

PERCEPTION™

the TVCDN



Perception TVCDN™ - the first multiscreen TV platform that delivers live TV streaming, catch-up TV, cloud PVR, on-demand VOD, subscriber management and billing services embedded directly in a unified TVCDN delivery fabric. Built for global multichannel operators, available with PaaS and SaaS commercial models, delivering **the best cost-performance ratio** to telecom and online entertainment industry (see full info at Perception.TV).

PERCEPTION TVCDN UNIFIED VIDEO PLATFORM

MIDDLEWARE

- VOD Ingest
- Live Stream Ingest
- Automated TV Channel Payout and EPG Module
- Content Library Management and Central Storage Module
- Subscriber Management and Payments Billing module

Platform can be configured as standalone master or slaved to external BSS/OSS telco solution.

TVCDN CLOUD

TVCDN Multicast Grid proprietary server network.

Each server is Origin and Edge multirole capable:

- Live streamer
- Catch-up streamer
- VoD streamer
- Podcast streamer
- Time-shift recorder
- DVR (Personal recorder)
- Linear TV channel payout

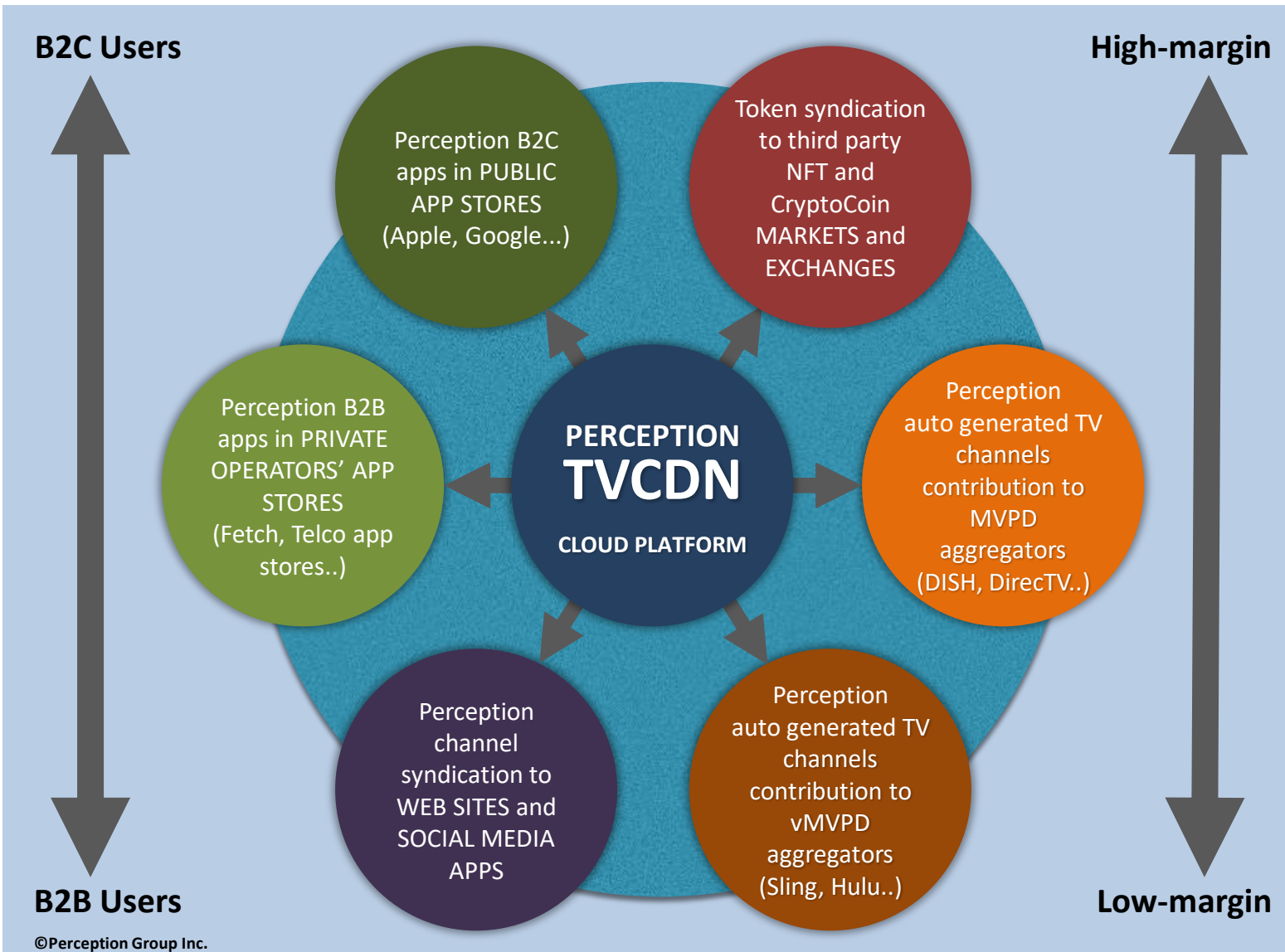
MULTISCREEN APPS

14 native apps are available. All commercial content monetisation models are supported:

