



Media & Entertainment

Broadcast Knowledge Sharing Session 1

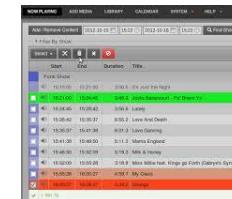


In this Training

Content Creators

Content Aggregators

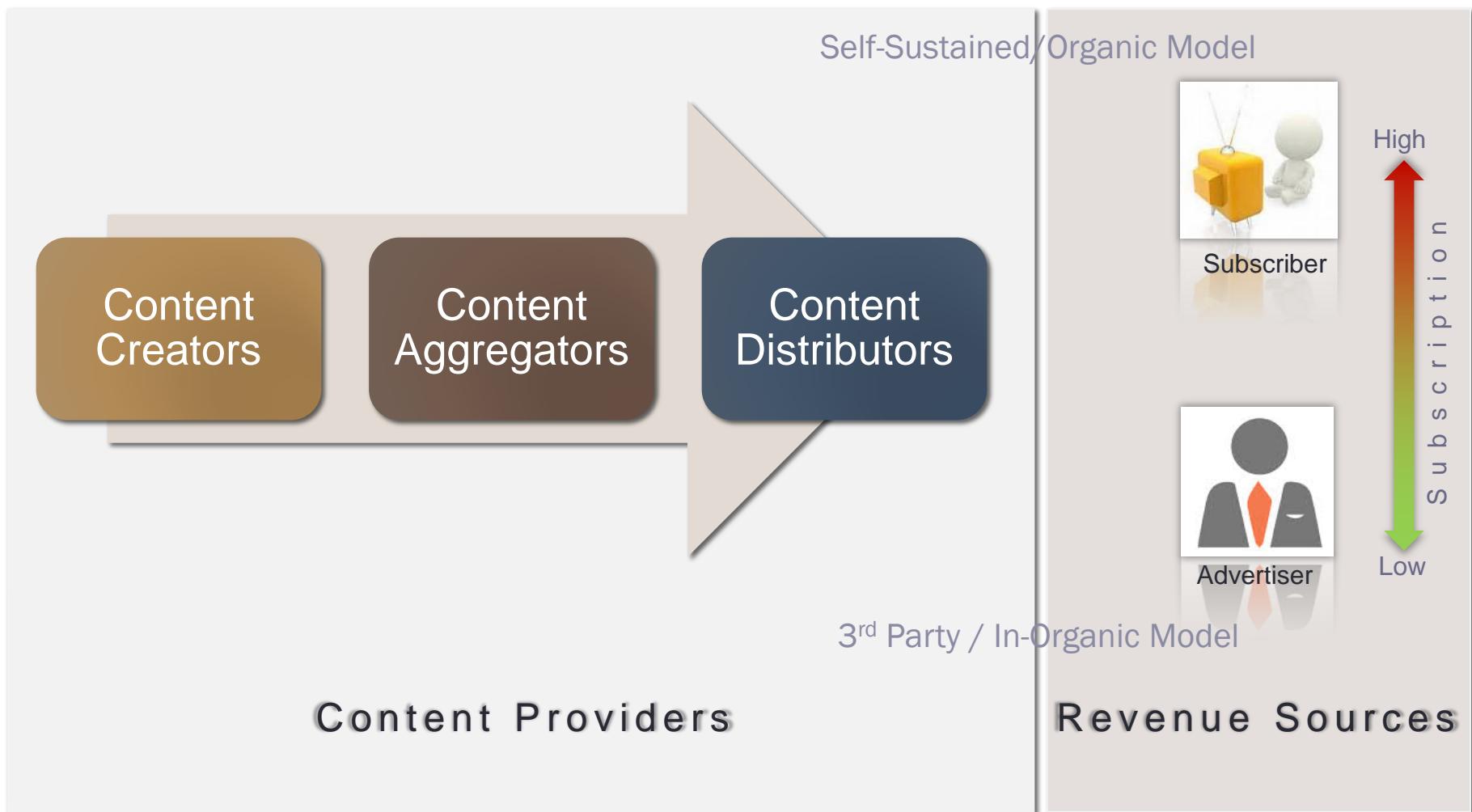
Content Distributors



TECHNOLOGY



In this Training



Broadcasting Eco-System Overview



Evolution



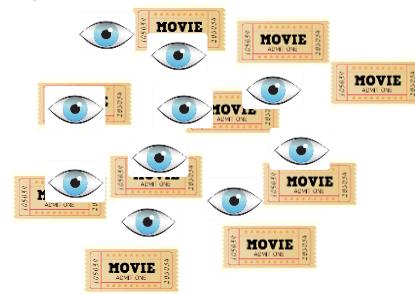
Production Houses



Ad Agency



Advertiser
Brands & Products



Cinema Halls

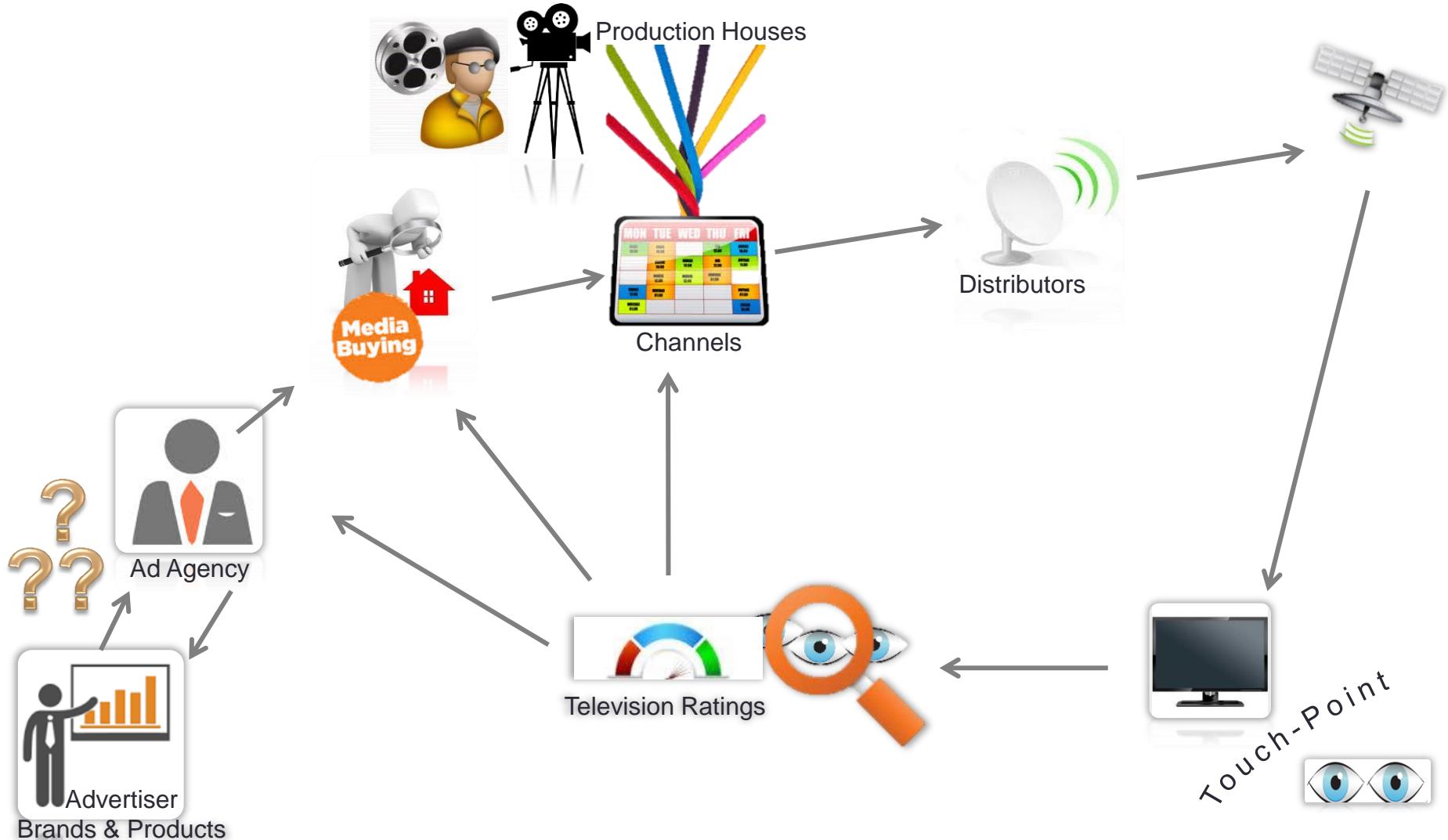


Touch-Point



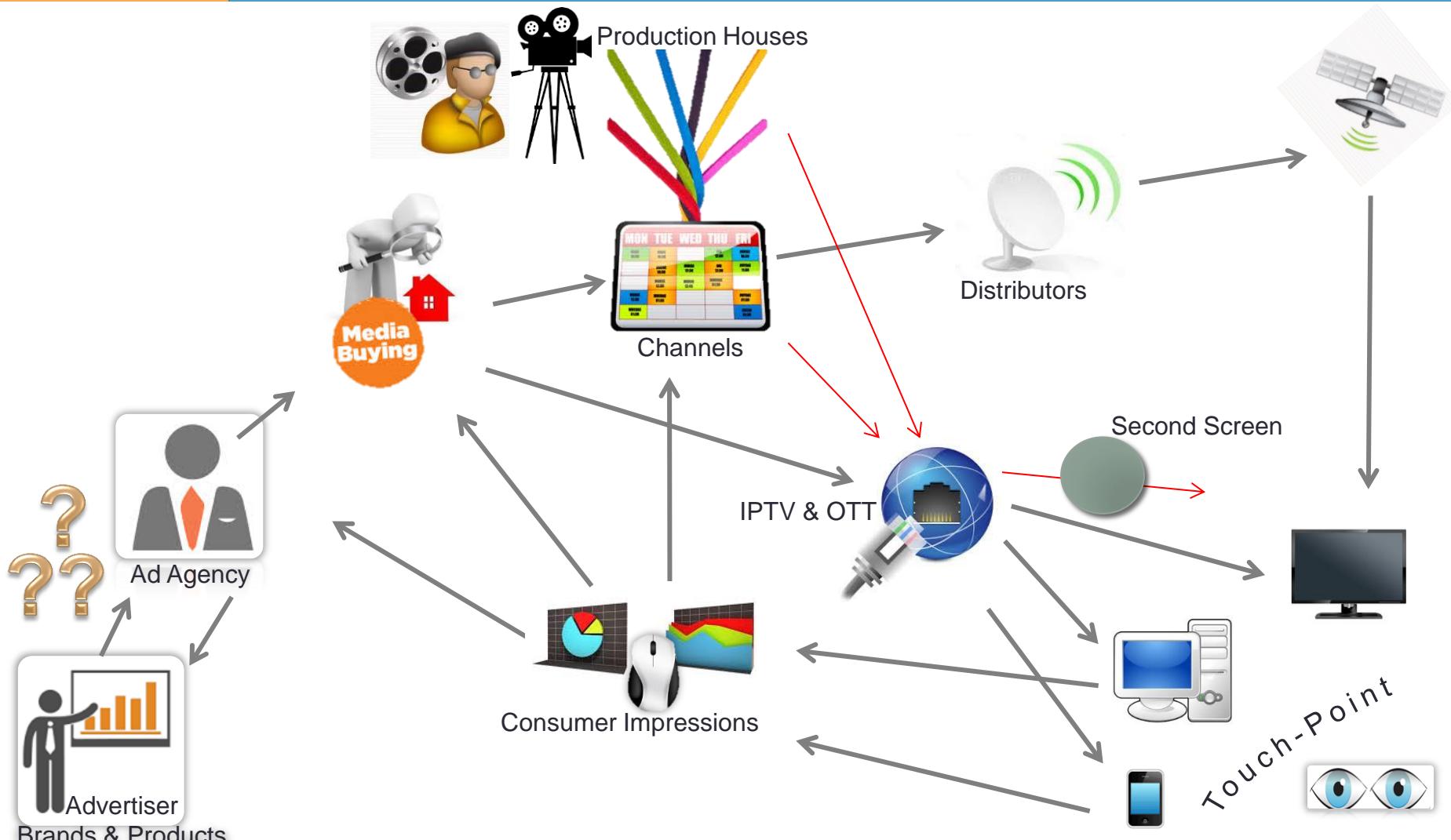
Broadcasting Eco-System Overview

Evolution



Broadcasting Eco-System Overview

Evolution





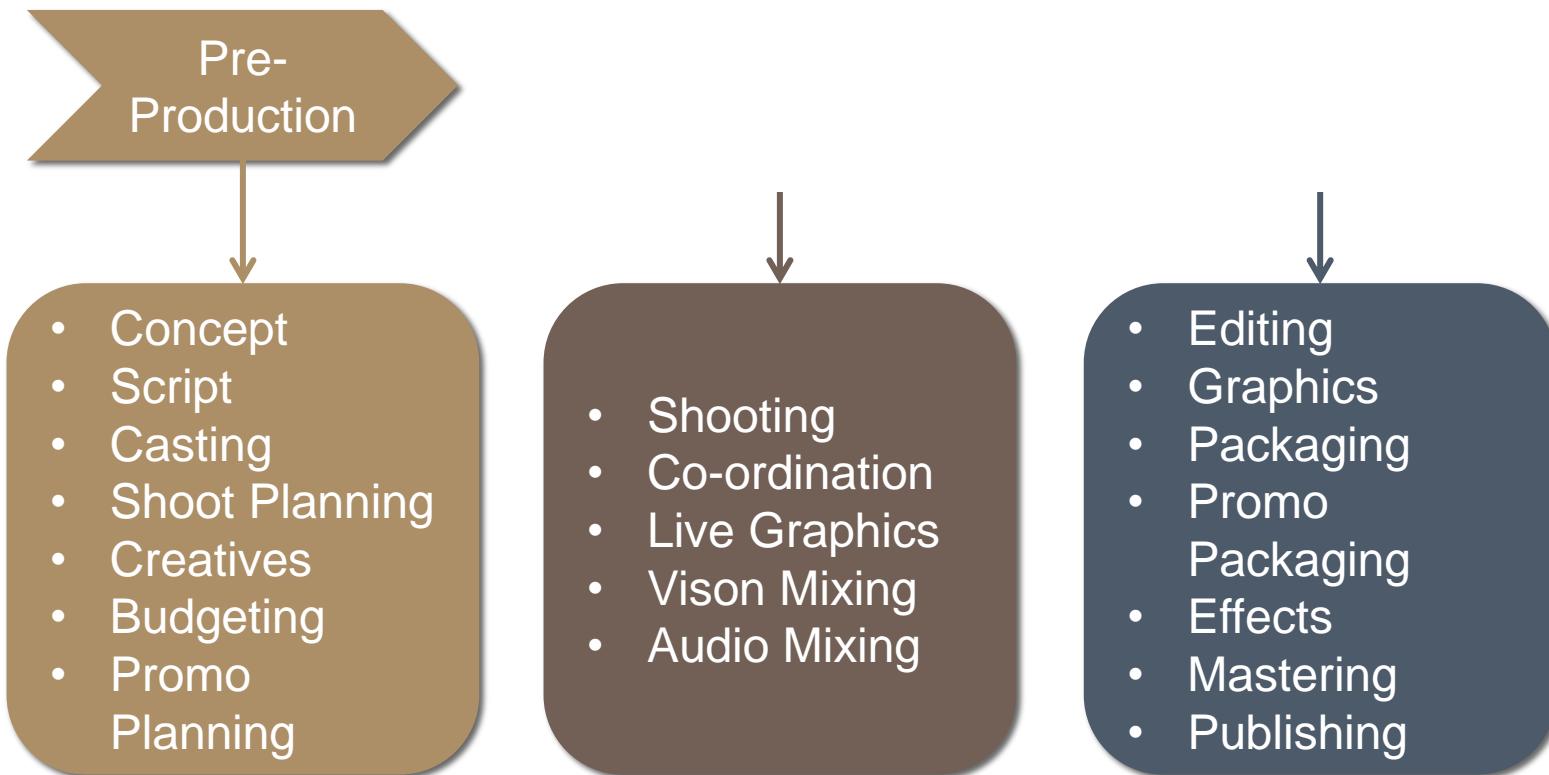
Good to remember

1. The person playing the role might change
2. One Person may play multiple roles
3. But the role will still exist

This is to say that a 'X' who is a Distributer may take content directly from a Creator. But the role of the Aggregator does not go away. It just means that 'X' now plays the role of the aggregator and distributor



Content Creators





