

Television Goes Online

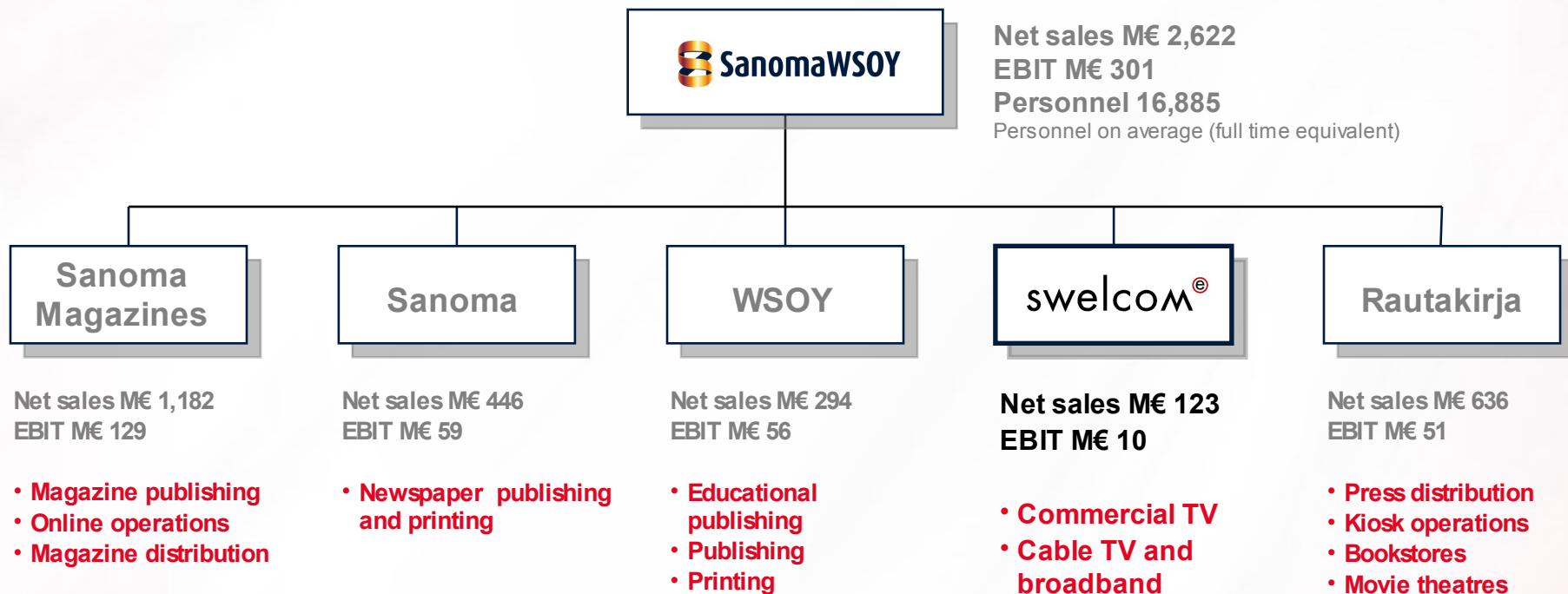
Tapio Kallioja
President, SWelcom
November 7, 2006



What Is ...

SWelcom?

SWelcom Is The Electronic Media Division Of **SanomaWSOY Group**



2005 Figures

SWelcom's Three Business Units



Nelonen:

Commercial Television & Radio

WELHO

Welho:

Cable

Communications

2ndhead

2ndhead:

Digital Media Solutions

The Key Driver In The Media Industry Is ...

Digitalization

Media Content Has Become Digital

- text
- still images
- sound
- living images

abcd...wxyz



Content has become easier to store, find, copy, manipulate and transport

Consumer Devices Have Become Digital

- PCs



- phones, PDAs



- cameras



- music players



- game consoles



- TV-sets



Digitalization Is Of Clear Value, Because ...

Digital Devices Are ...



MP3 player
capable of
storing thousands
of tracks

smaller



65 inch flat
high definition
TV-set

larger



Remote control,
which is easy
to find

... and even larger



Programmable
remote control
with macros

friendlier to use



Digital TV
receiver for
a desktop or
laptop PC

portable



Phone, digital
TV receiver,
camera, camcorder,
media player,
internet browser, ...

multipurpose

Networks Have Become Digital

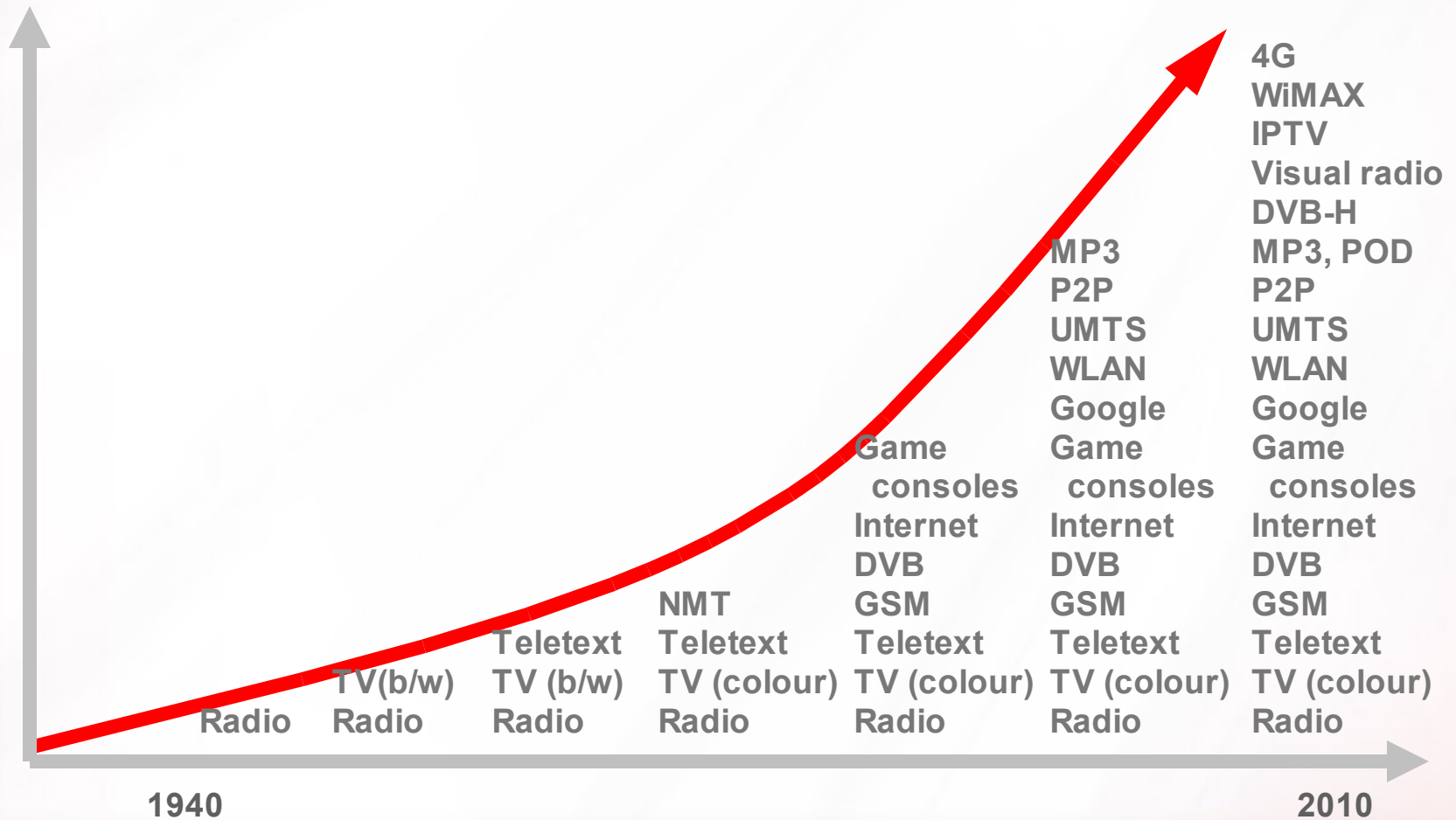
- fixed networks (DSL, cable, ...)
- wireless networks (WLAN, WiMAX, ...)
- mobile networks
- television networks (DVB-x, DVM-H, ...)



Digital networks can transport digital content easily and fast

So, We Are Experiencing ...

A Growing Number Of *Media* Platforms



... And ...

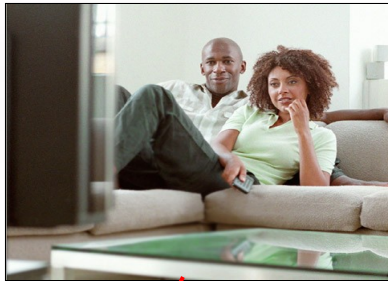
A Growing Number Of *Media* Devices



Digitalization Is Leading To...

