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Establish a feeling: The OTT service is CE device independent. Be the first - be omnipresent!

OTT SWIPE ™ and the virtual Set-Top-Box

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Siemens Convergence Creators at a glance

Siemens CVC / August 2014

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Where we come from

Over 5 decades of ICT experience

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1961

Corporate Center for Research and Scientific Projects

In-house software R&D supplier

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internal supplier

2007

Program- and System development

highly innovative research & development partner for the Siemens groups

- Information & Communication
- Automation & Control
- Power
- Transportation
- Medical

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external market-provider

2013

Convergence Creators Holding GmbH

Independent unit that combines the entire SW solution and service competence for the Communication, Media & Technology industries

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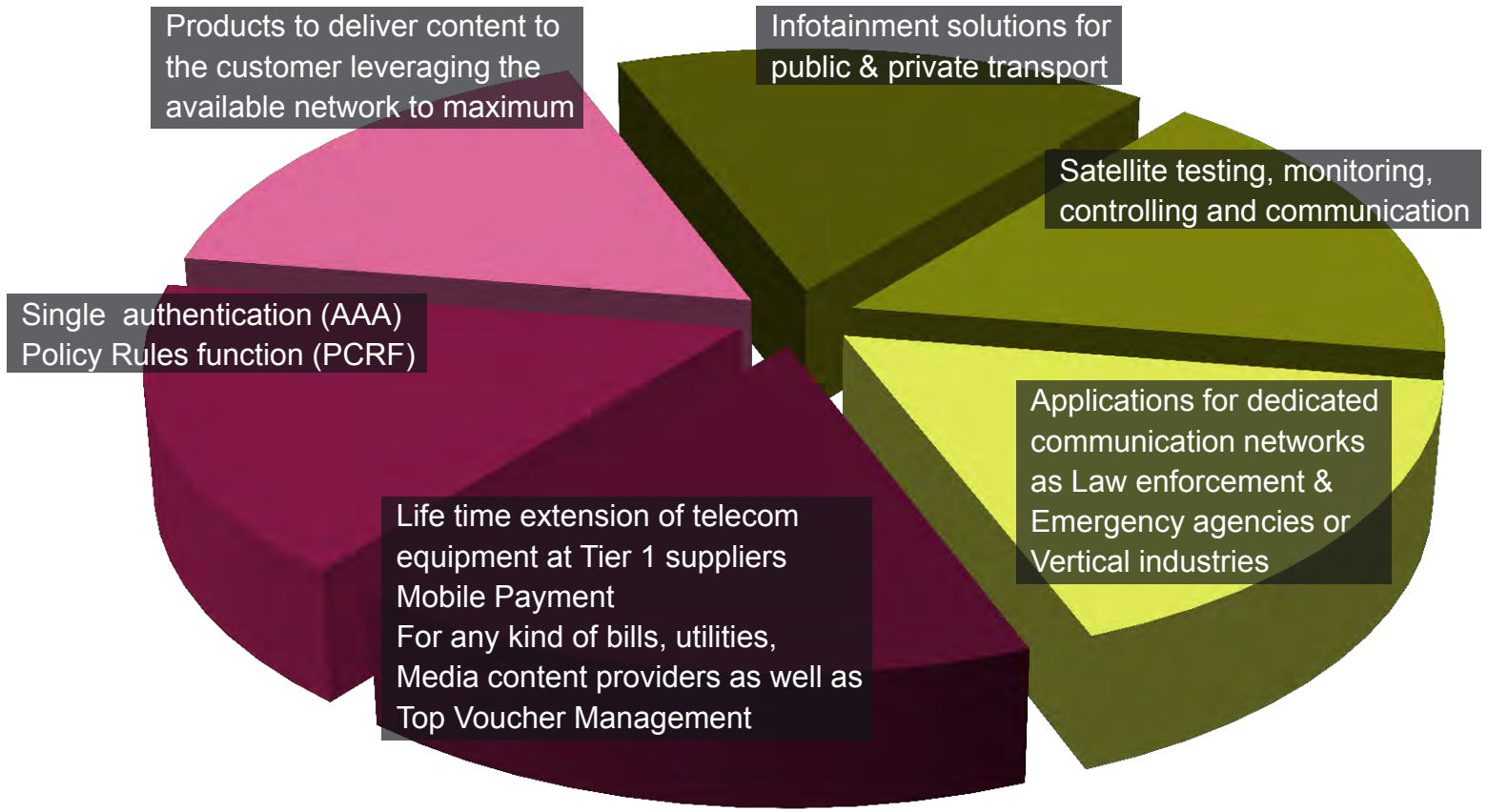
What we do

Our markets – Our portfolio



Telco & Media

Industries

- Professional Services
- LTE
- Over-The-Top TV
- Infotainment & Avionics
- Space
- Infrastructure & Security

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What we do

Telco & media market portfolio 1

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Professional Services

Lifetime Extension and Care Services

- Life Time extension and maintenance of Telecom network elements
- Integration of new technologies into existing system infrastructures
- Support for the consolidation and migration towards IP

walletXpress

- Mobile payment for any kind of bills, utilities, media content providers.
- Mobile money transfer
- Voucher less / based recharging platform

bonusXpress

- A convergent, smart, flexible, offline and easy to integrate promotion engine
- Converts usage data into virtual currency

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What we do

Telco & media market portfolio 2

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LTE

AAA / PCRF

- Siemens Session Manager (AAA) is a highly flexible rules engine for AAA access rules
- Siemens Policy Manager (PCRF) manages your network & your subscriber policies

Over The Top TV

OTT SWIPE ™

- enables digital media creation, delivery and distribution via multi-screen platforms while ensuring operational efficiency, security for your content and content quality for your customers.
- Multiscreen advertising enables Flexible functionality - Broadcasting different advertisement formats on multiple devices

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Table of content

OTT SWIPE ™ and the virtual Set-Top-Box.

