

# Digital Media 4x Transformation, The Tesla of Broadcasting

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 FUTURE-READY



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## Digital Media 4x Transformation, The Tesla of Broadcasting

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- ✦ This discussion will include an overview of the following:
  - ✦ Market Trends & Metrics
  - ✦ Overview of the Digital Media Ecosystem and Business Cycle Challenges
  - ✦ The 4x Digital Media Workflows Defined
  - ✦ Social Media's Impact on the Workflows and Viewer Engagement
  - ✦ Conclusion: Placing Broadcaster's in the Tesla "Leadership" Driver's Seat

# Tesla's Impact on the Automotive Industry

- ❖ Tesla was the “rebirth” of the electric car which was a game changing event re-directing automakers enough that there are now many electric vehicles on the market, in mass production by major automakers, on sale around the world.



# So What's My Point?

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## ❖ My Point?

- ✦ For many years the digital media ecosystem was an afterthought for broadcasters and with many, it was just about having a **“presence”**
- ✦ A website was nothing more than a site to drive consumer's to their TV programming or for brand **“exposure”** to local online consumers
- ✦ Almost always it was a **“money loosing”** necessity that broadcasters felt they must invest in for the sake of being Internet **“relevant”**

## ❖ What About Now?

- ✦ With the onslaught of NEW key “major” competitors such as Google's YouTube, consumer demand and growth of “Mobile” and the success of “non-traditional media” OTT entities like Netflix, Hulu, Amazon, NOW TV and others.....
- ✦ Broadcasters must truly “transform” themselves to “multi-platform” programming providers and NOT look at “multi-platform” as a **secondary option!**

# So What's Trending?

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- ❖ Original programming and live events on “Internet OVPs and Portals” such as YouTube, Livestream, AOL, Yahoo and USTREAM
- ❖ Facebook is aiming for TV advertising budgets with its recent acquisition of LiveRail. Facebook data augmenting LiveRail’s real-time bidding platform enables “improved targeting” of video ads.
- ❖ AOL and Publicis Groupe announced an expansion of their multi-faceted six-year relationship into “programmatic” video and linear TV
  - ✦ Tim Armstrong, Chairman and CEO, AOL states: “AOL is transforming as a company and as a partner into a programmatic advertising platform, ...Publicis is a global leader in digital advertising and we are excited to advance our global partnership **into video and linear TV** on the ONE by AOL platform.”

# So What's Trending?

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## What is programmatic ad buying?

- “Programmatic” ad buying refers to the use of software to purchase digital advertising, as opposed to the traditional process that involves RFPs, human negotiations and manual insertion orders. It's using machines to buy ads, basically.

## Why does programmatic advertising matter?

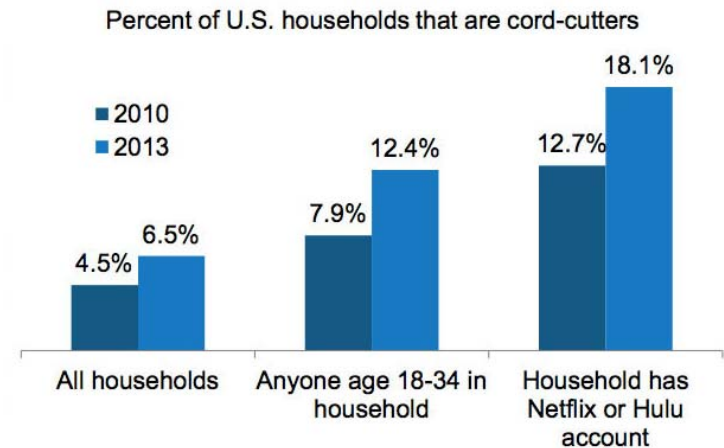
- Efficiency. Before programmatic ad buying, digital ads were bought and sold by human ad buyers and salespeople, which are expensive and unreliable. Programmatic advertising technology promises to make the ad buying system more efficient, and therefore less expensive

## Is programmatic “the future of ad buying”?

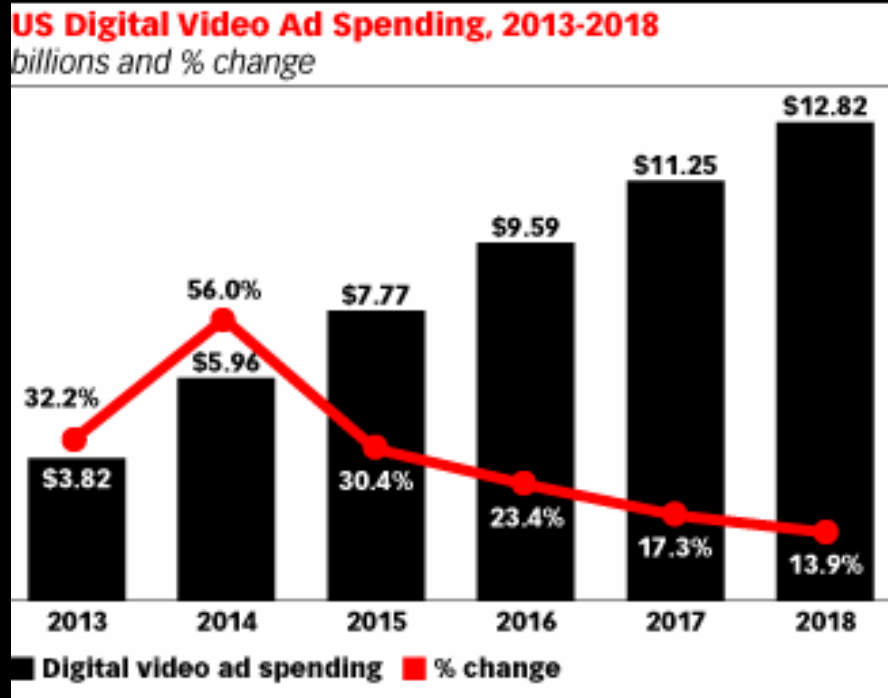
- At the moment, it's mainly online ads that are traded programatically, but increasingly media companies and agencies are exploring ways to sell “traditional” media this way, including TV spots

# What's Trending?

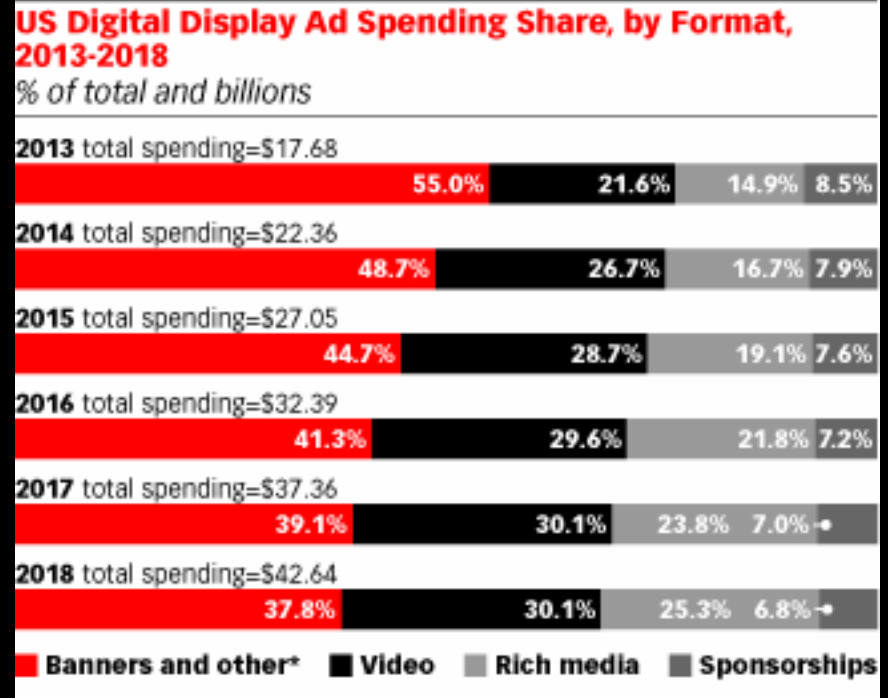
- ❖ HBO plans to launch a stand-alone over-the-top service in the U.S. next year - CEO Richard Plepler said "This will be transformative for our company," noting that there are now about 10 million households in the U.S. that are broadband-only, and declared: "It is time to remove all barriers to those who want HBO."
- ❖ CBS's announcement called, "CBS All Access" will offer thousands of episodes from current and previous seasons of CBS shows, as well as "classic shows," all on-demand. It will also live stream local CBS stations in 14 of the largest US markets



# U.S. Digital Video Ad Spending



Note: includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets; includes in-banner, in-stream and in-text  
Source: eMarketer, Sep 2014



Note: includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets; \*includes ads such as Facebook's News Feed Ads and Twitter's Promoted Tweets  
Source: eMarketer, Sep 2014



# U.S. TV vs. Digital Video Ad Spending

## US TV\* vs. Digital Video\*\* Ad Spending, 2012-2018

billions and % change

	2012	2013	2014	2015	2016	2017	2018
<b>TV*</b>	\$64.54	\$66.35	\$68.54	\$70.59	\$73.77	\$75.98	\$78.64
—% change	6.4%	2.8%	3.3%	3.0%	4.5%	3.0%	3.5%
<b>Digital video**</b>	\$2.89	\$4.20	\$5.96	\$7.77	\$9.45	\$11.12	\$12.71
—% change	44.5%	45.3%	41.9%	30.4%	21.7%	17.6%	14.3%

Note: \*includes broadcast TV (network, syndication & spot) & cable TV;  
 \*\*data through 2013 is derived from IAB/PwC data; includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets; includes in-banner, in-stream (such as pre-roll and overlays)

## US Connected TV Users, 2012-2018

	2012	2013	2014	2015	2016	2017	2018
<b>Connected TV users (millions)</b>	54.7	83.6	113.2	138.8	160.9	177.2	191.4
—% of population	17.4%	26.4%	35.5%	43.2%	49.7%	54.3%	58.2%
—% of internet users	23.0%	34.0%	45.0%	54.1%	61.7%	67.0%	71.4%
—% of digital video viewers	31.8%	44.9%	58.2%	69.3%	78.5%	84.8%	90.0%

Note: individuals of any age who use the internet through a connected TV at least once per month