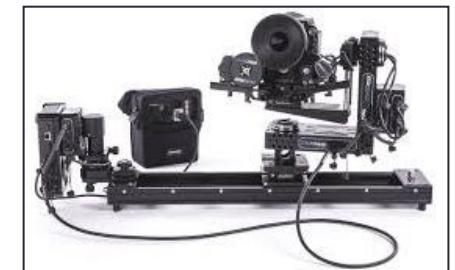
Content Creators: Where do we (IT) come in



[Disney's real-time motion capture tech](#)



[Camera Motion Control software](#)





Content Creators: Our Clients





Content is Created - What Next?

Content Creator



Traditional Channels



Aggregators



Aggregator + Distributor

Content Creators



Content



OTT Provides



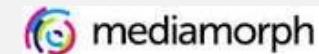
Aggregator + Distributor

Creator + Aggregator + Distributor



Distributors

Our Clients



Case Study: Cybage Projects



Deluxe Media Services

Production Studios



Disney

BBC



hulu

NETFLIX

COMCAST

deluxe

Deluxe Media

Distributors

Creation

- Video Editing
- Visual Effects
- Animation
- Sound Editing
- Sound Effects
- Audio Mixing & Equalizing
- Background Score
- Mastering

Asset Management

- Media Storage
- Inventory Metadata

Distribution Ready

- Transcoding
- Subtitling
- Closed Captioning
- Transcribing
- Translating
- Dubbing
- Tagging
- Digital Distribution
- Blue Ray Disk's
- Audio Censoring
- Video Censoring