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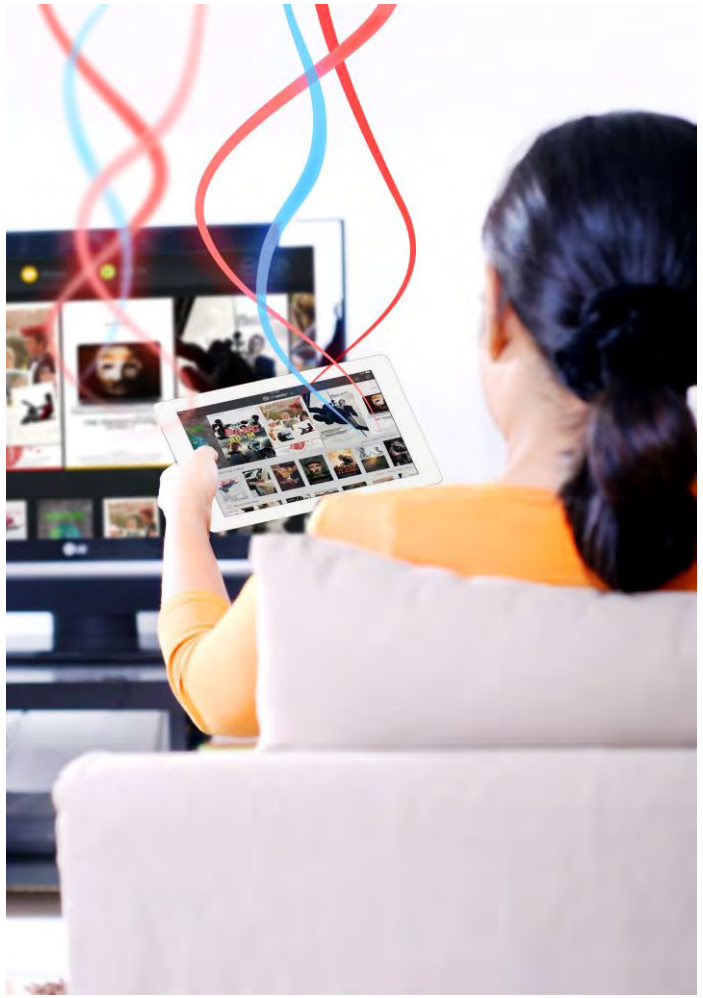

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  Usability & Place shifting = ONE King!

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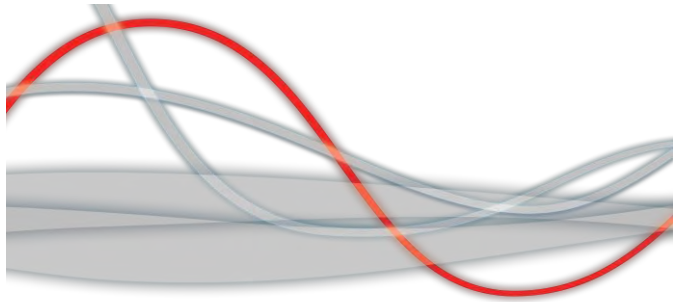
OTT SWIPE ™ UX as a Service / OTT SWIPE ™ / virtual Set-Top-Box



OTT SWIPE ™ UX as a Service brings our unique OTT SWIPE ™ user experience to any existing OTT platform. The USP is UX!

- SWIPE UX
- Automatic device detection & pairing

OTT SWIPE ™ in terms, is the entire OTT end-to-end solution.

- A complete OTT eco-system with an award-winning user experience.

The future of television is virtual instead of having additional service supply devices for OTT service consumption. The set-top box of the future is an app**!**

- Challenge the CE device jungle.

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The virtual Set-Top-Box.

Apt quotation from the Policy Department of the European Parliament.

"However, legacy linear TV is demonstrating considerable resilience in the face of the expanding multi-screen paradigm, which mixes both linear and non-linear experiences. It seems therefore extremely probable that it will remain a key feature of the content delivery landscape for a very long time to come, even if access to the broadcast signal might in future be through a click on an app, rather than a channel number."

(POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES, EUROPEAN PARLIAMENT, THE CHALLENGES OF CONNECTED TV, 2013)

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OTT SWIPE ™

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The complete OTT ecosystem deployed by Siemens!

Siemens has a long experience in deploying complete OTT ecosystems including every single part.

System layers of an OTT ecosystem at a glance!

- Frontend Layer(*)
- Service Delivery Layer
- Content Ingestion Layer
- Service Management Layer
- Service Operations Layer
- External Layer

(*)If an OTT ecosystem is already deployed the Frontend Layer is high **resource intensive to maintain**. Nowadays The CE device jungle is one of the large challenges! (platform, OS versions, devices)

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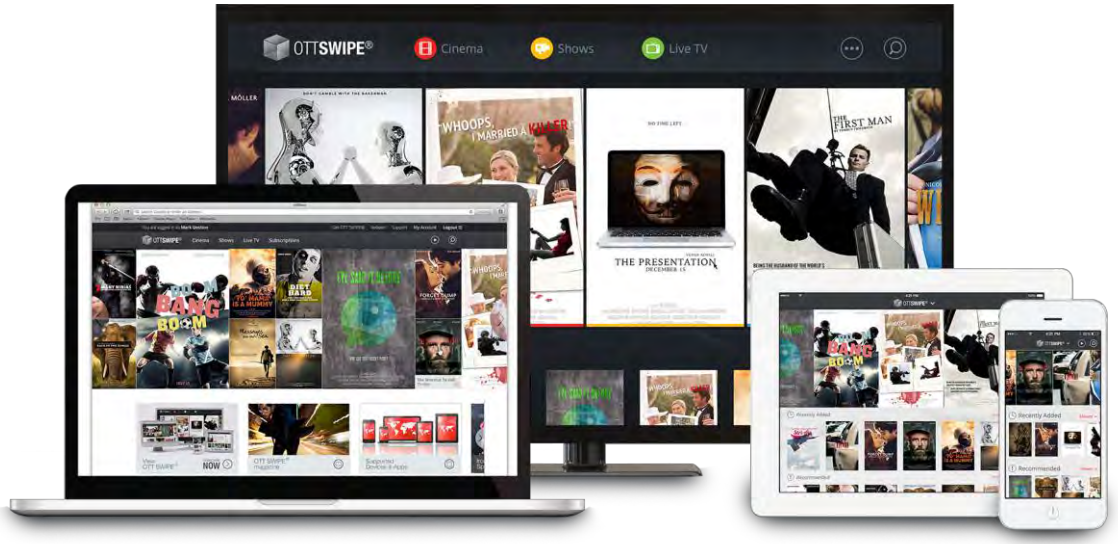
Trend insights served by Ericsson ConsumerLab.

