

Media Assets in the Digital Era

TCO implications for storage, infrastructure and outsourced media services

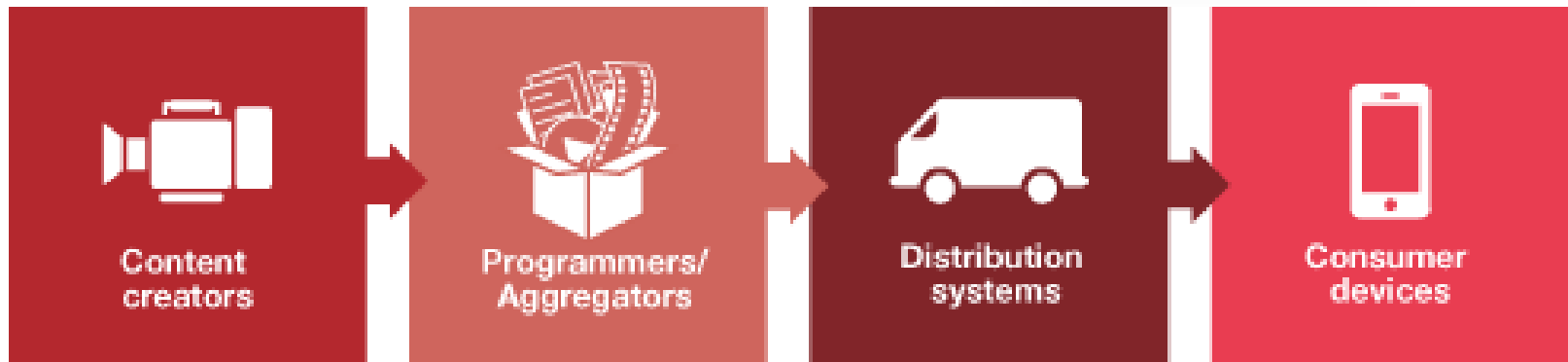


Blake White, PwC Advisory

MFM Conference
May 19, 2014

The old normal

*Traditional business
with a growing digital
element*



The E&M value chain flowed in a linear, predictable pattern

Global E&M is a prominent example of change

5-yr CAGR of 5.6%

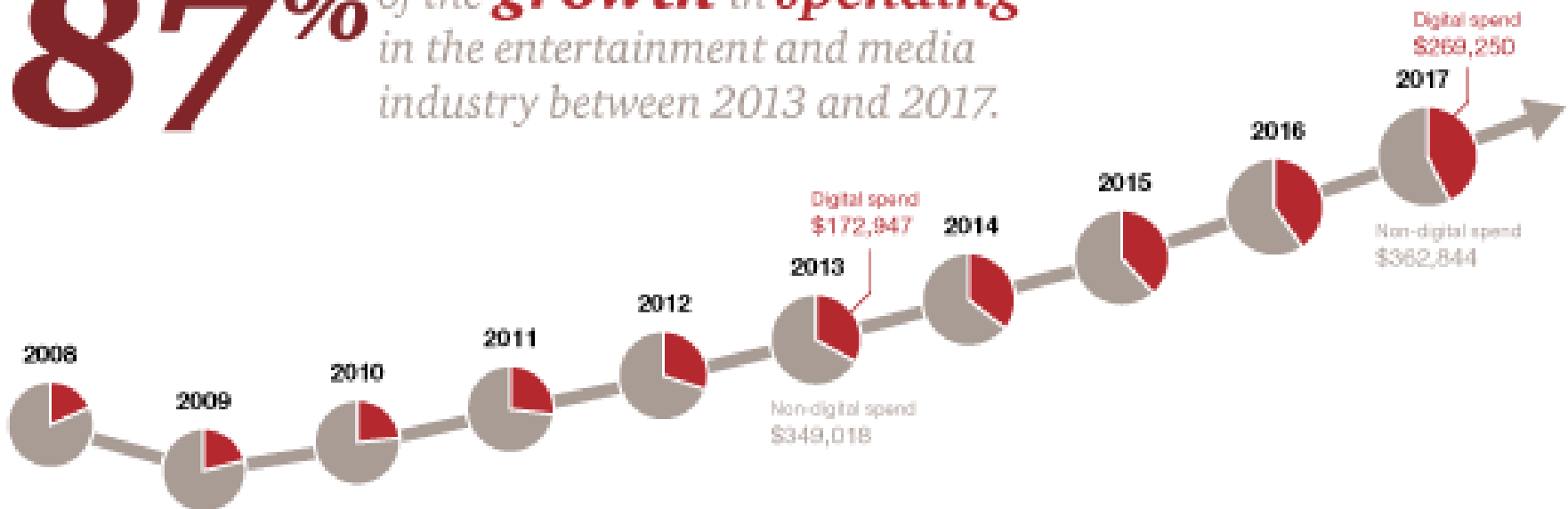
Revenues in 2017 of US\$2.2tn, up from US\$1.6tn in 2012

