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APPEAR SOFTWARE PORTFOLIO  
LIVE OTT TRANSCODING



Traditional TV delivery  
is no longer enough for  
broadcasters, customers want  
access to content everywhere.

## DATACENTER MULTISCREEN COMPRESSION

The availability and capacity of internet is increasing. So too is the prevalence of powerful computers, integrated TVs, tablets and mobile phones. These combined factors allow viewers to receive video content from broadcasters anywhere, in virtually any form. Becoming a commodity, viewers are starting to take it for granted. For content and network infrastructure providers, this same commodity poses more of a challenge: to deliver the best possible live video experience on multiple formats, regardless of distribution networks and viewing devices utilized.

Interest in software transcoding solutions is growing. Operators acknowledge the importance of efficiently utilizing their existing datacenter infrastructure and the know-how already embedded in their organization. Others look to migrate at least parts of their infrastructure onto the cloud.

Live OTT Transcoding is Appear TV's newest OTT product, complementary to our existing and upcoming hardware product portfolio. The Live OTT Transcoder enables broadcasters and operators to provide high quality multiscreen services through COTS hardware options.





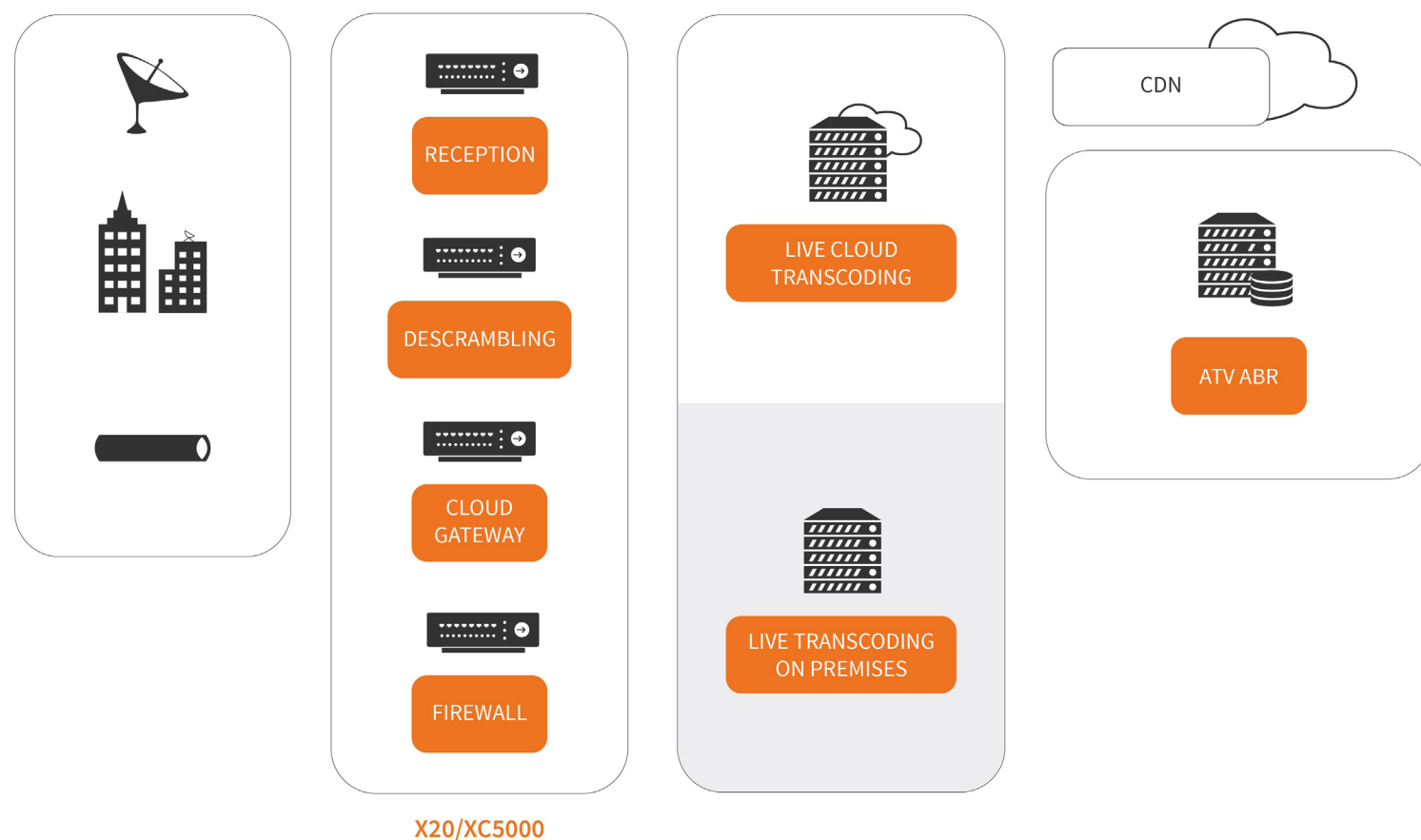


Encoding quality levels can be chosen to achieve different quality vs. speed tradeoffs, making it possible to target a large number of different markets.

## HIGH QUALITY OTT TRANSCODING

High performance H.264 and H.265 encoders make up the core of the Live OTT Transcoder. Services can be transcoded into different H.264 and H.265 profiles, with up to UHD resolutions. Encoding quality levels can be chosen to achieve different quality vs. speed tradeoffs, making it possible to target a large number of different markets. Together with flexible rescaling, deinterlacing, frame-rate conversion and logo-insertion options, all screens become picture perfect.

Transcoded services can be streamed out as key-frame aligned transport streams, to be ingested by the customer's preferred packager, for example, Appear TV's storage and packaging solution Appear Software Portfolio ABR. Alternatively, HLS segments and playlists can be generated directly, ready to be fed into existing CDN infrastructure.



## DYNAMIC QUALITY CONTROL

Video compression performance depends on a large number of factors, such as resolution, bitrate, and quality settings, but also system configuration and environmental factors such as temperature. Especially scene complexity can have a major impact on encoding speed.

The ATV software transcoding solution continuously monitors encoding performance. Using proprietary Dynamic quality control mechanisms, the system can react to unexpected spikes in encoding speed by automatically adjusting quality settings in order to maintain a stable framerate.

## RESOURCE ALLOCATION

The management system measures and monitors transcoding performance, making sure that servers don't become overloaded. By smartly sharing or distributing workloads across multiple servers, the system maintains high performance and system stability. In case of server failure, a redundancy system moves affected services to servers with spare capacity, keeping program interruptions to a minimum.

## USER FRIENDLY

A single centralized management interface allows for simple management of an arbitrary number of servers and services. Encoding settings, such as resolutions and bitrates, can be saved as presets, making it easy to scale a system up to dozens or even hundreds of services.

## DATACENTER READY

Appear Software Portfolio Live OTT Transcoding runs on a wide range of COTS servers, making efficient use of the latest Intel® Xeon® E5 and Xeon® Scalable CPU technologies. It does not require an embedded or dedicated GPU, making it ideal for use in datacenters. Docker® virtualization technology makes deployment on Linux® based platforms quick and simple.



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