Integration Of Platforms And Devices

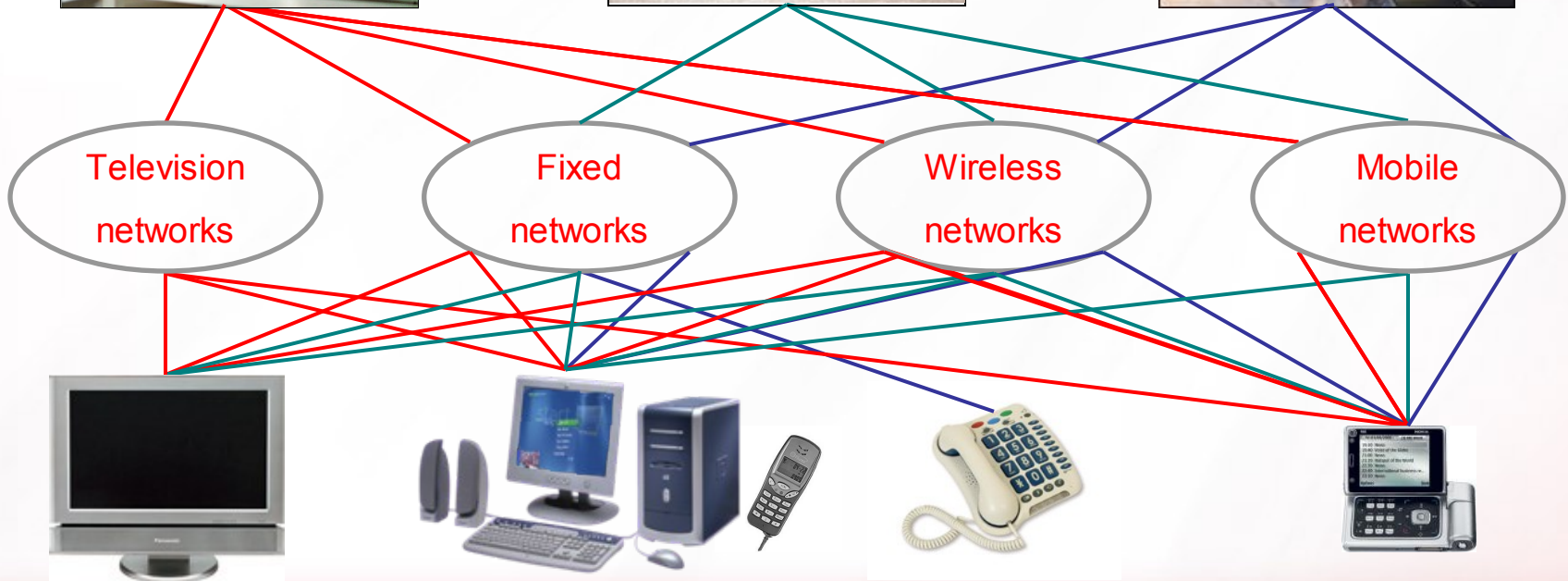
Television



Internet

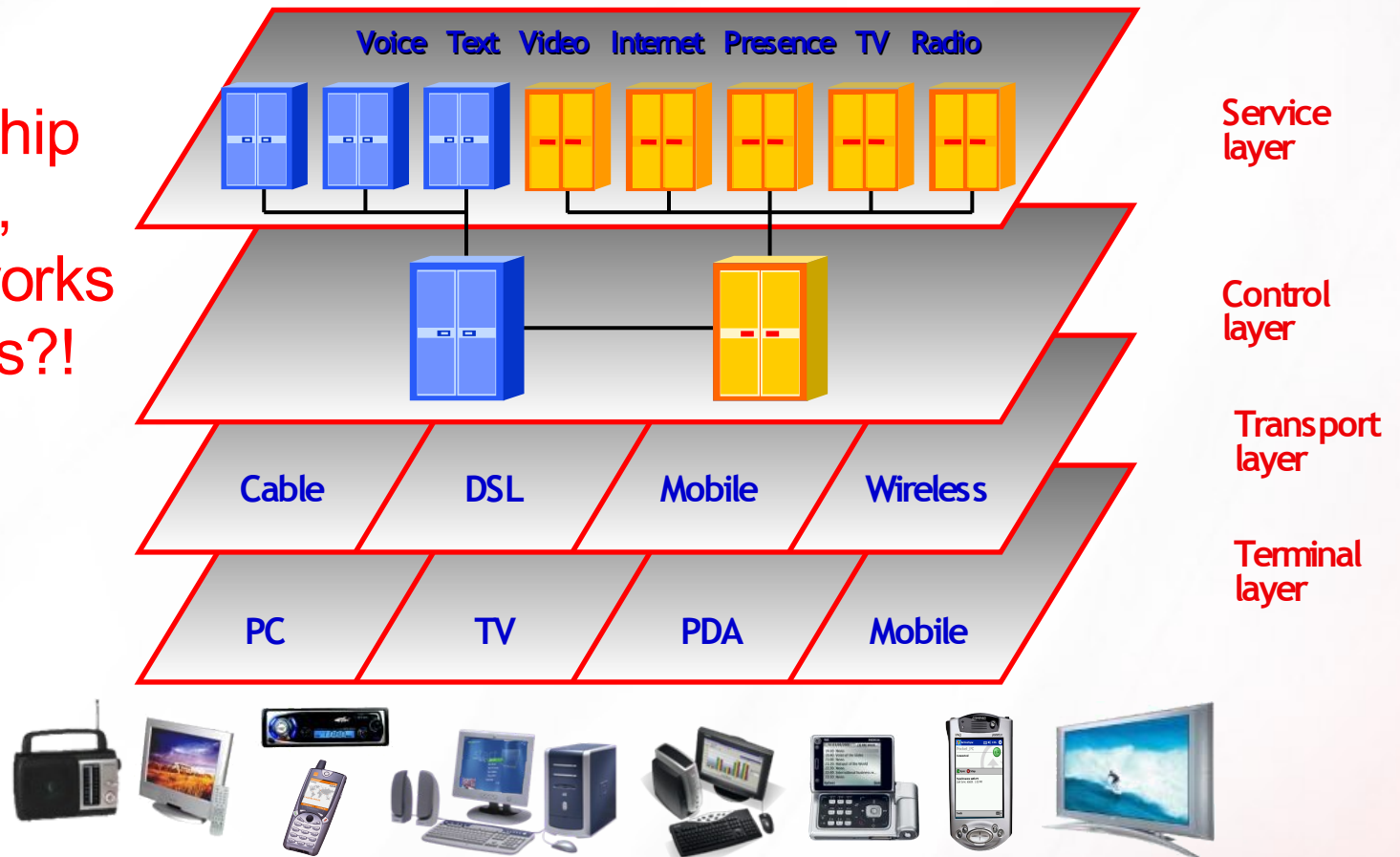


Telephony



Future Multimedia Structure

Customership
to services,
not to networks
or platforms?!

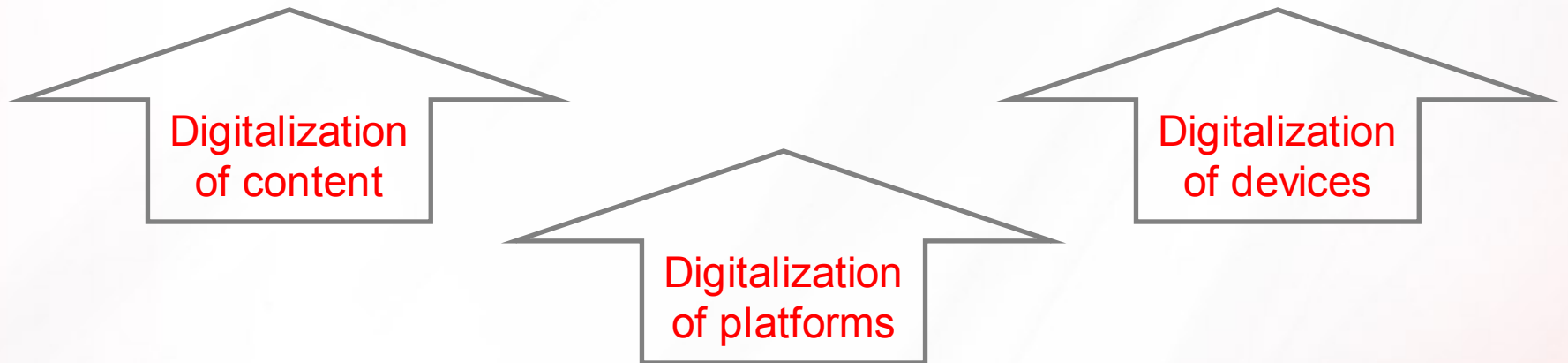


So ...

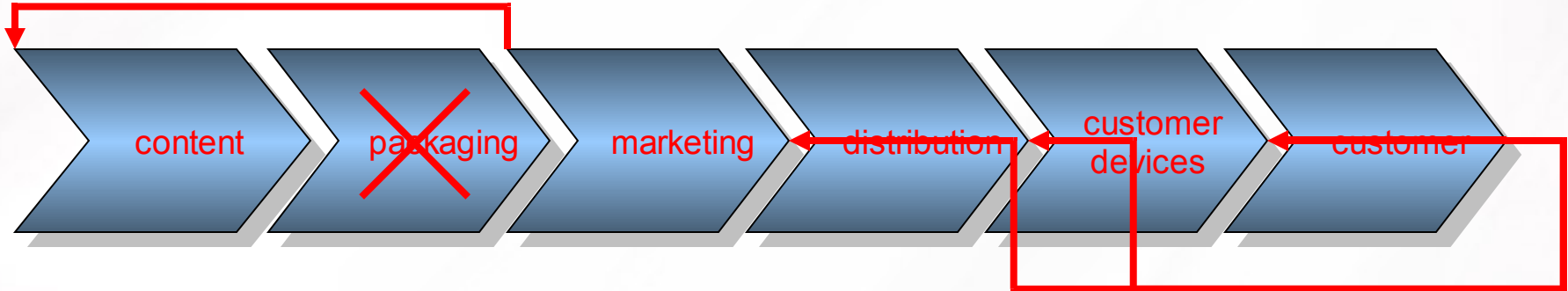
**How does this effect
the media business?**

Digitalization Has A Growing Impact On ...

The Value Chain Of Electronic Media



Example Of Impacts Of Digitalization: **Music** **Splitting Of Value Chains**



 Columbia Records

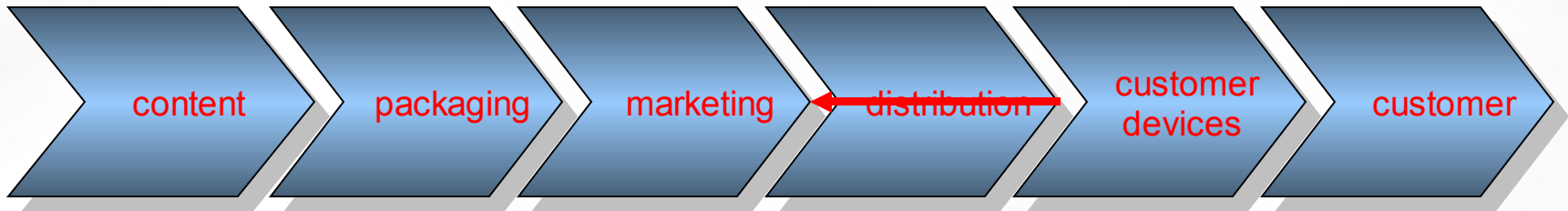


WELHO

iTunes Music Store

Example Of Impacts Of Digitalization: Music

Vertical Integration Within Value Chain



The screenshot shows the Welho Music website. At the top, there is a search bar with the text 'HAE KAIKKIEN KAPPALEIDEN JOUKKOJA:' and a search button. Below the search bar, the website header includes 'WELHO MUSIIKKI' and 'MUSIIKKI | AÄNIKORTIT'. The main content area is titled 'TERVETULOA!' and features a grid of album covers under the heading 'Uusimmat albumit'. On the right side, there is a 'TOP 10 SINGLET' list with the following entries:

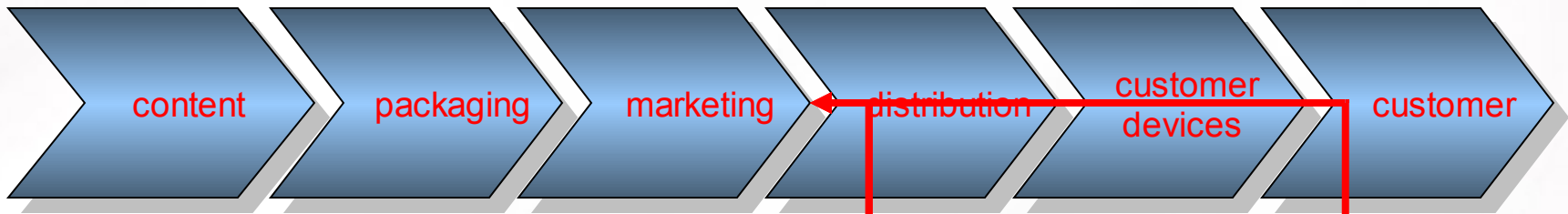
- 01. Metalicious - Tiesittori
- 02. Se ei olekaan niin Mies Ylönsä
- 03. Hard Rock - Hahmohah
- 04. Shungun valot - Antti Sauri
- 05. You're Beautiful - James Blunt
- 06. KYMMENIEN TUOMIA LAIRALLA - SF Orchestral Institute
- 07. Carnival of Rust - Poots of the Fall
- 08. Tai on rakkautta - Vika
- 09. Brokened of Broken Dreams - Green Day
- 10. Metallicum - Tiesittori

At the bottom of the page, there is a 'Uusimmat albumit' section with more album covers and a 'OSTETUMMAT ALBUMIT' section with a list of albums:

- 01. Stage of We - Poots of the Fall
- 02. Mies-47 - Dingo
- 03. Sankari - Antti Mattila