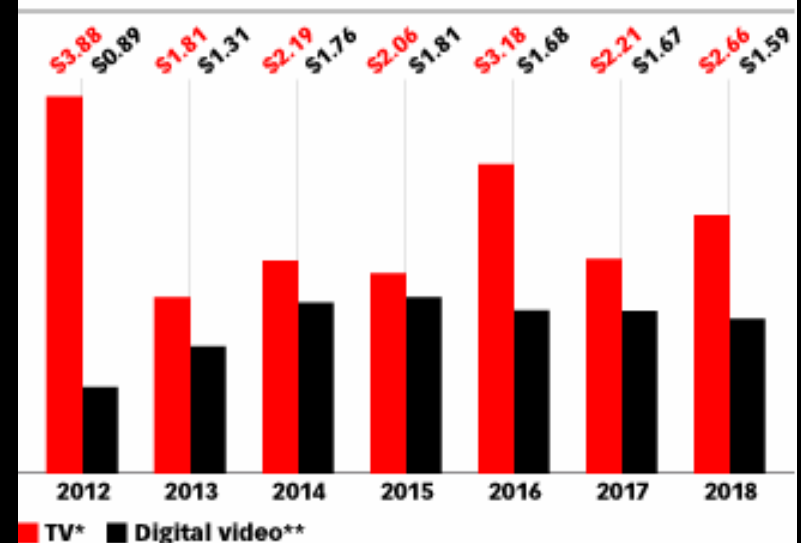
Source: eMarketer, June 2014

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www.eMarketer.com

## US TV\* vs. Digital Video\*\* Ad Spending Annual Increases, 2012-2018

billions



Note: \*includes broadcast TV (network, syndication & spot) & cable TV;  
 \*\*data through 2013 is derived from IAB/PwC data; includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets; includes in-banner, in-stream (such as pre-roll and overlays) and in-text (ads delivered when users mouse over relevant words)

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# Local Online Advertising – Borrell Report 2014

**FIGURE 2.3: BANNERS AND VIDEO ARE 82% OF SALES FOR TV SITES (IN \$ MILLIONS)**

Media Choice	Display - ROS	Display - Targeted	Paid Search	E-mail	Streaming Video	Streaming Audio	Market Totals	Share
Newspapers	\$2,270.23	\$1,933.56	\$3.61	\$151.33	\$403.76	\$15.91	\$4,778.41	19.3%
Broadcast TV	\$378.67	\$1,242.97	\$32.74	\$277.17	\$617.09	\$0.00	\$2,548.64	10.3%
Cable/Satellite	\$175.09	\$14.58	\$1.53	\$11.92	\$15.27	\$1.09	\$219.48	0.9%
Radio	\$119.29	\$72.42	\$12.78	\$89.46	\$38.34	\$94.03	\$426.32	1.7%
Directories	\$653.11	\$948.52	\$414.41	\$90.80	\$98.85	\$0.00	\$2,205.69	8.9%
Magazines/Other Print	\$100.43	\$483.06	\$1.02	\$40.37	\$82.66	\$2.52	\$710.07	2.9%
Pure Play	\$1,594.87	\$2,966.81	\$6,195.02	\$55.57	\$2,862.60	\$132.79	\$13,807.66	55.9%
<b>Market Totals</b>	<b>\$5,291.68</b>	<b>\$7,661.93</b>	<b>\$6,661.12</b>	<b>\$716.63</b>	<b>\$4,118.57</b>	<b>\$246.34</b>	<b>\$24,696.27</b>	<b>100%</b>
<i>Share</i>	<b>21.4%</b>	<b>31.0%</b>	<b>27.0%</b>	<b>2.9%</b>	<b>16.7%</b>	<b>1.0%</b>	<b>100%</b>	
TV's Share by Ad Format	14.9%	48.8%	1.3%	10.9%	24.2%	0%	100%	
TV's Share of Total Ad Format	7.2%	16.2%	0.5%	38.7%	15.0%	0.0%	10.3%	

# Local Online Advertising – Borrell Report 2014

Local TV broadcasters have shifted into high gear with digital advertising efforts, driving an estimated all-time high of nearly \$3 billion in new ad revenue for stations this year, according to new research commissioned by the Television Bureau of Advertising. The Borrell study encompassed 815 stations and reports that broadcasters grew their digital revenue 15% last year.

**FIGURE 2.2: PER-STATION ONLINE REVENUES BY MARKET SIZE, 2013**

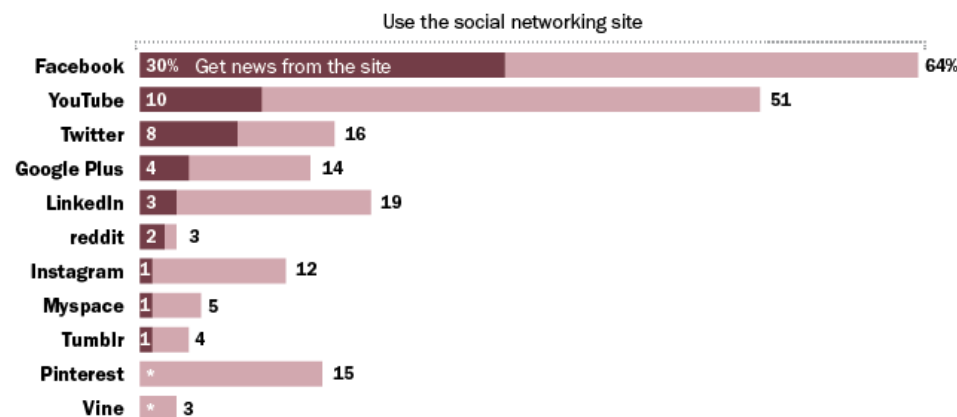
<i>Digital Revenue Per Station</i>				
TV Market Rank	Sample Size	Avg.	Median	Highest
1 to 20	164	\$1,976,000	\$1,434,000	\$10,912,000
21 to 50	148	\$1,709,000	\$995,000	\$7,500,000
51 to 100	169	\$876,000	\$619,000	\$6,758,000
101 to 210	240	\$515,000	\$415,000	\$4,990,000
ALL	721	\$974,000	\$702,000	\$10,912,000

# Social Media

## News has a place in social media

- Half of Facebook and Twitter users get news on those sites
- Overall, three in ten adults get at least some news while on Facebook.

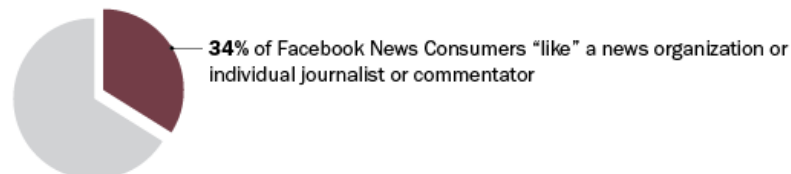
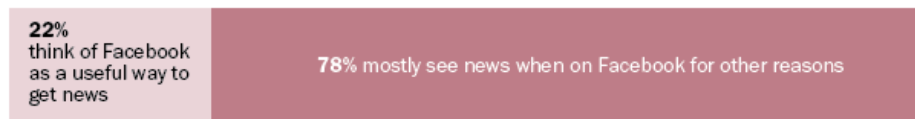
Percent of U.S. adults who use each social networking site and percent of U.S. adults who get news from each social networking site



Note: The percent of U.S. adults who get news on Pinterest and Vine each account to less than one percent. Facebook News Survey, Aug. 21-Sept. 2, 2013 (N=5,173)

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Of the 30% of U.S. adults who consume news on Facebook...



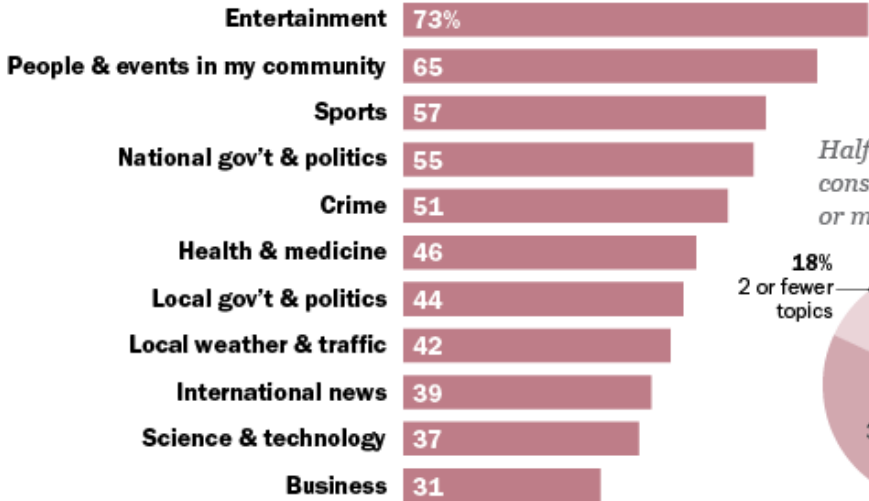
Based on Facebook News Consumers (N=1,429) Facebook News Survey, Aug. 21-Sept. 2, 2013

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# Social Media

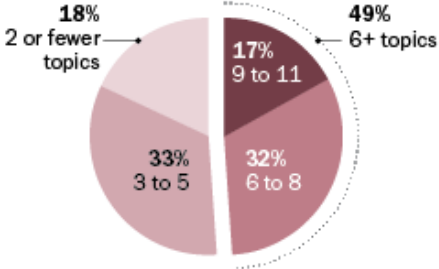
## Range of News Topics

Percent of Facebook news consumers who regularly see news on Facebook about...



Facebook engages consumers in a variety of "news" topics.

Half of Facebook news consumers see news about six or more topics on the site...

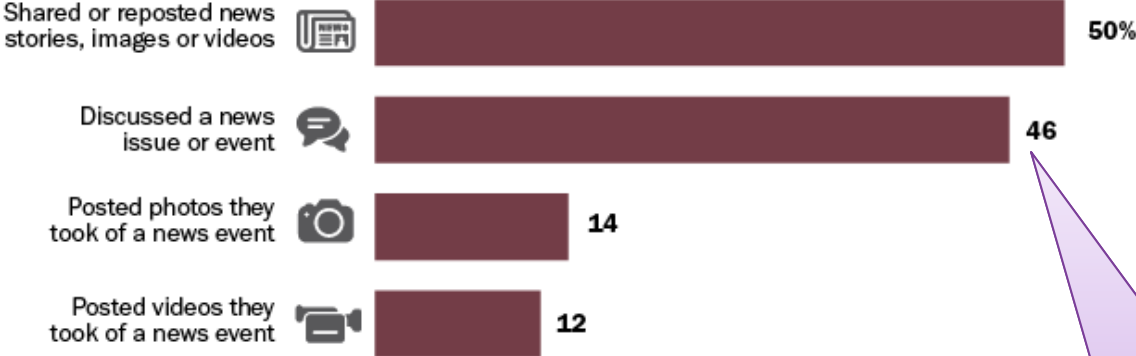


Based on Facebook News Consumers (N=1,429)  
Facebook News Survey, Aug. 21-Sept. 2, 2013

# Social Media

## Level of Engagement

Percent of social networking site users who have...



Note the level of “news sharing” and the types of media used.

