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# General description

Caching allows to improve the Internet access performance and reduce the external traffic.

## **Viewing High Definition video without delays**

The request for High Definition content increases due to wider usage of high definition screens on subscriber's devices (tablets, laptops, HD television). Common resolution video is not accepted by many subscribers. The new formats 4K and 8K will be available soon.

An attempt to watch HD video from popular online services, like youtube, may fail. The video is eventually suspended, watching video becomes an agonizing experience. The subscriber may purchase a wider channel by the operator's advise. However, this may not help due to network delays, overload of channels during peak hours, GGC delays (it is Google's cache server) on an upper level provider. The subscriber is unhappy. The native and general purpose cache servers can not solve the problem sometimes as someone has to watch the particular HD video with all these troubles before the subscriber can watch it comfortably.

Our caching solution enables to detect the most requested videos and to download them to media server during off-peak hours. Later subscribers play these videos from the local cache.

## **External traffic reduction**

The "heavy" content download during off-peak hours (typically during night time or working hours), when a lot of bandwidth is available, allows to reduce the traffic during the peak hours. This helps to reduce the bandwidth rented by the operator.

The additional computer - media server - is required to implement this service.