Global market indicators are in favor of greater digital distribution...direct to the viewer



Global E&M market indicators are in favor of greater digital distribution

Digital content will account for **87%** of the **growth** in **spending** in the entertainment and media industry between 2013 and 2017.



With the growth of digital content comes increasingly complex media management

The new normal

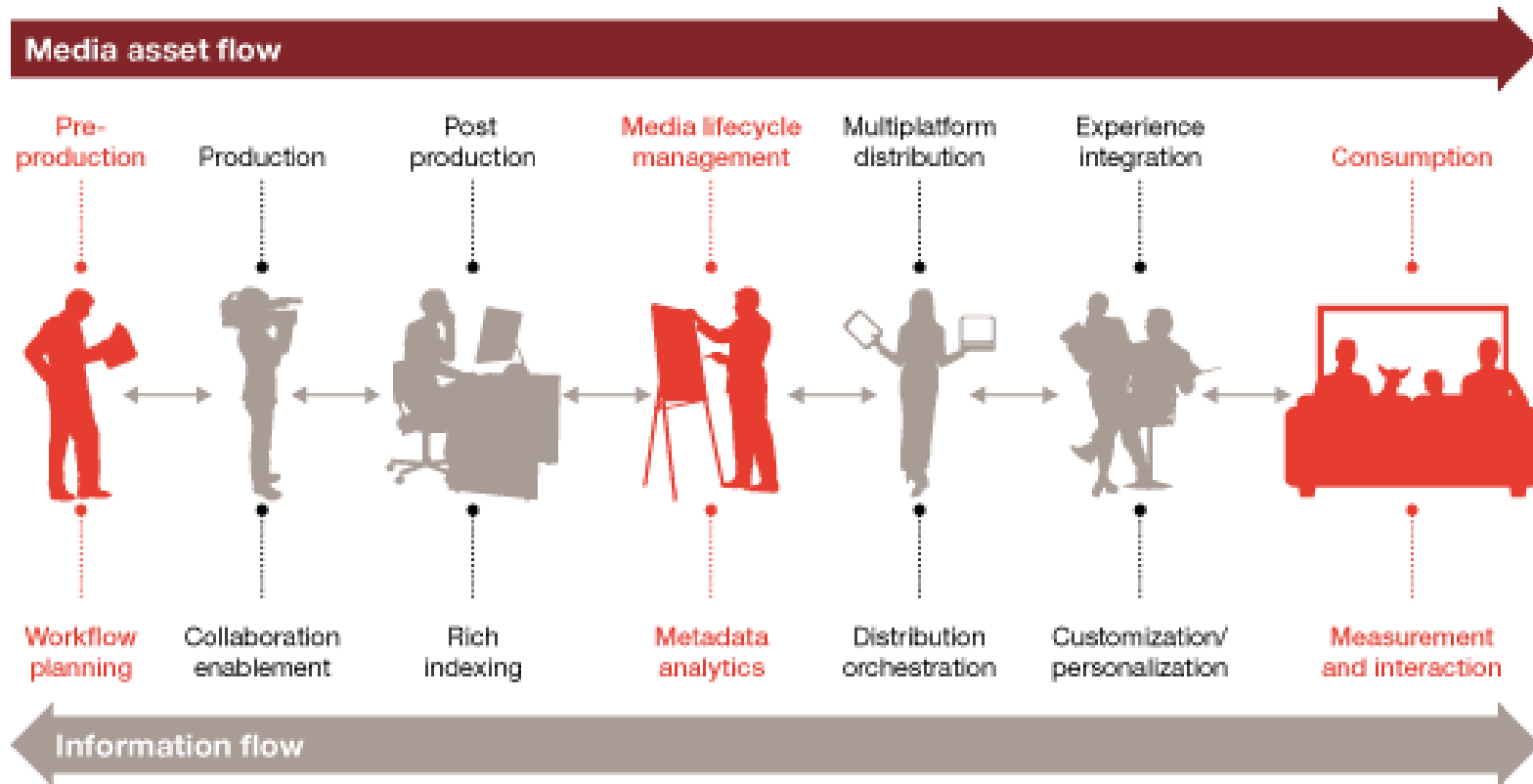


Digital is the central driver of future operating models, consumer relationships, and revenue growth

The value chain is no longer static and linear, but fluid and multi-directional



