

homeTV

Experience with IPTV in Germany Berlin, 20.04.2007

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Agenda



- HanseNet background
- The German broadcasting market a demanding start up environment for a Telco
- Alice HomeTV: First IPTV in Germany
- Regulatory issues

HanseNet – a brief look into history



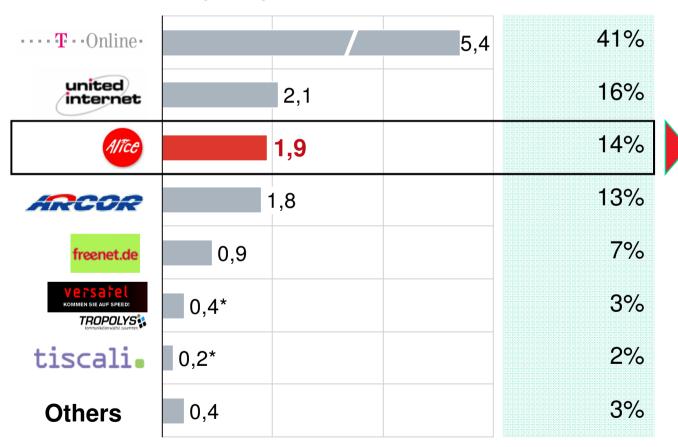
- 1995 December: Foundation of HanseNet Telekommunikation GmbH as 100% subsidiary of HEW (Hamburgische Elektrizitäts-Werke)
- 2003 100% take over of HanseNet by Telecom Italia. HanseNet offers telephone and DSL bundle products, reaching 80.000 customers in Hamburg area
- 2004 Re-branding of product portfolio with introduction of "Alice"
 As the first alternative carrier, HanseNet in Hamburg reaches a DSL-market share of more than 50%
- Alice starts selling outside of Hamburg in Lübeck, Berlin, Frankfurt,
 Munich and Stuttgart; later in the year in Rostock, Ruhr-area, Offenbach and
 Karlsruhe as well
 Alice starts a germanwide resale offer based on T-DSL "Alice 2000 flat"
 mid of 2005
 Launch of 16.000 kbit/s ADSL 2+ offer in all sales areas in October
- 2006 Alice confirms it's leadership in innovation, being the first Telco in Germany launching IPTV
- 2007 Completion of merger with AOL's German access business

HanseNet within the German DSL market



DSL customer (Mio.) Q3 2006

Market share



- Actual more than 2,1 Mio.
 DSL customer
- In total more than 3 Mio. customer (incl. narrowband)
- Nr. 2 ISPs in Germany

HanseNet: Geographical coverage



- 3 types of access:
- Connection to MDFs' by own infrastructure
- Connection to MDFs' by Telefonica/QSC
- Resale/Wholesale DTAG
- > IPTV is offered in selected areas





IPTV: An option on top of phone and internet services



Best offer

Options

Professionals

Lifestyle/ Entertainment

Family

49,90 €/month

Alice Deluxe 16.000 Kbps
telephone and DSL access incl.

voice und DSL flat rate

39,90 €/month

Alice Fun 4.000 Kbps
telephone and DSL access incl.
voice und DSL flat rate

29,90 €/month

Alice Fun 4.000 Kbps

telephone and DSL access incl.

voice flat rate; minute based

charge of DSL usage

Alice homeTV: 9,90 €
Up to 60 Free- TV channels
and 40 pay tv channels incl.
Set-Top-Box

Voice flat rate offer: 14,90 €

Talk4Free Europa & More
39 countries in Europe +

Australia, USA, Kanada,

Japan, China

Talk2Mobile: 9,90 €
60 free min./ month in all
mobile networks
afterwards 4,9 Ct/ min.

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IPTV in Germany Business opportunity or non calculable risk?



Thesis 1:

After the privatisation of broadcasting in the mid 80ies, IPTV is part of a second media revolution which will ultimately change consumers attitude towards common broadcasting.

Thesis 2:

From a consumer perspective xDSL and FTTx solutions including IPTV as part of a triple play offer will turn out to be true alternatives to cable.

Thesis 3:

If regulators prevent entrenchment of dominant positions in the access market by bundling with exclusive content, infrastructure based competition will emerge to the benefit of the consumers.

Why IPTV?

German network operators, representative survey I*



New revenue streams	55%
 Improve sales of broadband connections 	31%
Reduction of churn	22%
Acquisition of new customers	20%
Increase profit	20%
Reaction on other competitors	18%
Cross - selling	11%
No interest in IPTV at all	08%
• Improve internal skills and competences •Accenture, 2006	03%

How to increase revenue by IPTV?



German network operators, representative survey II*

Video on demand	19%
Integrated services	15%
Interactive gaming	12%
Personal video recording	11%
Download movies	10%
• TV in general	09%
Interactive shopping	07%
• Video conferences * Accenture, 2006	07%

What obstacles might prevent market penetration?



