IRT-Kolloquium 15.06.2015

Media Contribution – Distribution Platform
SES – known for...
**Shareholder:**
100% subsidiary of SES

**Date of incorporation:**
1996

**Head office and Teleport:**
Unterfoehring near Munich

**Employees:**
Approx. 180

**Management Board:**
Wilfried Urner – CEO, Martin Oberfrank - CFO

**Offices:**
Germany, Poland, South Africa, Singapore
Comprehensive services around broadcasting and streaming
### Key facts

**OPERATIONAL PERFORMANCE**

<table>
<thead>
<tr>
<th>CONTENT MANAGEMENT SERVICES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours in digital archive</td>
<td>over 180,000</td>
</tr>
<tr>
<td>Occupied storage</td>
<td>over 6 PB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PLAYOUT SERVICES</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Playout channels</td>
<td>83</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>BROADCAST SERVICES</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HD TV channels</td>
<td>79</td>
</tr>
<tr>
<td>SD TV channels</td>
<td>over 250</td>
</tr>
<tr>
<td>Radio channels (digital &amp; analog)</td>
<td>42</td>
</tr>
<tr>
<td>Data broadcast</td>
<td>56</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>ENCRYPTION SERVICES</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Encrypted TV &amp; radio channels</td>
<td>138</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERNET SERVICES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Video stream traffic per month</td>
<td>over 150 TB</td>
</tr>
<tr>
<td>HbbTV applications via satellite</td>
<td>4</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>AVAILABILITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service level</td>
<td>over 99.99 %</td>
</tr>
<tr>
<td>Support</td>
<td>24/7</td>
</tr>
</tbody>
</table>

Stand 2014
Challenging changes in today's media industry

Content is (still) King

Recipient vs Customer (B2C)

Cloud (Azure, AWS, etc.)

IaaS

SOA/ESB

PaaS

2nd Screen

Virtualization

Open API

User Generated Content

Big Data

HbbTV/Smart-TV

OTT

DVB-x

MXF

IMF

xVoD

VOD

DASH

MAM

Apps

BPM

Monetization/Revenue

Open Source

Social Media

Apple, Google, Netflix

Origin/Edge Server

Multi Platform Delivery

Linear vs Nonlinear

Content Security

UHD

CDN

SMPTE-2022
Comprehensive services around broadcasting and streaming
Content Management Services

- (Mass) Ingest and file-based long term storage of video content
- Collection of metadata (structural and descriptive)
- Automated and visual quality control
- Media asset management: web-based screening, processing and distribution of video content
- Template-driven conversion into almost all established formats
- Delivery via tape, disk or internet and to VOD portals

Customer driven
Content Management Services

Broadcast Management / Rights Management System / FLUIDmedia

Order Types

Ingest Order
Transcode Order
Outgest Order
VOD Order
Shipping Order
...

Material Reception
Ingest
Quality Check
Digital Archive
Transcoding
VOD Packaging
Outgest

3rd party Interface

Customer
Content Management Services

Broadcast Management / Rights Management System / FLUIDmedia

Business Logic / Rules Engine

„operative“ Processing

Data Warehouse

„technical“ Processing

User Management / Configuration / Repository

Media Asset Management

Playout Traffic System (PTS) / Automation

Ingest, Audio/Video-Processing, conforming, QC, etc.

Outgest (Tape), Partial-Restore, Transcoding, VoD-Packaging, etc.

B2B (B2C)

Business Layer / Operative Prozess Layer

Orchestration Layer / MAM

Sub-System-Layer

3rd Interface

Schedule

Schedule

LTO/HSM

Playout-Server+Graphics

3rd Interface

3rd Interface

3rd Interface

3rd Interface
Conclusion – is there “one”...obviously not!

What we’ve done:

- Interoperable infrastructure (not just for MXF HDFx/DPP !)
- Using BPM methods to establish an Order Management System
- Flexible process orchestration layer
- Forming cross-functional SCRUM teams
- Agile fulfill of costumers requests
- Quantity, quantity, quantity to earn some money
- Scalability
- “Everything as a service”
Cross functional teams

Broadcast Management / Rights Management System / FLUIDmedia

3rd Interface

Business Logic / Rules Engine

„operative“ Processing

Data Warehouse

WFE

„technical“ Processing

User Management / Configuration / Repository

Media Asset Management

Ingest, Audio/Video-Processing, conforming, QC, etc.

Outgest (Tape), Partial-Restore, Transcoding, VoD-Packaging, etc.

Betablocker-Team

FLUID-Team

CMS-Team
Thank’s for you attention

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“Content is King” – it’s the customers asset which has to be widely monetized by content specific services