CDN OPPORTUNITIES FOR OTT OPERATORS

NORBERTS OSĪTIS | CDN PRODUCT MANAGER

CLOUDY CDN

provided by Telia Latvija

25 years in IT business
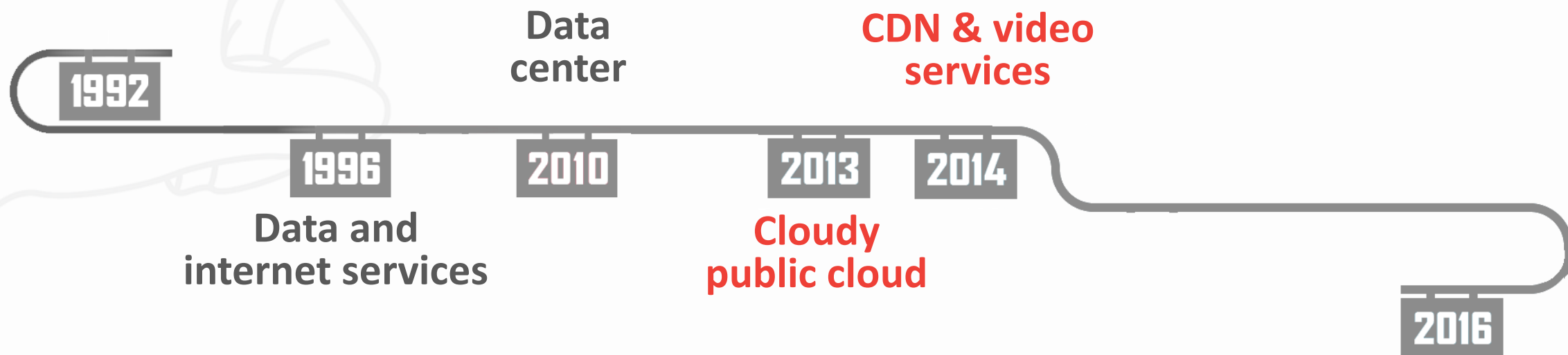
5 years video streaming experience

6 years at Telia Latvija

2 master's degrees (IT and MBA)

CLOUDY™ CDN

provided by Telia Latvija

TELIA LATVIJA

Founded in **1992**

100% owned by Telia Company AB

1992

1996
Data and
internet services

Data
center
2010

2013
Cloudy
public cloud

CDN & video
services
2014

2016

CLOUDY™ CDN
provided by **Telia Latvija**

OTT BENEFITS AND CHALLENGES

OTT (over-the-top) – video delivery over the internet
- Uses universal media delivery environment – the Internet
- Widest possible reach of audience
- Follows the viewer almost everywhere

Challenges
- Content rights fragmentation
- Technological diversity
- Meeting quality expectations

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QUALITY MATTERS

86% say – TV like experience is important

Poor quality leads to viewing time decrease by **77%**

Most frequently reported quality problems:
- Buffering – 73%
- Picture-quality – 35%
- Slow video start – 35%
- Audio/video sync – 25%

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Source: Verizon Video Streaming Quality Report 2016 and http://www.nscreenmedia.com/

RIO 2016 STREAMING

30%

traditional TV viewing down since London 2012

260%

OTT viewing up during first two days compared to London 2012

3 days

needed to reach the total streamed amount of London 2012

CLOUDY CDN

OTT VIEWING HABITS

14 hours/week
average of streaming video per adult in USA

34%
of streaming on the biggest screen at home

39%
of connected TV users watch every day

54%
at least 5 times per week

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Source: Verizon Video Streaming Quality Report 2016

OTT GAINING SHARE FROM TV

11%

Increase of Netflix user base in US since 2015 and reaches 47M

4%

broadband only households in US

89% → 85%

decrease of pay TV penetration in US since 2010 100M households in total

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WHAT IS CDN AND WHO NEEDS IT?

- Large capacity content delivery
  - Video and audio streaming
  - Web acceleration
- Protection from attacks
- Protection from traffic surges
- Hides your origin servers

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CLOUDY CDN

- Global CDN federation
- Large capacity

Up to
99.9%
streaming served from CDN cache

95+
nodes worldwide

20 Tbps
our CDN capacity

North America
Atlanta
Boston
Chicago
Dallas
Denver
Los Angeles
Miami
New York
Philadelphia
San Jose
Seattle
Washington D.C.

Upcoming
Mexico City

South America
Barranquilla
Buenos Aires 1
Buenos Aires 2
Lima
Medellín
Quito
Rio de Janeiro
São Paulo

Upcoming
Santiago

Europe
Amsterdam
Copenhagen
Frankfurt
Helsinki
London
Madrid
Milan
Paris
Stockholm
Vienna
Warsaw

Middle East
Muscat

Upcoming
Dubai

Asia
Bangalore
Batam
Beijing
Chennai
New Delhi
Hong Kong
Jakarta
Mumbai
Osaka
Seoul
Shanghai
Singapore
Taiwan
Tokyo

Australia
Melbourne
Sydney

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WE ARE PROUD OF

200 **Gbps**

of live streaming reached
by our customer

50 **Gbps**

of live streaming
reached in Latvia

4K, 50 fps

live stream
tested and produced

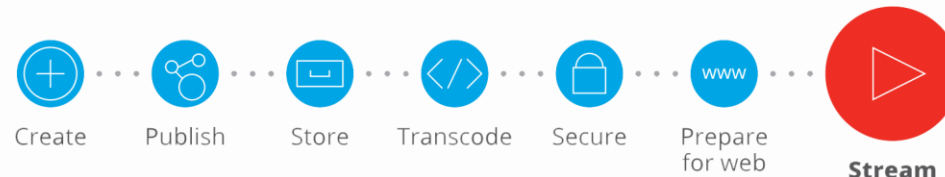Create   Publish   Store   Transcode   Secure   Prepare for web   **Stream**

