

OTT

English



CryptoGuard

– *Protect your content* –

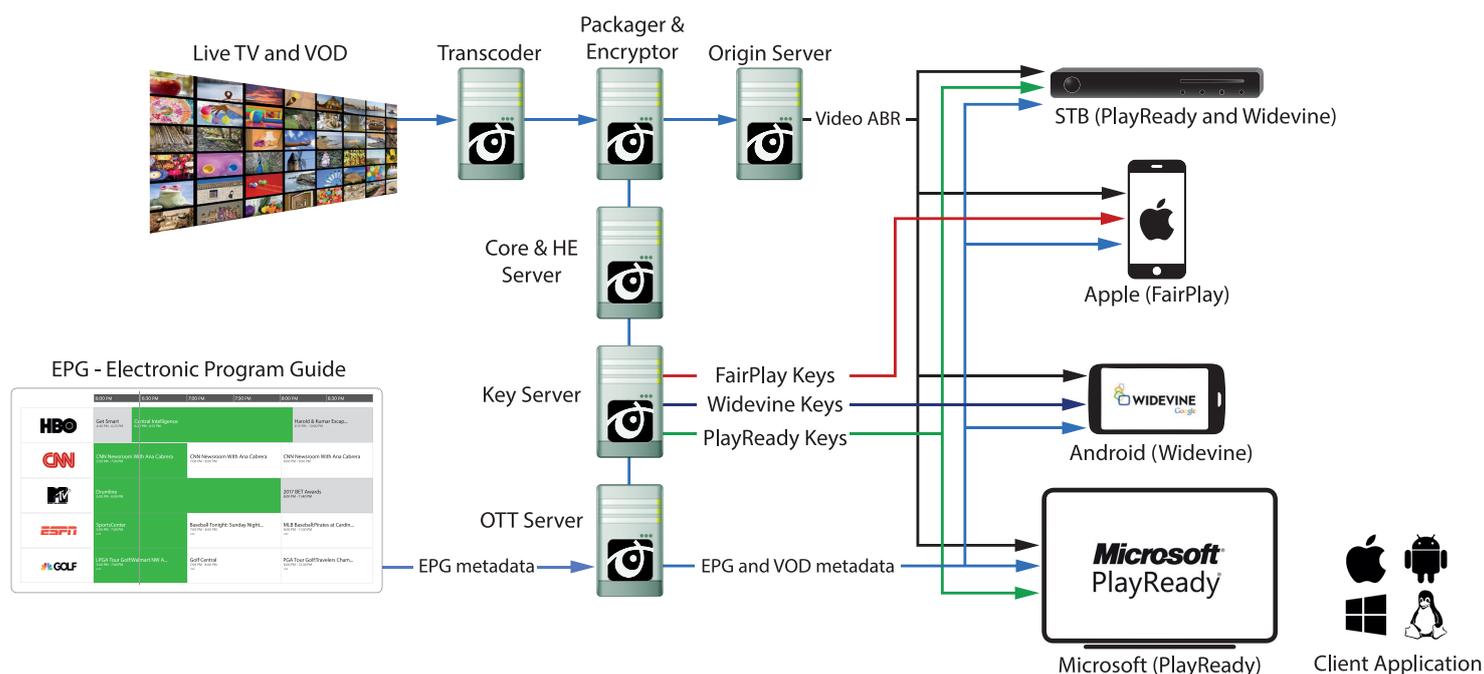
CryptoLITE™ End-to-End OTT Solution



An Affordable and Complete End-to-End OTT Solution

The CryptoLITE™ End-to-End OTT Solution offers any size TV operator to cost-effectively deliver advanced TV features to any screen. CryptoLITE™ enhances the viewer experience with premium, high-level features such as Live-TV, Timeshifting, Catch-up, Start-over, nPVR and VOD. The solution supports DRM formats including Google Widevine, Apple FairPlay and Microsoft PlayReady, enabling a highly secure content delivery. These DRMs are natively supported by the browser, mobile device or set-top box and are approved by major studios.

CryptoLITE™ End-to-End OTT Solution schematic overview



EPG: enables selection of past or future programs. When selecting a past program, the content will automatically show in Catch-up mode and when selecting a future program, the content can be selected to be recorded or the user can be notified when it starts.

Transcoder: converts input streams to several different Adaptive Bit Rates (ABR). For example, one 4 Mbps input stream is converted to 2 Mbps, 1 Mbps and 500 kbps streams which are automatically selected depending on the user's bandwidth, permitting little buffering when streaming high-resolution feeds (begins with low-resolution and increases).

Packager & Encryptor: packages the video streams to HTTP deliverable format and encrypts the content with AES keys.

Origin Server: process and respond the video streams to incoming Internet requests from clients. Both HLS and MPEG-DASH are supported.

