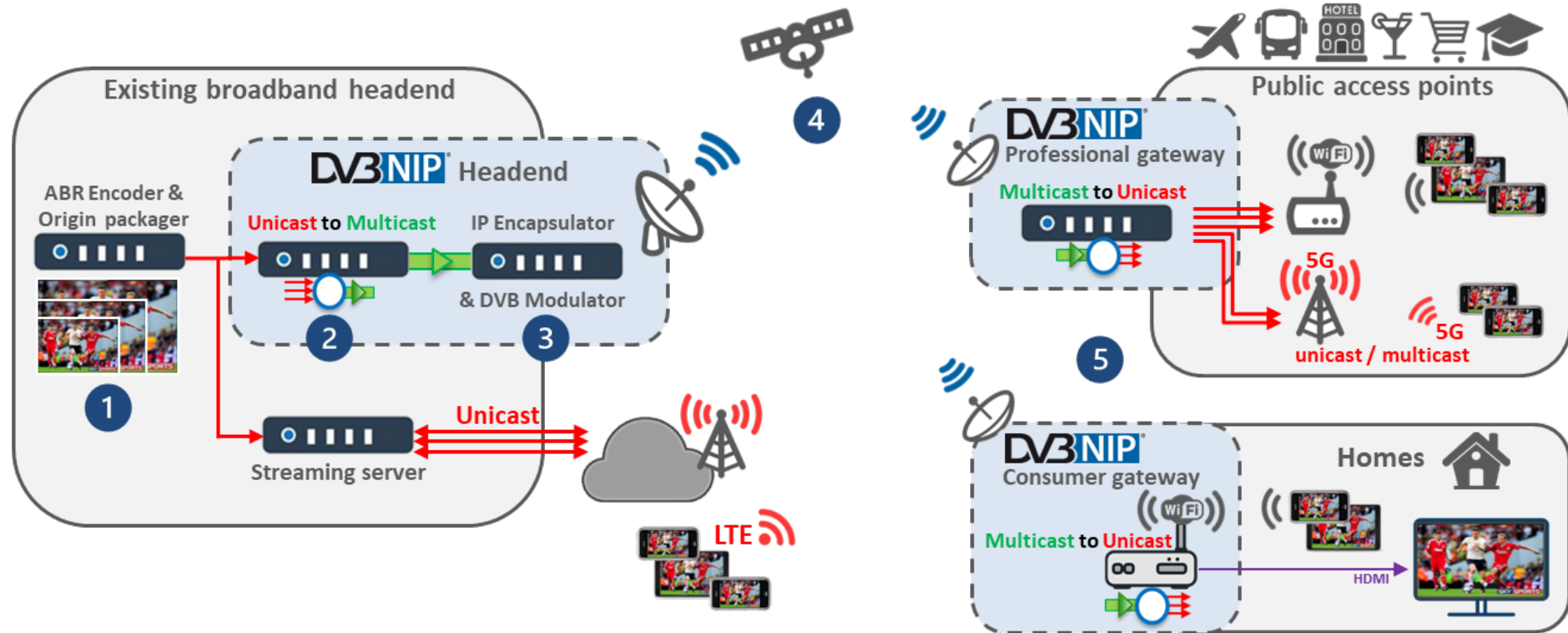


Multiscreen streaming over broadcast. DVB Native IP.



- 1 **DVB-AVC, DVB-DASH:** live or on-demand content is encoded and packaged using unicast ABR (adaptive bitrate) streaming formats also used for delivering OTT services over broadband networks
- 2 **DVB-MABR:** unicast content is encapsulated into multicast, converting unpredictable unicast traffic into a steady flow whose flat bandwidth enables carriage over broadcast networks
- 3 **DVB-GSE:** Generic Stream Encapsulation allows the multicast data to be carried directly over a DVB-S2X or DVB-T2 physical layer; to support the migration of existing DVB networks, an optional backwards-compatible mode instead uses Multi-Protocol Encapsulation (DVB-MPE) to enable delivery within an MPEG-2 transport stream, for example using DVB-S2/T2

- 4 **DVB-S2X, S2 or T2:** the physical layer relies on the well-proven and highly efficient second-generation DVB modulation schemes, allowing existing transmission infrastructure to be reused
- 5 On the receiving side, **DVB-NIP gateways** based on existing – thus highly cost-effective – DVB receiver technology, make it possible to feed, through Wi-Fi, any connected device including legacy smartphones.

Professional gateways can serve hundreds of devices in public venues, mobility environments or even feed **5G networks**.

Consumer models serve main screens in addition to mobile devices.

