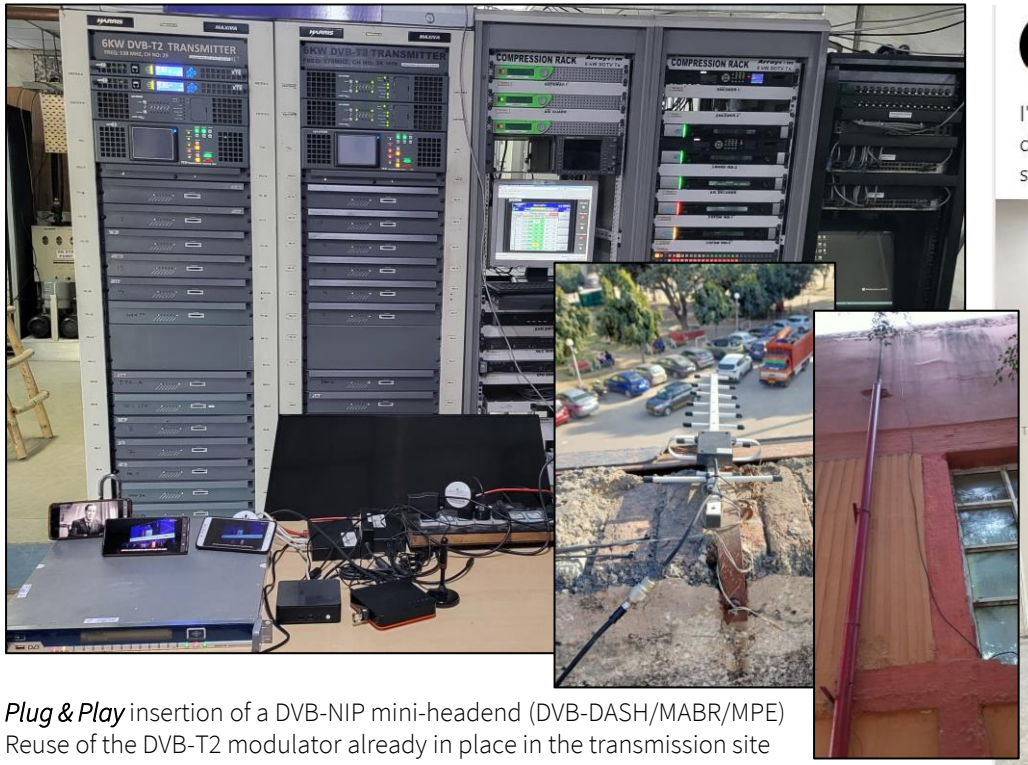
SUB DIRECCIÓN DE NORMATIVIDAD – DIRECCIÓN TÉCNICO NORMAT
ORGANISMO SUPERVISOR DE LAS CONTRATACIONES DEL ESTADO -

	WiFi interno para transmisión (limitado hasta a 3 conexiones). 10/100 BaseT RJ45. USB 2.0 externo, HDMI 1.4, RCA A/V. Memoria de 64GB para almacenamiento (opcional).
Software del STB	Soporte mABR+PVOD+LiveDVB-S2X. Middleware capaz de admitir pushVOD y mABR. Punto de acceso Wi-Fi interno para transmitir directamente desde STB a dispositivos móviles. Asistente de configuración entre el STB y los dispositivos inteligentes. Debe cumplir con al menos las certificaciones CE, RoHS.
Antena Parabólica	Esta antena tiene un diámetro de 0.6 m de material galvanizado (Reflector parabólico y soporte). Incluye base metálica para la instalación en pared, techo, etc.
Alimentador y LNB	Alimentador banda Ku, lineal. LNB banda Ku, PLL

CONSIDERACIONES GENERALES Y DE FUNCIONALIDAD DE LA PLATAFORMA DE RADIODIFUSIÓN TELEVISIVA POR SATELITE DIRECT TO HOME – DTH

Requerimiento	Especificación
Propuesta Técnica	Para la implementación de un Sistema DTH **con tecnología DVB-NIP**, en una capacidad satelital de 25 MHz (en un transponder de 36 MHz), teniendo como premisa la capacidad de transmisión de 12 canales HD (aproximadamente 40 Mbps), con compresión Video: MPEG-4 AVC (H.264); Audio: HE-AAC. Estos canales serán las 4 señales del IRTP, así como contenidos de otras entidades y una señal de audio de Radio Nacional. También deberá estar preparado para envío de archivos de Video, PDF, Word, Excel, material offline, etc. para almacenamiento y/o descarga en el STB. La solución del postor deberá cumplir totalmente y ser interoperable con el estándar DVB-NIP (**DVB Document A180 - Native IP Broadcasting**)

Live demonstration using 6KW DVB-T2 transmitter in Delhi



- ☺ ***Plug & Play*** insertion of a DVB-NIP mini-headend (DVB-DASH/MABR/MPE)
- ☺ Reuse of the DVB-T2 modulator already in place in the transmission site
- ☺ **15 km away**, reception on a Yagi antenna from the BES exhibition roof
- ☺ On the DVB booth, a 50 m line connected the antenna to a DVB-NIP gateway…
- ☺ **Snag-free reception** of live OTT services displayed on any mobile device – surprising the visitors!

LinkedIn - DVB-NIP live demo @ BES India 2023

Not a promise, a reality for 2024

- DVB-NIP standard specifications are under finalization
  - Currently known as DVB Bluebook A180, DVB-NIP standard will be published as ETSI standard, early 2024.
  - This standard describes technical solutions as migration patch from legacy broadcast to DVB-NIP.
- More, thanks to DVB office policies, the standard is under prototyping (DVB-NIP Verification & Validation) with the support of the main technology and network providers.
  - By end of 2023, mature solutions will be on the shelf.

Thanks!

DVB is an industry-led consortium of the world's leading media & technology companies designing open technical specifications for digital media delivery.