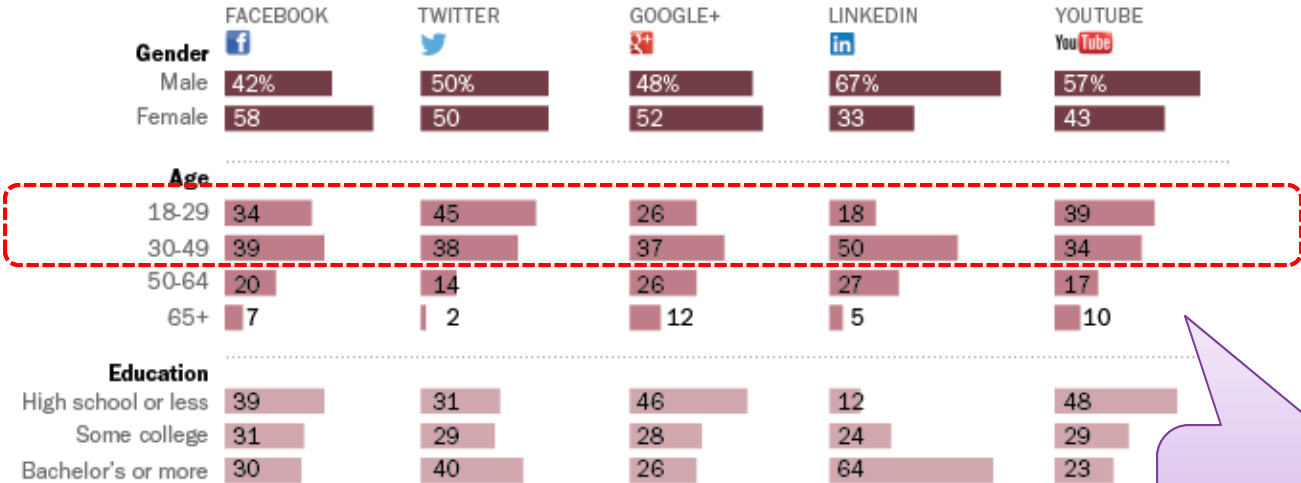
Campaigns can be executed revolving around a specific topic

Note: This question was asked of social networking site users who also get news online.  
Source: Pew Research Center, phone survey Feb. 27-Mar. 2, 2014.

# Social Media

## Audiences for News on each Social Media Platform

Percent of news consumers for each site



Targeting by “gender”, “Age” and “education”

Note: Based on Facebook news consumers (N=1,429); Twitter news consumers (N=359); Google Plus news consumers (N=194); LinkedIn news consumers (N=144); YouTube news consumers (N=456). Aug. 21-Sept. 2, 2013.

# Digital Media Workflows Overview

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## ❖ Objectives:

–Provide *Digital Product Offerings* that address the market driven workflows for multi-distribution production and publishing including:

1. Pre-production VOD
2. Post-production VOD
3. Live Streaming with Content Replacement
4. Scheduled 24/7 Playout Channels for Web & Mobile

**4x Digital Media Workflows**



# Digital Media Workflows Overview

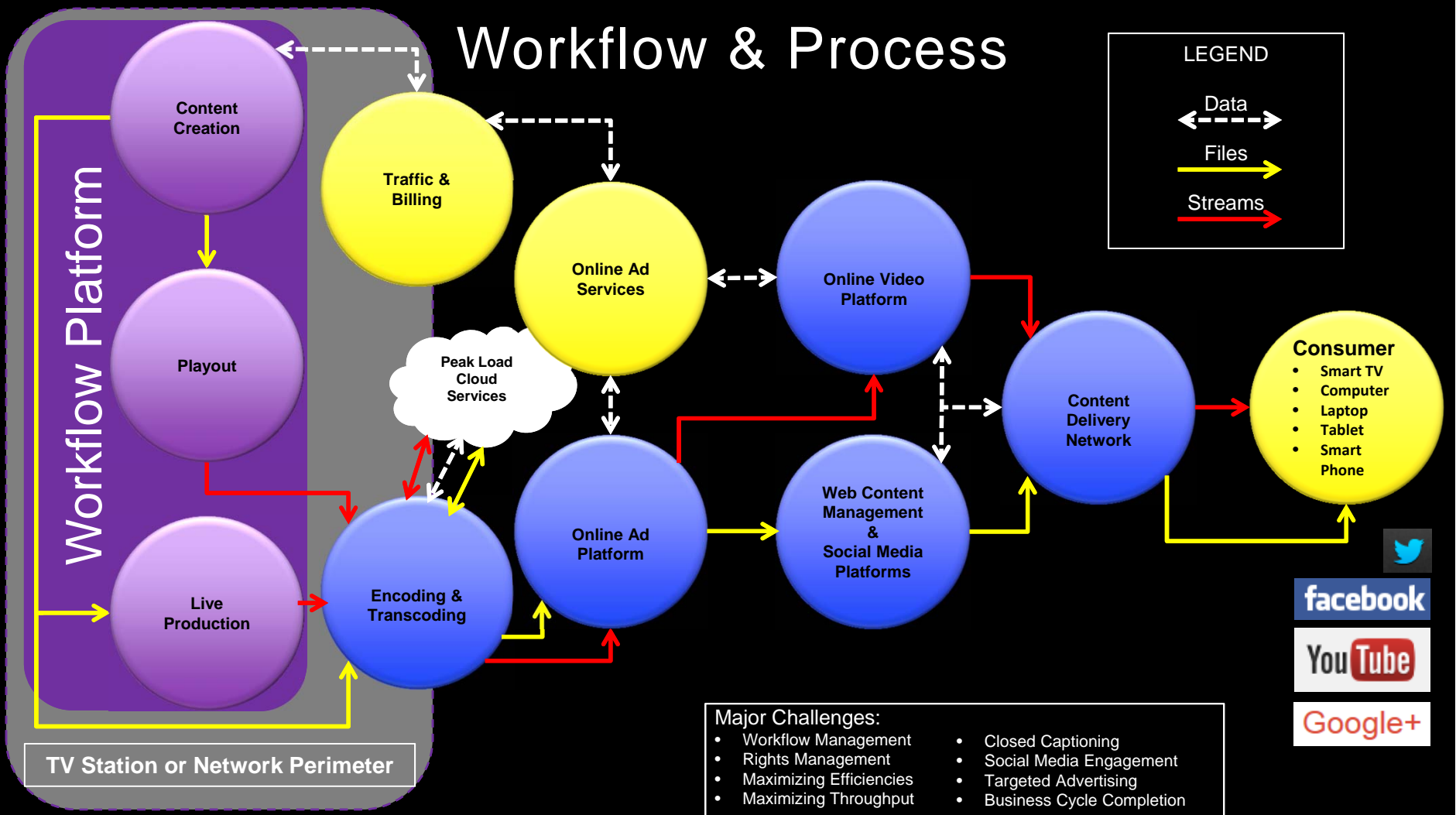
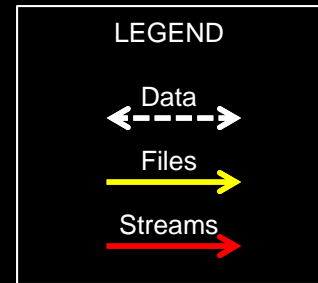
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## ❖ Objectives (Continued):

–Integrate with **Software-as-a-Service (SaaS)** offerings that address “market driver” issues and requirements for broadcasters including:

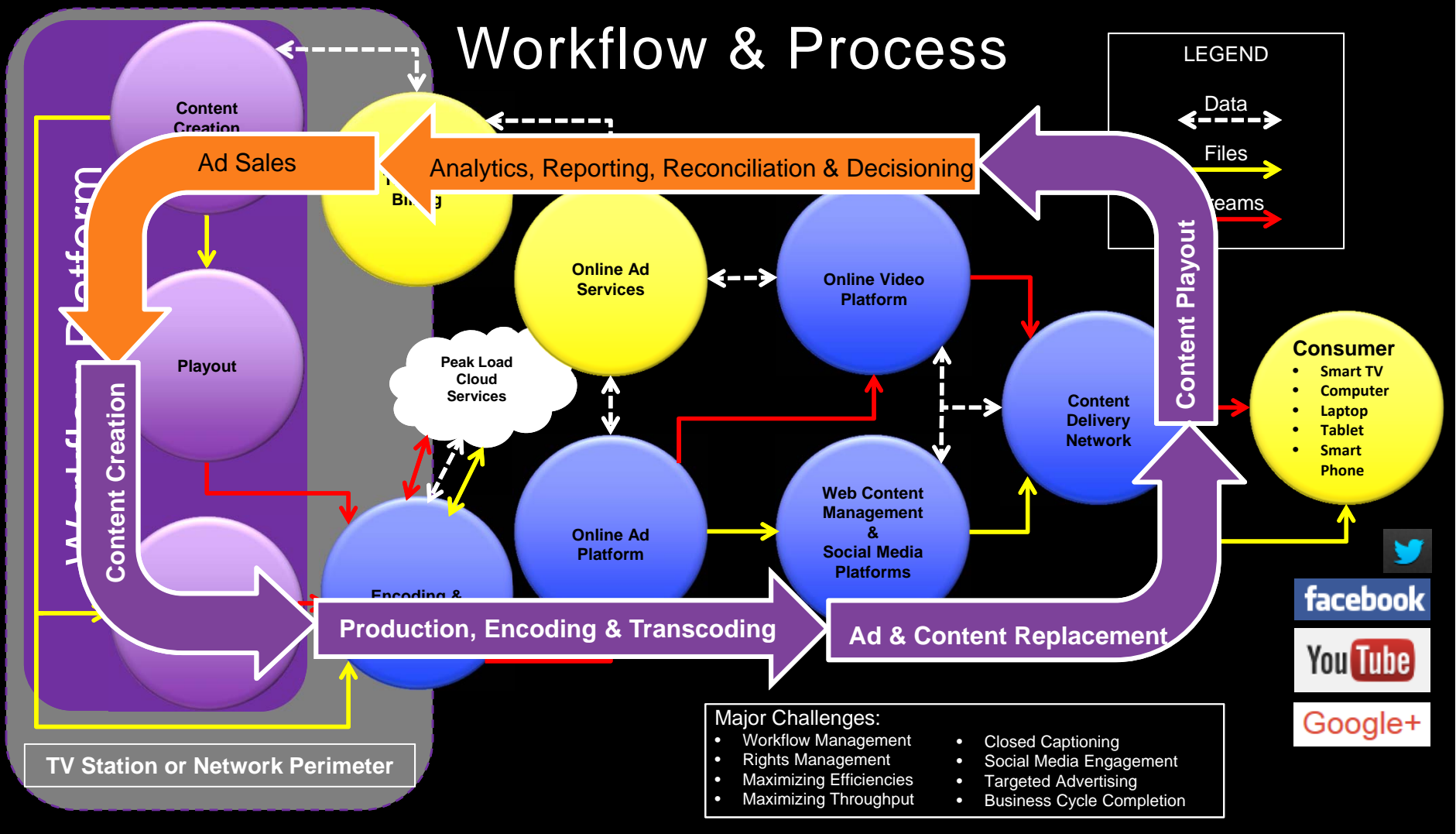
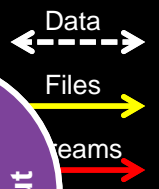
1. Encoding/Transcoding - Addressing Key Market Driven Formats
2. Closed-Captioning - Addressing Government Mandates
3. Ad Platform – Addressing Client-Based Targeted Advertising
4. OVP Platform - Addressing Multi-Platform Video Delivery
5. Social Media Platform – Addressing Consumer Engagement
6. Content Management System – Addressing Web & Mobile Apps