Ericsson ConsumerLab indentify 2014 the consumption of video streaming services (75%) become almost equal to the consumption of broadcast TV (77%).

I assume it is an upcoming trend!

Which clients in Frontend Layer are most used?

1. TV screens – stays far away on top!
2. Desktop computer – gradient.
3. Laptop – upcoming.
4. Smartphone – upcoming.
5. Tablet – upcoming.



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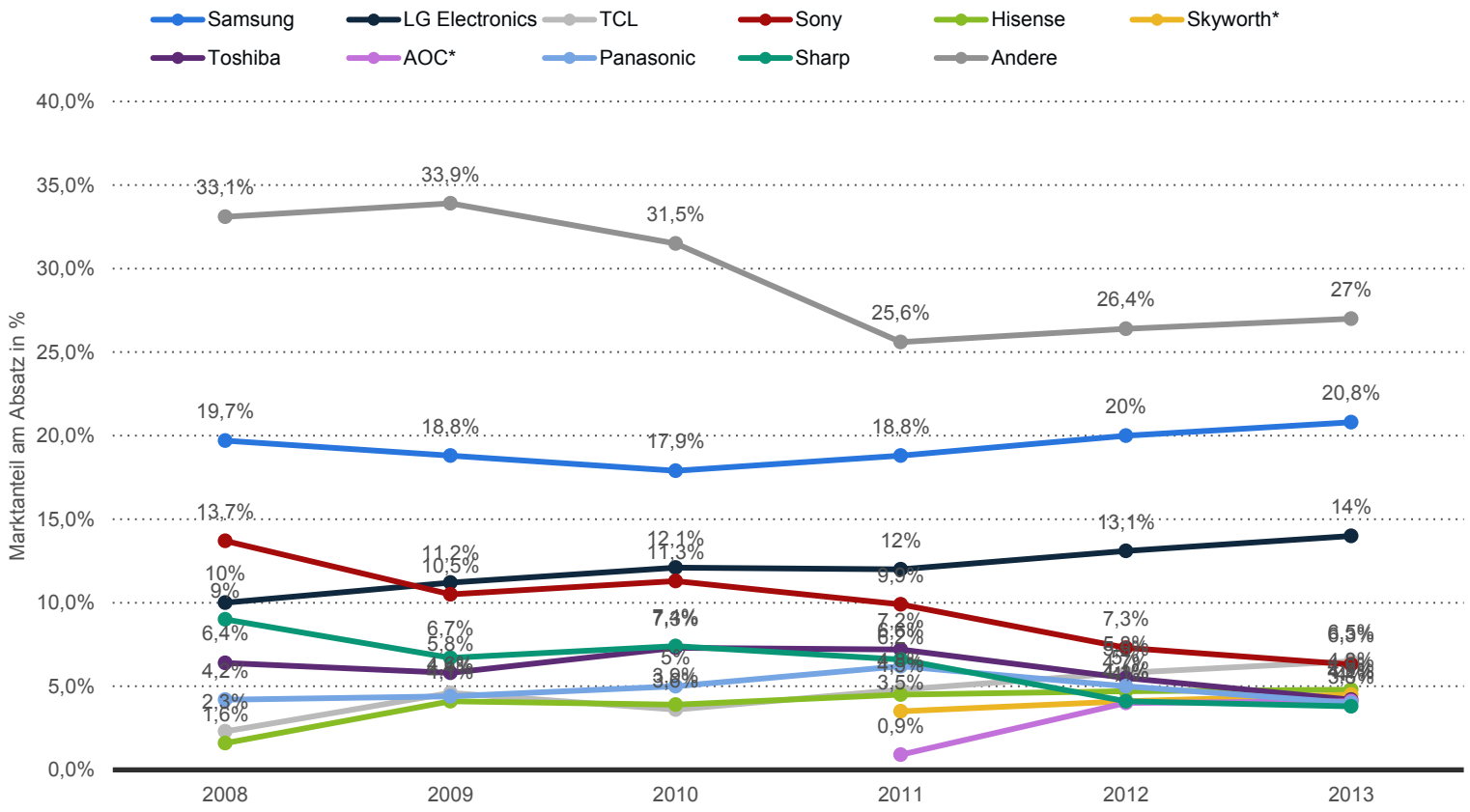
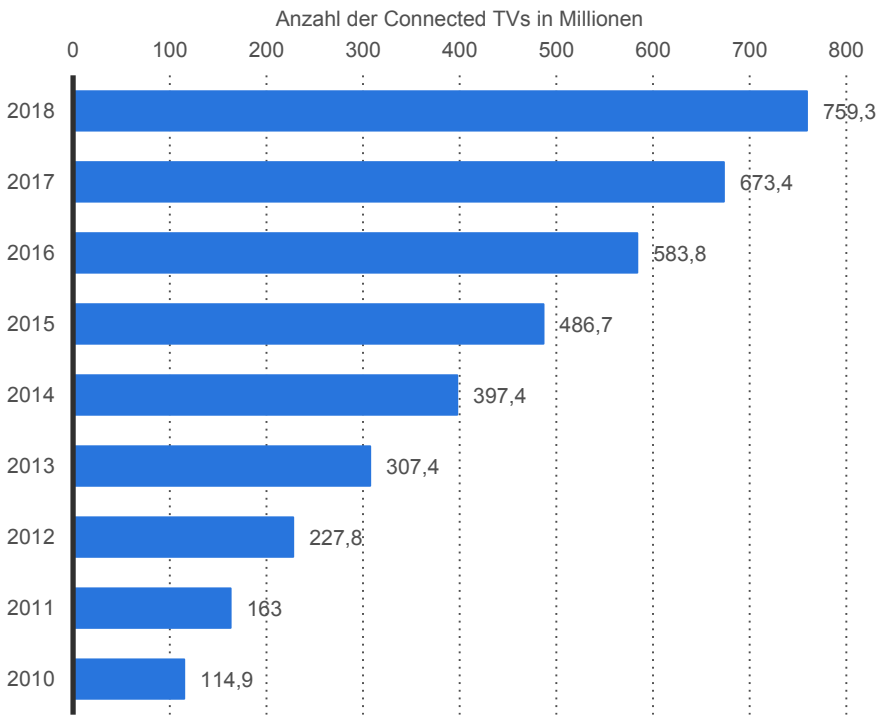
Statista GmbH / quantitative analysis