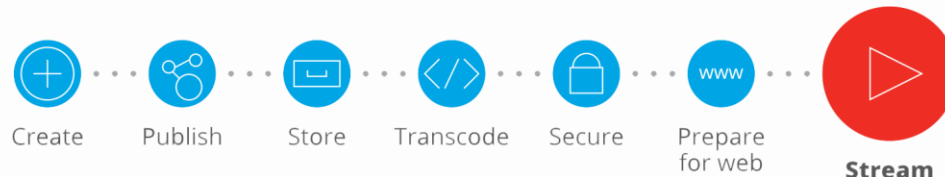**CLOUDY** CDN

provided by **Telia Latvija**

CLOUDY CDN VIDEO PLATFORM

- Live and VoD content acquisition

- Live and VoD video transcoding

- Content transmuxing and segmentation

- Content protection

- Video storage

Create · Publish · Store · Transcode · Secure · Prepare for web · **Stream**

CLOUDY CDN
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CLOUDY CDN VIDEO PLATFORM (cont.)

- Live recording for catch-up

- Origin servers for CDN

- Embed code for websites

- Content analytics

- Integration API

Create   Publish   Store   Transcode   Secure   Prepare for web   **Stream**

CLOUDY™ CDN
provided by **Telia Latvija**

CASE STUDY – LMT

Complete platform for LMT Smart-television

- Reception of TV channels from different sources
- Storage for VoD content
- Live and VoD transcoding
- Content origin servers with live transmuxing and segmentation
- HLS and MPEG-DASH streaming through high-performance CDN

LMT MĀJAS
VIEDTELEVĪZIJA

CASE STUDY – LMT (cont.)

Challenges

- Short and tight project schedule
- Technologies not used before or used in a new way
- Integration of the player
- Content protection and rights enforcement
- Minimum investment, mostly OPEX
- Mobile network
- Multiscreen in the future

LMT MĀJAS
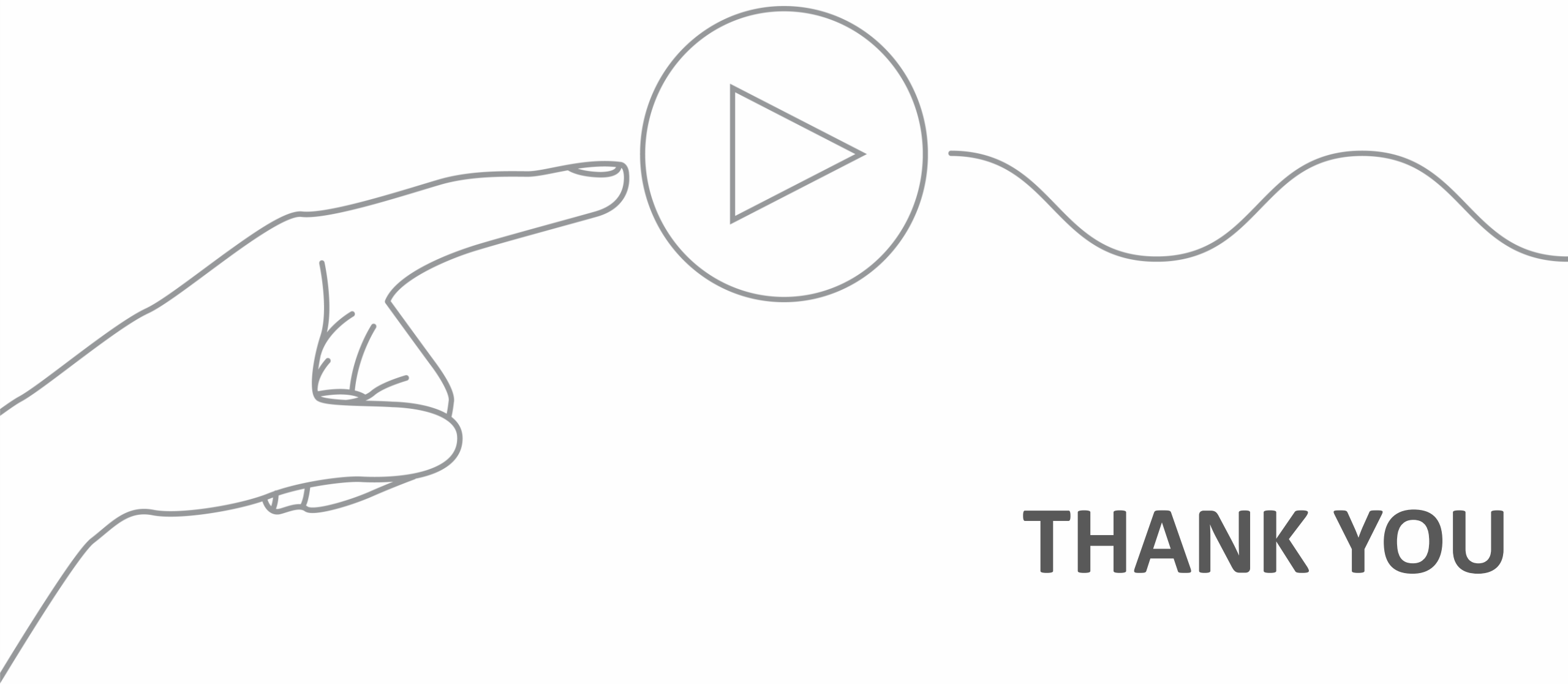VIEDTELEVĪZIJA

OUR CUSTOMERS – BIG AND SMALL

HBO

Spotify

Zebra

MTG

lmt

LTV
LATVIJAS TELEVĪZIJA

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THANK YOU