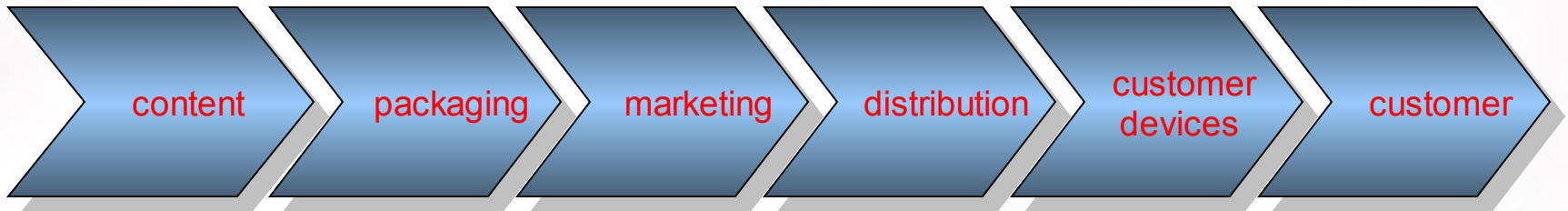
Example Of Impacts Of Digitalization: Music

Horizontal Integration From Other Media



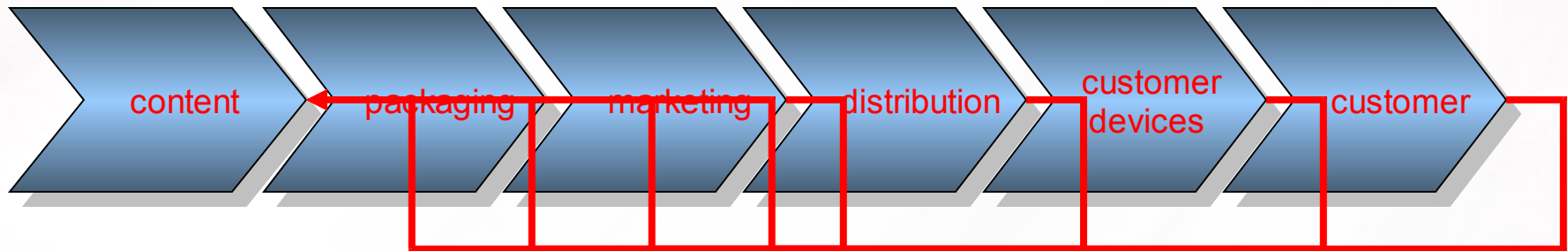
Example Of Impacts Of Digitalization: Music

Totally New Players; Like Apple



The Music Delivery Competition

Who Delivers Music In The Future?



Google™

Content aggregator

WELHO

Access provider



Device manufacturer

 Columbia Records

Consumer himself

So ...

**Will television content
follow music?**

Characteristics Of TV Content

- Music recordings are mostly *products of their own* produced to be *distributed directly to consumers globally at the same time*
- TV content - to start with – is many different things, like e.g.:



Movies



Sports



TV Series



News

Characteristics Of TV Content



News



Sports

- Produced especially for TV channels; (so far) not an independent consumer product
- High production costs, limited earnings possibilities (advertising limitations, other news content freely available)
- A lucrative (add-on) on-demand service for TV stations in IP networks (broadband, mobile)
- At its best live!
- Broadcasting then offers a cost effective mass distribution to a large audience for advertising and/or pay-tv purposes
- A lucrative streaming service for smaller viewer groups in IP networks (broadband, mobile)

Characteristics Of TV Content



TV Series

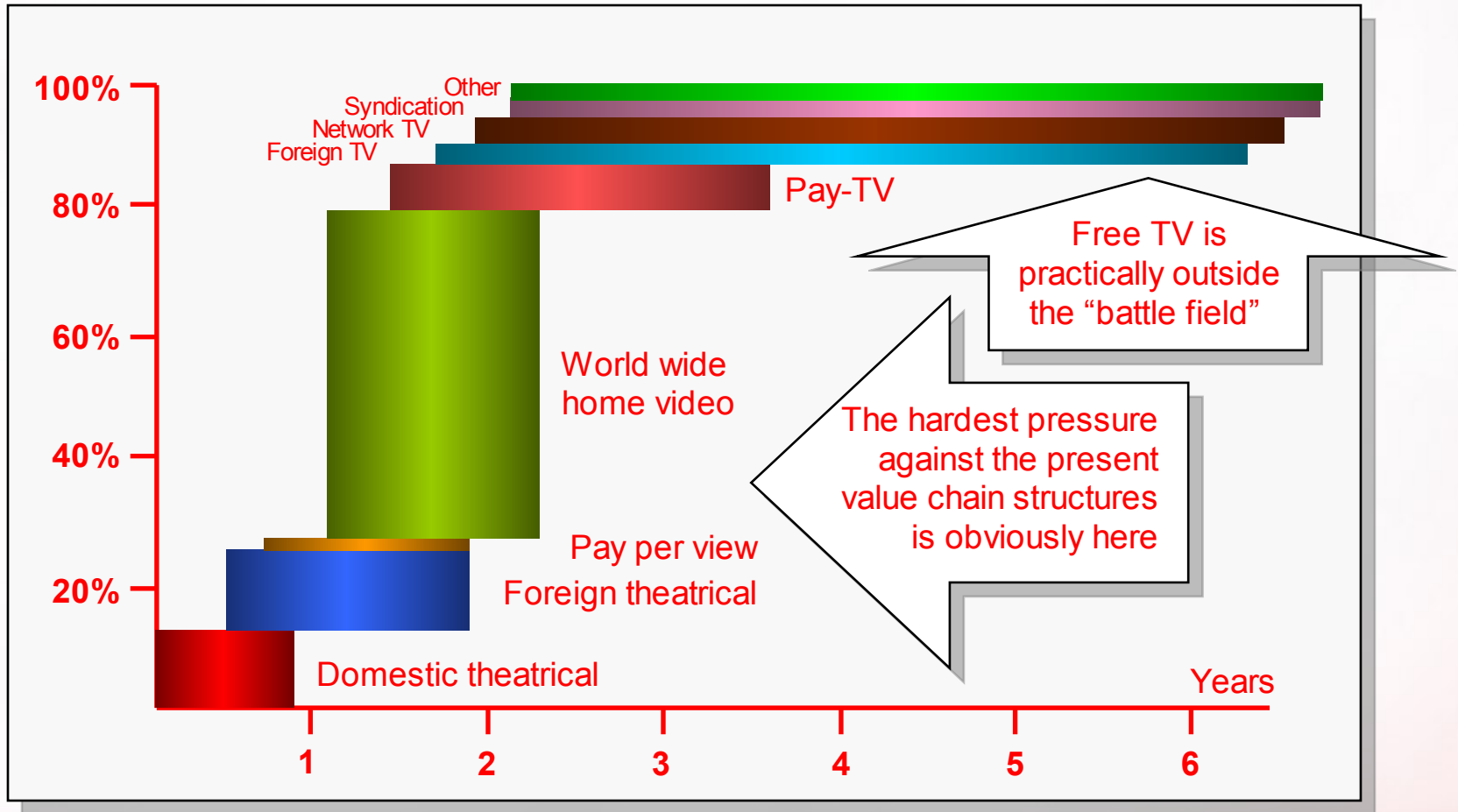


Movies

- Produced especially for TV channels; (so far) not an independent consumer product
- High production costs; need to build consumer awareness (promotion) to maximize viewing
- Additional revenues from off-line media (DVD) and on-demand services (preview, catch-up, ...)
- Produced originally for cinema distribution; now most revenues come from off-line media (DVD)
- Distribution in IP networks is a threat mostly to cinema, off-line distribution and (linear) pay-tv
- Movies will probably retain their value as free TV content because of the late exhibition window

Typical Movie Revenue Stream

For A \$350 Million Production

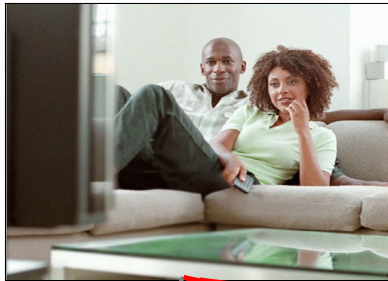


However ...

**Television business will
definitely change, too!**

New Television Platforms

Television



Internet



Telephony



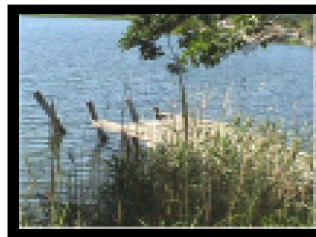
Video Distribution Over IP Networks

- Practically four different methods:
 - “File Streaming”
 - “File Downloading”
 - “Live Streaming”
 - “IPTV”
- A classification is relevant, because the different methods have an impact on different parts of different value chains

(Present) Capacity Requirements

Of Live “Broadcast Quality” TV Pictures

	Standard Definition	High Definition
MPEG2 Packaging	~5,0 Mbps / channel	~15 Mbps / channel
MPEG4 Packaging	~2,5 Mbps / channel	~8 Mbps / channel