- AVOD & FAST - free ad funded packages
- TVOD & PVOD - on demand pay per view
- SVOD - recurring subscription

The packages configurator provides flexible subscription durations with free signup promotions.

Perception TVCDN™ platform enables content owners, distributors and aggregators monetising their VOD and Live TV content reaching users via **6 major revenue channels**:



Ordinary CDN vs Perception TVCDN features comparison:

Software Toolbox Module <i>(Core features included in modern streaming service)</i>	CDN	vs	TVCDN
Multi-CDN Gateway	YES		YES
Live/VOD Transcode	YES		YES
Targeted Ad Serving	YES		YES
CMS (Content Management)	YES		YES
SMS (Subscriber Management)	YES		YES
Telco OSS/BSS API with real time revenue share IPG support*	NO		YES
e-Shop wallet API	NO		YES
Low Latency play start / channel switching	NO		YES
Multicast Support	NO		YES
Catch-up-TV with Live TV Rewind	NO		YES
Network PVR	NO		YES
Linear TV Channel Payout	NO		YES
TV EPG (electronic programing guide support)	NO		YES
IPTV Custom STB Support (Linux Custom Apps)	NO		YES
IPTV Custom STB Support (Android Custom Apps)	NO		YES
OTT STB, Connected TV and Mobile Devices Apps	YES		YES
Multi DRM Support	YES		YES
Typical market price per TB of transit	\$10 ~ \$40 (Exc live record)		\$50 ~ \$150 (Inc live record)

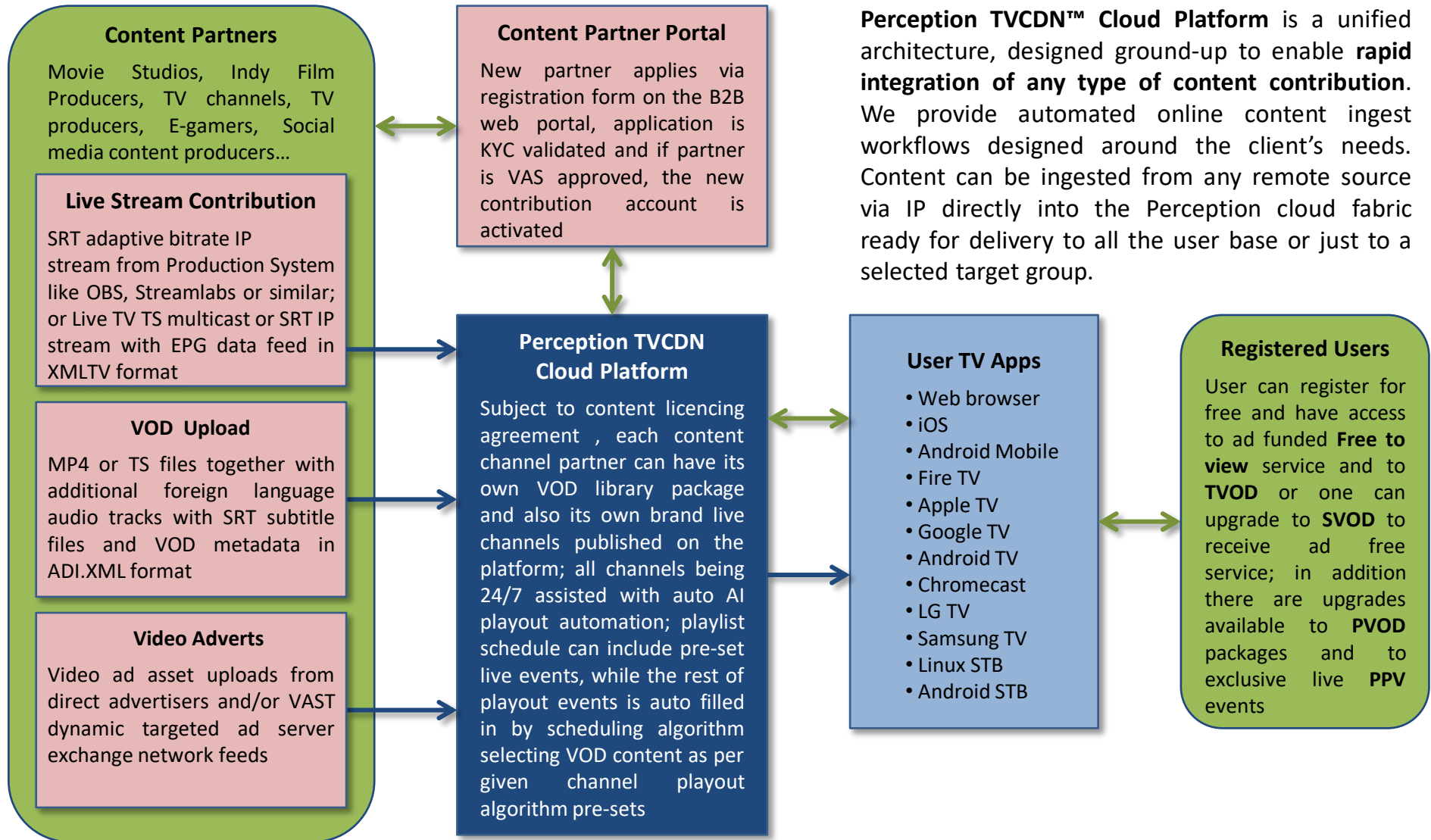
*Internet payment gateway transacts revenue share splits in real time between the parties.