TV manufacturer currency worldwide & selling forecast to 2018





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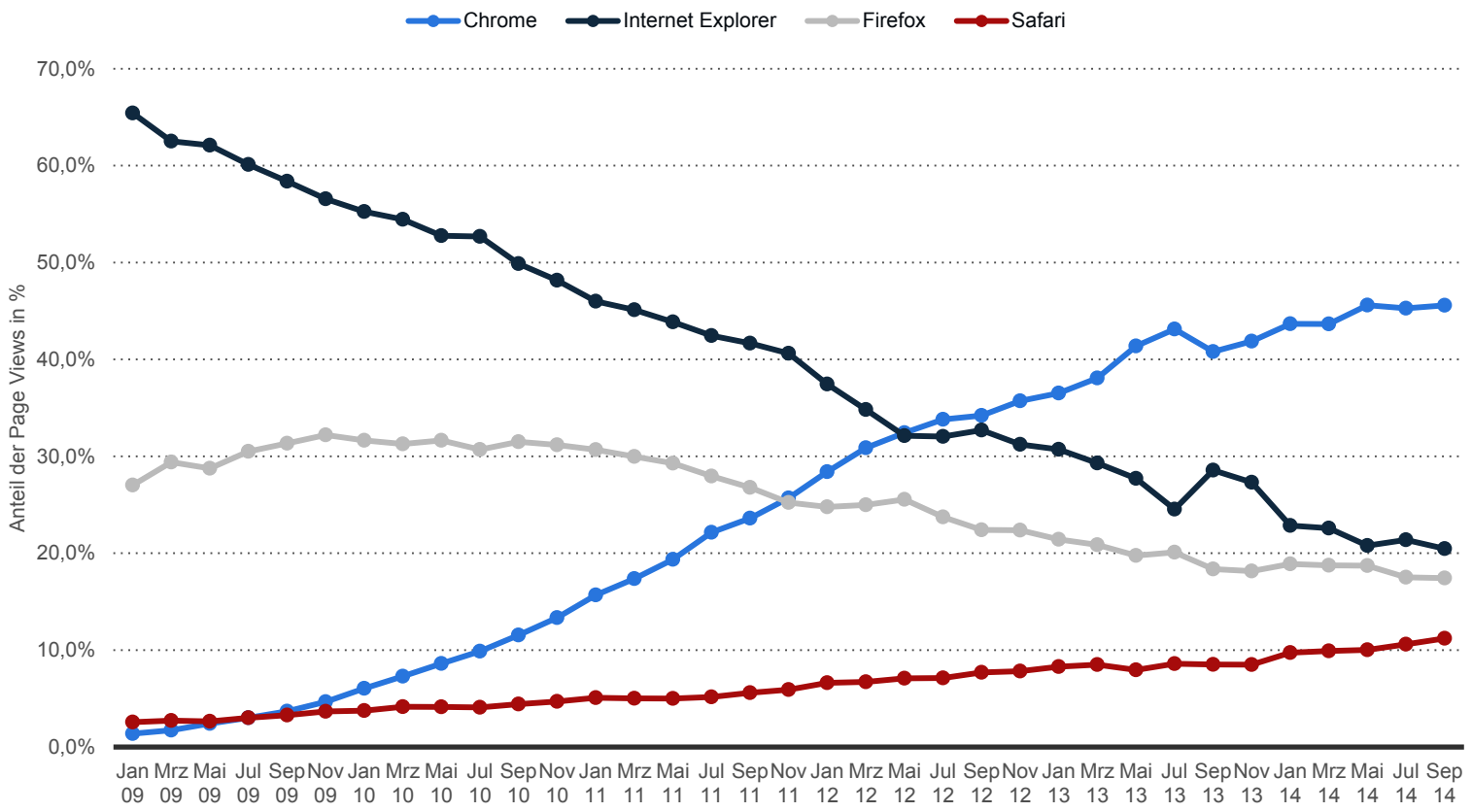
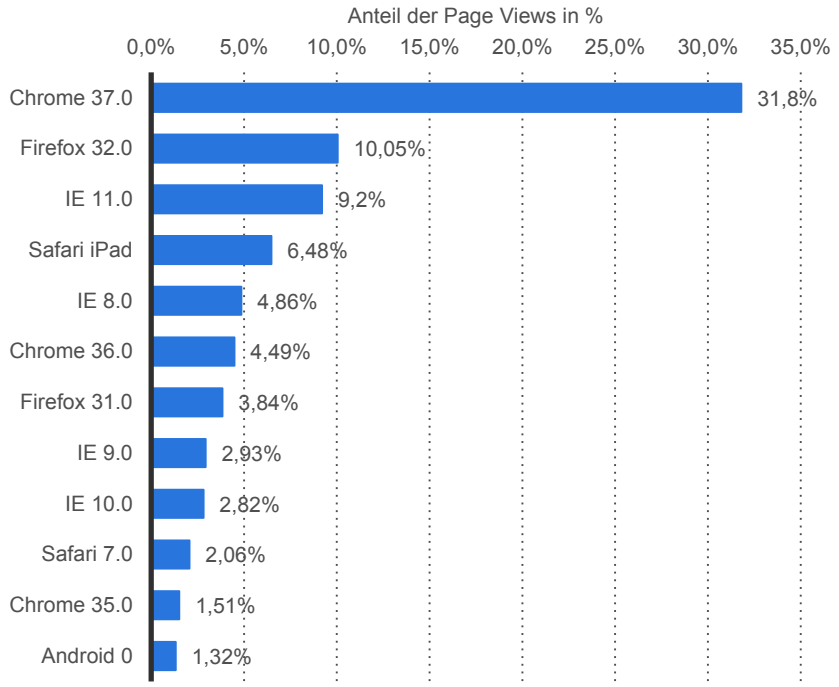
Internet Browser currency & browser versions in use worldwide