Some of the
players



SintecMedia
Media Business Solutions

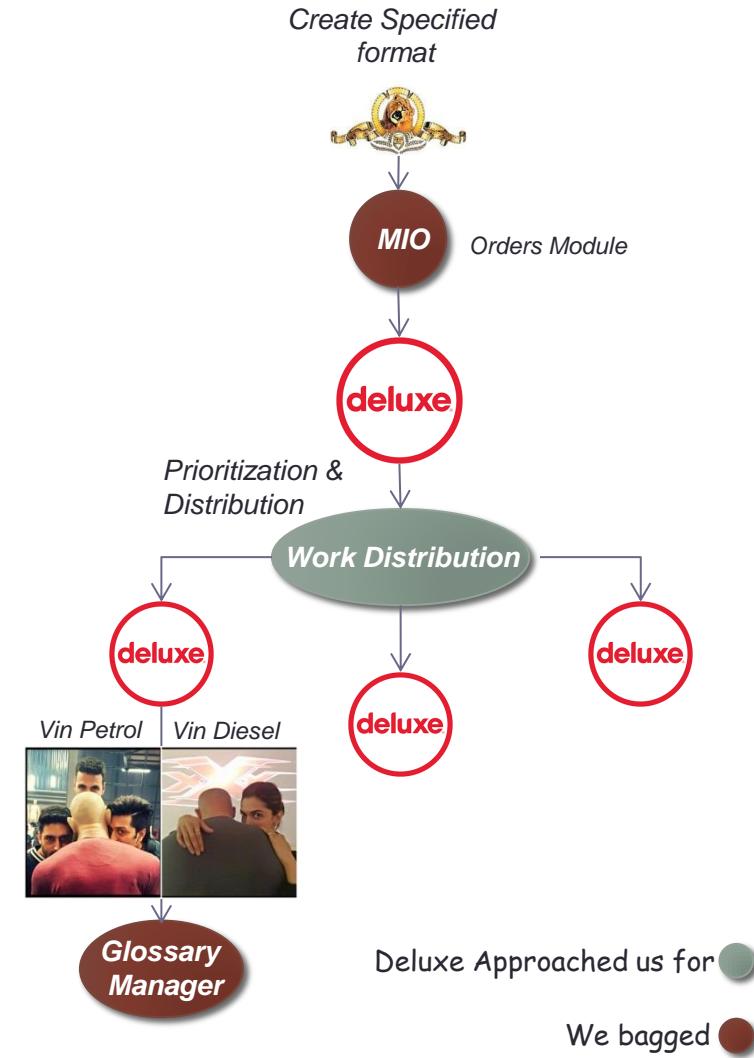
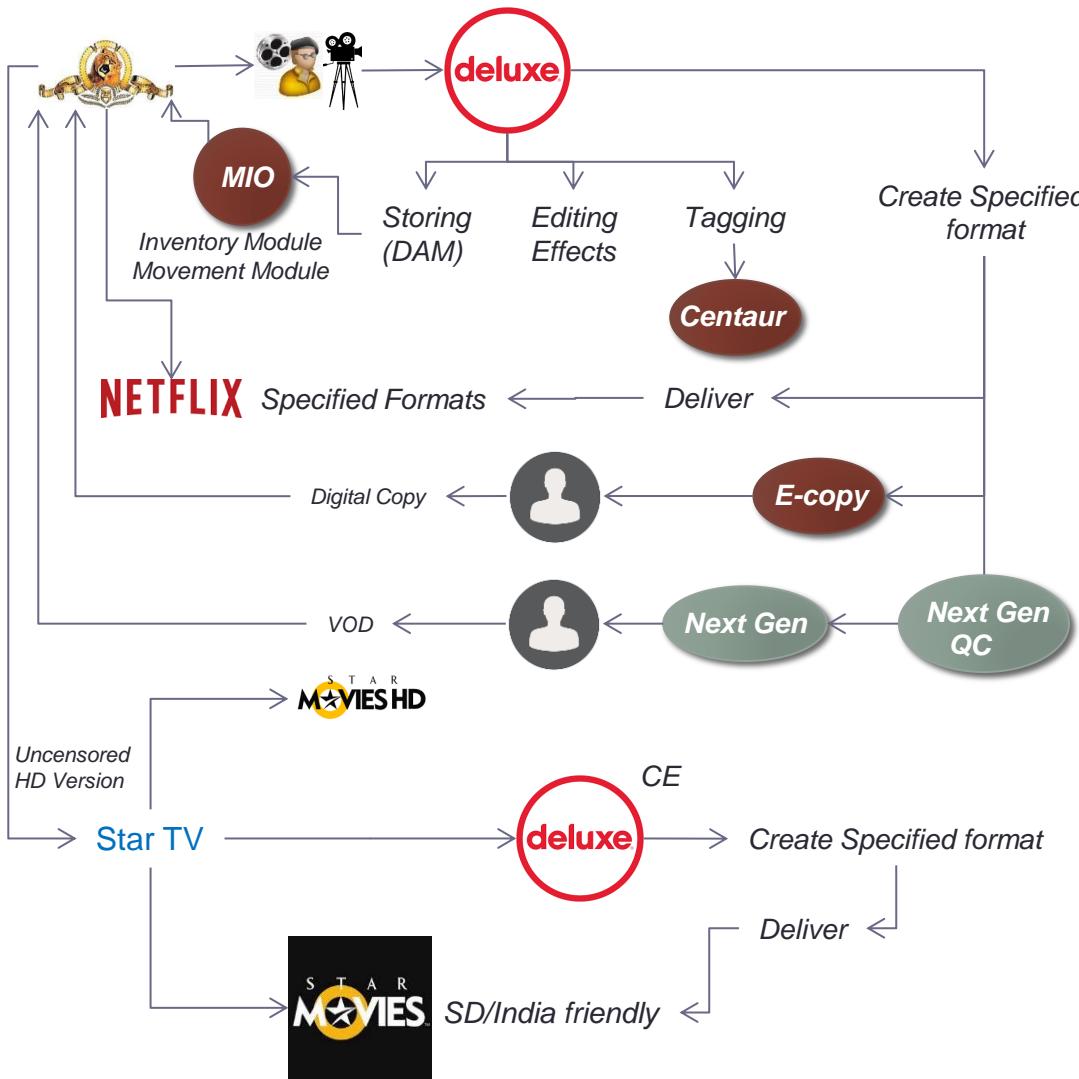
MediaGeniX



SCREEN
+44 1473 831 700



Contextualizing – Content Creation





Rights Management



Rights Management



Content Creators (Monitor)

Licensed to whom?

For what period?

Exclusive/Non-Exclusive?

Revenue Model?

What other conditions?

Content Aggregators (Comply)

Licensed from whom?

Flat Fee/Royalty/Minimum Guarantee?

At what price?

What Platforms?

Which geographies?

Catch-Up/VOD rights?

Revenue Model?

Content Distributors (Comply & Authenticate)

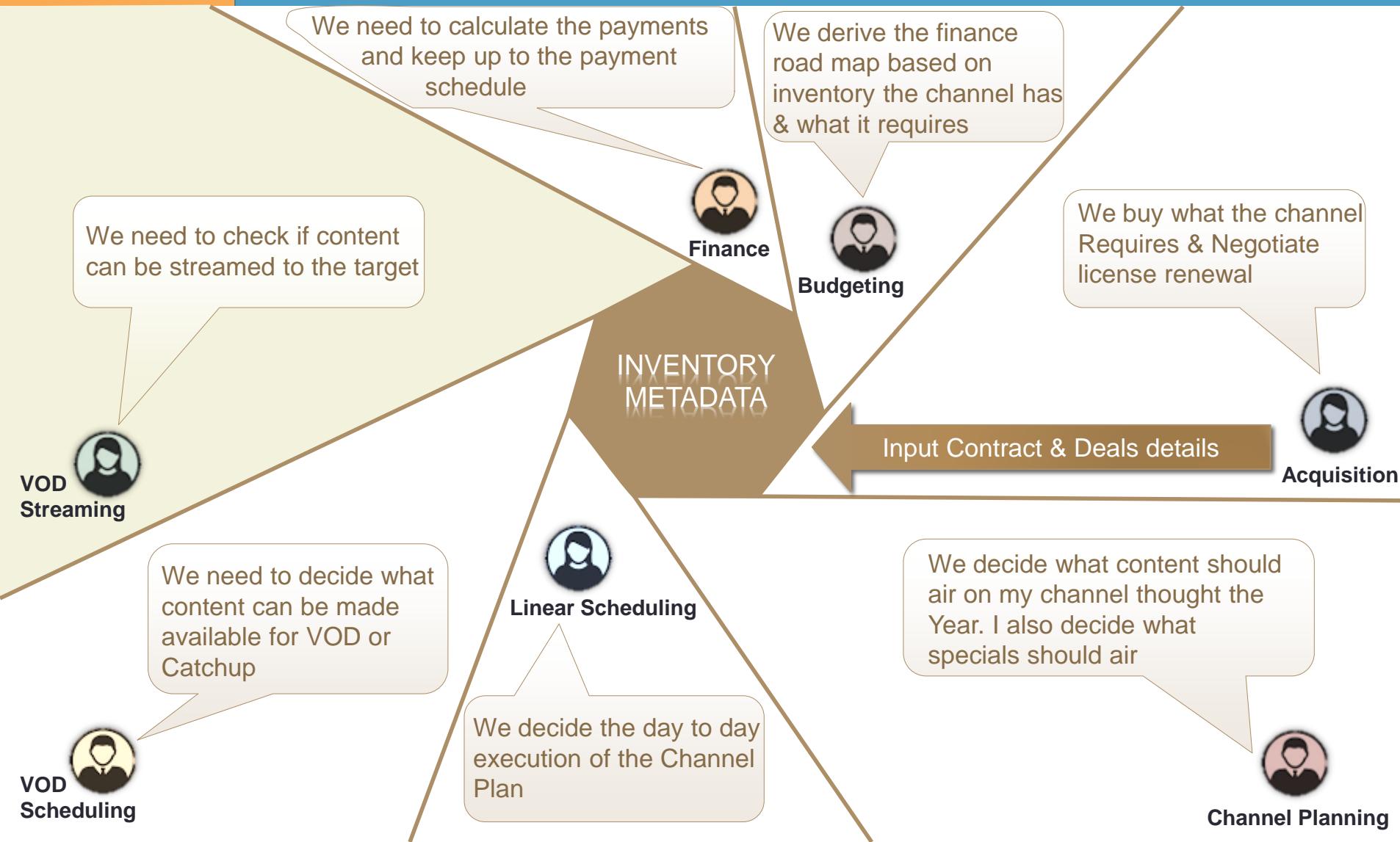
Usage Authentication

How many runs?



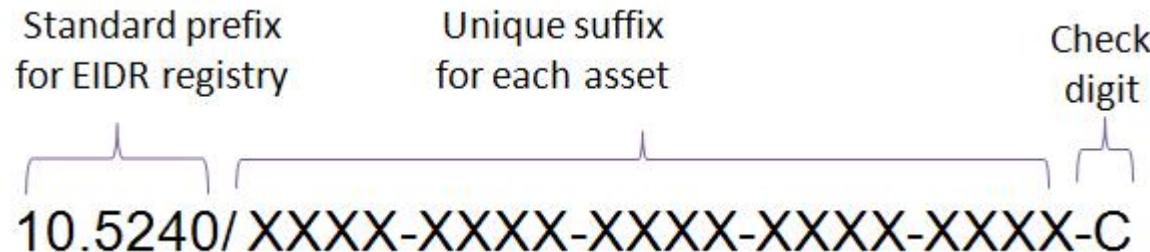


Let understand the process





EIDR



- A registrant submits objects for registration along with core metadata and information such as the type of object and relationship to other objects
- EIDR uses a sophisticated deduplication system to insure that the object submitted to the Registry has not already been registered while allowing the registration of similar and related objects
- If no duplicate object exists, the Registry generates an EIDR for the object and stores the new EIDR and the corresponding metadata in the Registry



Media & Entertainment

Broadcast Knowledge Sharing Session 2





Rights Management

Whom to license it?