Perception IPTV app vs mobile OTT app comparison:

MENU ICON	FEATURES MODULE	OTT APP <small>Included in Android and iOS Mobile app (Y/N)</small>	IPTV APP <small>Included in Web, Samsung, LG, Android TV, Apple TV, Fire TV, Linux and Android STB app (Y/N)</small>	FEATURES DESCRIPTION
NA	Splash Screen	NO*	YES	App launch welcome screen showing the latest goods or services promotions; in hotel deployments used as Guest Welcome Screen
NA	Promo Home Screen	NO*	YES	Secondary multi-stripe interactive promo screen; content selection is curated by AI recommendation engine (Think Analytics) and/or Operator's promotions can be pre-set in back-office control panel
	Playing Now	NO*	YES	User actions screen showing currently playing content metadata info
	Search	YES	YES	"Universal Global Search" searching Live TV EPG, VOD and PVR metadata; Perception was first platform introducing this feature to the market
	Home Screen	YES	YES	Home screen content strips are configurable in back-office control panel; content suggestions can be manually and/or AI curated by the recommendation engine (Think Analytics)
	Live TV Channels	YES	YES	Live TV EPG presentation supports horizontal and vertical layout; Perception was first platform introducing interactive "Live Record Preview" to the market
	Radio Channels	YES	YES	Live radio streaming is important part of the overall entertainment service, especially for hotel TV and telco IPTV services
	VOD Library	YES	YES	Perception was first to market with support for podcast and audio e-books
	PVR Library	YES	YES	Perception was first to market with support for cloud nPVR (Network Personal Video Recorder)
	Record Scheduler	YES	YES	User personal recording scheduler and records archive
	3rd Party Launchpad	NO*	YES	Operator's Private Store hosting external TV-shops, web portals, games, etc.; Perception was first to market with support for partners' Marketplace Launchpad enabling multi-play commercial model (e.g. in hotel deployments there can be included Restaurants e-shop so that guest can order room service or book the restaurant table; or any other hotel service, like spa or hairdresser, can be included)
	E-shop	NO*	YES	User friendly single click inbuilt e-shop selling Operator's Service packages (content bundles, PVR storage, broadband etc.); including access to the full list of all relevant Service agreements' Terms & Conditions
	Settings	YES	YES	User controlled pre-sets including: User profiles, Favourite channels, UI language and Content language (separate UI and content multi-language is very important for hotel or international telco deployments, facilitating user to select his native language subtitles and/or VOD metadata)

*Modules which are typically switched off in mobile apps due to Apple and Google app store limitations and high cost of payment transactions.

High View Content Flow Integration Architecture



Perception TVCDN™ Cloud Platform is a unified architecture, designed ground-up to enable **rapid integration of any type of content contribution**. We provide automated online content ingest workflows designed around the client's needs. Content can be ingested from any remote source via IP directly into the Perception cloud fabric ready for delivery to all the user base or just to a selected target group.

Perception TVCDN™ Unified Platform Architecture Block Schematic