Media assets have to enable an ecosystem of networked collaborators

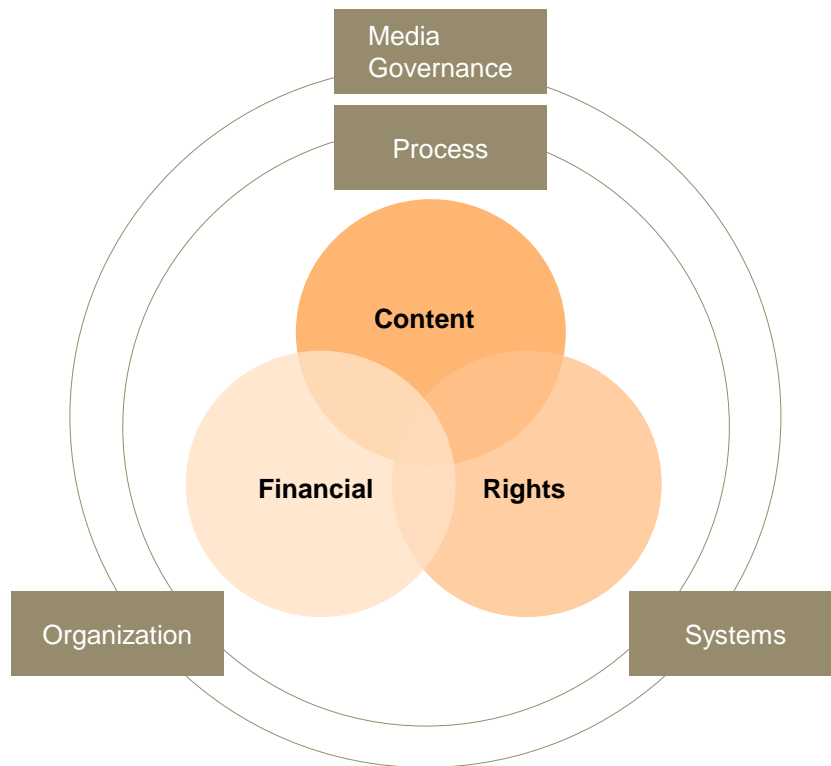


Digital Dailies: It is very critical and a potential candidate for cloud.

– EVP, Major Hollywood Studio

Monetizing the multiplatform content portfolio

Integrated enterprise MAM view must answer 3 core questions



Business decisions in the digital content era requires the combination of knowing:

- 1. What content you have,*
- 2. The rights you have to monetize it, and*
- 3. The proper business model for those titles*

Monetizing the multiplatform content portfolio

The difficulty in managing such a content portfolio today, is the stovepipe nature of divisional IT infrastructures

