PERCEPTION™ the TVCDN

UNIFIED END-TO-END PLATFORM ARCHITECTURE BLOCK SCHEMATIC

Perception TeslaTrans™ in-house integrated encoder/transcoder is default model used for new head-end installations; however any make multibitrate transcoder can be used

Perception MW provides complete OSS/BSS functionality as required to run standalone IPTV/OTT service; in case platform is configured as telco triple-play service than in-build SMS is controlled by external OSS/BSS

Perception API provides easy integration with MVNE providers enabling out-of-the-box triple-play deployments; MVNO BSS includes 'user loyalty management' store points program (token currency)

Files and live streams are dynamically encrypted at the point of serving

Files and live streams are decrypted at the point of playback; DRM key is only served if user authentication checks OK

Satellite DVB
MPTS/SPTS
UDP Multicast

Perception TeslaTrans™
Adaptive Multibitrate Transcoding
MPEG2, H264, HEVC

Perception Unified Middleware
- **SMS - Subscriber Management System** including payment processing and billing
- **UMW - Universal Multi-Wallet**; unified PPV and e-store user wallet with multi-currency support
- **CMS - Content Management System** with flexible packaging, promotions and pricing templates
- **CVL - Content Video Library** with support for AI driven recommendations and global search across VOD and live TV channels
- **LCP - Linear TV Channel Playout** with auto EPG generator

MNO/MVNO OSS/BSS*
(Operator's in-house solution or third party MVNE/MVNA PaaS)

Perception TVCDN™ Private Cloud
HLS, DASH, SRT, RTSP, UDP, Progressive Streaming

DRM*
(Axinom Cloud DRM preconfigured as default)

Perception Apps
14 White-label Multiscreen Apps:
- Fire TV
- Apple TV
- Samsung TV
- LG TV
- Android TV
- Google TV
- Hisense TV
- Android, iOS, Huawei, Xiaomi Mobile with Chromecast support
- Web Browser with Chromecast support
- Linux and Android Custom STB

Live Stream
SRT, RTMP
Unicast

Internet Payment Gateway*
(Stripe preconfigured as default)

TVCDN POP
Perception CDN edge streaming point of presence

Ad Serving third party networks*
(Double Click preconfigured as default)

Next gen TVCDN based on multicast mesh grid design; all CDN servers are multirole; each server can provide:
- *Live rewind recording*
- *Network PVR*
- *Linear TV channel playout*
- *Live TV streaming with EPG support*
- *VOD streaming and download*
- *Ad serving*

VOD
TS, MP4
Secure FTP
File Ingest

Recommendations AI Engine*
(Think Analytics preconfigured as default)

Multi-CDN Load Balancer*
(IP transit offloads Gateway)

Operator friendly AI module monetizing VOD library with TV channels SVOD and ad insertion sales

Mastodon is a fast-growing Twitter-like federated social network; also Friendica, a Facebook-style social network, can be integrated

Social Media Platform*
(Mastodon Custom-integrated as default; configured as private node instance)

DNS backup routing to public CDNs like P2P, Akamai, etc. for handling of unexpected traffic peaks

Unified TVCDN API provides developer friendly platform enabling rapid app development or operator can simply rebrand Perception

Unified Back Office

Head-end and Stream Monitoring

Content Ingest and Packaging

Platform Admin and Delivery Operations

Revenue and Streaming Reports

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All third party API modules are subject to custom integration/configuration per exact client's requirements.