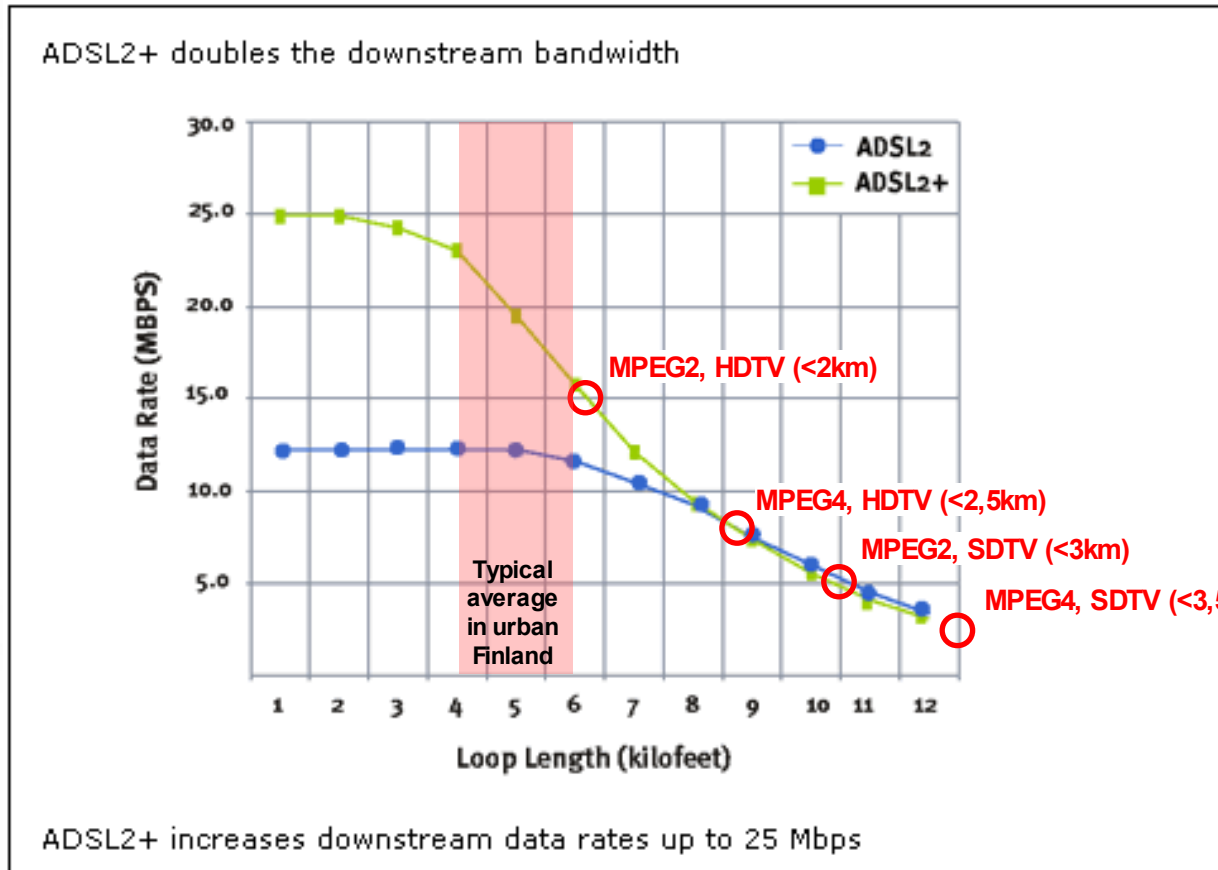


SDTV 4:3



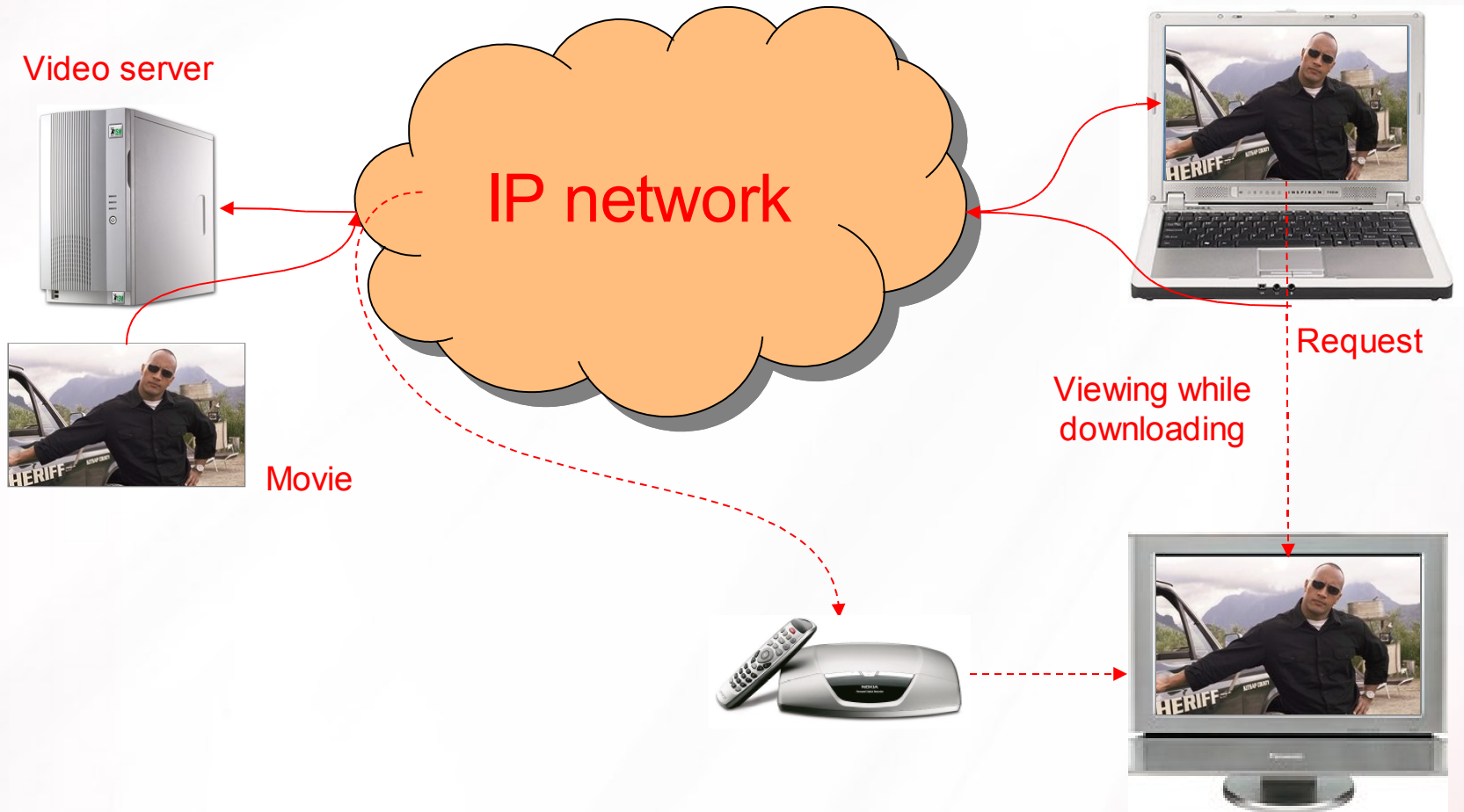
HDTV 16:9

Capacity Available In ADSL Networks For Live Broadcast Quality TV Pictures



File Streaming

Viewing While Downloading A Single Video



File Streaming

- A real “video on demand” service
- Picture quality (and size) depends on:
 - the speed of the users broadband connection
 - the load of the broadband operators network and
 - the load of the content providers servers
- Broadcast quality requires a speed of 2,5...5 Mbit/s; 2.000 – 4.000 simultaneous users eat up a 10 Gbit/s trunk line
- Technically and contractually available to all content providers independent of network operators

File Streaming Example

SF Anytime (Movies on demand)

Anytime

KATSO TÄNÄ ILTANA
ELOKUVA LAAJAKAISTALTASI

KÄYNNISTÄ
SF ANYTIME

Haluatko uutiskirjeemme? Kirjoita sähköpostiosoitteesi tähän OK

Ota yhteyttä SF Anytime-palveluun »

SUOSITUIMMAT ELOKUVA

Jali ja suklaatehdas	The Island	Guess Who	Submerged

ENSI-ILLAT

Cinderella Man	Lemmenpeli	Mean Creek	Hardcore Superstar –

ELOKUVAT ALKAEN 1,5€

DISCO PIGS **NO MANS LAND**

Kokeilu-kampanja:
Disco Pigs, No Mans Land,
Barbaarien Invaasio.
Alkaen 1,5 €!

Katso elokuva laaiakaistan kautta?
Näin helppoa se on >>
Kaikki SF Anytime-palvelusta >>

© 2005 SF Anytime | Evästeistä

File Streaming Example

Nelonen Funny Home Video Site

VAIN VERKOSSA!

4

HAUSKAT NETTIVIDEOT

UUSIN JAKSO VAIN NETISSÄ JOKA PERJANTAI KLO 20.15

ETUSIVU LAPSET ELÄIMET KAATUILU PARODIAT JOTAIN IHAN MUUTA



KATSO HAUSKAT NETTIVIDEOT

JAKSO 33

KLIKKA TÄSTÄ!

LÄHETÄ, KATSELE JA ARVOSTELE KOTIVIDEOITA!

Millainen on mielestäsi hauska kottivideo? Naurattaako enemmän, naapurin kissa tanssii napatanssia vai kun Urpo ajaa mopolla puuhun?

Alla voit katsella uudestaan tv-ohjelmassakin esitettyjä kotimaisia kotivideoita ja ilmaista mielipiteesi antamalla tähtiä yhdestä viiteen. Jos oma kotivideo on vielä hauskempi, lähetä se mukaan kisaan ja voit voittaa upeita palkintoja.

Voit lähettää oman videosi netin välityksellä tai postitse. Ohjeet ja säännöt löytyvät [täältä](#).

AIKAISEMMAT JAKSOT Valitse aiempi jaksot

VIIKKOÄÄNESTYS **YLEISÖÄÄNESTYKSEN VOITTAJA**

Äänestä viikon parasta videota!

Nettiäänestyksen voittajakipin tekijä palkitaan Samsungin puhelimella.

Viikkoäänestys päättyy perjantaisin klo 14.00.

Lisäksi tuomariston suosikki palkitaan viikottain OBH Nordican tuotteilla.



Tenavatähti

TV:stä tulee sitä nuorisomusiikkia.

Katso video

ÄÄNESTYSTILANNE

- Vesileikkejä**
Sillä välin Brokeback-vuorella.
- Siitä saat - ja siitä**
Kissa ei pitänyt Reinon parhaasta ystävästä.
- Harvahammas**
Hampaidenlähdtö on hauska asia.
- Minikyksiö**
Au pair meni huoneeseensa.

VIDEOKARKISTO

Kaikki videot
Videoarkistossa koko nettivideoiden skaala

Mappi Ö!
Kaikki ne videot, joita ET halunnut katsoa

NETTIVIDEOTÄHDEKSI?

Lähetä oma videosi meille
Voit lähettää oman videosi netin välityksellä tai postitse. Ohjeet ja säännöt löytyvät [täältä](#).

ÄÄNESTÄ VIIKON PARAS VIDEO



Katso video



Katso video



Katso video



Katso video

Eläimet
Siitä saat - ja siitä
Kissa ei pitänyt Reinon parhaasta ystävästä....

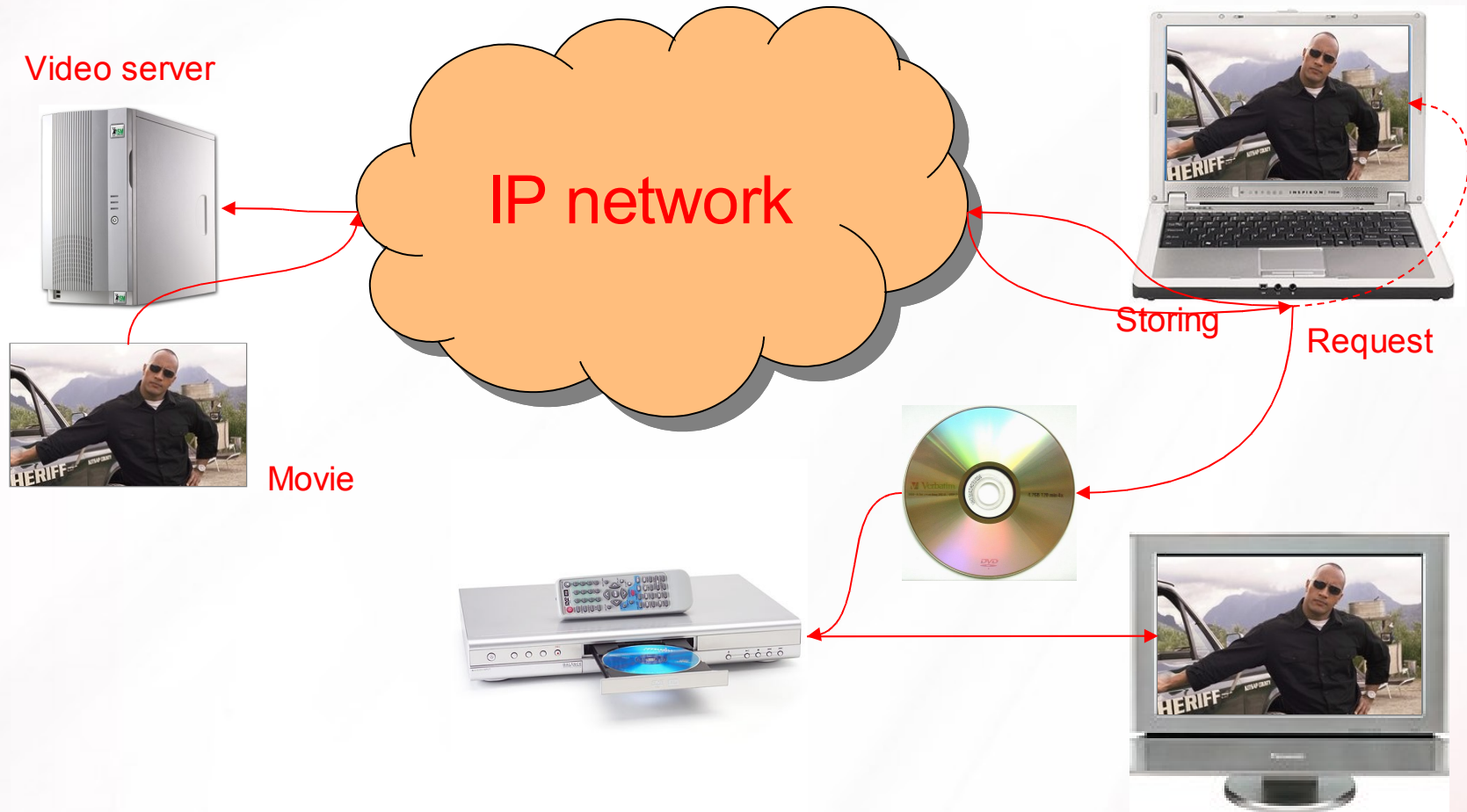
Lapset
Minikyksiö
Au pair meni huoneeseensa....