Demonstration partners

DVB Member contributions to our IBC2023 demos



Broadpeak (1.F76)
DVB-DASH packaging; DVB-MABR encapsulation and client



EasyBroadcast (1.D61)
CMS and applications for gateways and receivers



EKT (1.D61)
Consumer and professional gateways for DVB-NIP



ENENSYS (2.B59)
DVB-GSE/MPE, DVB-MABR encapsulation & client, satellite modulation and 4G/5G delivery



Eutelsat (1.D59)
Satellite transmission of DVB-MPE based signal



Inverto (1.A47)
DVB-MABR encapsulation and client; DVB-NIP gateway



Quadrille (1.D61)
DVB-MABR encapsulation and client



SES (1.B53)
Satellite transmission of DVB-GSE based signal



ST Engineering iDirect (1.A49)
DVB-MPE/GSE encapsulation and satellite modulation

Forsway and Noovo also provided DVB-NIP gateways

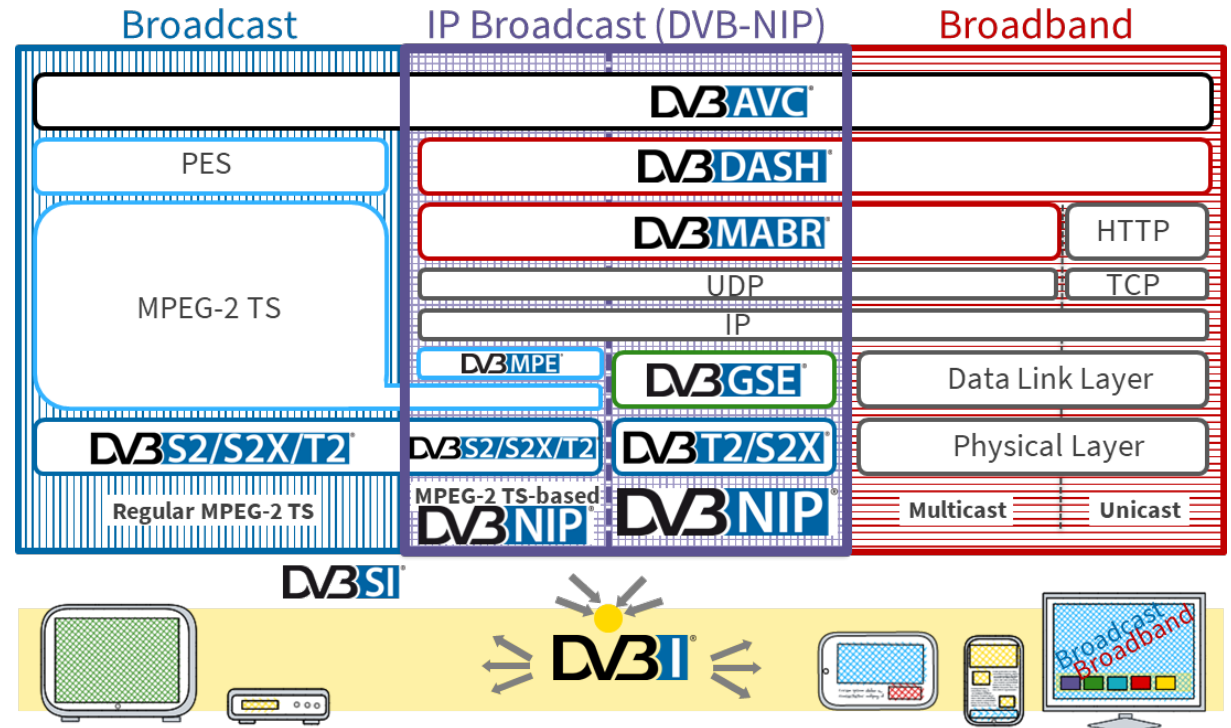
Why DVB Native IP?



DVB-NIP enables standards-based OTT delivery on DVB broadcast networks. It reduces the cost and complexity of media distribution by enabling the use of a **single converged platform to feed both IP and broadcast networks**, at the same time improving sustainability by eliminating duplicated streaming sessions.

Early applications

- **Feeding public access points** – in communities, hospitality venues or mobility scenarios – with high-quality linear OTT or pushing content during down times
- **Offloading broadband network traffic**, with popular OTT services delivered over broadcast to in-home devices while niche services use fixed/wireless broadband
- **Allowing the VSAT sector to embrace video distribution**, carrying video over bidirectional satellite IP networks



DVB-NIP bridges broadcast and broadband on the delivery side while DVB-I does so on the user side