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Alexander Sus / RC-AT CVC AT TMDL

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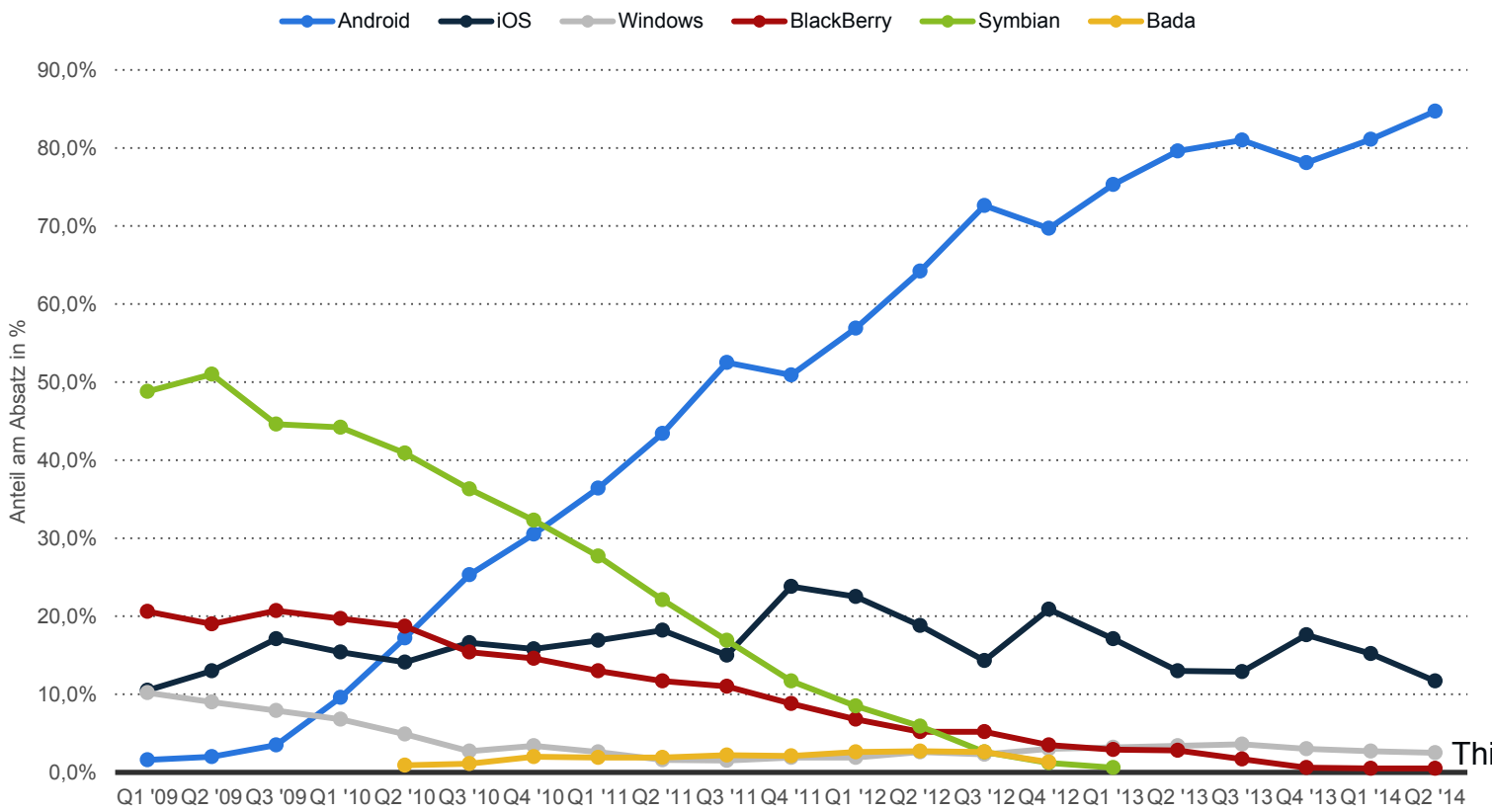
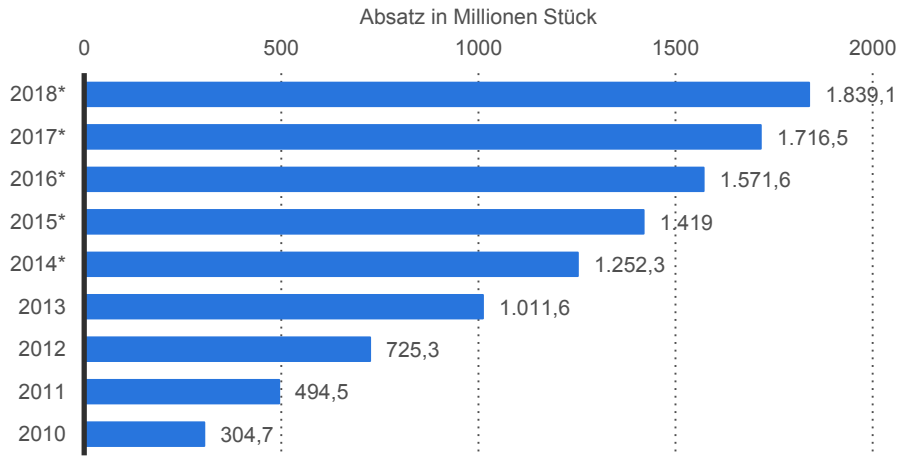
Smartphone OS currency worldwide & selling forecast to 2018