Kaatuulu
Vesileikkejä
Sillä välin Brokeback-vuorella....

Lapset
Harvahammas
Hampaidenlähdtö on hauska asia....

File Downloading

Downloading (And Storing) A Video For Later Use

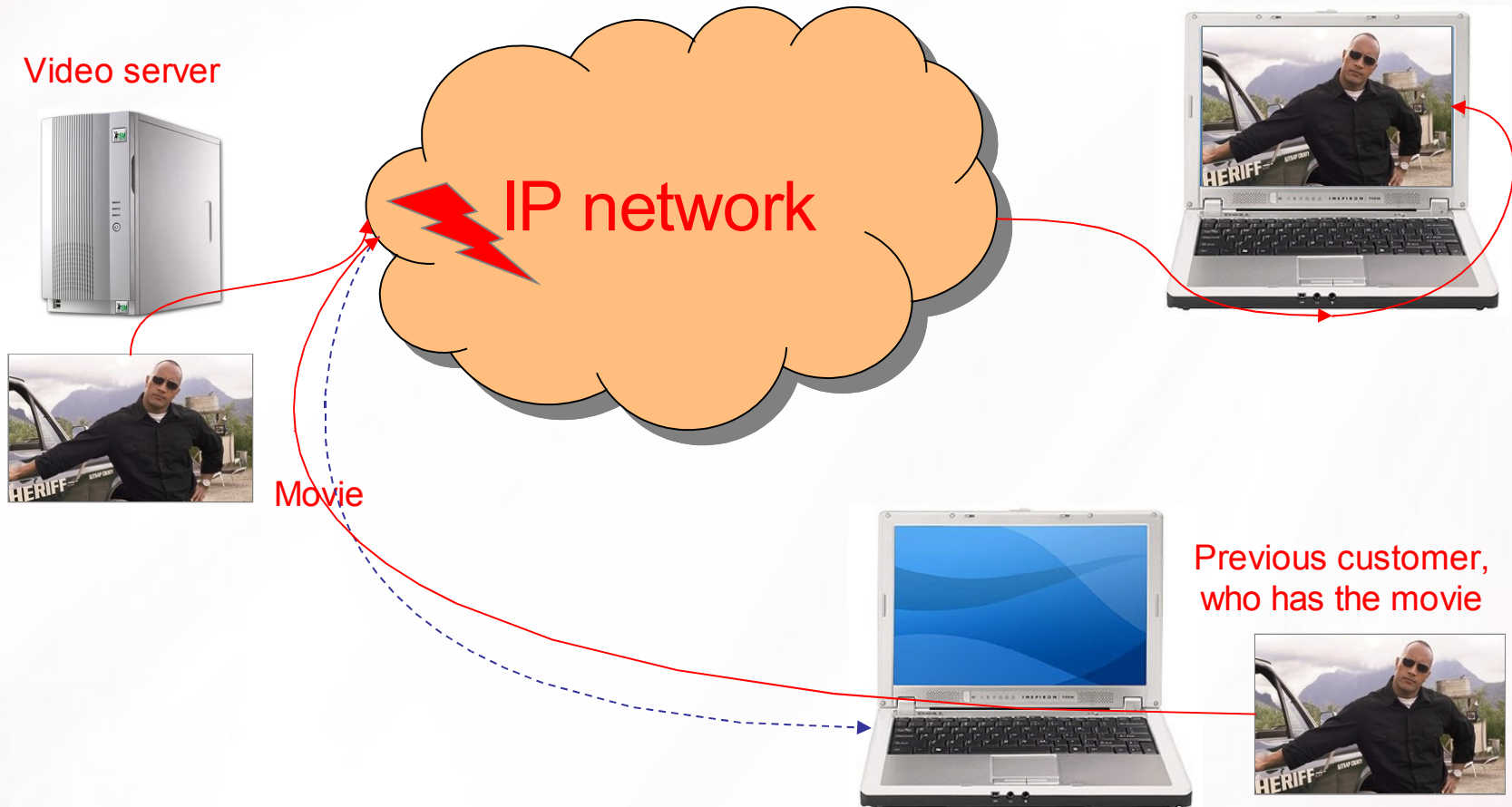


File Downloading

- Corresponds to VHS or DVD purchase (without physical transportation) and downloading of music
- Rights management challenges
- Download time for e.g. a 2 hour movie can be:
 - 1,5...2 days over a low quality 256 kbit/s line (MPEG2)
 - 10 hours over a rigid 1 Mbit/s line (MPEG2)
 - 5 hours over a rigid 1 Mbit/s line (MPEG4)
 - 3 minutes over future 100 Mbit/s lines (MPEG4)
- Technically and contractually available to all content providers independent of network operators

Solving Network Capacity Problems

Peer-to-peer Networking



File Downloading Example

CinemaNow



The screenshot shows the CinemaNow website homepage. At the top left is the CinemaNow logo with the tagline "WATCH MOVIES AND MORE...". To its right is a "7 DAY FREE TRIAL" banner for platinum subscribers. Further right are links for "Sign In" and "Customer Service". A navigation bar below the header contains links for "Watch on your TV", "Quick Browse", "How it Works", "My Account", and "Subscribe For Free". The main content area features a large heading "Welcome to CinemaNow!" and a sub-heading "The world's #1 legal video download store". Below this is a list of three bullet points: "Choose from thousands of videos", "Rent the video", and "Download and watch it in seconds". A prominent "Get Started" button is positioned below the list. To the right of the text is a photograph of a woman in a white top sitting on a rug and using a laptop, with a fireplace in the background. Below the "Get Started" button is the "CinemaNow Benefits" section, which lists five bullet points: "Videos from the US and around the world", "Localized currency", "Major international credit cards accepted", "Fast downloads and quick playback option", and "24/7 Customer Support". A "How It Works" button is located below the benefits list. At the bottom of the page is a footer with links for "About CinemaNow", "Customer Service", "Contact Us", "Privacy Policy", "Terms of Use", "RSS", "Site Map", and "Affiliates".

CINEMANow
WATCH MOVIES AND MORE...

7 DAY FREE TRIAL
PLATINUM SUBSCRIPTIONS HAVE UNLIMITED ACCESS TO:
MOVIES, UNIQUE CONTENT, MATURE, & MORE! **TRY IT!**

Sign In | Customer Service

Watch on your TV | Quick Browse | How it Works | My Account | **Subscribe For Free**

Welcome to CinemaNow!

The world's #1 legal video download store

- Choose from thousands of videos
- Rent the video
- Download and watch it in seconds

Get Started

CinemaNow Benefits

- Videos from the US and around the world
- Localized currency
- Major international credit cards accepted
- Fast downloads and quick playback option
- 24/7 Customer Support

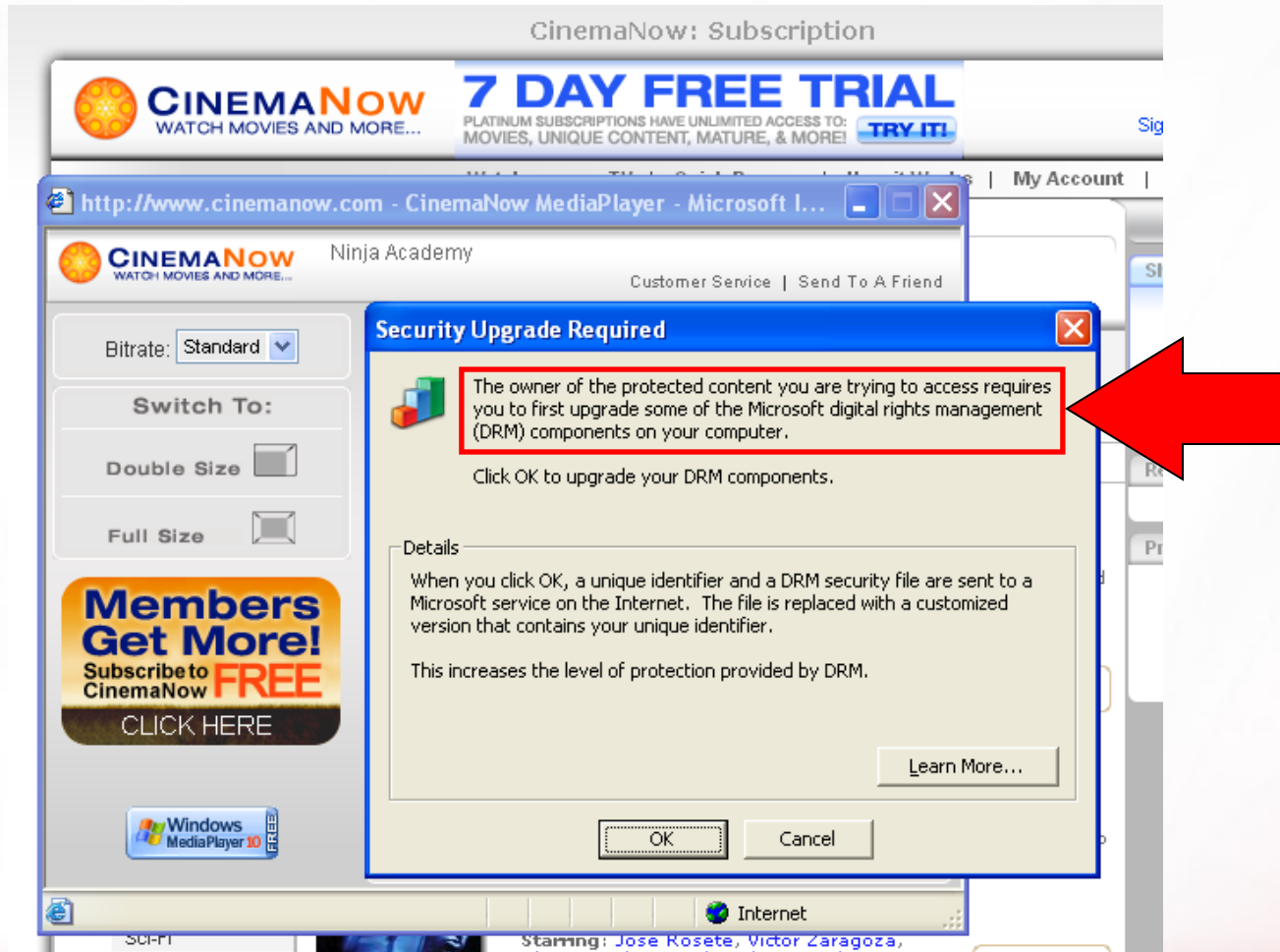
How It Works

About CinemaNow | Customer Service | Contact Us | Privacy Policy | Terms of Use | RSS | Site Map | Affiliates

©2005 CinemaNow. All rights reserved.

File Downloading Example

Rights Management Is An Important Issue!



File Downloading Example

Exhibition Rights Are (So Far) Local!



Thanks for your interest in Movielink, the leading movie download service. Sorry, but Movielink is presently unavailable to users outside of the United States.

