

## REDUCE TCO AND IMPROVE CUSTOMER SATISFACTION

Offer the possibility of unlimited recording to your viewers, on every screen.

With NEA-DVR®, you can increase customer satisfaction and ARPU, while reducing operational costs.

You can increase customer satisfaction through a Cloud DVR service with superior storage capacity, performance, and reliability thanks to Embedded Distributed Storage (EDS). EDS simplifies the integration between streaming and storage with hyper-convergent storage. This is embedded on servers, dividing the number of physical rack units by two. Data is shared among NEA-DVR servers with EDS, providing a higher streaming performance and high availability in case of failure. Access EDS storage seamlessly to improve customer satisfaction and ultimately, ARPU..

You can also increase ARPU by monetizing catch-up and Cloud DVR services - while also providing a better user experience - thanks to targeted advertising, enabled by Dynamic Ad Insertion. You reduce costs through Infinite Buffer, which streamlines asset and storage management, so you gain up to four times more capacity.

NEA-DVR handles all the packaging, streaming and recording to prepare and deliver Cloud DVR, catch-up, timeshift and live channels to a range of targeted devices such as smartphones, tablets, personal computers and set-top boxes. Subscribers can schedule their own recordings through an EPG-based or instant-based program.

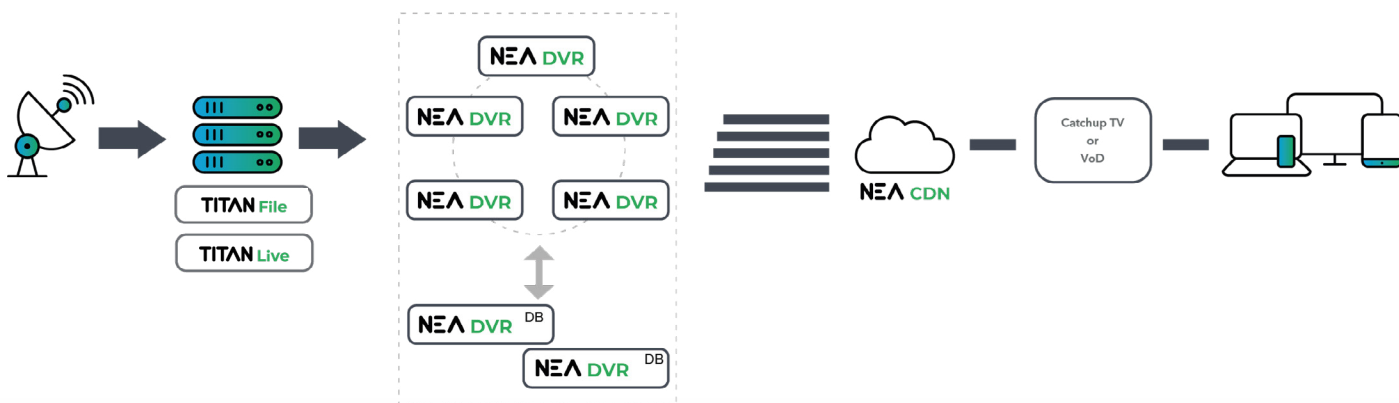
You can use NEA-DVR in a Cloud DVR solution both as an ingest server, to store live content, and as a playback server, to package content and stream it to the network.

### Applications

- Live
- Timeshift / Pause TV / Catch-up
- 7-day catch-up TV
- VoD
- Infinite Cloud DVR solution
- Embedded Distributed Storage (EDS)
- Private copy and shared copy

### Features and Benefits

- Cloud DVR solution for individual EPG-based or instant-based recordings
- Optimized Embedded Distributed Storage (EDS) for high availability and ingest / playback performance
- Origin server for catch-up TV and VoD delivery managed by a back office
- On-Demand / Just-in-Time packaging (HTTP Streaming Protocol) and filtering of audio, video and subtitles
- Encoder agnostic (EBP CableLabs)
- Multi-DRM to protect and package your content on all your devices and platforms
- SCTE-35 based manifest conditioning for Dynamic AD Insertion



## Technical Specifications

### Service

Cloud DVR, CUTV, live, pause TV, timeshift, start-over, VoD

### Input Format

- Live: adaptive MPEG2-TS CableLabs
- Up to 150 channels
- Up to 15 tracks per channel (video / audio / text)

### Video

AVC, HEVC

### Audio

AAC, EAC3, EAC3+

### Output Format

- Multiple ABR protocols
- MPEG-DASH
- Apple HLS
- Microsoft Smooth Streaming
- 4K and HEVC support

### Processing

- Filtering video, audio and subtitles
- Subtitle and close caption passthrough or conversion
- Input: CEA-608/708, DVB-TXT, DVB-SUB
- Output: WebVTT, TTML, EBU-TT-D, SMPTE-TT
- SCTE-35 based manifest conditioning (DASH and HLS)

### Administration

- Web-based GUI
- Monitoring (SOAP and SNMP)
- System alarms and logs

### DRM

#### Scrambling

- MPEG-DASH CENC (PlayReady, widevine and other DRM providers)
- Apple HLS AES-128 and SAMPLE-AES (Fair-Play and other DRM providers)
- Apple HLS PlayReady
- Microsoft Smooth streaming PlayReady
- Periodic key rotation
- Per-track encryption

#### Key provisioning

- Integrated with leading providers; Verimatnix, CVAS, Arris Titanium, Widevire, BuyDRM KeyOS, Viaccess Connected Sentinel
- Key server integration with CPIX 2.0 standard interface
- Manual key setup

#### Performance

- Up to 1.5 Gbps input per ingest node (or 150 channels)
- Up to 4 Gbps output per playout node
- 1 NEA-DVR DB node handles up to 12 NEA-DVR nodes
- 700 TB raw storage capacity per NEA-DVR node

#### Scalability and High Availability

- Redundant ingest: 1+1 active/passive (seamless failover)
- Load balancing playback: N+1 active
- Redundant NEA-DVR DB: 1+1 active/passive
- Secure storage with erasure coding
- Full data replication

#### Provisioning NEA-DVR DB

- Unique integration point (back office)
- Multiple services platform contact