For how long to license it?

HD/SD License?

Are repeats allowed? How many repeats allowed? At what frequency?

When should be the first run?

How many runs are allowed?

Can it be dubbed?

Flat Fee/Royalty/Minimum Guarantee?

Is Simulcast allowed?

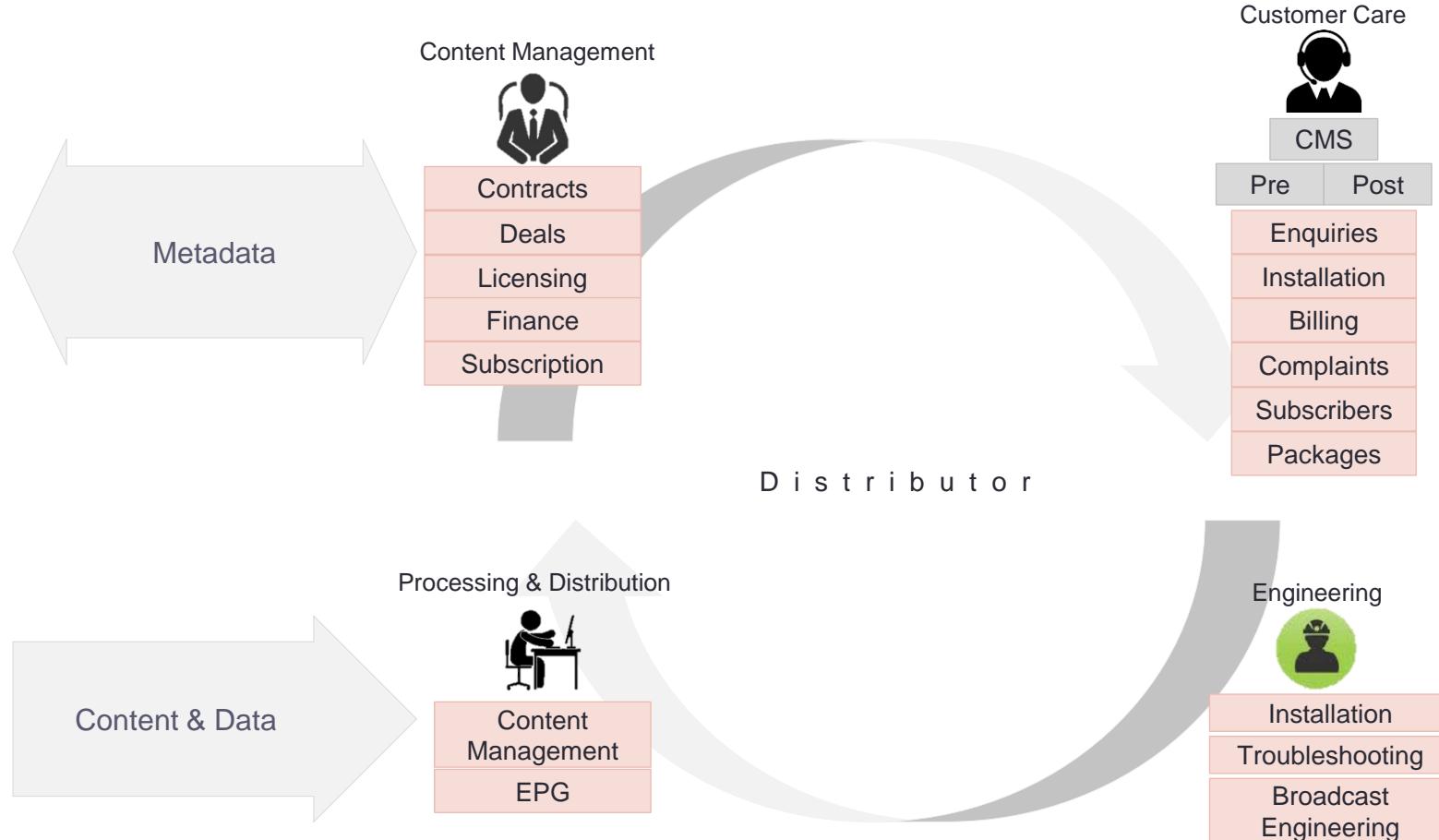
VOD/catch-up license?

Which geographies to target?



I want a Television Connection

A
g
g
r
e
g
a
t
o
r
s



HWW's EPGenius

SUD

MUD



HOT

Understanding the video



What do I see?

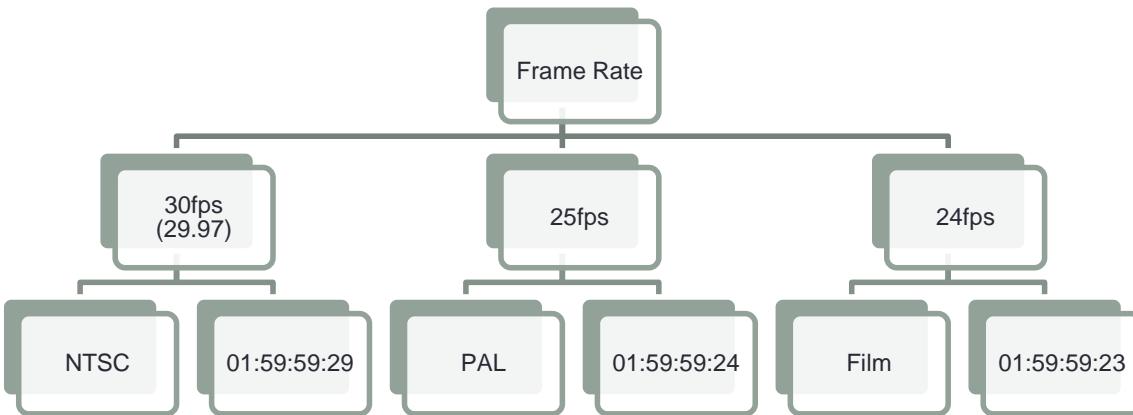


Understanding the video



Some Concepts

✓ Continuous Programming



9:00



9:30

✓ Burnt In OR Overlaid?

- Graphics
- Subtitles
- Logos
- Warnings

- This has to be 00:29:29:23

Content Aggregators



The MCR (Master Control Room)

MCR

Automation

Playout Servers

Other Hardware

Micro-Scheduler

AV Players

Graphics Engine
(Players)

Content Server

Graphic Server

Ad Server

MAM

Vision Mixer

Audio Mixer

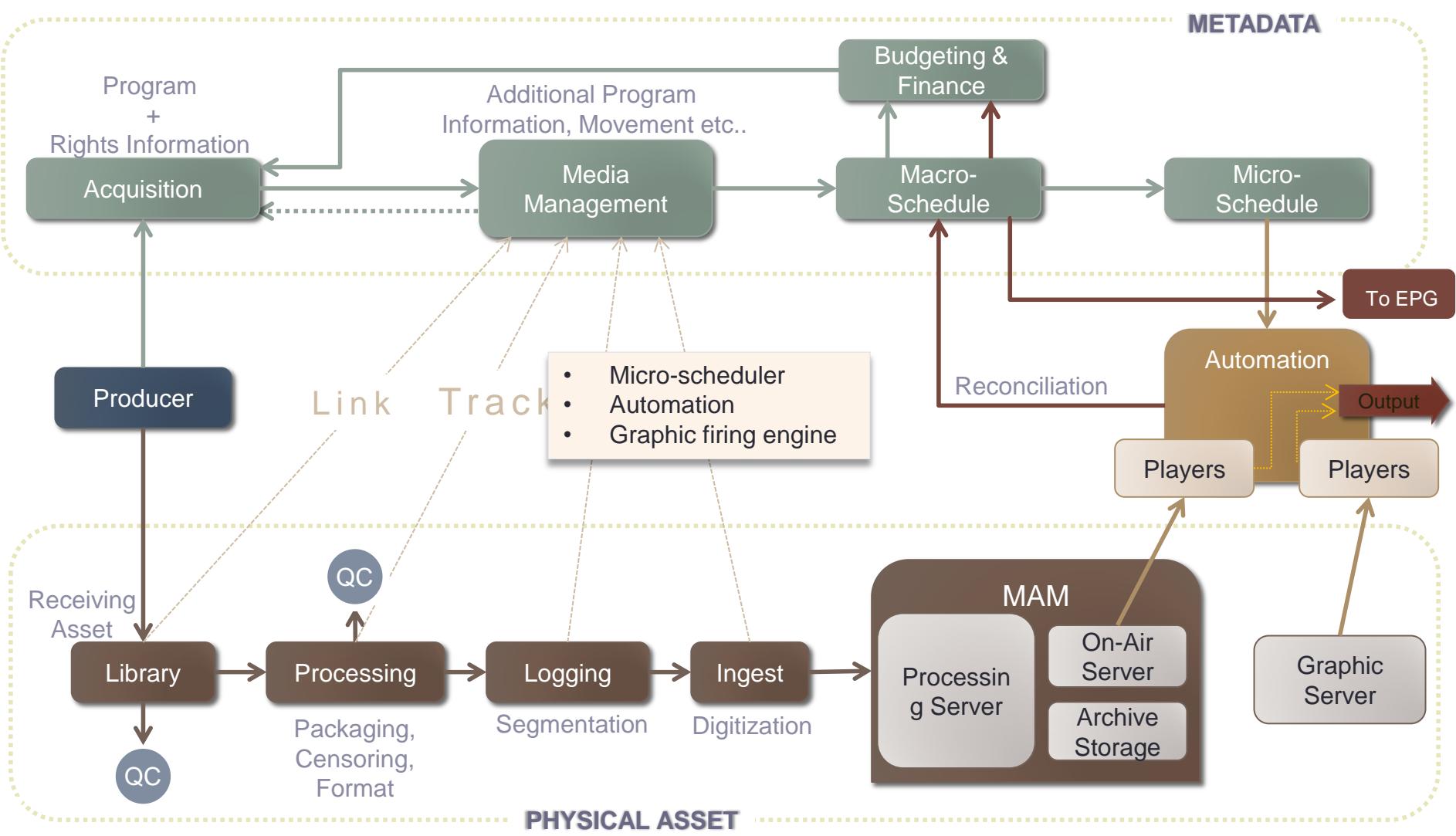


This is how it looks like





This is what aggregators do





Product's View

[A] Macgyver () (160 episodes)

