

LIVE STREAMING DELIVERY NETWORK

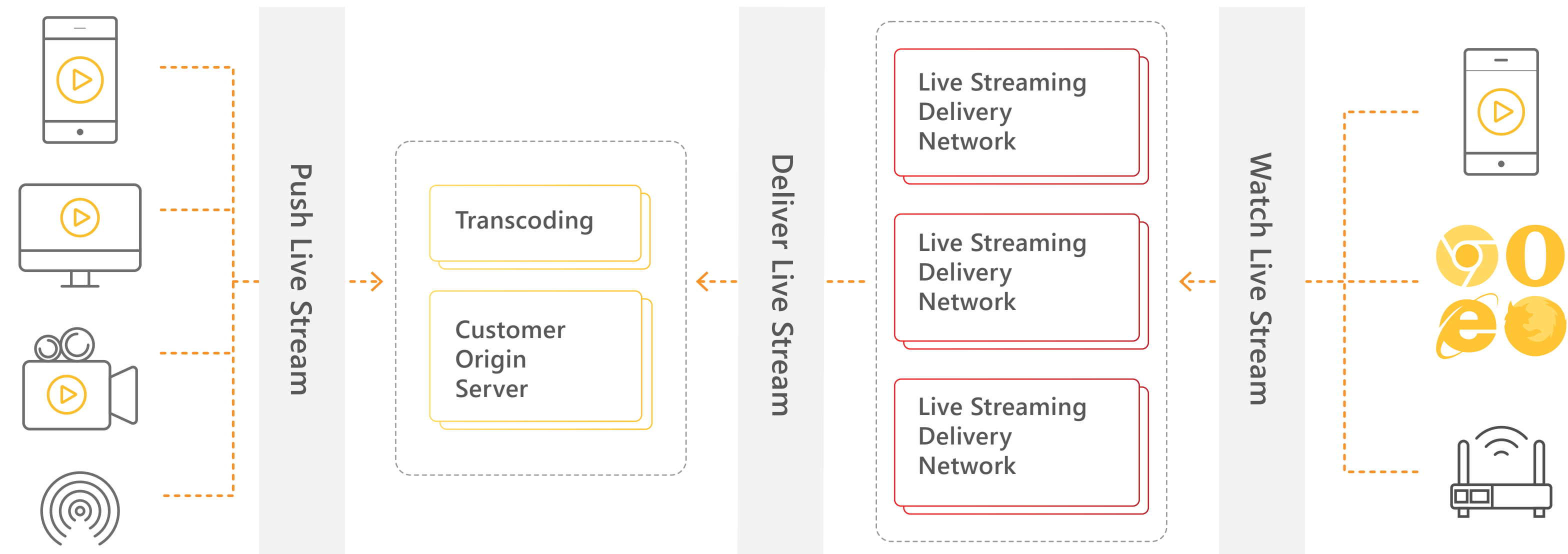
Live Streaming with latency under 3s

www.vnetwork.vn

Introduction of LSDN Service

LSDN is a live streaming service via RTMP Protocol with latency under 3s.

LSDN is designed to optimize the video transmission speed under different scales and conditions, to ensure that the global users are getting the most out of any device.



