

# UNIFIED TV CDN OTT IPTV SOLUTION

## STRATEGIC PROPOSAL TO INCUMBENT OPERATORS

### UNIFIED SOLUTION

Perception is the only fully unified IPTV / OTT / CDN solution. One software stack delivers the entire end to end TV experience. This makes it fast to deploy, easy to support and amazing to watch!

### ALL NETWORKS

A single deployment supports both IP multicast (with instant unicast rollover via RTSP) and HLS / DASH delivery for OTT clients. Persistent client states between both modes for seamless viewing.

### PRIVATE CDN

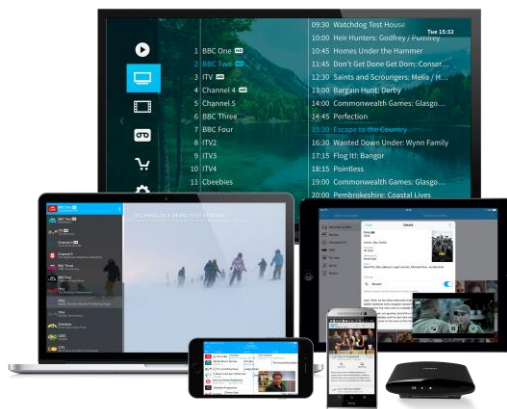
Perception creates a private CDN for telco operators either within one access network or many. We support a multi-tenant environment so a single central infrastructure can be connected to edge nodes inside various telco networks with different service branding, content line up and pricing.

### CDN MULTIROLE SERVER

TVCDN servers are next-gen origin & edge “8-role in one design” supporting: live ingest, live streaming, live recording, pvr, vod streaming, podcast and linear channel playlist playout. Servers are powered by our unique Multicast Grid real time protocol providing industry best cost/performance ratio.

### COMPREHENSIVE API

All elements of the solution are API driven. Via developer friendly unified API clients can within days easily integrate with their telco OSS/BSS environment or with their own front end user apps.



### SEAMLESS LEGACY PLATFORM UPGRADE

Perception can provide to incumbent operators who are looking to modernise their legacy solution (Operator) a rapid service evolution roadmap to a new, ultra-cost-effective, enhanced unified media platform to seamlessly upgrade their IPTV and OTT TV service.

Perception TVCDN end-to-end solution includes ingest transcoding, CDN load balancing and streaming servers, back-end middleware, database and service management application elements, plus user apps for 12 player device ecosystems.

One key advantage is that our CDN solution includes native support for live linear TV, automated catch-up TV, network PVR and VoD, and it runs on general purpose off the shelf server hardware, resulting in significantly lower cap-ex than traditional multi-vendor integrated solutions. Perception TVCDN comes with the complete IPTV & OTT middleware tool set built into the CDN layer itself.

We have developed a proprietary control layer protocol called the “Perception Multicast Grid”. This protocol knits all system elements together in real time for simple operational control and easy platform scale-up, enabling operator friendly rapid on-demand expansion.

The platform could be retro-fitted to Operator’s existing set-top-boxes (subject to analysis) and existing Operator apps could be easily updated with our launcher API to minimize any subscriber disruption.

### MULTI-TENANT PRIVATE CDN

Perception offers Operators the opportunity to streamline its provision of IPTV & OTT TV services at group level. For Operators who operate services in multiple countries, Perception offers opportunity to streamline and centralise its provision of services at group level consolidating delivery from a singular HQ control point.

This architecture could see a single group wide TV headend and core platform node handling content ingest and the platform back-end elements for all regions operating companies.



## SUPER APP ARCHITECTURE

In build launcher provides hosting for 3rd party apps like games, messenger, chat, ecommerce apps, etc.

## TOP CLASS USER FEATURES

**Ultra-fast channel change** delivering a proper TV experience whether on set top box or OTT apps.

**7 day interactive EPG** with instant access to all content on catch-up or to record via nPVR.

**Visual live rewind** on live channels with multi-speed control.

**Highlight markers** visible within catch-up viewing to provide short cuts to key content moments.

**Catch-up TV** accessible during channel playback or through the EPG with per channel duration settings.

**Cloud PVR** allowing single or episodic recording of future shows for unlimited storage within a flexible quota system.

**Auto-channel scheduling** AI system enables large VoD libraries to be “surfaced” as interactive linear TV channels.

**Social media integration** enables viewers to post frame-accurate links from content to their networks.

**App launcher** allows 3<sup>rd</sup> party apps such as e-commerce, gaming or information services, to be opened within your TV app.

Operator can create different instances of the platform for each regional variant, reflecting specific local branding, content packaging and pricing.

The central CDN node is connected via Multicast Grid over the top and/or via VPN tunnels to CDN edge POP nodes running inside each operating company WAN and/or mobile network. All content can be multicast to the local nodes before onward streaming as multicast with unicast roll-over for IPTV STBs and as HLS/DASH to connected TVs, mobile clients and OTT STBs. This approach provides considerable op-ex savings compared to running totally discrete application infrastructure in each regional network.

## FLEXIBLE STAGED SERVICES DEPLOYMENT

Perception can provide on-premise solution including training for operational teams against a set-up fee and a recurring software licence based on per subscriber or per CDN server fee. Alternatively, Perception can offer Operator a fully managed, zero cap-ex platform-as-a service solution against a monthly per subscriber fee or a revenue share based deal can be agreed.

## BENEFITS

- Superb user experience.
- Reduced TV services opex.
- Powerful user marketing features built in.
- Easy API integration with billing systems and 3<sup>rd</sup> party apps.
- New revenue streams through ecommerce integration.
- Perception TVCDN™ super-app framework creates a seamless experience for users by integrating messaging directly into TV app which not only enhances user engagement but also fosters a more comprehensive user experience, making it a one-stop destination for communication, entertainment, and e-commerce.
- By offering both, free and subscription-based services, operator caters to a wider audience and can potentially increase its revenue streams.
- In the rapidly evolving media landscape, it is crucial for Operator to adapt and innovate. By focusing on providing diverse features and monetisation options, Operator can stay competitive and future-proof their platform, ensuring continued growth and success.

## ABOUT US

Perception Group Inc. is an industry innovator that develops and operates TV CDN cloud services utilising its bespoke product, Perception TVCDN™.

Perception TVCDN is a proven product, available as SaaS or PaaS solution, in commercial use for over 15 years, powering multi-country operation for number of international telcos and MVNO operators.

Please contact [info@perception.tv](mailto:info@perception.tv) for more information.