German network operators, representative survey III*

Other competitors too strong	31%
Content too expensive	16%
Lack of attractive content available	13%
Network- and other technical cost too high	11%
Problems with quality and other technical issues	10%
Market saturation/ Satisfaction with Free-TV	08%
Customer Care and technical Hotline not adequate	07%
•Accenture, 2006	

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IPTV – More than television







100 TV channels with EPG

- More than 50 free TV channels
- Electronic program guide: comfortable TV program information up to 14 days in advance
- Optional pay tv-packages e.g. entertainment

Video-on-demand

- Access to the online video store with more than 1.000 titles
- New appealing movie packages, also from majors

Internet & eMail

- Time unlimited internet access via set-topbox (independent from the main product)
- TV screen fitting web mail client

Hybrid set-top-box

- MPEG4 AVC decoder
- Crypting system with smart card protection
- Including DVBT tuner

Up to 100 TV-channels...



Free T

Das Erste 7DF **RTL Television** SAT.1 ProSieben RTL2 KABEL1 VOX Super RTL n-tv N24 KiKa 3sat arte NDR Fernsehen WDR Köln MDR FERNSEHEN Bayerisches Fernsehen Südwest Fernsehen RP hr-fernsehen rbb Berlin Phoenix Viva Viva Plus MTV Germany 9Live BR-alpha EinsPlus EinsExtra EinsFestival

ZDFinfokanal 7DFdokukanal **ZDFtheaterkanal** 1-2-3.tv Al Jazeera International Astro TV Bahn TV **BBC World** Bibel TV Bloombera TV **CNN International** Das Vierte **EuroNews** Gems TV HSE24 K-TV K1010.tv Nick QVC (Germany) RTL Shop Sportswin.TV Traumpartner TV TERRA NOVA Trace TV TV Travelshop TV5 Europe 9,90 €/Monat<

Pay TV

BIG ENTERTAINMENT 13th Street **AXN** Deutschland **BBC Prime** Body in Balance Boomerana Extreme Sports Channel Fashion TV G.TV (Games TV) History Channel Kinowelt TV MCM Top Mezzo Motors TV MTV Music National Geographic Channel Planet Sailing Channel SciFi **SKY News** tv.gusto VH 1 Wetter Fernsehen

Wine TV

Zone Club

Türk Premium
LIG TV (Soccer)
NTV Türkiye (News)
Sinema Turk (Movies)

22,90 €/Monat

MTV Tune-Inn
MTV 2
MTV Base
MTV Dance
MTV Hits
VH 1 Classic

2,90 €/Monat



... and attractive on demand content from Majors with up to 600 movies





- 3 Strikes
- Tortilla Soup
- Agent Cody Banks



- The Grudge
- From Dusk till Dawn
- Crocodile Dundee



- Flightplan
- Die Chroniken von Narnia
- Cinderella Man



- Das Reich der Azteken
- Geheimnisse der Pharaonen
- Zauber der Inkas



- · Live-Concert Paul Simon
- Live-Concert The Corrs
- Live-Concert Peter Gabriel



- Der Unhold
- Jana und Jan
- Die Spur des Bernsteinzimmers



- Alexander
- Lost in Translation
- (T)Raumschiff Surprise



Kinderfilme:

- Little Amadeus
- Max und Molly
- Hallo Spencer

Cost per movie, Documentation etc.: 0,90 € to 4,90 €

Keyboard as a handsome alternative



Why is it useful?:

- Very smart measures
- Faster for search functions (e.g. Movies)
- · Comfortable internet browsing
- · Writing e Mails as fast as on pc

All main functions are accessible by the keyboard like on the remote control

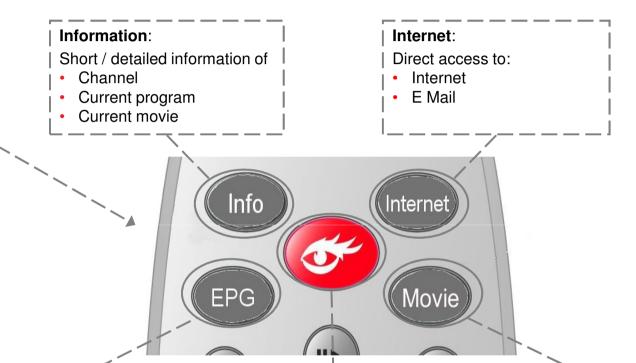




Easy access and navigation via remote control







Electronic Program Guide:

- Information overview of all tv channels with timeline up to 14 days in advance
- Short version just for selected channel

Portal (Alice/AOL):

- Advertising platform
- Access to main settings
- Management of favorites, parental control, pay TV bouquets etc.