Identification

Type (Nature): TV Status: Best available duration: 30:00.00
 Production company: Leen Movie Company Department:
 Category: Product target group:
 Internal no.: 1.160 Season: Parent series:

General

Title: Macgyver Product code: Expected duration: 30:00.00
 Country of production: Production year: Live

Subtitling information

Original language: Is subtitled Is original version Is dubbed
 Subtitling code: Subtitling mode: Subtitling language:

Short description

The show follows secret agent MacGyver, played by Richard Dean Anderson. MacGyver prefers non-violent resolutions where possible, and refuses to handle a gun. He works as a troubleshooter for the fictional Phoenix Foundation in Los Angeles. Educated as a scientist with a background as a Bomb Team Technician/EOD in Vietnam ("Countdown"), and from a fictional United States government agency, the Department of External Services (DXS), he is a resourceful agent with an encyclopedic knowledge of the physical sciences, able to solve complex problems with everyday materials he finds at hand, along with

Regional parental rating

Contains product placement
 product placement info: Region Parental rating
 UK
 Benelux
 South Africa
 Poland

Contracts

Contract number	Distributor
ABC 12345	ABC

Cast

No.	Person	Function	Type	Role	Licence
1	Richard Dean Ande	Actor/Actress	Actors	Macgyver	
2	Henry Winkler	Producer	Crew		

Linear planning

Channel	Version	Title	Date with day

Remarks

Such a good series

Default description

Short description:

The show follows secret agent MacGyver, played by Richard Dean Anderson. MacGyver prefers non-violent resolutions where possible, and refuses to handle a gun. He works as a troubleshooter for the fictional Phoenix Foundation in Los Angeles. Educated as a scientist with a background as a Bomb Team



Macro Schedule View

Transmission schedule from MgX 2 for week 1: Mo 31/12/12 - Su 06/01/13

File Edit View Insert Tools Transmission Group Repeat Tx Sequence Links Finance Commercial integration Music integration Window Help

Mo 31/12/12	Tu 01/01/13	We 02/01/13	Th 03/01/13	Fr 04/01/13	Sa 05/01/13	Su 06/01/13
[09.00] The Bold and the Beautiful 00:30:00.00 [A] - TV 	[09.00] The Bold and the Beautiful 00:30:00.00 [A] - TV 	[09.00] The Bold and the Beautiful 00:30:00.00 [A] - TV 	[09.00] The Bold and the Beautiful 00:30:00.00 [A] - TV 	[09.00] The Bold and the Beautiful 00:30:00.00 [A] - TV 	[09.00] Clone Wars 00:30:00.00 [A] - TV 	[09.00] Clone Wars 00:30:00.00 [A] - TV
[09.30] Matchmaker 00:30:00.00 [A] - TV 	[09.05] The Fresh Prince of Bel-Air 00:30:00.00 [A] - TV 	[09.25] Power Puff Girls 00:30:00.00 [A] - TV 	[09.30] YU-GI-Oh_GX 00:30:00.00 [A] - TV 	[09.30] Pokemon 00:30:00.00 [A] - TV 	[09.30] Koala Brothers 00:30:00.00 [A] - TV 	[09.30] 8 Simple Rules 00:30:00.00 [A] - TV
[10.00] Macgyver 00:45:00.00 [A] - TV 	[10.00] Macgyver 00:45:00.00 [A] - TV 	[10.00] Macgyver 00:45:00.00 [A] - TV 	[10.00] CSI Yr 9 2008 00:45:00.00 [A] - TV 	[10.00] CSI Yr 9 2008 00:45:00.00 [A] - TV 	[10.00] Mythbusters 01:00:00.00 [A] - TV 	[10.00] Huff 01:00:00.00 [A] - TV
[10.30] 	[10.45] 	[10.45] 	[10.45] 	[10.45] 		
[10.45]	[10.45]	[10.45]	[10.45]	[10.45]		

1: Mo 31/12/12 - Su 06/01/13 MgX 2 Active



Micro Schedule View

Mo 4/01/10 : AMC [Continuity plan]

File Edit Tools Day Integration Transmission Related Links Finance Break Event Interstitial Secondary Tab View Window

10:00:00.00 10:45:00.00 45:00 15/08 1/1

Properties

Product code (best available):	Product:	Macgyver - 1 (1/18@Macgyver)	Contract Cost:	111,65 Euro
Contract Required:	Yes	Linked to contract:		
Run Number:	1	Contract Number:	MAC 453	Version:

AMC : Mo 4/01/10

AMC : Mo 4/01/10

	Start	Title	Total	Filled	Transition	Duration
08:53:08.00	E	4 POWERPUFF GIRLS I, THE (Eps 01-26) - End - Auto promotion	00:00:50.00	50		
08:53:58.00	S	0 The bold and the beautiful - Start - Sponsoring	00:00:00.00	00		
09:00:00.00	H	1 The bold and the beautiful - 1/2	00:11:00.00	11:00		11
09:11:00.00	C	1 The bold and the beautiful - Centre - Sponsoring	00:00:00.00	00		
09:11:00.00	C	1 The bold and the beautiful - Centre - Commercial	00:00:00.00	00		
09:11:00.00	C	1 The bold and the beautiful - Centre - Auto promotion	00:00:50.00	50		
09:11:50.00	C	2 The bold and the beautiful - Centre - Commercial	00:00:00.00	00		
09:11:50.00	C	3 The bold and the beautiful - Centre - Commercial	00:00:00.00	00		
09:11:50.00	C	2 The bold and the beautiful - Centre - Auto promotion	00:00:03.00	00		
09:11:53.00	C	3 The bold and the beautiful - Centre - Auto promotion	00:00:15.00	10		
09:12:08.00	C	2 The bold and the beautiful - Centre - Sponsoring	00:00:00.00	00		
09:12:08.00	H	2 The bold and the beautiful - 2/2	00:07:00.00	07:00		07
09:19:08.00	E	4 The bold and the beautiful - End - Commercial	00:00:00.00	00		
09:19:08.00	E	5 The bold and the beautiful - End - Commercial	00:00:00.00	00		
09:19:08.00	E	4 The bold and the beautiful - End - Auto promotion	00:00:50.00	41		
09:19:58.00	S	0 Matchmaker - Start - Sponsoring	00:00:00.00	00		
09:30:00.00	H	1 Matchmaker - 1/2	00:12:00.00	12:00		12
09:42:00.00	C	1 Matchmaker - Centre - Sponsoring	00:00:00.00	00		
09:42:00.00	C	1 Matchmaker - Centre - Auto promotion	00:00:50.00	50		
09:42:50.00	C	1 Matchmaker - Centre - Commercial	00:00:00.00	00		
09:42:50.00	C	2 Matchmaker - Centre - Auto promotion	00:00:03.00	00		
09:42:53.00	C	3 Matchmaker - Centre - Auto promotion	00:00:15.00	10		
09:43:08.00	C	2 Matchmaker - Centre - Sponsoring	00:00:00.00	00		

29 items 330 items

Content Distributors



What is IPTV?

- IPTV is a traditional way of delivering content over a managed, fully-provisioned network.
- Though the protocol utilized in streaming the video content is Internet Protocol (hence “IP” in IPTV), this is not the public Internet.
- It is a private network, not accessible externally.
- The video streams are delivered within that private network, and accessible only from devices (set-top-boxes) issued by the operator.





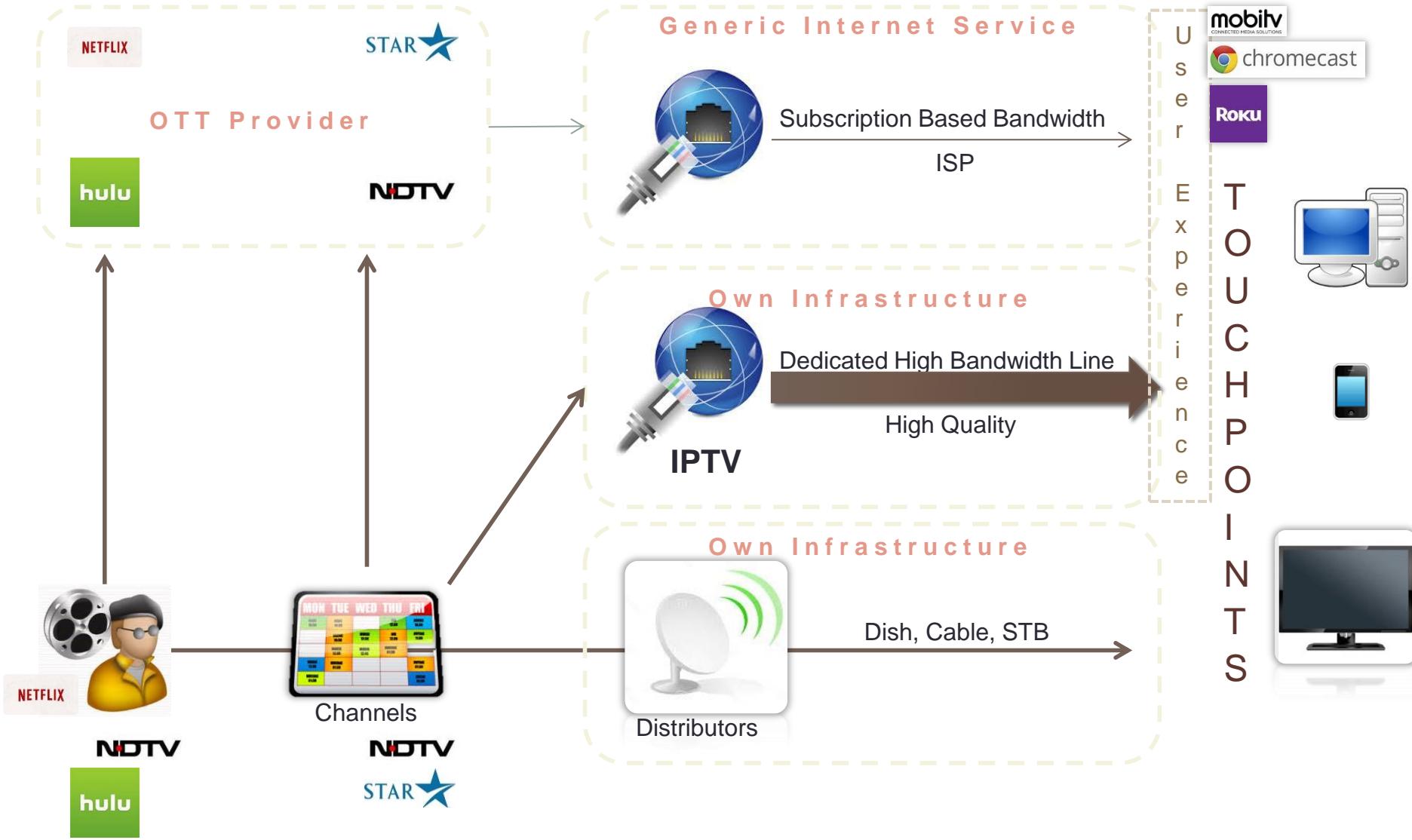
What is OTT?