# Workflow & Process



# Workflow & Process

## LEGEND



- Consumer**
- Smart TV
  - Computer
  - Laptop
  - Tablet
  - Smart Phone



- Major Challenges:**
- Workflow Management
  - Rights Management
  - Maximizing Efficiencies
  - Maximizing Throughput
  - Closed Captioning
  - Social Media Engagement
  - Targeted Advertising
  - Business Cycle Completion

# Production SOA Workflow Platform

The Framework allows Functional Modules (Controls)

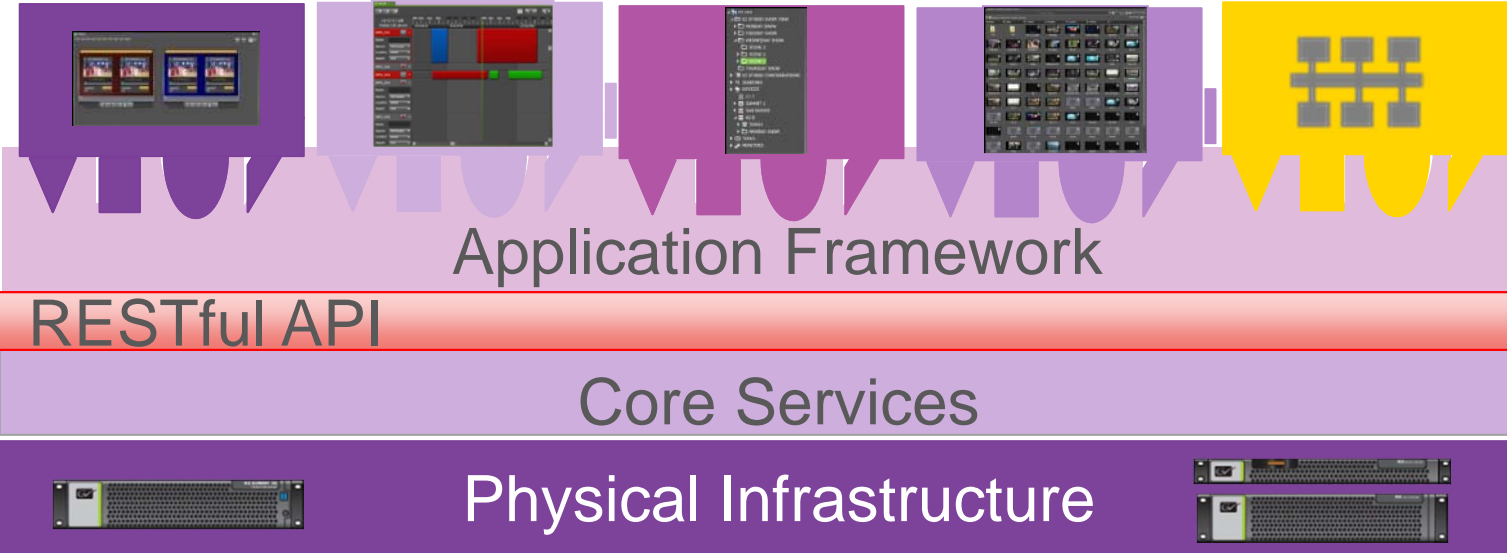
Channel Panel

Scheduler

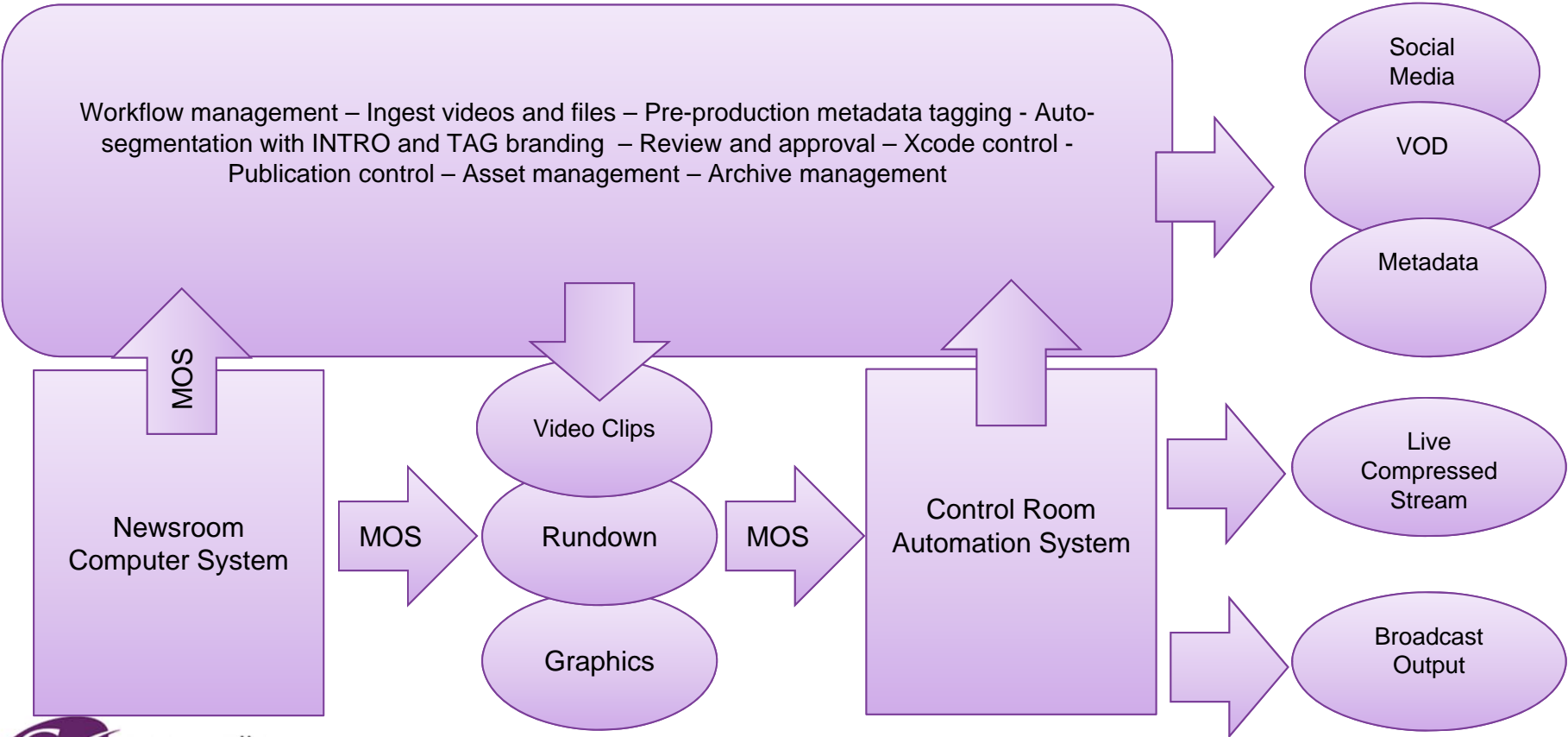
Navigator

Asset Display

User PC



# Production SOA Workflow Platform Overview



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Today, pre-production VOD is published by most major production platform vendors without too much manual labor leveraging automated preset profiles.

That said, more advanced workflows are required to fully realize “efficiencies” and “throughput” in addition to opening up new applications:

- *Post-Production VOD with Auto-Segmentation*
- *Live Streaming with Content Replacement*
- *24/7 Web & Mobile Channel Management*

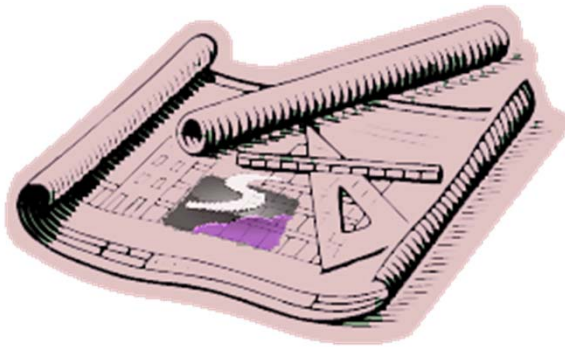
# The TV Station Branding of VOD Content

SLUG	TME	TIME-CODE	Still Store	CAM	SHOT	FORMAT	GRAPHICS
IGNITE DMP DEMO							
2014-07-15							
IGNITE SETUP	CUE						
START DMP ENCODING	ENCODE						
5PM OPEN	OPENV2	SHOW OPEN					
COLD OPEN	SOTV2.EW.LC	SOTVO COLD					
DUNN	CAMV3o.EST.	PUSH 2SHOT					
OTS	OTSV4.OTSL	DUNN OTS					
SPLIT IIM	SPLITR1V3	DUNN SPLIT					
PKG	SOTV1.LCG	PKG DUNN T					
LIVE TAG	REM1V3	DUNN LIVE T					
SPLT BYE	SPLITR1V4	DUNN SPLIT					
WPOWDER	OTSV3.OTSR	POWDER OT					
WALLREAD	CAMV4	POWDER WA					
VO	VOV1.LCG	POWDER VO					
SOT	SOTV2.EW.LC	POWDER SO					
WALLTAG	CAMV3	POWDER WA					

This is the prerecorded package

But this tells the whole story

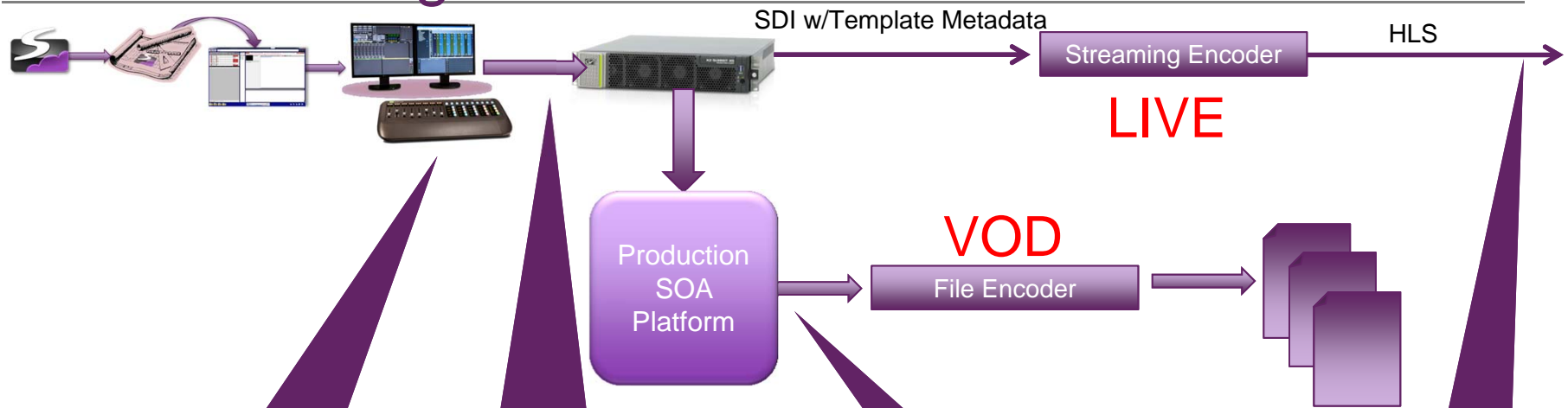
# Production SOA Platform Segmentation Template