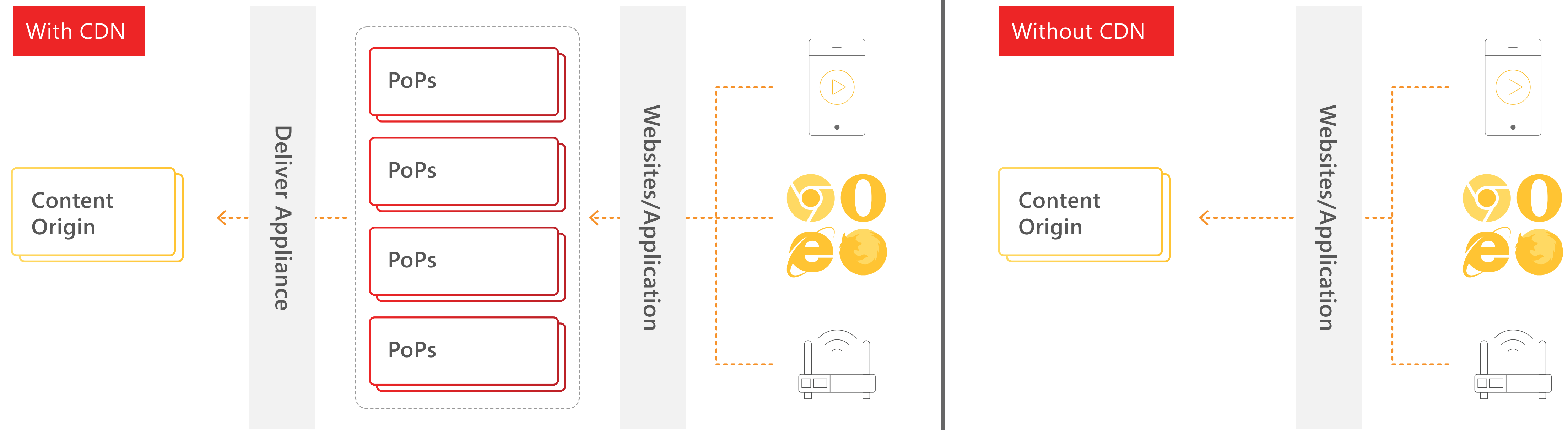
LSDN supports

- ✓ Video source from any H.264 encoder or camera, smartphone,...
- ✓ RTMP/RTMPS.
- ✓ Video, audio or both video and audio.

Why use our LSDN?

- ✓ Support RTMP protocol via CDN system.
- ✓ The only system in Vietnam committed live streaming with latency under 3s.
- ✓ Smooth content delivery via the global CDN network.
- ✓ Being compatible with all browsers and devices.
- ✓ Easily to integrated with Transcoding system for multi-device compatibility
- ✓ High-quality videos distribution.