- OTT (over-the-top) video services use the publicly accessible Internet to deliver video streams.
- Such content is not just available via set-top-boxes, but also via any devices that can access the Internet – such as phones, tablets and smart TVs with a broadband connection.





OTT - Over The Top

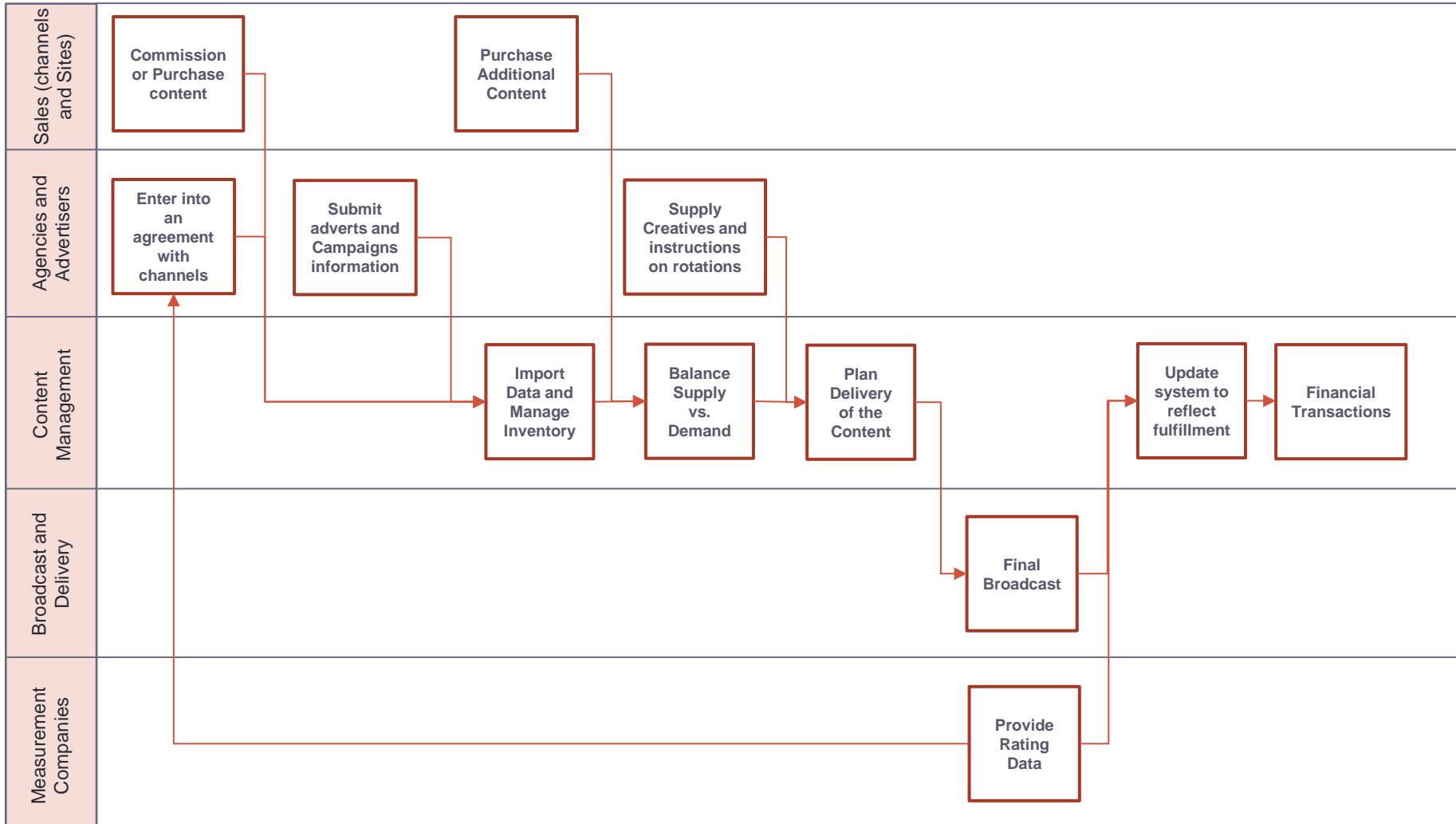




Advertising

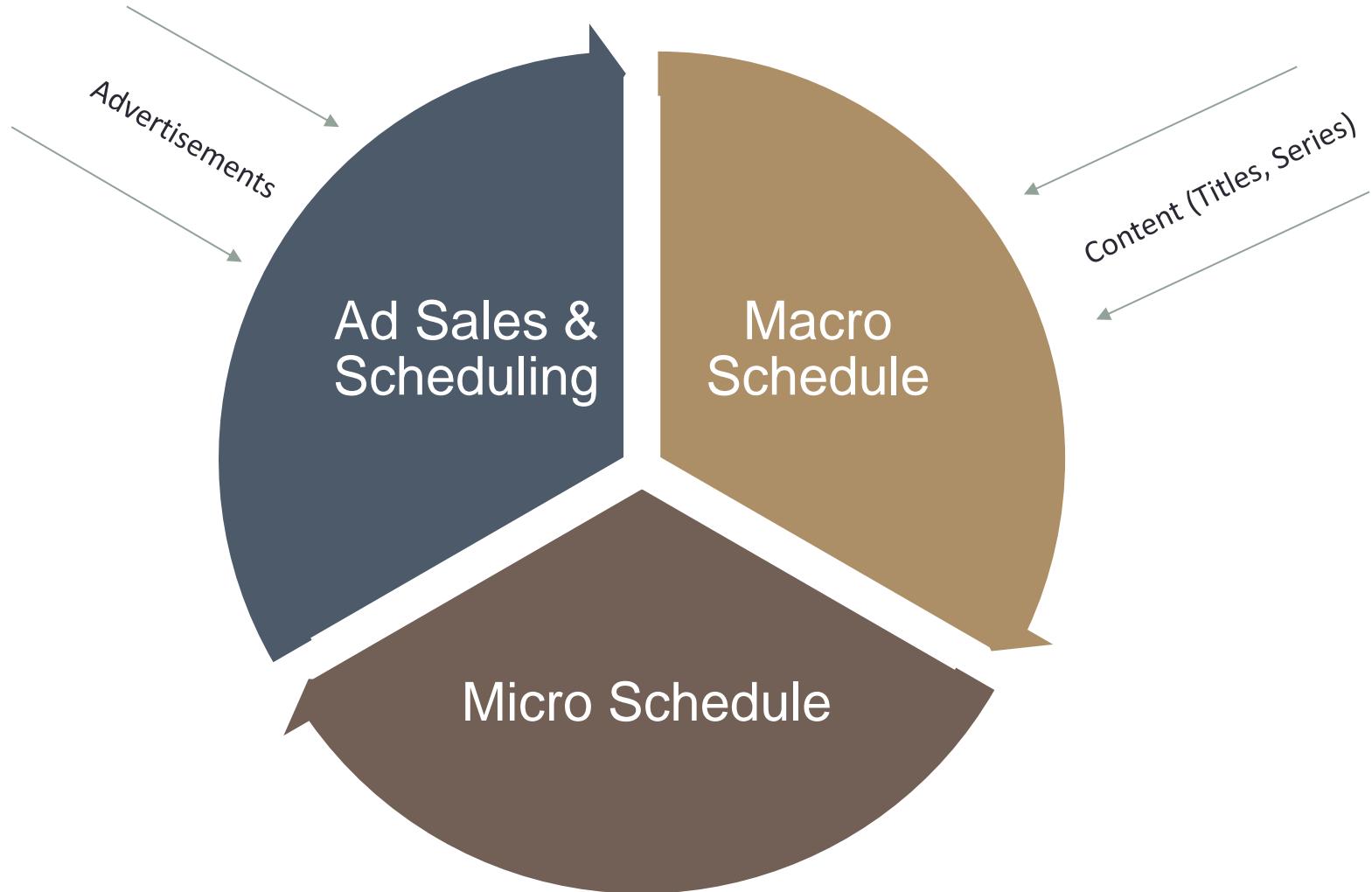


Linear TV – End-to-End Sales Process





Linear TV – End-to-End Sales Process





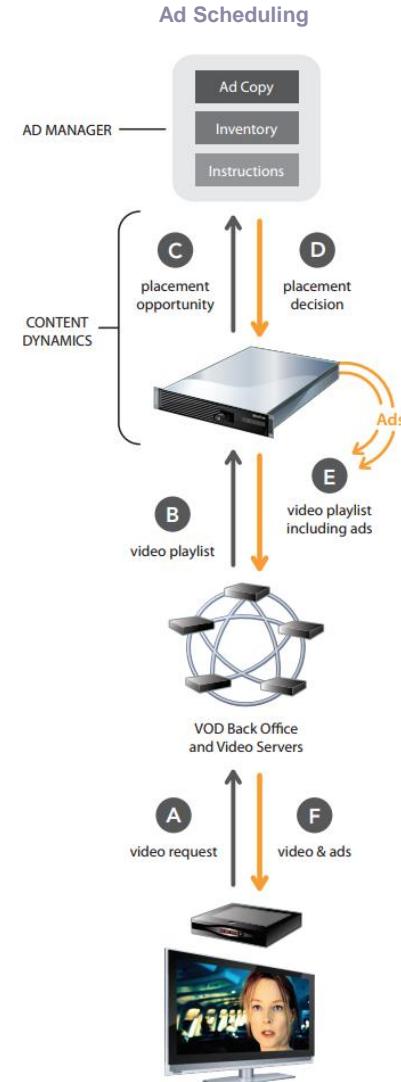
VOD – Ad Scheduling

What is VOD?