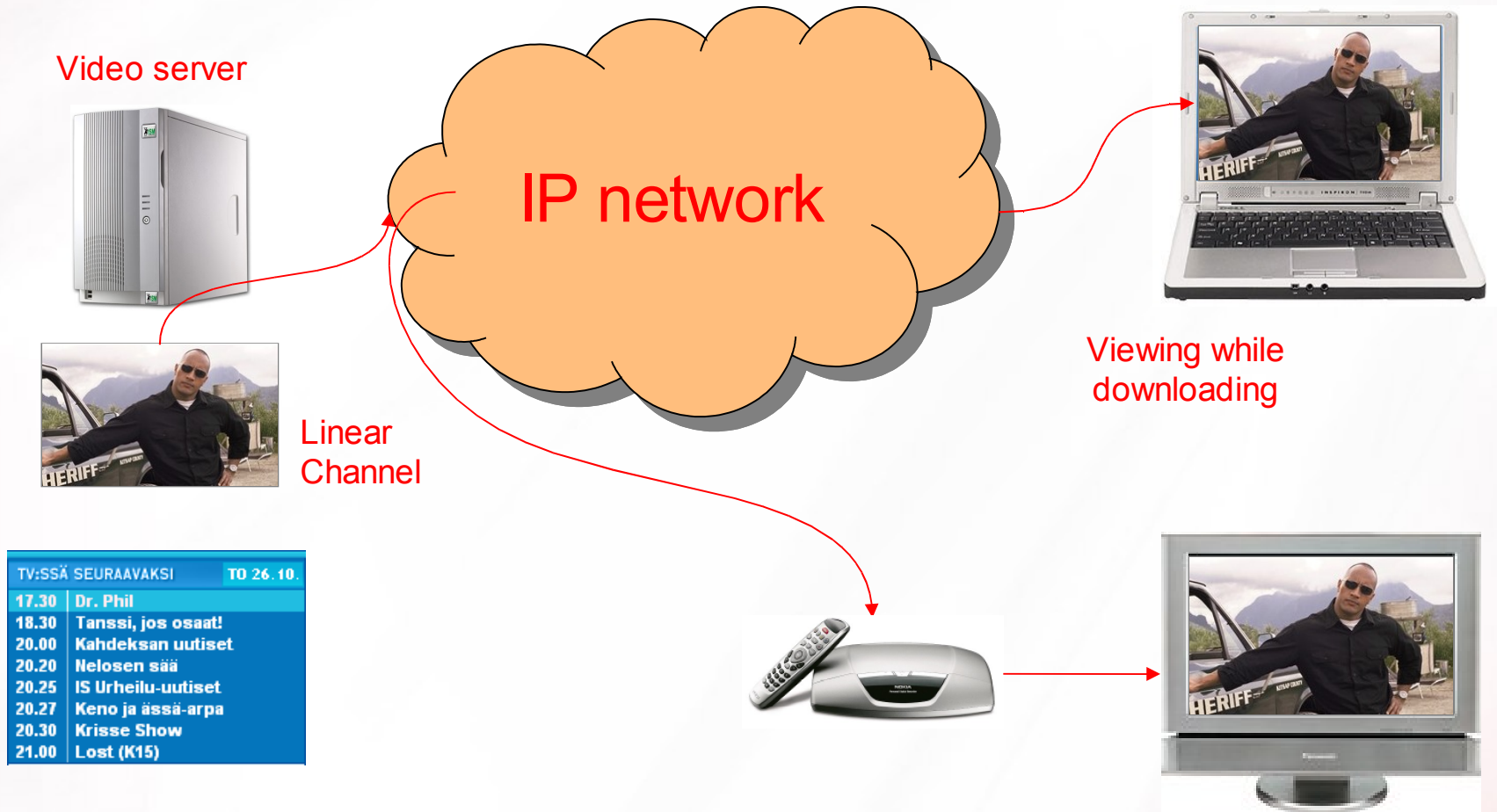
If you are a current customer of Movielink and believe you have reached this page in error, please access Live Chat with Customer Service under Help in your Movielink Manager.

Your IP address is **194.100.33.30**

©2006 Movielink, LLC. All Rights Reserved.

Live Streaming

Connecting Your PC or TV To A Linear Feed



Live Streaming

- Corresponds to watching linear TV (but over an IP network instead of terrestrial, satellite or cable)
- Picture quality (and size) depends on:
 - the speed of the users broadband connection
 - the load of the broadband operators network and
 - the load of the content providers servers
- Broadcast quality requires a speed of 2,5...5 Mbit/s; 2.000 – 4.000 simultaneous users eat up a 10 Gbit/s trunk line
- Contractually available to all content providers
- Distribution is paid by the consumer!

Live Streaming Example

TV7 (TV Channel)

Tue Taivas TV7:ää taloudellisesti!

TV7

Tänään 05.11.2006

- 10:00 jKr.**
- 10:30** Elämän sykkeessä
- 11:30** Café Raamattu
- 12:00** Haastattelussa Adlan Cruz
- 12:30** Kultalevykonsertti - Reijo Ikonen
- 14:00** DAYSTAR
- 18:00** Superkirja
- 18:30** Kirja
- 19:00** Kaivo
- 19:30** Polvijärven pastori
- 20:00** Ajankohtaista taivaasta

> [TV7 Ohjelmaopas](#)

maxinetti

Tekniset vaatimukset
Ohjeet ja tietoa palvelusta

käyttäjätunnus salasana

Rekisteröidy katsojaksi

Maxinetti ei vastaa TV7 palvelun teknisestä tuesta. Lisätietoa voit kysyä palaute@tv7.fi

Live Streaming Example

Canal+ (Live Ice Hockey)

CANAL+ UUTUUS! NYT VOIT VALITA PELKÄSTÄÄN URHEILUN, PELKÄSTÄÄN ELOKUVAT TAI MOLEMMAT!

OHJELMATAULUKOT | ELOKUVAT | URHEILU | SARJAT | CLUB+ | TILAA CANAL+ | LISÄTIETOJA

CANAL+ -N TV-TUOTANTO
CANAL+ - JÄÄKIEKKOTIIM
ASIAINTUNTIJAPALSTA
WEBB-TV: SM-LIIGA LIVE!
OTTELUOHJELMA
TILASTOT JA TAULUKOT

CANAL+ WEBB-TV: SM-Liiga Live!

– Jääkiekkoa suorana lähetyksenä myös Internetissä missäpäin maailmaa tahansa.
Yksi ottelu maksaa 6 eurolla.
Palvelu vaatii laajakaistayhteyden, jonka nopeus on 1 Mbit/s.

Internetissä lähetetyt ottelut

Valitse kierros: -- Kaikki -- Valitse joukkue: -- Kaikki --

Kirjaudu sisään

Muista testata laajakaistayhteytesi ja palveluvaatimukset ennen kun teet ostoksen.

Ottelu	Kierros	Lähetysten alku	OSTALIPPU
Ässät - Lukko	25	2006-11-16 18:15	OSTALIPPU
HIFK - Kärpät	27	2006-11-21 18:15	OSTALIPPU
Pelicans - Tappara	28	2006-11-23 18:15	OSTALIPPU
TPS - Jokerit	30	2006-11-28 18:15	OSTALIPPU
SaiPa - JYP	31	2006-11-30 18:15	OSTALIPPU
Jokerit - Kärpät	33	2006-12-05 18:15	OSTALIPPU
Lukko - Blues	34	2006-12-07 18:15	OSTALIPPU

CANAL+ WEBB-TV

Checking your computer and internet connection. If your computer meets the requirements you can go ahead and use the service!

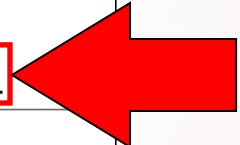
System requirements:

- Windows 2000/XP
- Internet Explorer 6.0 (or later)
- Flash Player 7 (or later)
- Windows Media Player 9.0
- Processor: Pentium III 733 MHz minimum
- Internal RAM: 128 MB RAM minimum
- Graphics Card: 16 MB minimum

Not compatible with Macintosh Computers

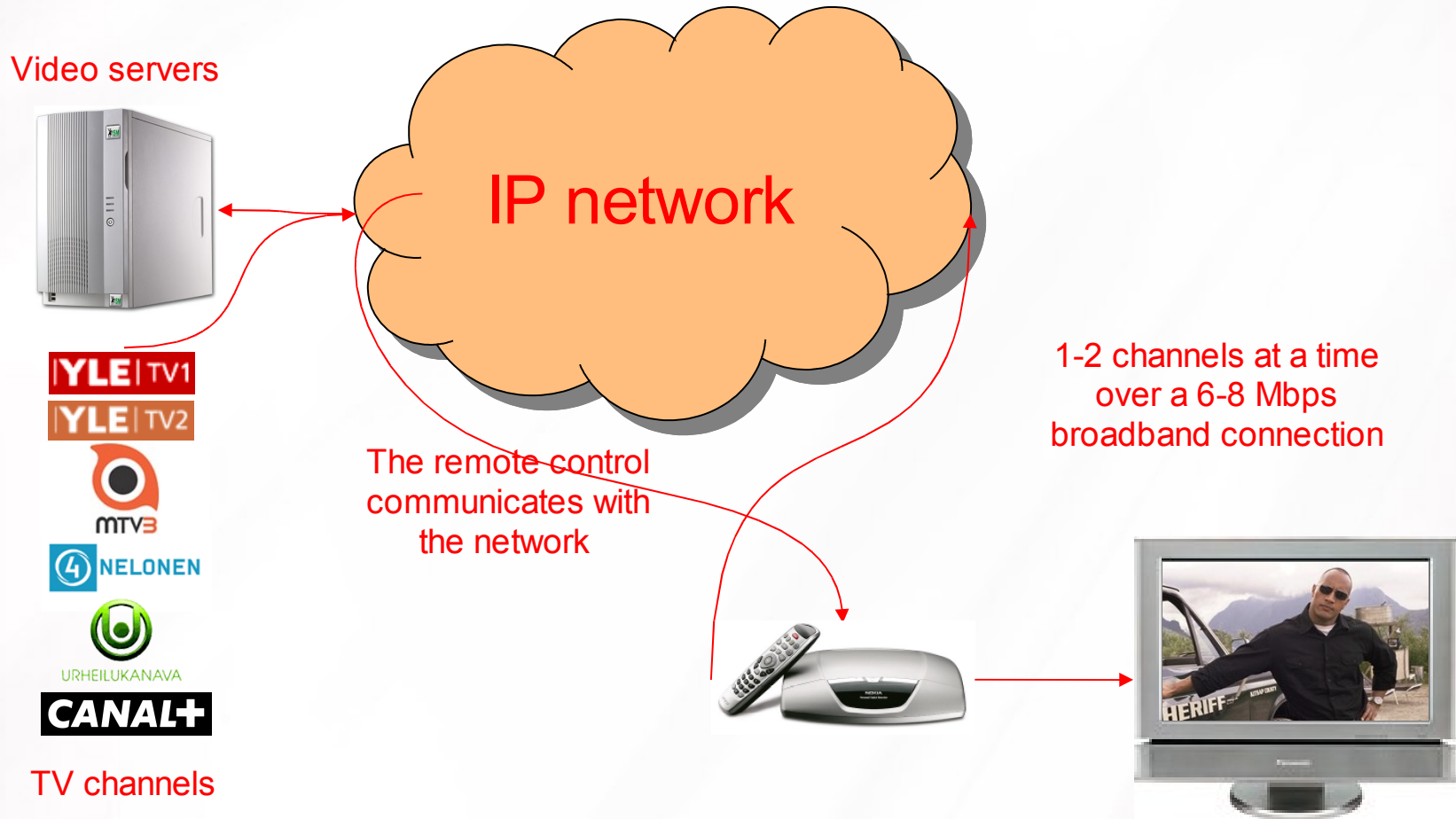
**This service offers streaming media in 850 kbit/s.
For best results we recommend a minimum connection speed of ca 1500 kbit/s.**