- ❖ The template is a <MOS> drop of properties:
  - ✦ Segment type:
    - Splice
    - Embargo, Regional & Mobile ONLY Designation
    - Replacement/insertion
  - ✦ Script data (text)
  - ✦ DRM information
  - ✦ Metadata to be consumed by Web CMS like position of the clip in a web page (top stories, sports, news, etc..)
  - ✦ Scripts (as in code snippet)
  - ✦ Link to URLs, Extended Play, Stills, etc...
- ❖ TV stations can create their own templates based on their “digital media” objectives



# Automatic Segmentation - Production



Production Automation drives “record” on Server and “start” of live encoding

The Production Automation system marks segment in Server

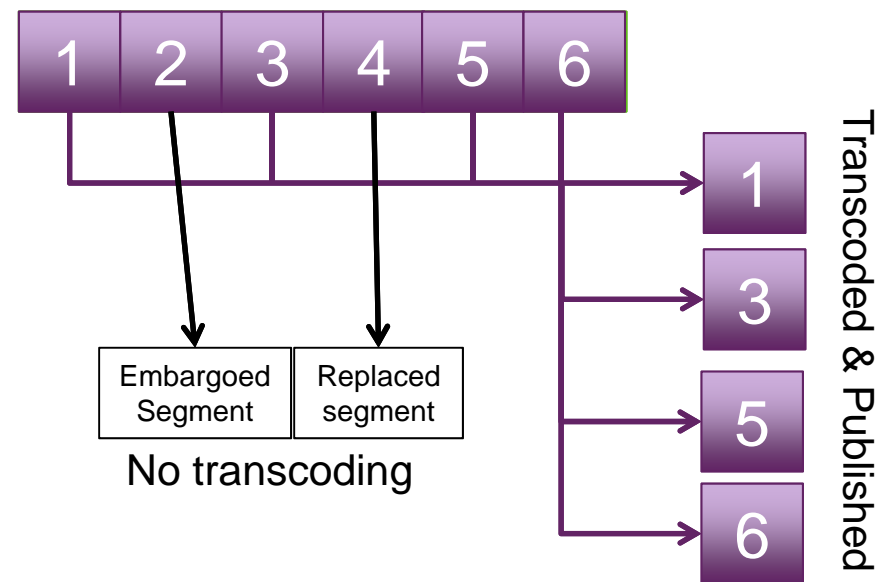
Segments are auto-generated in “Production SOA Platform” and published automatically

SDI Stream is live encoded with HLS marks for downstream insertions, and replacement

# File Delivery

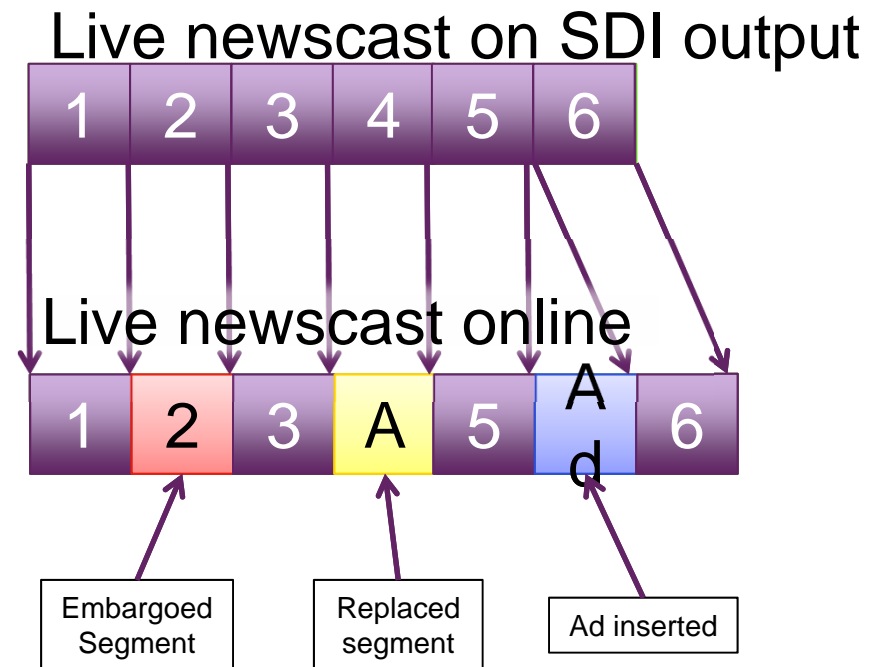
- Production SOA Platform automatically segments live newscast
  - Based on “Production Automation” marks on “Production SOA Platform” template data:
    - Splice
    - Targeted Ad Insert
    - Embargo
    - Regional
    - Mobile ONLY

Production Automation output to Production SOA Platform input



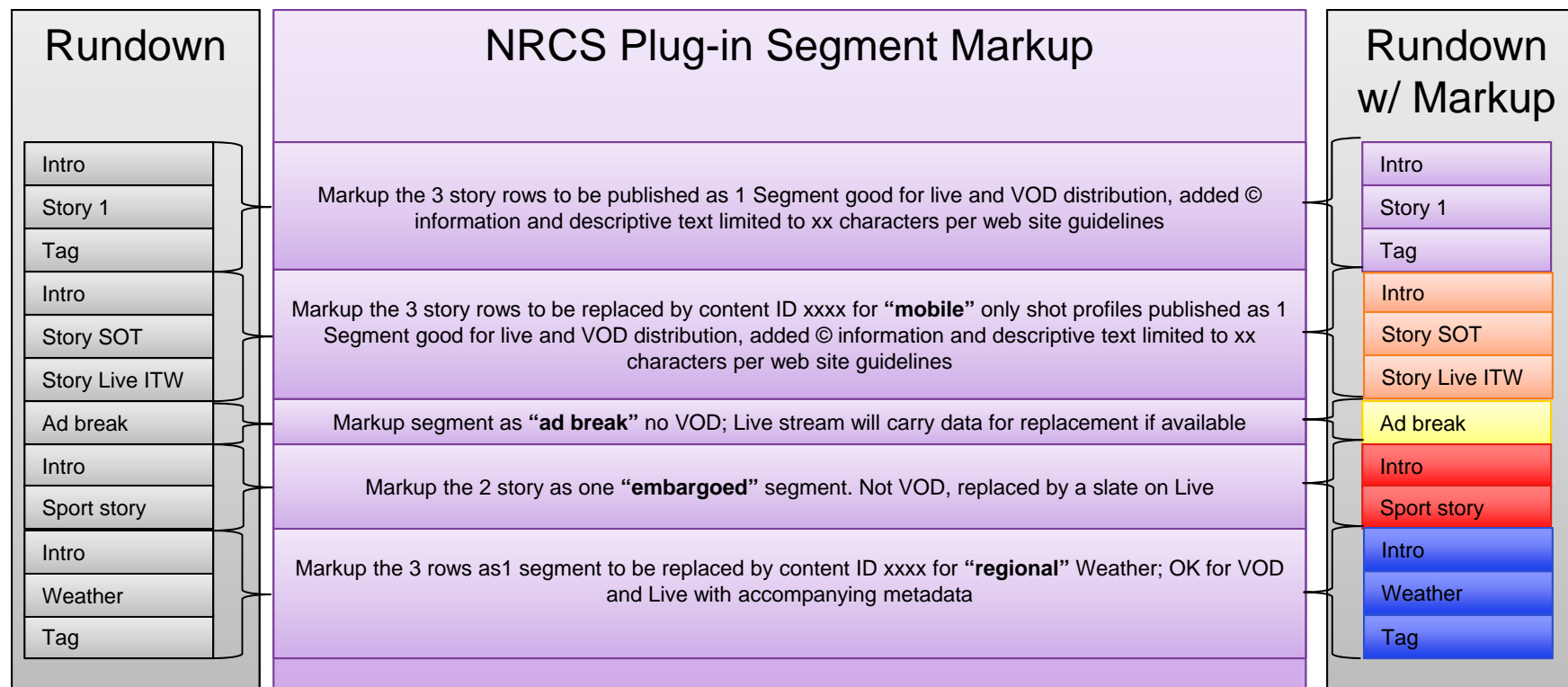
# Live Streaming

- ❖ Live newscast streamed to OVP
- ❖ Production Automation inserts segment marks based on Production Templates:
  - ✦ Splice
  - ✦ Targeted Ad Insert
  - ✦ Embargo, Mobile ONLY & Regional
- ❖ The live newscast may be longer due to ad insertions



# Segment Markup in NRCS

## Process



# Digital Media Workflows

Production Platform

## News Production:

Ingest, logging, editing, media management, archive, etc.