Alice MovieThek:

- Direct access to the VoDarea
- Variety of trailers, movies etc.

Alice homeTV: Technical solutions state of the art



- Network: Alice IP-Network
- Network technology to Customer: ADSL (6 Mbit/s) and ADSL2+ (16 Mbit/s)
- Alcatel Video-Platform; used by Telecom Italia i.a.
- Harmonic TV-headend (Satellite-receiver-station) with MPEG4 AVC Encoders
- CPE: HDTV-compliant Set Top Box (manufacturer: ADB). DVB-T Tuner embedded.
- Scrambling: Smartcard-based Conditional Access-System (Nagravision), Free-TV-Channels are broadcasted without scrambling.

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Legal and regulatory environment I State treaty on broadcasting (RStV)



Main scope of RStV	 Regulate all distribution of public and private broadcasting (<i>Rundfunk</i>), sec. 1. Provide population with necessary information and content transmission of main events, sec. 5a; European productions, sec. 6; (right of free short report in listed areas, sec. 5; rules for advertising & sponsoring, sec. 7, 8) Broadcasting includes scrambled distribution and paid content, sec. 2. <i>It may also include IPTV</i>.
Main points of interest for HanseNet	 Maintain space for advertising & sponsoring (sec. 7; 8) Obtain freedom to allocate capacity voluntarily (sec. 52) Obtain space to implement and use without constraint: conditional access systems, sec. 53 (1) Nr. 1 user interfaces (EPG), sec. 53 (1) Nr. 3 models of payment, sec. 53 (1) Nr. 4 models of bundling, sec. 53 (2)

Legal and regulatory environment II Broadcasters ./. operators



- Scope of rights to be granted by broadcaster
- Delivery of signal, feed in and transmission
- Bundling of programs & distribution
- Electronic Program Guide (EPG)
- Advertising and Sales
- Security of transmission & scrambling
- Reimbursement
- Liability
- Termination rights

Legal and regulatory environment II Broadcasters ./. Operators



Issue	Network operators	Broadcasters
	Freedom to use program by all economic means.	Rights only as contractually granted, revocable, non exclusive and non transferable.
Scope of rights to be	Linear and non linear digital distribution incl. on demand.	Only linear distribution maintaining addtl. revenue streams.
granted by broadcaster	Distribution by using all CPE incl. STB's, PC's, Handhelds.	Exclusion of all CPE not explicitly listed.
	Free pricing towards customer (Free-TV; Pay-TV; Pay per view).	Right only as agreed upon. Broadcaster remains owner for all other models.
	Storage allowed.	Storage and replied play forbidden.

Legal and regulatory environment II Broadcasters ./. Operators continued



Issue	Network Operators	Broadcasters
Delivery of signal, feed in and transmission	Principle of economic freedom with respect to "if" and "how" applies. Cost to be split. Full control over customer relationship.	Obligation of network operator to broadcast 24 hours per day 7 days per week if feasible. Network operator bears cost of feed in and broadcasting. Sole or at least joined relationship. Right to influence contract with
Bundling of programs & distribution	Program may be part of bouquet. Right to bundle with own and third party offers. No packaging constraints.	network operator. Bundling restricted by contract. No bundling with foreign media groups content or explicit content. All programms of a broadcaster must be included in one package which allows for maximum coverage.

Legal and regulatory environment II Broadcasters ./. Operators continued



Issue	Network Operators	Broadcasters
	Broadcaster to supply all data for creation of EPG.	Discretion to deliver.
EPG	Free use of data.	Use of data restricted by interest of broadcaster (public reception).
	Freedom to position program within EPG.	Programs must be included in all overviews incl. EPG. Top position to be guaranteed.
Advertising	Broadcasters brand and label may be used for own campaigning and promotion.	Use limited to contractual targets and subject to approval. IP-rights shall be ensured.
& Sales (IPTV)	IPTV campaigning sponsored by broadcaster.	Obligation to promote at own cost.
	Freedom to distribute STB's with free Pay-TV offer.	Obligation to provide broadcaster with free STB's for promotion.

Legal and regulatory environment II Broadcasters ./. Operators continued



Issue	Network Operators	Broadcasters
Security &	Broadcaster responsible for:	Sole responsibility of operator once signal has passed.
scrambling	Freedom in multiplexing and scrambling, cost to be shared.	Highest security standard available to be used. No cost sharing.
	Own discretion whether smartcards are offered free to end customer.	Obligation to provide customer with free smartcards (maximize coverage).
Reimburse- ment of	Broadcaster fully paid on a cost per subscriber model. Exclusion of further (legal)	Subscription risk to be borne by network operator solely: fixed payment or minimum guarantee + CPS quota.
broadcaster	claims by broadcaster.	
	Broadcaster responsible for authoring rights (20 II UrhG).	



Thank you!

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