Think every single customer can create a word of mouth.

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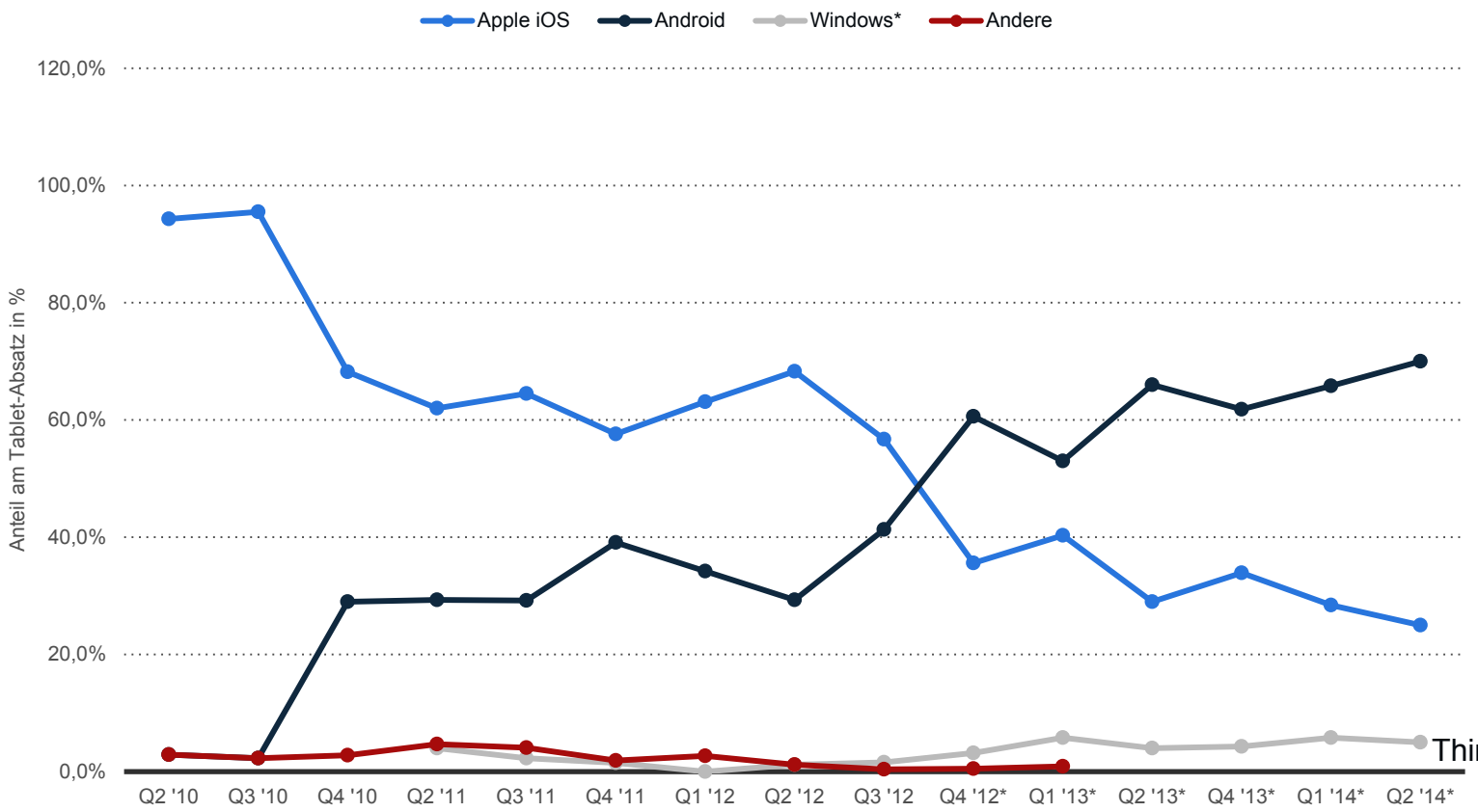
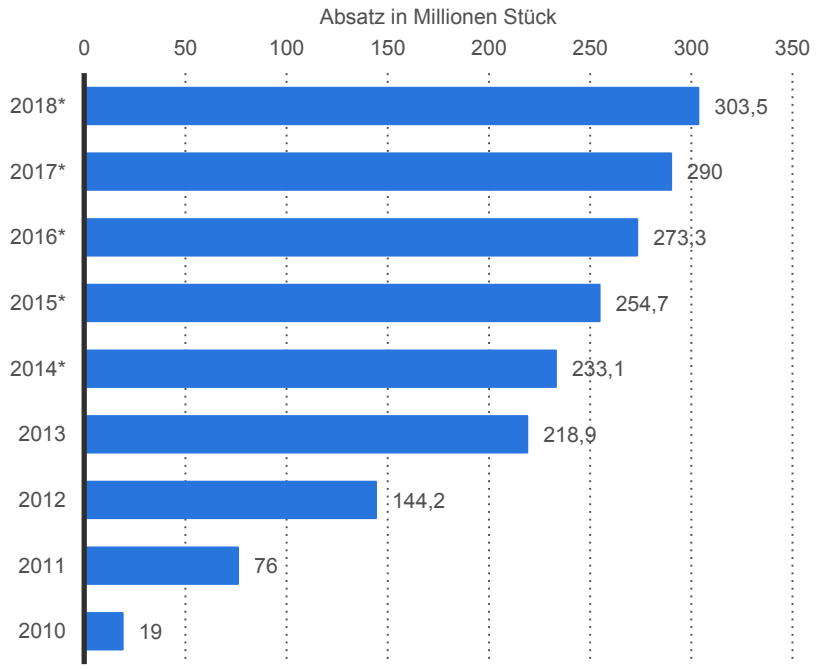
Tablets OS currency worldwide & selling forecast to 2018