## Digital Media:

- Live streaming with content replacement
  - Embargoed Content
  - Mobile Only Content
  - Regional Content
  - Hyper-client Based Targeted Advertising
- Auto-segmentation for VOD content with INTRO and TAG branding
- Social Media engagement

# Digital Media Workflows

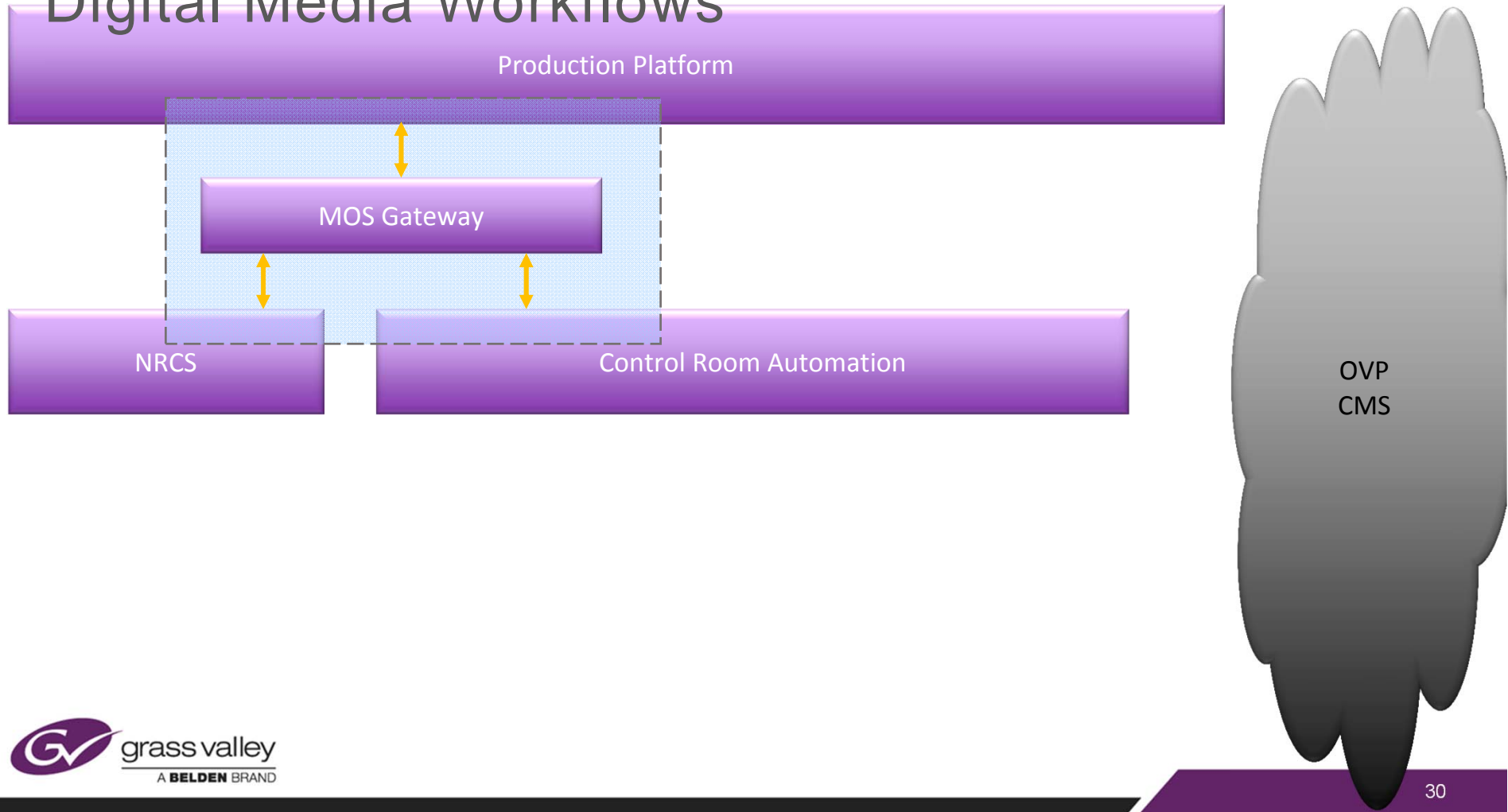
Production Platform

NRCS

Control Room Automation

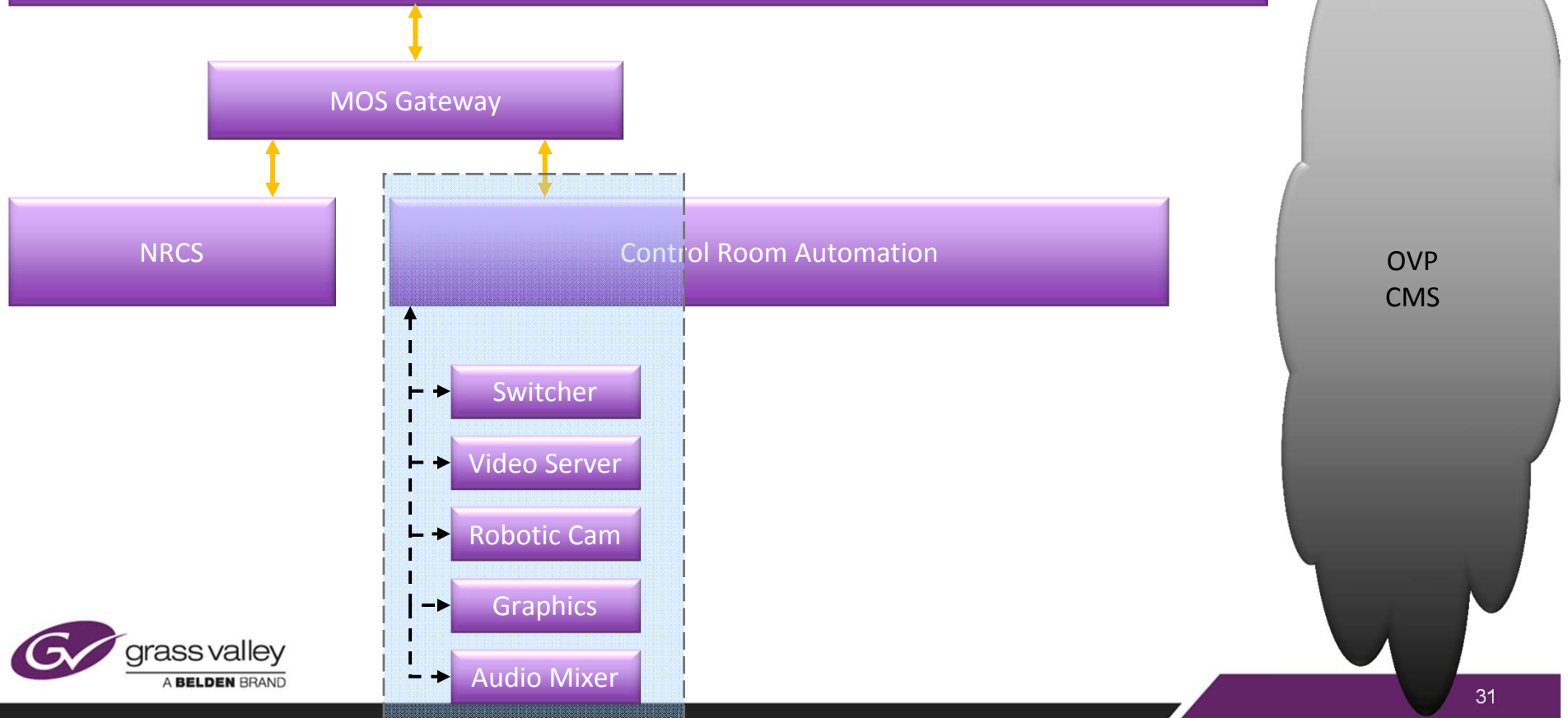
OVP  
CMS

# Digital Media Workflows



# Digital Media Workflows

Production Platform

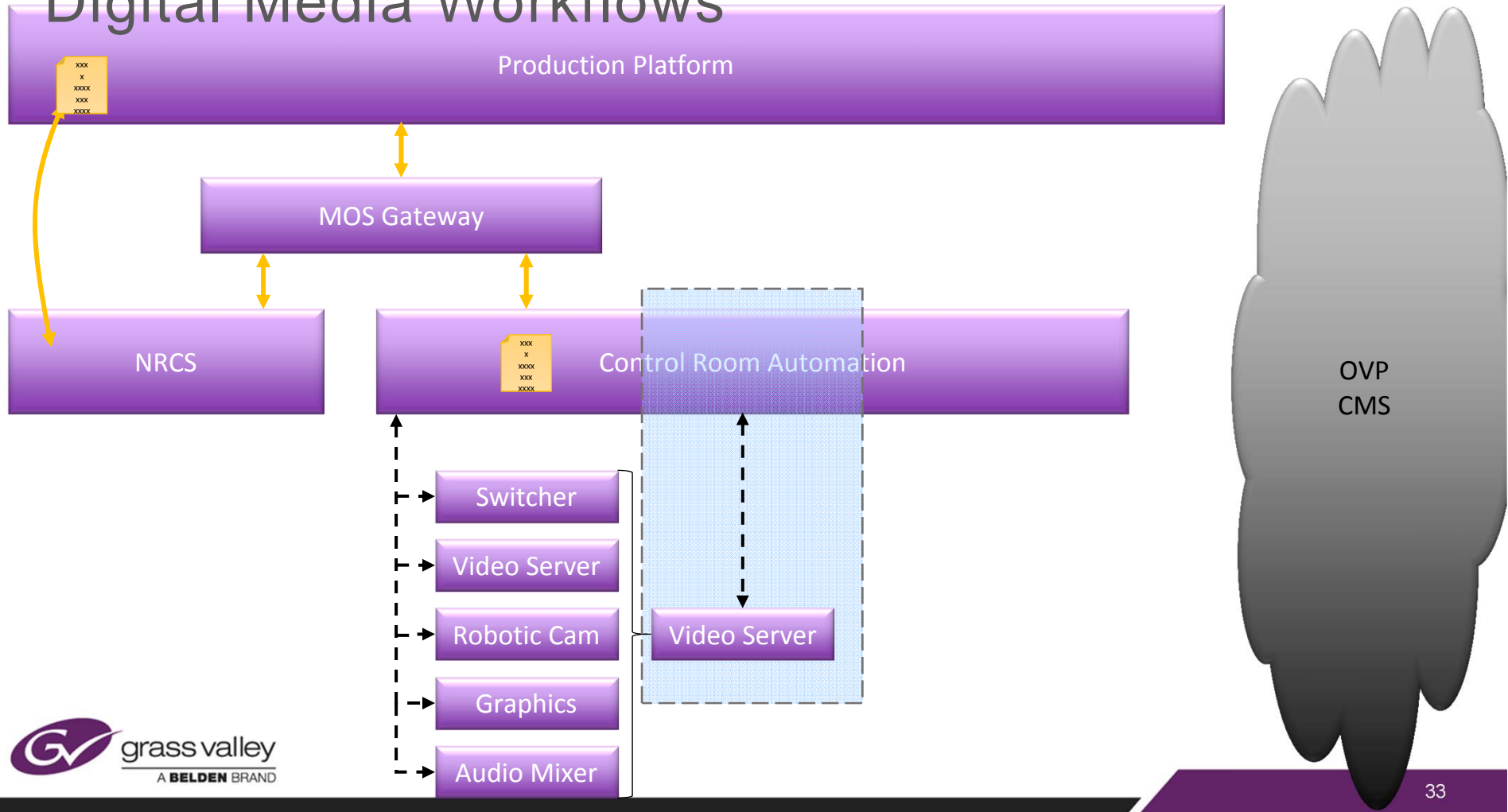




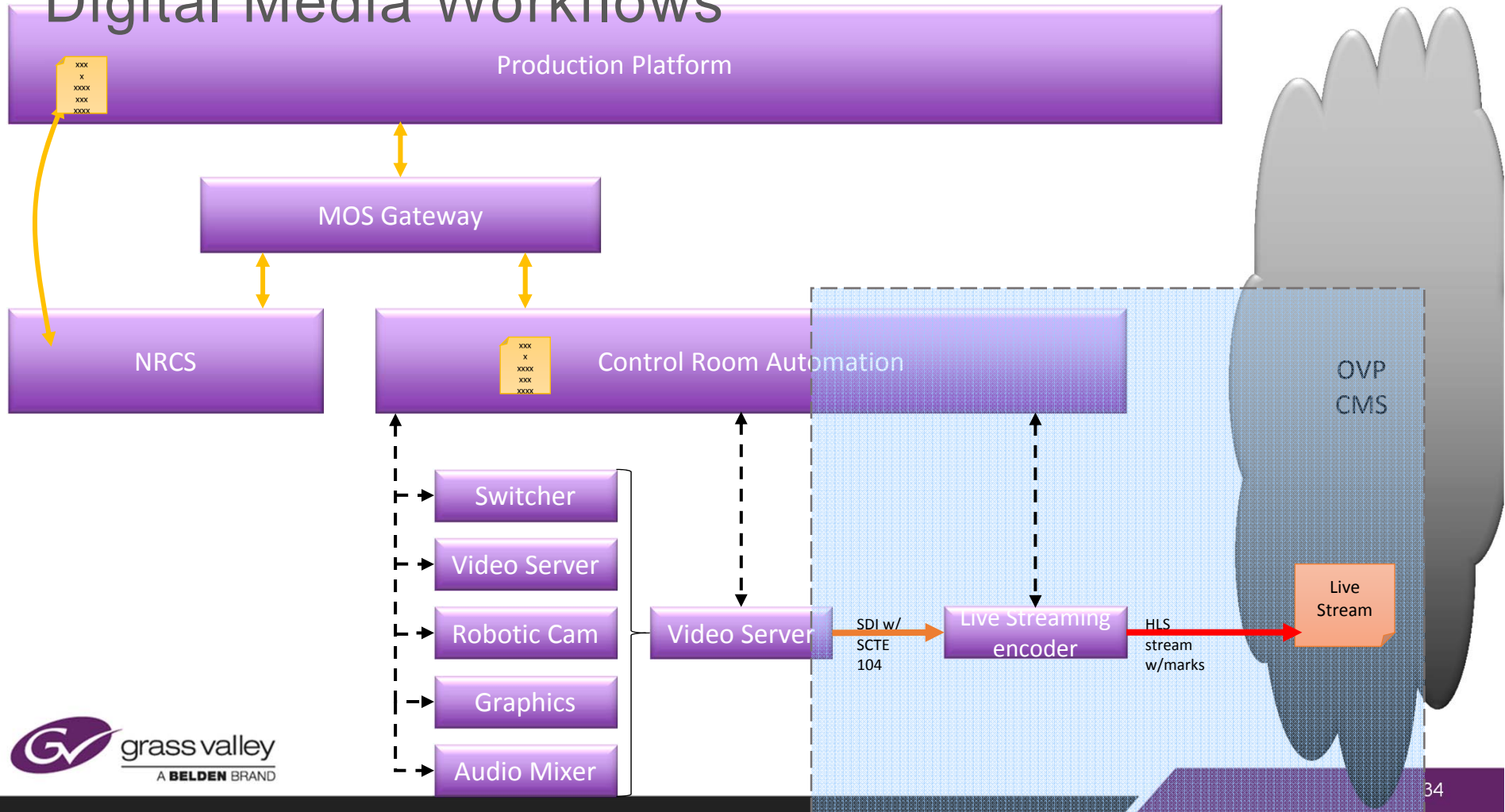
# Digital Media Workflows



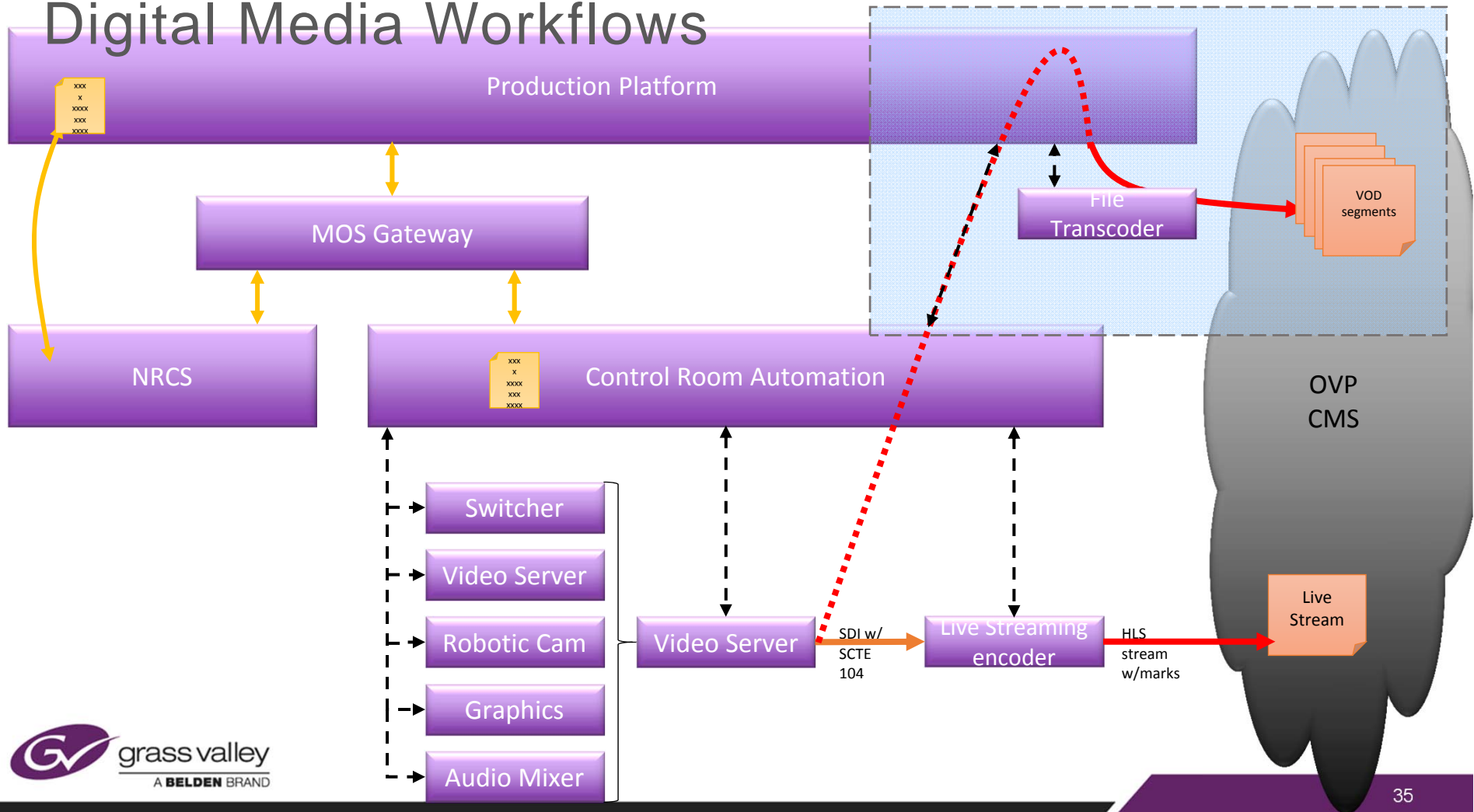
# Digital Media Workflows



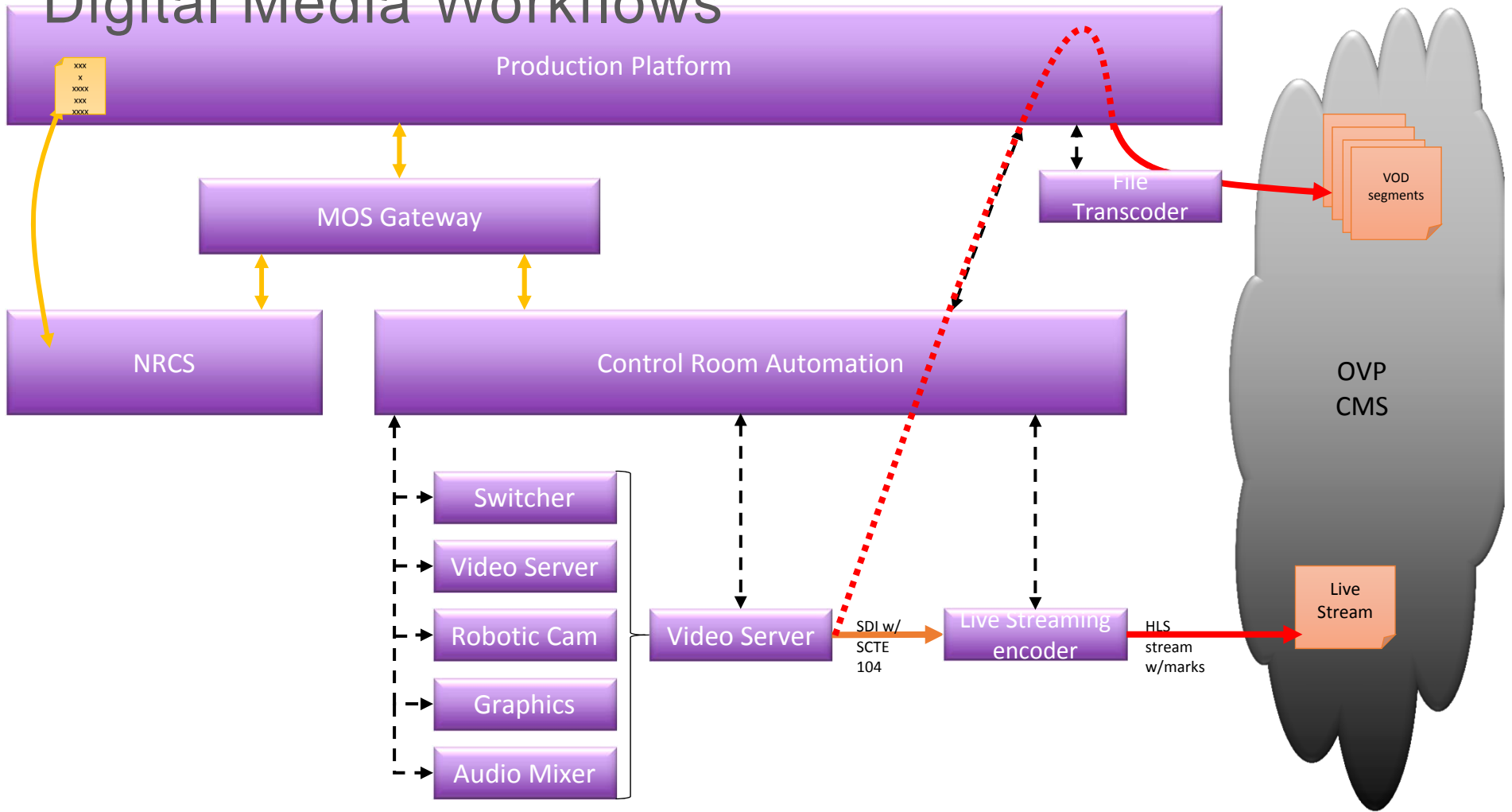
# Digital Media Workflows



# Digital Media Workflows



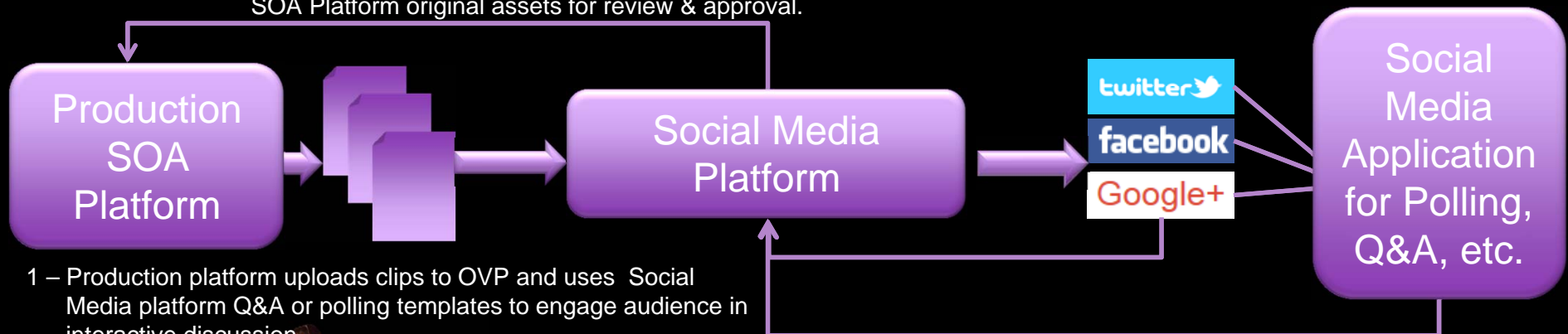
# Digital Media Workflows



# Digital Media Workflow : Social Media

Social Media feedback goes through editorial process within SOA production workflow platform prior to “on-air” presentation within graphic or “pushed” to television station website and/or mobile app. Clips are published to Social Media outlets such as Facebook, Twitter, GOOGLE + as defined by the Producer.

3 – Social Media Platform voting data goes back to Production SOA Platform original assets for review & approval.



1 – Production platform uploads clips to OVP and uses Social Media platform Q&A or polling templates to engage audience in interactive discussion.