CDN Service will solve the video distribution problems

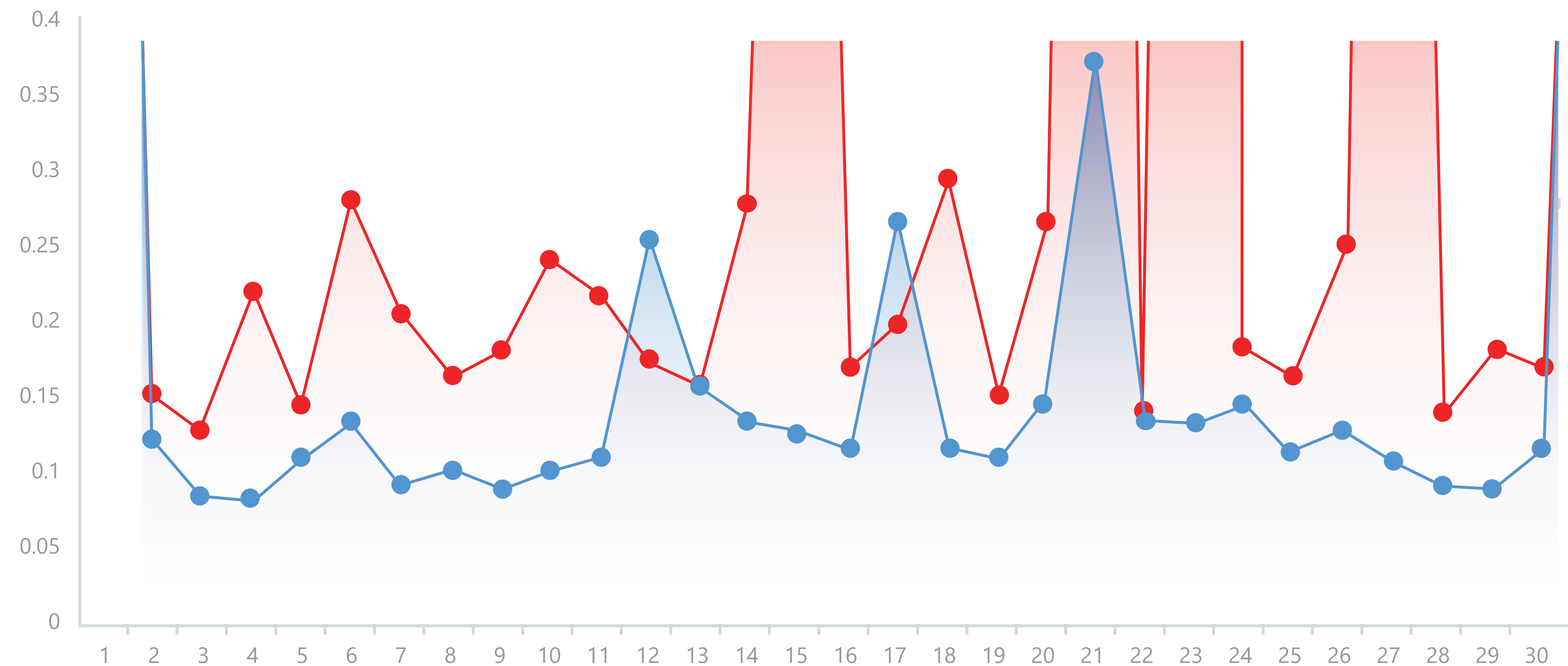


Besides the smoothness or low latency of live streaming, the capability of meeting large amount of CCU at the same time is also considered as one of the core problems. When the number of viewers increase dramatically, server overload situation may easily happend leads to not satify number of users at that time.

Your contents will be stored on the PoPs system of VNETWORK. Whenever receiving a request from viewers, the nearest PoP will response to them as saving a large amount of bandwidth and eliminating the orgin server overload situation.

CDN system comparison

Ability of file MP4 transmission via CDN



File type : MP4

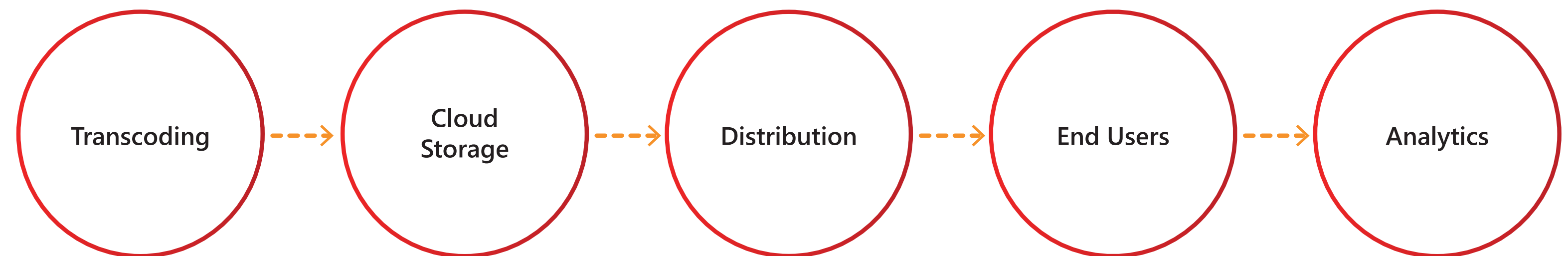
File size: 52 MB

● Competitor 2 CDN Load Time

● VNETWORK Load time

Easily encode and convert contents with Transcoding

Encoding videos in different formats helps to reach a wider global audience, with extensive storage space helps you actively manage your contents on Cloud Storage service and improve media quality based on user behaviour analytics system.



Security capability of the system

Via DRM service

Prevent the sharing of unauthorized content and copyright infringement. Controlling the accessibility and using of content in both outside and inside of your website with the most affordable cost and optimal effects.

Via RTMP Encoding

RTMP encoding via secure TLS / SSL connection, preventing unidentified third-party attacks

Combination, encoding and content transmission ability

| Description | <3s | <10s |
|--|---|--|
| Transcoding Output Formats | RTMP HTTP-FLV | HLS MPeG-Dash |
| User Cases for the Stated Output Formats | When information streamed is time-sensitive: -Sports Competitions (e.g. Olympics) -Gaming Results (e.g. Horse-Racing, Lottery) -Auctions | When latency is not so much a concern: -Live Concerts -Conferences & Forums -Lectures -24/7 Media Broadcasts |
| CDN Format | RTMP: CDN HTTP – FLV: 3rd party CDN | CDN |

Total data transmission
for every month is
over 180 PB and
national bandwidth
up to ++3Tbps.

- ✓ Load more than 3.000.000 CCU at the same
- ✓ time. Increase accessibility for users.
- ✓ Save costs and increase business revenue



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