Think every single customer can create a word of mouth.

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http://de.statista.com/statistik/daten/studie/165462/umfrage/prognose-zum-weltweiten-absatz-von-media-tablets

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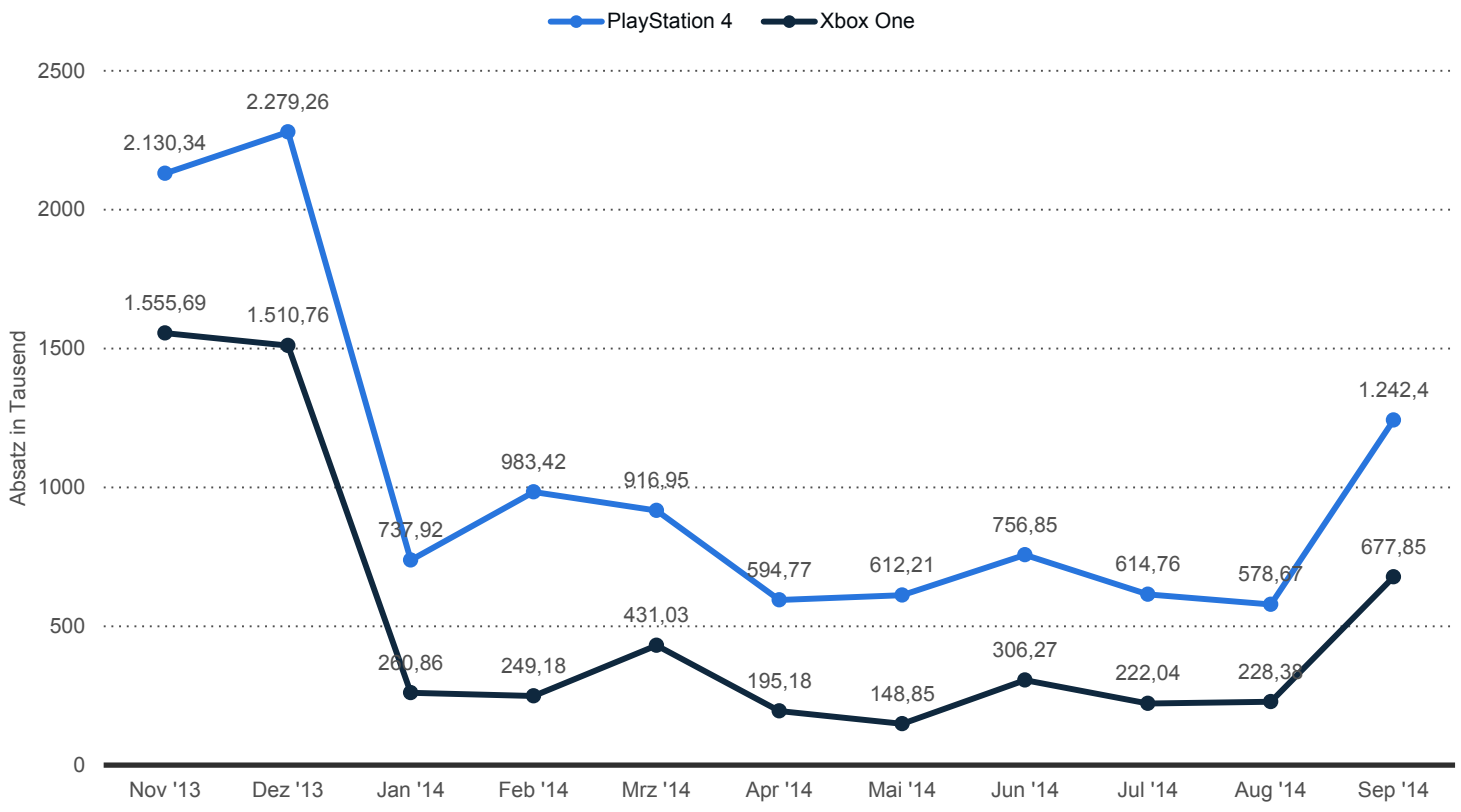
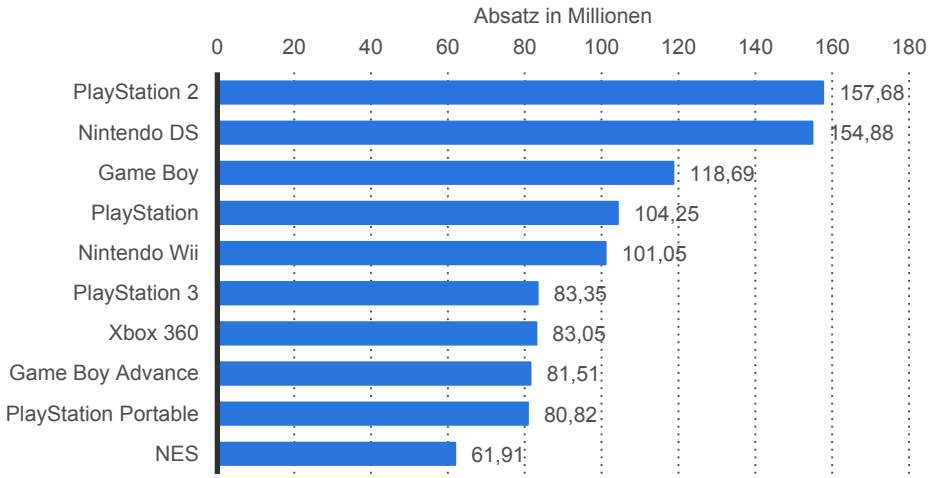
Statista GmbH / quantitative analysis