Video on demand (VoD) is an interactive TV technology that allows subscribers to view programming in real time or download programs and view them later. A VoD system at the consumer level can consist of a standard TV receiver along with a set-top box. Alternatively, the service can be delivered over the Internet to home computers, portable computers, high-end cellular telephone sets and advanced digital media devices.

3 models of VOD

1. No Commercials scheduled with in the content – Subscriptions based model – Example: Tata Sky Showcase
2. Linear Ads scheduled within the content – all the subscribers will view the same ad at the same time – this model popular with linear TV – Example: Catch-up feature of a distributor
3. Dynamic ads inserted within the content – targeted subscribers will view specific ads – this model popular with OTT, internet, mobile viewing – Comcast Spotlight





Types of VOD

SVOD – Subscription VOD



TVOD – Transactional VOD



AVOD – Advertising VOD



Catch-up

Technologies Involved



PULL VOD



PUSH VOD



Catch-up – Ad Scheduling

What is catch-up?

Catch-up is a type of VOD service. As the name suggests, viewers can record the missed programme and catch up at a later stage. The general rule is, viewers can watch TV shows that they may have missed up to seven days ago. These services are included in Premium packages of most of the setup boxes.

3 models of catch-up

1. Linear Ads scheduled within the content – all the subscribers will view the same ad that was broadcasted at the time of first run of the programme.
2. Linear Ads changed at the time of catch-up – all the catch up audiences will view the same ad but it could be different than the ones broadcasted at the time of first run.

Example: First run of S3E1 Sherlock was broadcasted during Christmas week. Ads that were specific to festivities were broadcasted on Linear TV. But if a viewer can catch-up on that episode even after Christmas, showing him Christmas offer ads will not be beneficial. Thus, content aggregators will change the ads during catch-up schedule.

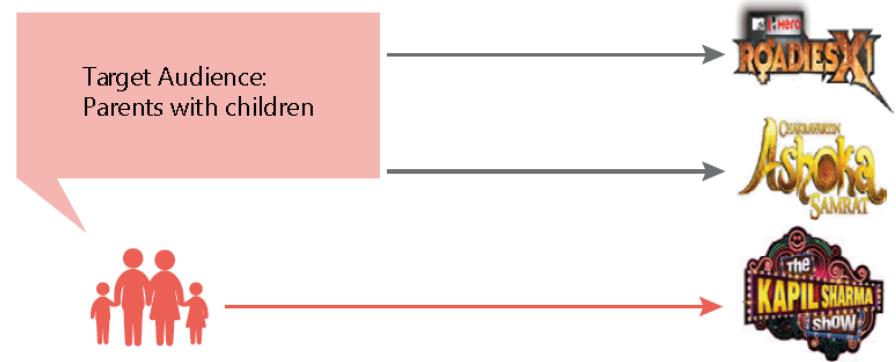
3. Dynamic ads inserted within the content – targeted subscribers will view specific ads



Dynamic Ads – Programmatic Advertising

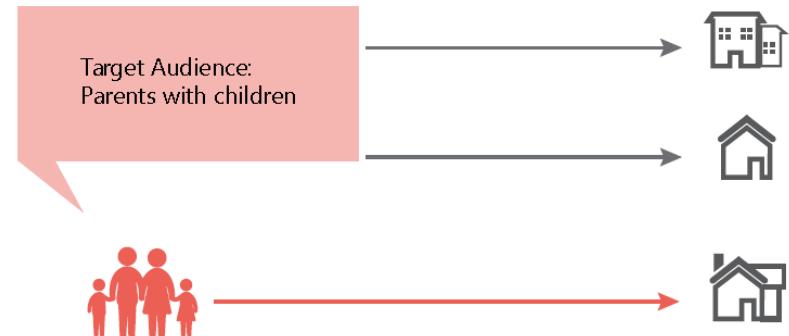
Context-Based Programmatic Ads - The buying platform integrates data from sources such as Nielsen to make informed decisions that occur at contextual level (typically show-based). Thus, the ad insertion integration must allow the buying platform to buy groups of shows.

Context-based buying



Addressable Programmatic Ads - This requires a link between a third-party audience data provider, such as Experian, and a household TV ad insertion system (typically, the set top box). A buying platform can then push the audience targets into the ad insertion system.

Addressable Household Buying





Dynamic Ads for IPTV – Cybage case study



Define Placements



Audience

viamedia

Campaigns



Show Ads



As-run Logs

MediaPlayClient

File Edit View Windows Help

DELAY 00:00:15:07 LOCK TIME 00:00:00:00

00:00:07:20

ON AIR

On air

Bioforze	ONAIR
Panasonic # 1	00:00:00:00
E:\VIDEO\Online\NAZ-PANASONIC 899_MPEG2_422P_PAL.m2p	00:00:30:00

Next

Bioforze	PREPARED
Panasonic # 2	00:00:10:00
E:\VIDEO\Online\NAZ-PANASONIC 899_MPEG2_422P_PAL.m2p	00:00:20:00

▶ ▶ ■ □ II ⏪ ⏩

Count Event Status Duration File name Schedu

(0) Spot 1	AS RUN	00:00:30:20	E:\VIDEO\Online\M-SVIZZERA TICINO 2004_	26/08/2014
1.Due minuti	AS RUN	00:01:00:00	E:\VIDEO\Online\telecinesi.mpg	26/08/2014
1.Due minuti	AS RUN	00:01:00:00	E:\VIDEO\Online\telecinesi.mpg	26/08/2014
(CC)Spot Sprite	AS RUN	00:00:30:00	E:\VIDEO\Online\NAZ-TIM-458_MPEG2_422P	26/08/2014
(CC)Spot Sprite	AS RUN	00:00:31:00	E:\VIDEO\Online\NAZ-TIM-458_MPEG2_422P	26/08/2014
Bioforze	ON AIR	00:00:30:00	E:\VIDEO\Online\NAZ-PANASONIC 899_MPE	26/08/2014
Bioforze	CUED	00:00:20:00	E:\VIDEO\Online\NAZ-PANASONIC 899_MPE	26/08/2014
0. 20 sec	READY	00:00:20:00	E:\VIDEO\Online\M-SONY BRAVIA 60_MPEG	26/08/2014
0. 20 sec	READY	00:01:01:08	E:\VIDEO\Online\M-SONY BRAVIA 60_MPEG	26/08/2014
(0) Spot 1	READY	00:00:30:00	E:\VIDEO\Online\M-SVIZZERA TICINO 2004_	26/08/2014
(0) Spot 1	READY	00:00:27:20	E:\VIDEO\Online\M-SVIZZERA TICINO 2004_	26/08/2014

On air

0. 20 sec	ONAIR
M-SONY BRAVIA 60_MPEG2_422P_PAL	00:00:00:00
E:\VIDEO\Online\M-SONY BRAVIA 60_MPEG2_422P_PAL.m2p	00:01:01:08

Next

(0) Spot 1	PREPARED
SVIZZERA TICINO # 1	00:00:00:00
E:\VIDEO\Online\M-SVIZZERA TICINO 2004_MPEG2_422P_PAL.m2p	00:00:30:00

▶ ▶ ■ □ II ⏪ ⏩ ⏪ ⏩

Connected to: MARA [0] User: SIMedia Time: 26/08/2014 15:44:54

Media Planning



Audience Measurement



1

How many are watching?

2

What are they Watching?

4



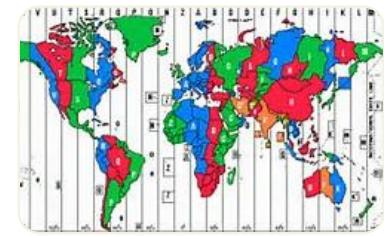
5

For how long?



3

Who is Watching?



6

On What platforms are they watching?



7

How are they Interacting?



What information does the Rating Agency give?