2 – Social Media Platform manages social media publishing redirecting responses from polling/voting app back to it's platform.

4 – Voting results are triggered and displayed “on-air” by control room automation using graphics system.

Snapshot of the video  
(this is a picture).

Delivered to Facebook as a picture with a "Play" button overlay. This allows the broadcaster to capture the consumer's attention while directing the traffic to the station's Facebook page or website.



# Digital Media Workflow : Social Media

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## ❖ Experience Highlights with Social Media Platforms

✦ All of the different mediums supported have an important role in overall engagement experiences:

- **Interactive Voice Response** (IVR Calling-in) to participate has been most popular medium across majority of customers
- ***IVR usually accounts for about 35% of the entire engagement*** (In some cases, seen as high as 80%)
- **Short Message Service** (SMS – “Texting”) is also a very popular medium, ***seeing about 20% of the total engagement coming from SMS***. Platforms have the capability of building out database lists for reminders about campaigns, games and shows (via outbound SMS)



# Digital Media Workflow : Social Media

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## ❖ Experience Highlights with Social Media Platforms

### ✦ Continued....

- **Facebook** is second most popular medium. *Currently about 25% of engagement comes from Facebook.* Engagement from Facebook is about 5X higher than Twitter
- **Web** (Websites) is heavily dependent on the location of the widget. In some cases we have seen as high as 50% of the engagement coming from web but on *average it is about 15%*
- **Twitter** *is about 5-10% of the total engagement*
- About 50% of traffic are returning voters on mobile/web. And about 35% across all mediums

## Business Case

Leveraging Production Automation & Production SOA Workflows together maximizes both “efficiency” and “productivity” to generate a fast payback ROI and increased audience reach and revenue @ higher \$\$/CPM

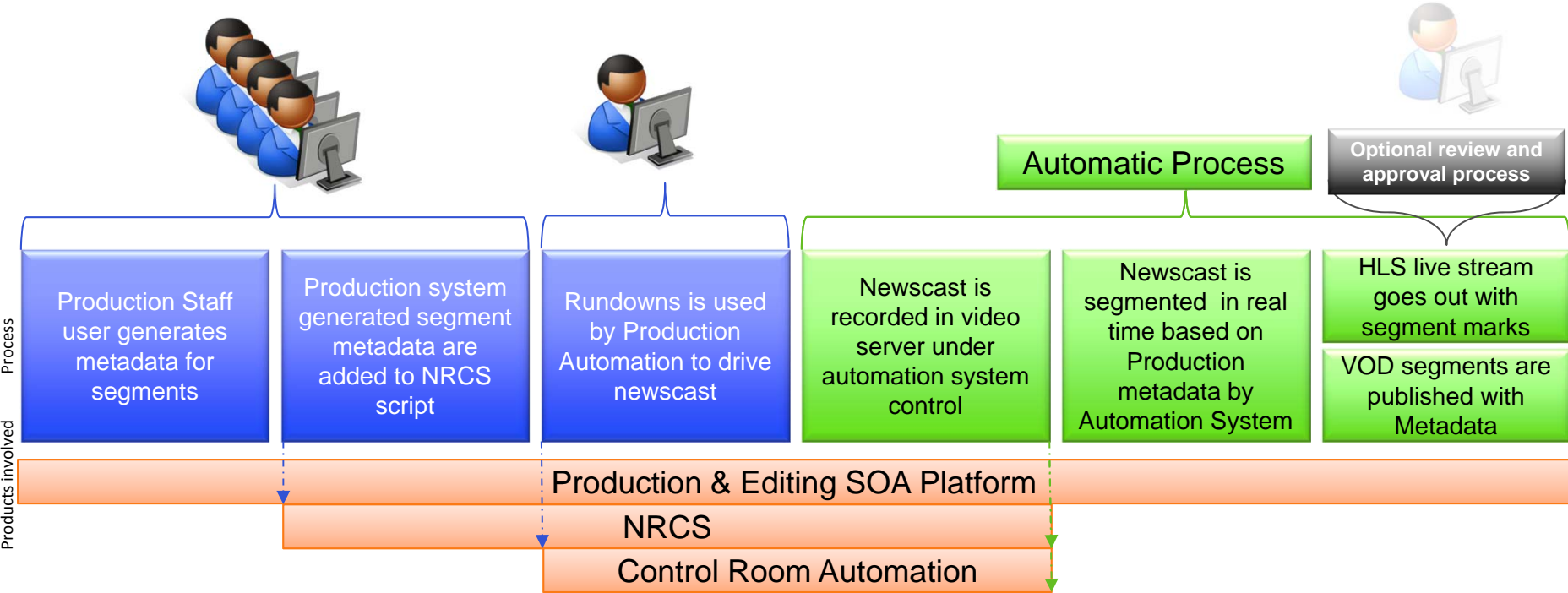
 FUTURE-READY



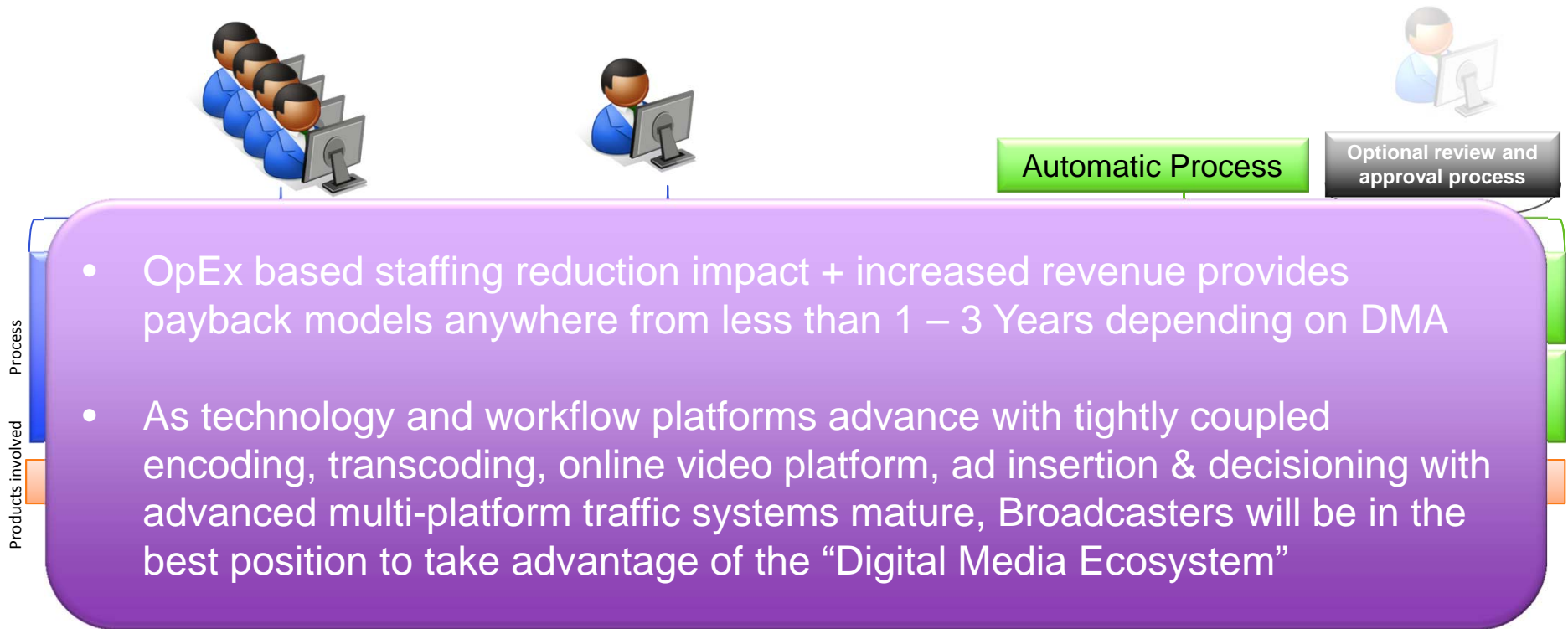
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# Business Case



# Business Case



# Conclusion

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- ❖ Broadcasters need to embrace and lead in multi-platform production and distribution
- ❖ Broadcasters need to make it just as important as the “traditional” over-the-air programming
- ❖ Broadcasters need to think in terms of “Media” rather than just “Video”
- ❖ Broadcasters need to adopt “SOA workflow platforms” that provide efficiencies, scalability and higher throughput with Restful API’s allowing for customer specific differentiation and tools to produce competitive quality programming taking the next step in the “transformation” of our industry.

THANKS FOR YOUR TIME  
QUESTIONS

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