Game consoles currency worldwide & PS4:Xbox One selling p.m.





http://de.statista.com/statistik/daten/studie/311554/umfrage/weltweiter-absatz-der-playstation-4-und-xbox-one-pro-monat
http://de.statista.com/statistik/daten/studie/160549/umfrage/anzahl-der-weltweit-verkauften-spielkonsolen-nach-konsolentypen

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OTT SWIPE ™ is available in the Frontend Layer!

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Frontend Layer / Client availability

Connected TV platforms

- Samsung[1, 3, 4]
- LG[1, 3, 4]
- Sony[1, 3]
- Panasonic[1, 3]
- Philips[1, 3]
- Toshiba[1, 3]

Game consoles

- Sony PlayStation 3 & 4[1]
- Xbox 360 & One[1]
- Wii[1]

Smartphones

- iOS[1, 2, 3]
- Android[1, 2, 3]
- Windows Phone 8[1, 2, 3]
- Symbian[1]
- BlackBerry[1]

Media player boxes

- Boxee Box[1]
- Roku Box[1]
- Android boxes[1]

PC/Mac

- Firefox[1, 2, 3]
- Chrome[1, 2, 3]
- Internet Explorer[1, 2, 3]
- Safari[1, 2, 3]

Tablets

- iOS[1, 2, 3]
- Android[1, 2, 3]
- Windows 8[1, 2, 3]

Caption: [1]Support via API, [2]SDK available, [3]Product Client/App available, [4]Including Blu-ray players of same platform

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Introducing the service OTT SWIPE ™ (OTT SWIPE ™ UX as a Service)

Idea of becoming a pioneer. Be the first, be omnipresent and provide UX!

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Rumble in the OTT jungle

1. The OTT service should not depend either on platform nor CE device.
2. The OTT service should have an impressive UX.

Establish a customer feeling: “The OTT service is certainly available for the new CE device or platform.”

Do intrinsic market and trend research and provide the OTT service on common previously mentioned platforms and CE devices at the time it’s getting released without the need of additional service supply devices. Just out of the box.

How to accomplish this idea in such a CE device, platform and version jungle?

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Introducing the service OTT SWIPE ™ (OTT SWIPE ™ UX as a Service)

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Helping to become a pioneer. Be the first, be omnipresent and provide UX!

Siemens helps making video service implementation on Frontend Layer more easy with a platform and device crossing standard language through SDK's.

With OTT SWIPE ™ UX as a Service, Siemens provide SDK's for content consumption in a UX and standardized way on major platforms. Well known usability for confidence and reliability across CE devices in a more easy way.

The service act as a SDK-/API-speaking Middleware to provide.

UX content consumption

- Move content between devices (The Swipe gesture)
- Remote control between devices (Trick Play)

UX place shifting

Automatic device detection algorithm (Location profiling)

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Introducing the service OTT SWIPE ™ (OTT SWIPE ™ UX as a Service)

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USP = UX / at a glance

(UX) Automatic device detection	(UX) The Swipe gesture, and Trick Play	(UX) Place shifting	+ Guided implementation
Create location profiles for user's CE devices and places. The service estimates automatically which CE device the user likes to control. Two phase pairing mechanism. after initial pairing. 90% accuracy for later pairing.	Finger swap to move content between CE devices – crossing CE device borders with a finger swap. Instead of a button in the app to transfer content. Possible standardized UX for OTT content transfer and control functionalities.	Automatic device coupling / pairing for seamless place shifting and remote control functionalities. 1. Initial pairing 2. Later pairing for seamless place/device shifting.	Guided implementation of proven well known UX functionalities on common CE devices through SDK's and API.

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Introducing the service OTT SWIPE ™ (OTT SWIPE ™ UX as a Service)

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(UX) Automatic device detection and place shifting

(UX) Automatic device detection & place shifting	How do we accomplish that feature?
Create location profiles for user's CE devices and places. The service estimates automatically which CE device the user likes to control. Two phase pairing mechanism. after initial pairing. 90% accuracy for later pairing.	Two phase pairing. While Initial Pairing phase the TV logs in and send TV-id to Siemens Backend. Simultaneous the location parameters are stored on client-side with TV-id. e.g. different location parameters. •core location framework •MAC Address of Access point •WLAN SSID •Compass direction •Ultrasound (some circumstances) •Counter / intrinsic learning to improve accuracy *(Patented algorithm combine 17 different location parameters)* Later Pairing all parameters were evaluated if client location matches an Online TV with one local stored location profile.

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(UX) The Swipe gesture and Trick Play

(UX) The Swipe gesture, and Trick Play

Finger swap to move content between CE devices – crossing CE device borders with a finger swap. Instead of a button in the app to transfer content.

Possible standardized UX for OTT content transfer and control functionalities.

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“Award-winning OTT Swipe user experience.”

"With Siemens OTT SWIPE ™ *UX as a Service we bring the award-winning* OTT SWIPE ™ *user experience to established OTT services. Now your customers can swipe content between phones, tablets and the TV with a flick of their finger. And with simple APIs, integration is a matter of just a few days,"*

Stefan Jenzowsky (former Head of Media Business at Siemens Convergence Creators)

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Thanks for your attention!

Any open questions?

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