Test	Result
Windows	Pass
Browser	Pass
Media Player	Pass
Flash player	Pass
Bandwidth	Pass (5295 kbit/s)
	Pass



IPTV

Cable TV Over IP Network



IPTV

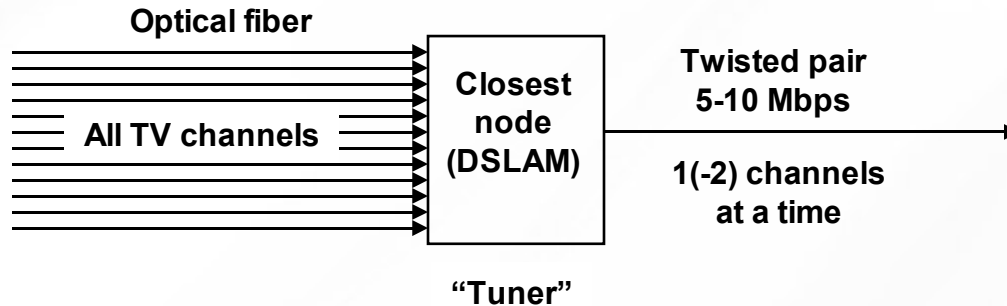
- Corresponds to cable television (but using an IP network instead of a cable TV network)
- “Multicasting” technology enables a fixed load to the trunk network independent of the number of users
- Easy to include video-on-demand services because of interactivity
- Not possible to start without a (deep) contractual relationship with the operator of a network
- Also cable TV operators like Welho will use IPTV technology to introduce video-on-demand services

Cable TV vs. IPTV

IPTV

~20 €
/month

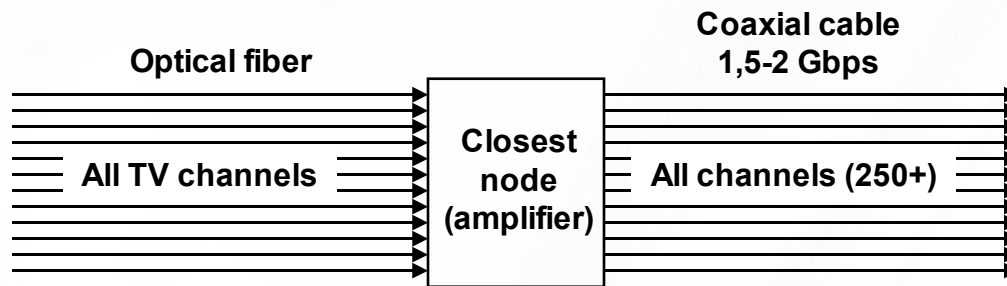
(Price difference
between e.g.
6 Mbps and 1 Mbps)



1(-2) receivers per connection
(or more with identical pictures)

Cable TV

~30-40 €
/year
(Basic fee)



“Unlimited” number
of independent receivers

IPTV Example

Maxinetti

[Etusivu](#) [Yritysinfo](#) [Taloyhtiöille](#) [Yrityksille](#) [Tekniset tiedot ja tuki](#) [Tilaus](#) [Kirjaudu sisään](#)


maxinetti

[Maxinetti Multi](#) [Laajakaista](#) [Tv-palvelut](#) [Puhepalvelut](#)

- Laajakaista
- Tv-palvelut
- Maxiphone
- Hinnat ja toimitus

maxinetti multi

uuden ajan kaapeli-tv



Maxinetti Multi

Laajakaista
Nopeus 8M/1 M
5 kpl sähköpostiosoitteita ä 100 Mt
Kotisivutila 100 Mt
Norman Tietoturva

Maxinetti TV
Suomen digi-tv kanavat (13kpl)
Eurosport Nordic
Eurosport 2
BBC World, TV5 Europe, Deutsche Welle,
Taivas TV 7

Maxiphone-nettipuhelin
Aktivointimaksu 20 €
12 kk veloituksetta

Multi 49,80 €/kk
Hinta sisältää Maxinetti-digiboksin ja langattoman näppäimistön

Maxinetti Multi Pro

Laajakaista
Nopeus 24M/1 M
Muuttumaton IP-osoite
5 kpl sähköpostiosoitteita ä 100 Mt
Kotisivutila 100 Mt
Norman Tietoturva

Maxinetti TV
Viihde1 kanavapaketti (10kpl)
Suomen digi-tv kanavat (13kpl)
Eurosport Nordic
Eurosport 2
BBC World, TV5 Europe, Deutsche Welle,
Taivas TV 7

Maxiphone-nettipuhelin
Aktivointimaksu 20€
12 kk veloituksetta

Multi Pro 75,90 €/kk
Hinta sisältää Maxinetti-digiboksin ja langattoman näppäimistön

DIGI EXPO 2006


TILAA NYT!

Maxinetti Multi peruspaketti

49,80 TARJOUS! /kk

Hinta sisältää digiboksin. Avaus ja asennus kaupan päälle!

Etusi 110 euroa!



Apple iMac 20"
1628,70€ / 57€/kk

TDC Shop

IPTV Example

Maxinetti On Demand Services

CANAL+ ON DEMAND

CANAL+ On Demand

Maxinetti tuottaa yhdessä CANAL+:n kanssa On Demand -palvelun, jonka avulla tilaat kätevästi haluamasi palvelut katsottavaksi kotisohvaltasi. Käytät tilaamiseen omaa Maxinetti-asiakasnumeroasi. Voit katsoa tilattua elokuvaa 24 tunnin aikana niin monta kertaa kuin haluat eikä palautuksesta ole huolta. Tilaukset veloitetaan kuukausilaskun yhteydessä. Laajasta tarjonnasta jokainen löytää itselleen jotain. Elokuvakirjastosta voi tilata elokuvan katseltavaksi silloin, kun siihen on aikaa!

Tilaamasi elokuvat toimitetaan DVD-tason kuvalla ja äänellä. Voit kelata elokuvaa eteen- ja taaksepäin sekä pysäyttää halutessasi.

Elokuvat 3,75 € - 4,25 €/ 24 h

Erotiikka 5,55 €/ 24 h

CANAL+ SELECT

CANAL+ Select

Maxinetti Multi tarjoaa CANAL+ -asiakkaille tämän ainutlaatuisen lisäpalvelun, jota et saa muualta! Se tarjoaa kahden kuukauden 30 suosituinta huippuelokuvaa ja sarjoja elokuvakirjastosta silloin kun sinulle sopii - riippumatta lähetyksajoista. Toiminnallisuudet ovat kuten CANAL+ On Demand- palvelussa. Elokuvat ja sarjat vaihtuvat kuukausittain uusiin, eikä sinun tarvitse kuin istua sohvalla ja valita katseltava ohjelma.

Canal+ Select kaikille Maxinetti Multin CANAL+ -asiakkaille.



Nelosen Uutiset

Maxinetti ja Nelosen uutiset tarjoavat Maxinetti Multi -liittymissä ilmaisen On Demand - uutispalvelun, jonka avulla voit katsoa tuoreimmat Nelosen kello 20.00 uutiset aina halutessasi. Järjestelmä nauhoittaa uutiset katsottavaksesi automaattisesti. Palvelu on helppokäyttöinen ja käytössäsi vuoden jokaisena päivänä.

IPTV Example

Welho PC-TV

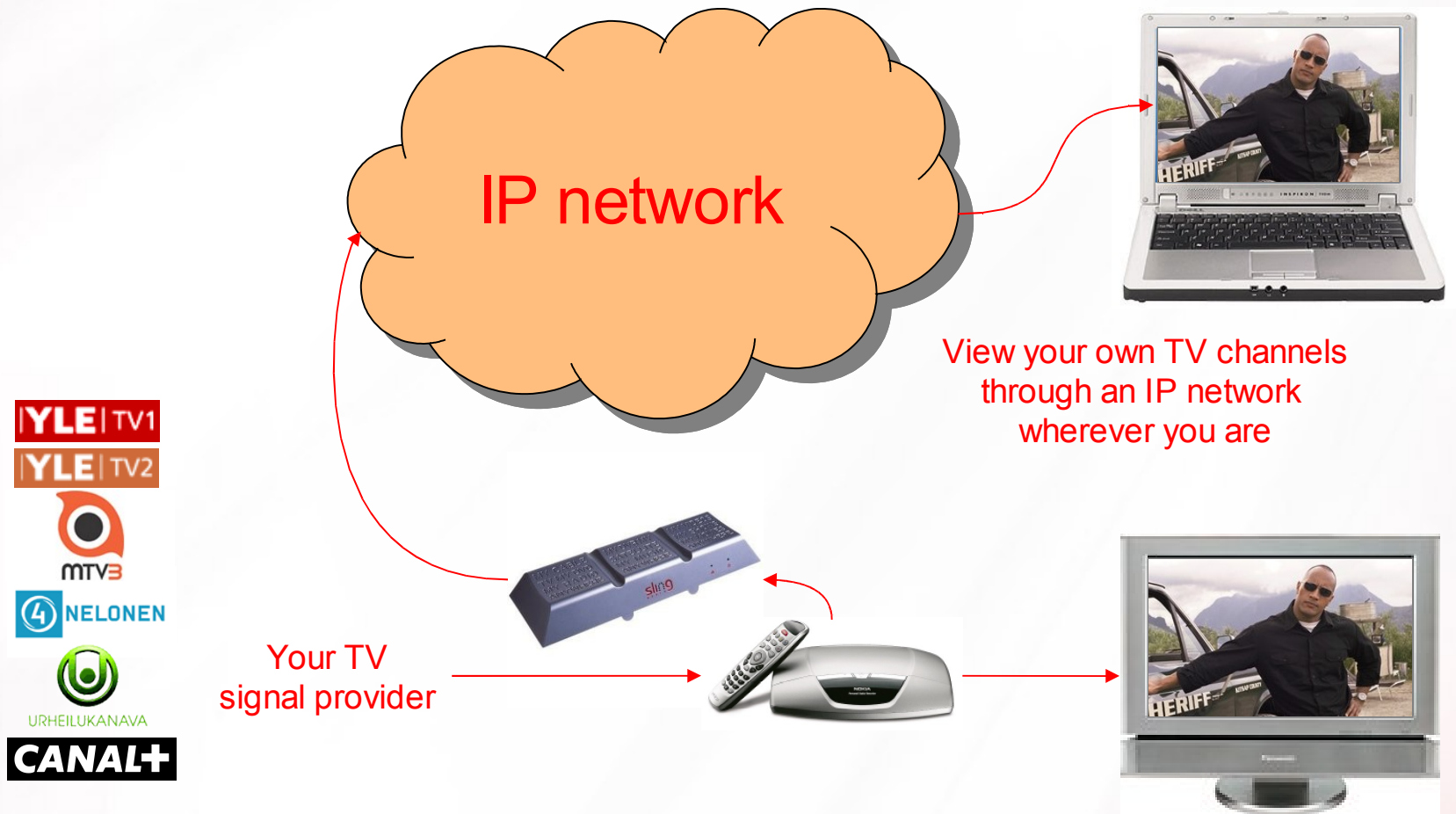


- With Welho PC-TV you can watch TV with a PC
- The service is first aimed at companies and institutions with a LAN



A “Curiosity”: Slingbox

“Take Your TV With You”



View your own TV channels
through an IP network
wherever you are

Versions Of Mobile TV



DVB-H

- The TV signal is received from a digital terrestrial TV transmission
- Requires a transmission network of its own
- The TV signal reception does not load the mobile telephone network

Best for "linear broadcasting"?