Title: Thor

Date & Time: 18-06-2015 17:30:00 – 17:59:59

Overall TVR: 5.1

(viewership in thousands)

0 – 5 : 120

5 – 15: 100

15 – 45: 1244

White : 433

White Male: 332

White Female : 212

Black : 55

Asian : 66

Total Male : 664

Total Female : 424

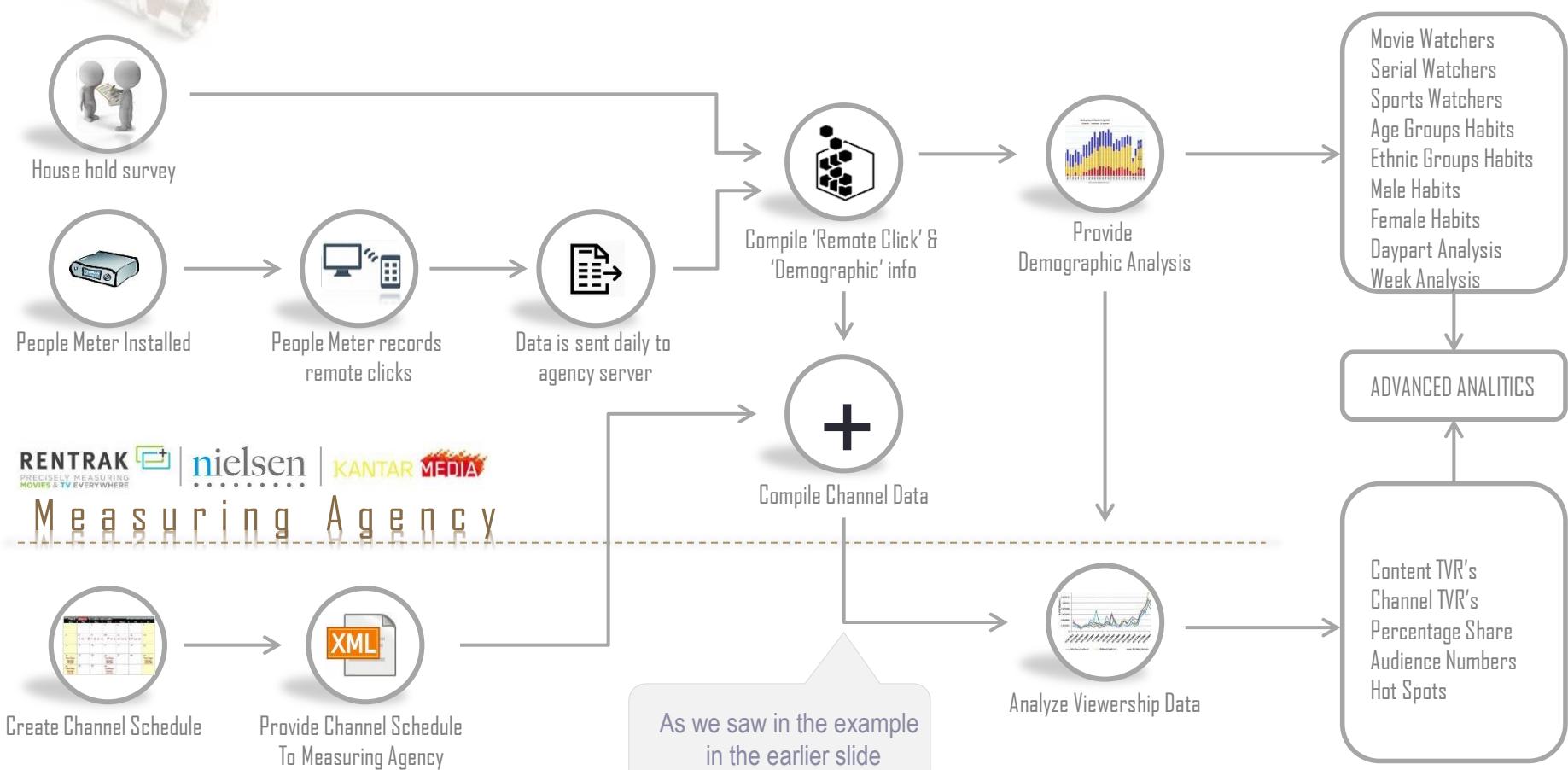
Total Audience : 1233

% Share: 13%



How is the TV Audience Measured?

Traditional Media Audience Measurement



Trends



Scheduling Automation



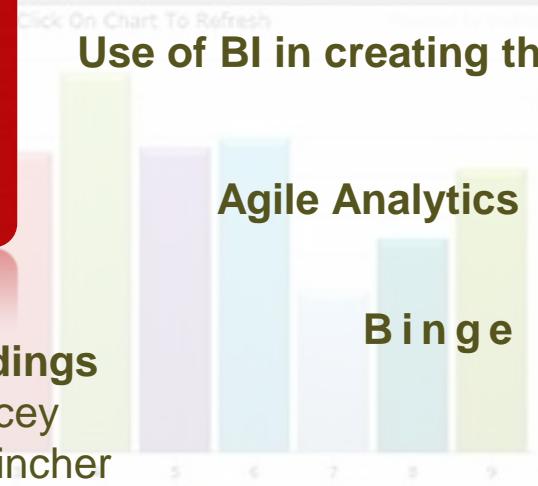


Analytics- Case Study 'House Of Cards'

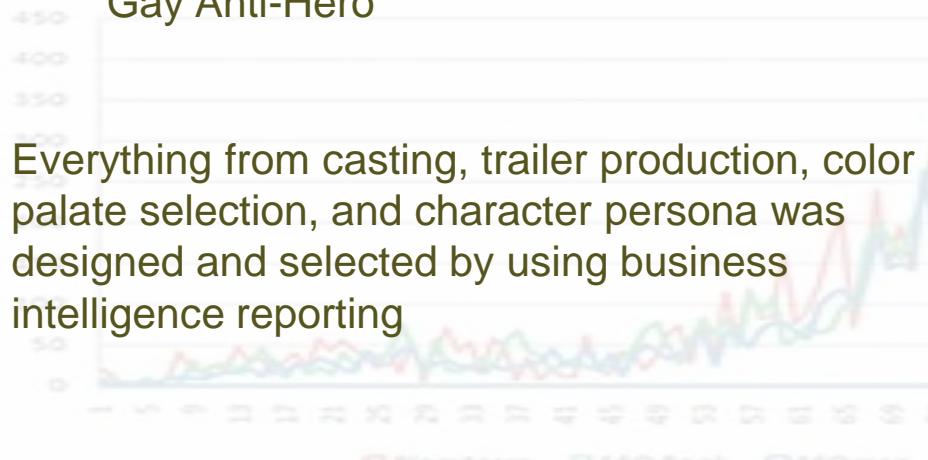
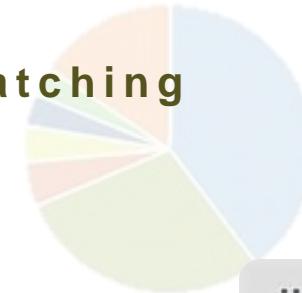


The Three Major Findings

1. Actor – Kevin Spacey
2. Director – David Fincher
3. Genre & Plot – Political Drama,
Gay Anti-Hero



Binge Watching





The Second Screen

Appscend <http://appscend.com/>

Case Studies <http://appscend.com/resources-support/case-studies/>

Disney <http://disneysecondscreen.go.com/>

Illustration <http://disneysecondscreen.go.com/TheLionKing/#slideshow>

Romania's Got Talent case study – How to take second screen apps to the next level

ProTV contacted Appscend with the need of a second screen app that could provide additional content to the show, augmenting the viewing experience while at the same time driving engagement and provide interactivity and reliability throughout the programme.

[Download the case study](#)

Mobile Applications for News Stations – TVR Info

As most media companies in 2012, TVR understood it has to embrace mobility TV information available on mobile devices. TVR's main objective was to reach the two smartphone market: Android & iOS. Although in house development was ini-

[Download the case study](#)

The screenshot shows the Disney Second Screen interface for 'The Lion King'. At the top, there are navigation links: About, Help/FAQ, Other Titles, and Disney Blu-ray. Below this, there are two main sections: 'Using an iPad™?' and 'Using a Mac® or PC?'. The iPad section displays a thumbnail of the movie 'The Lion King' and a 'Side Show of Features' button. The Mac section shows a monitor displaying the movie and a tablet showing a sketch of Simba and Nala. A hand is pointing at the tablet screen. At the bottom left, there is a button to 'Order The Lion King: Diamond Edition on Blu-ray™'.



DCP KDM



Dishoom is the 1st film to be submitted to CFBC using KDM

Key Delivery Message

A **KDM** is a special electronic key that contains a code which "unlocks" an encrypted film. Encryption is a security measure used to prevent films from being stolen and duplicated

What is KDM for DCP?

Encryption is a security measure used to prevent films from being stolen and duplicated. **DCP's** are encrypted in a manner that allows them to be played only on a specific Digital Cinema server at a predetermined time. A **KDM** is sent to the projection site to unlock the **DCP** for the screening engagement.

Any Questions?





A close-up photograph of two people's hands shaking. One hand is wearing a white shirt cuff and a silver-toned metal bracelet. The other hand is wearing a blue sleeve. The background is blurred, showing parts of their clothing.

Thank you!



Key differences between OTT & IPTV

Comparison Category	OTT (Over the Top)	IPTV (Internet Protocol TV)
Content Delivery	Uses open internet, un-managed network. Open ecosystem	Uses dedicated, managed network. Walled garden ecosystem
Network Type	Delivered from content provider / aggregator to the viewer using open network. Usage of CDN	Closed, proprietary network, accessed via a specific internet service provider
Network Relationship	Without the need for intervening carriage negotiations, or infrastructure investments	Services are delivered on optimized and custom high bandwidth network
Quality of Service (QOS)	Not guaranteed, works under best effort conditions	High quality, reliable network with control over quality of services
Service Examples	Popular Video on Demand services like YouTube, Netflix, Amazon LoveFilm, Hulu, Sky Go, BBC iPlayer etc.	IPTV services like U-Verse (AT&T), Prism TV (CenturyLink)
Key Challenges	Low quality of service, absence of live broadcast, non premium content, unicast delivery model	Expensive, Heavy investment in Bandwidth and infrastructure
Key Benefits	Low cost, flexible model, Easy to manage and operate	High quality of service and quality of experience. Monitoring and control, interactive services
Content Type	Typically not premium in nature due to security, absence of DRM	Premium content



Key differences between OTT & IPTV

Comparison Category	OTT (Over the Top)	IPTV (Internet Protocol TV)
Delivery Protocol	Delivered over HTTP / TCP, a connected transport protocol. Movement towards adaptive streaming technologies HLS (Apple), Smooth Streaming (MS) and HDS (Adobe)	IPTV uses Transport Stream (TS) transmission technology. Uses RTP (Real time protocol) over UDP, a connectionless protocol
Content Catalog	Widely used for freemium and economical subscription VOD	Used primarily for premium VOD and real time content delivery like broadcast TV
Routing Topology	Unicast (HTTP), Simulated Multicast (UDP/TCP)	Multicast. Initial unicast burst during channel change leading to Multicast join
Service Category	Complementary Service	Main service, similar to Satellite/Cable TV services
Major Platform Players	OVP (Online Video Platforms) like Kaltura, Brightcove, CDN Players like Akamai, L3, Limelight, Cloud Service Providers like Amazon	TSP (Telecom Service Providers) and IPTV platform vendors - Microsoft Mediaroom (now Ericsson) , ALU, Cisco