OTT Server: provides text, images, trailers and metadata for all content enabling users to browse between live TV channels, catch-up and video on demand. The OTT Server also performs login and authentication of users.

Core & HE Server: handles customers, channel packages and configuration.

Key Server: verifies the client requests and delivers the key to the user device for decryption of the content.

Transcoding and Packaging

Transcoding

Input IP Formats

UDP multicast MPEG-TS, progressive HTTP download, HLS, MPEG-DASH, RTP

Ingestion

Live TV streams, Live Radio streams, VOD files

Fail Proof

Possibility of defining backup sources, automatic working source selection

Scalability & Load Balancing

Automatic task distribution based on free HW resources

Customizable Output Profiles

Multiple output profiles for one input source

Profiles

Customizable Resolutions: 4K, 1080p, 720p, 576p

Customizable Bitrates

Customizable codecs: H264, H265

Performance Example of One Transcoder

Variant	Input Quality	Output Qualities	Max Input Streams
A	576@25FPS	576p, H264	200
B	1080i@25FPS	720p + 576p, H264	50
C	1080i@25FPS	1080p + 720p + 576p, H264	50

Packaging

Output

HLS, MPEG-DASH

Adaptive Bitrate (ABR) Support

Live TV, Timeshift / Catch-up / Start-over, nPVR, VOD

DRM Support

Widevine, PlayReady, FairPlay



Origin Server

Multiple Streaming Formats

HLS, MPEG-DASH, progressive HTTP download, UDP multicast MPEG-TS

Delivery

Live TV, Timeshift / Catch-up / Start-over, nPVR, VOD and audio

Compliant with DRM

Widevine, PlayReady, FairPlay

Session management → statistics / user session reports, video delivery reports → information about asset usage

Scalable Architecture

Failover and load balancing capabilities → high performance delivery

Media Cache

Offloading requests from Storage Servers. Fast response time.

Two tiers of cache - RAM and SSD.

Reduces data traffic significantly.

Performance (Concurrent Access) of One Origin Server

~ 4600 streams @ 1.3 Mbps (576 p)

~ 2200 streams @ 2.7 Mbps (720 p)

~ 1250 streams @ 4.7 Mbps (1080 p)

Flexible & Scalable Architecture

Hardware Agnostic

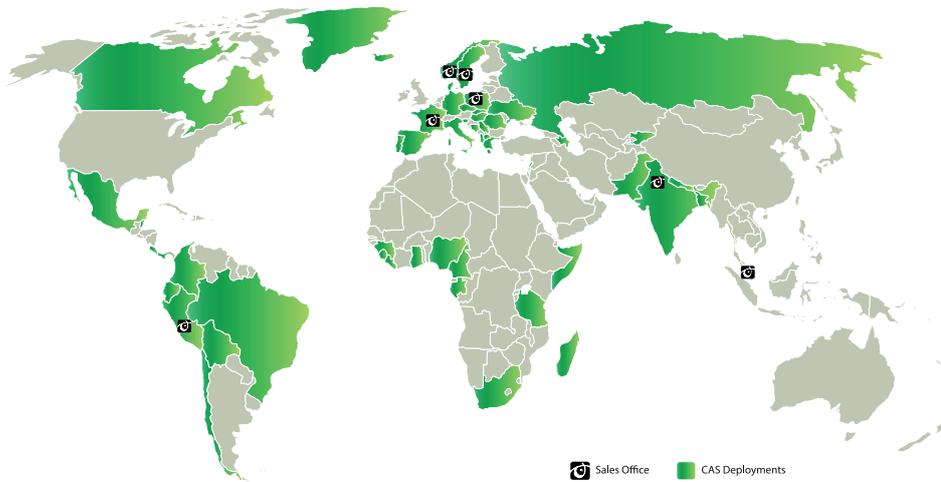
Can run on any hardware if minimal requirements are met, hardware or cloud hosted.

Recommended Start-Up Hardware Requirements

Deployment Type	Non High Availability	High Availability
5k-10k active monthly subscribers 50 channels	1 Transcoders 2 Encryptors 2 Origin Servers 1 Core Server 1 Key Server 1 OTT Server	-
10k-40k active monthly subscribers 100 channels	2 Transcoders 4 Encryptors 4 Origin Servers 1 Core Server 1 Key Server 1 OTT Server	4 Transcoders 6 Encryptors 6 Origin Servers 2 Core Server 2 Key Server 2 OTT Server

CryptoGuard Sales Offices

FRANCE INDIA NORWAY PERU POLAND SINGAPORE SWEDEN



CONTACT

Östermalmsgatan 101
59160 MOTALA
SWEDEN

Tel: +46 971 107 35
sales@cryptoguard.com

www.cryptoguard.com