3G

- The TV signal is transported through the 3G network
- Does not require a separate transmission network
- The TV picture is transported separately to each device, which loads the network heavily

Best for (occasional) on demand?

So, TV Can Now Be Watched ...



... traditionally
“over the air”
with TV sets ...

So, TV Can Now Be Watched ...



**... but also
over the Internet with
e.g. personal computers ...**

So, TV Can Now Be Watched ...



... and with mobile devices over mobile networks.

... And The Viewing Can Be ...

... “linear” (according to a program chart), ...

TV:SSÄ SEURAAVAKSI	TO 26. 10.
17.30	Dr. Phil
18.30	Tanssi, jos osaat!
20.00	Kahdeksan uutiset
20.20	Nelosen sää
20.25	IS Urheilu-uutiset
20.27	Keno ja ässä-arpa
20.30	Krisse Show
21.00	Lost (K15)



... “on-demand” as provided by the operator ...



... or forward “time shifted” by the user (with a VCR or PVR) ...



Time Shifting Example

ABC "Catch-up TV"

abc

SHOWS • Shop • Daytime • Mobile • Video • Newsletters • Message Boards • Local Stations

ABC.COM THE WEB covered by YAHOO! search

Watch full episodes online for free!
May 1, 2006 - June 30, 2006

Welcome to the only place online where you can watch full episodes of your favorite ABC television shows!

NEW EPISODE ADDED! NEW EVERY THURSDAY NEW EVERY THURSDAY NEW EVERY FRIDAY

"It Wasn't Meant To Happen"
Last Aired: April 30, 2006

"Reckoning"
Last Aired: April 26, 2006

"There's Only One Sydney Bristow"
Last Aired: April 26, 2006

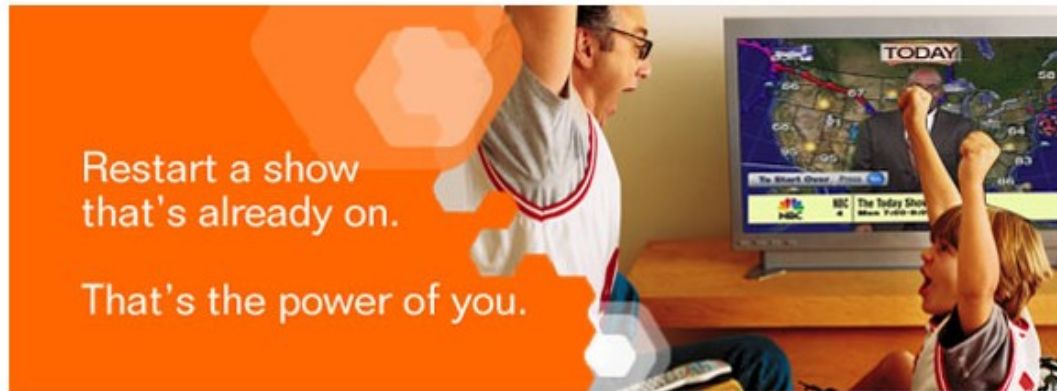
"Ties That Bind"
Last Aired: April 27, 2006

Only viewers within the United States can watch these full-length episodes.

- Free episodes of the previous day's premium TV series
- Advertising slots with different advertising
- With PAUSE and REWIND, but not FAST FORWARD
- Not accessible to users from outside the US

Time Shifting Example

Time Warner “Start Over”



Restart a show
that's already on.

That's the power of you.

Start Over



And, Start Over is FREE when you're a Digital Cable customer. It's easy. Just Press the Button!™



Look for the Start Over prompt on screen. (It will appear on TV shows airing on Start Over channels.)



Press the SELECT button on your remote to launch the Attention screen.

Press SELECT again to Start Over that show or press Cancel to return to live TV.

- Possibility to start the current TV show from the beginning
- With PAUSE and REWIND, but not FAST FORWARD

Time Shifting Example

Nelonen's Netti-TV

netti TV VALITSE OHJELMA: --Valitse sarja--

OHJE TESTAA LAITTEESI REKISTERÖIDY OSTA ASIAKASPALVELU

The Dudesons
UUSIN JAKSO ENNAKKOON!

in|no.

Äidit ja tyttäret
UUSI SARJA

Retro
KAIKKI JAKSOT

SM-liiga
KAIKKI OHJELMAT

Antti Tuisku
DOKUMENTTI

Bella
UUSI SARJA

Start
KAIKKI JAKSOT

Nelosen Netti-TV tarjoaa Jotain Ihan Muuta: mahdollisuuden katsoa TV-ohjelmia laajakaistan avulla.
Netti-TV:ssä on neljä pakettia: Kotimaiset TV-ohjelmat, the Dudesons, Pelinaiset ja SM-liiga.
Huom! Käyttö edellyttää mm. vähintään 1 Mbs laajakaistayhteyttä. Testaa toimivuus "Testaa laitteesi" -osion testivideolla ennen katseluajan hankkimista.

KÄYTTÄJÄTUNNUS
SISÄÄN

REKISTERÖIDY
UNOHTUIKO SALASANA?

COPYRIGHT NELONEN

- Includes mainly earlier episodes of Nelonen's domestic programs ...
- ...but also previews of some series (e.g. The Dudesons and Pelinaiset)
- Both "preview" and "catch-up" features will be introduced for Nelonen's new channel JIM

So, Are We Going To Watch ... Anything, Anytime, Anywhere?

Advantages and disadvantages of different distribution methods

On Demand	<ul style="list-style-type: none"> - no return path - same signal to all - NOT FEASIBLE 	<ul style="list-style-type: none"> + flexibility for viewer + large offering + away from “home” - capacity demand - copyright challenges - more pc based
Linear	<ul style="list-style-type: none"> + cost effective reach + mass audiences + picture quality - fixed offering - late movie window 	<ul style="list-style-type: none"> + user paid distribution + away from “home” - fixed offering - capacity limitations - more pc based
	Broadcasting (Terrestrial, Satellite)	On-line (Broadband, Mobile)

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		Broadcasting (Terrestrial, Satellite)	Cable ”Double Play”

Conclusions

- Pure TV content for mass audiences stay mainly on linear TV on terrestrial, cable and satellite networks (cost effective, high quality, high capacity, high reach, prime time)
- Non-exclusive TV content (e.g. movies) and niche TV content move towards on-line distribution (open networks, customer paid distribution) and on-demand
- Broadcasters seek additional revenues for TV-exclusive content (news, series, ...) from on-line distribution (preview, catch-up, on-demand, ...)
- Broadcasters make their library as well as recent content available also through new distributors (content aggregators, access providers, device manufacturers,...)
- **So, for the TV industry on-line seems to be a question of "in addition to" rather than "instead of"!**

Who Will Deliver Video Content?



Google™

content aggregators

WELHO

access providers

SONY

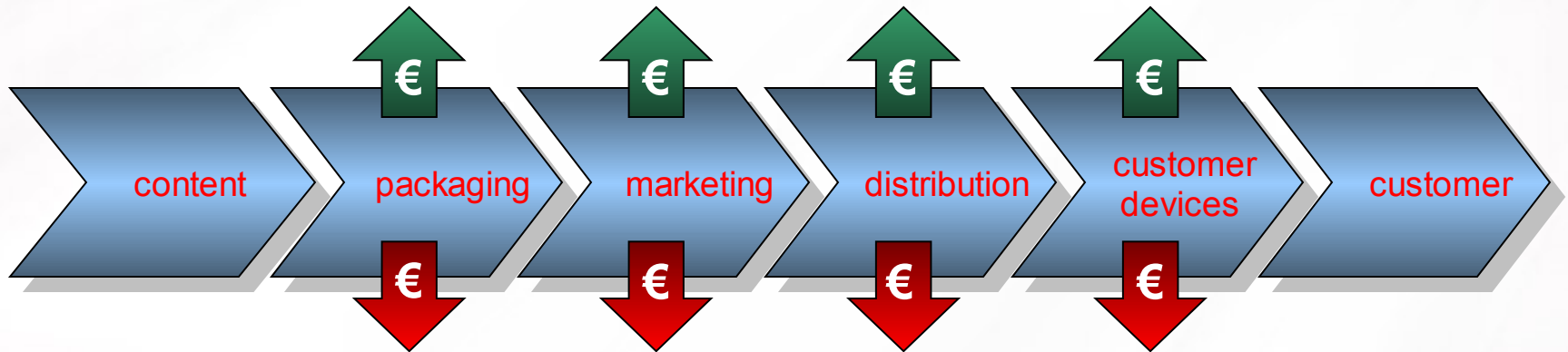
device manufacturers



content providers

The Scale And Scope Are Difficult To Estimate, But ...

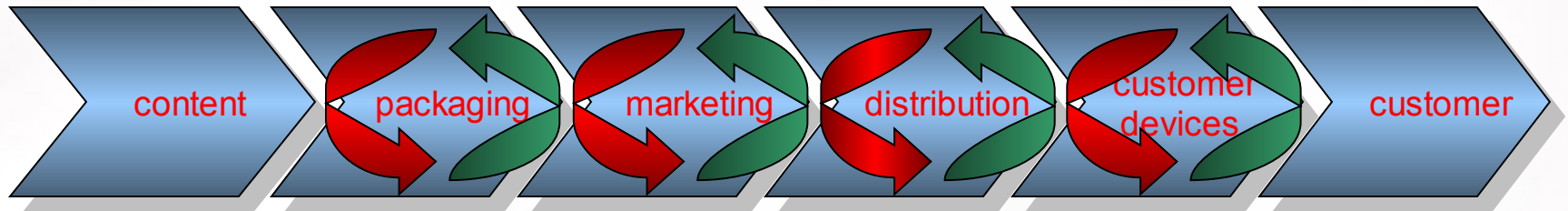
The Value Chains Will Change



- The value chains will split
- There will be vertical integration
- There will be horizontal integration
- There will be new players
- **The economic values in the value chain will change**

The Scale And Scope Are Difficult To Estimate, But ...

The Value Chains Will Change

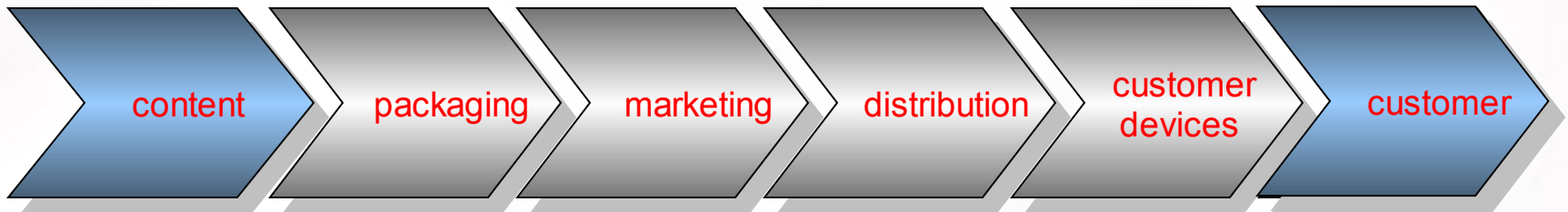


- The value chains will split
- There will be vertical integration
- There will be horizontal integration
- There will be new players
- The economic values in the value chain will change
- The market shares in the value chain will change

Conclusions

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- So, for the TV industry on-line seems to be a question of "in addition to" rather than "instead of"!
- **Traditional distributors of TV content will face more competition and the value of single distribution systems will diminish**

So, The Final Conclusion Is That ...
Content Is Still The King!



Its Just That Now – With All The Choices Available ...
The Customer Has Become "The God"

**Electronic
Entertaining
Experiences For
People To Enjoy**

SWelcom's Mission