Diversified Media Enterprise

Television Brands

Broadband video,

Social media

, e-commerce

Video Games & Licensing

Publishing

Enterprise Data Warehouse
For Advanced Analytics



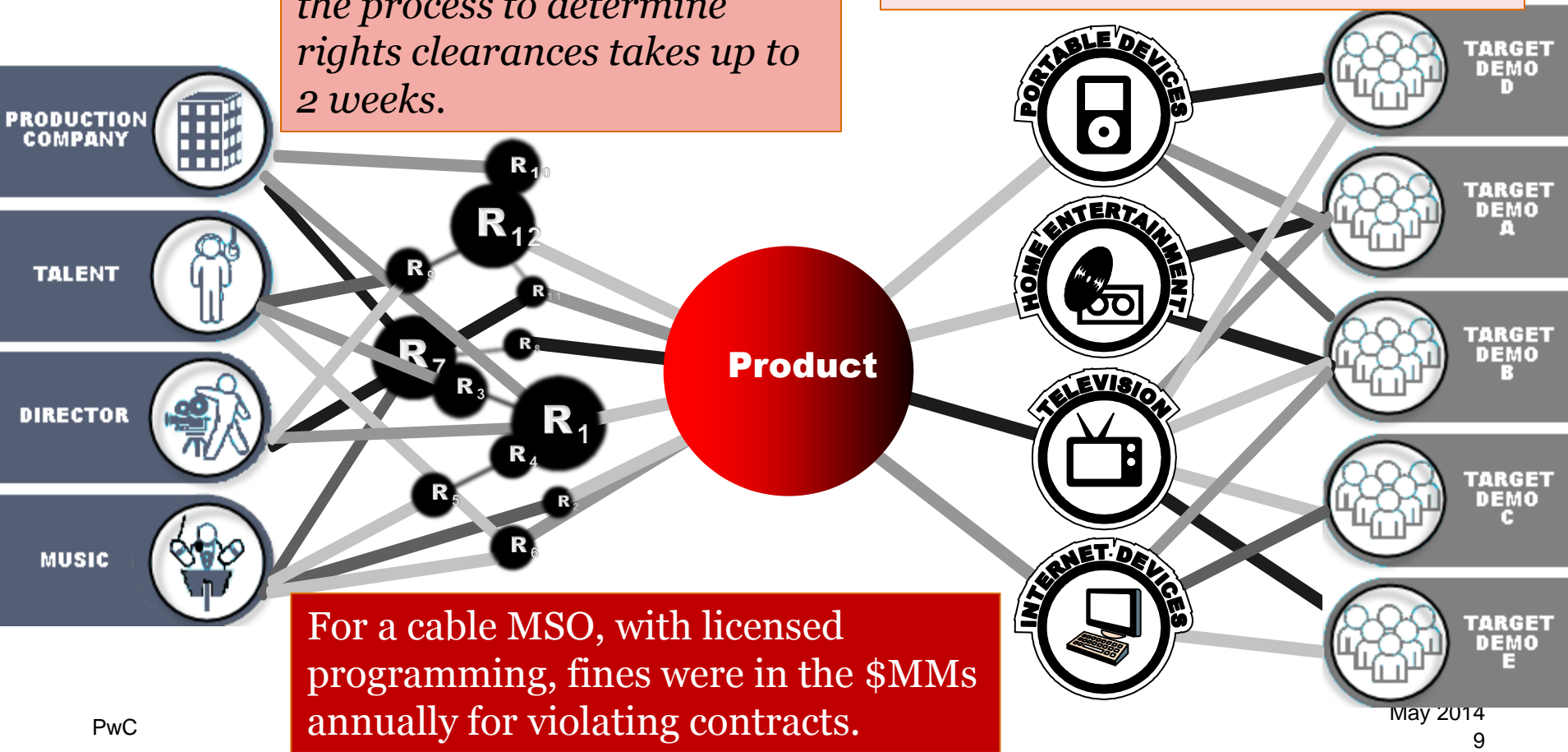
- *We know of major Hollywood studios that have:*
- *Over 75 MAM systems*
- *80+ different Rights repositories*
- *12+ separate BU data warehouses, and cannot perform cross-BU analytics*
- *Inability to report P&Ls by titles*

Considerations in digital rights management

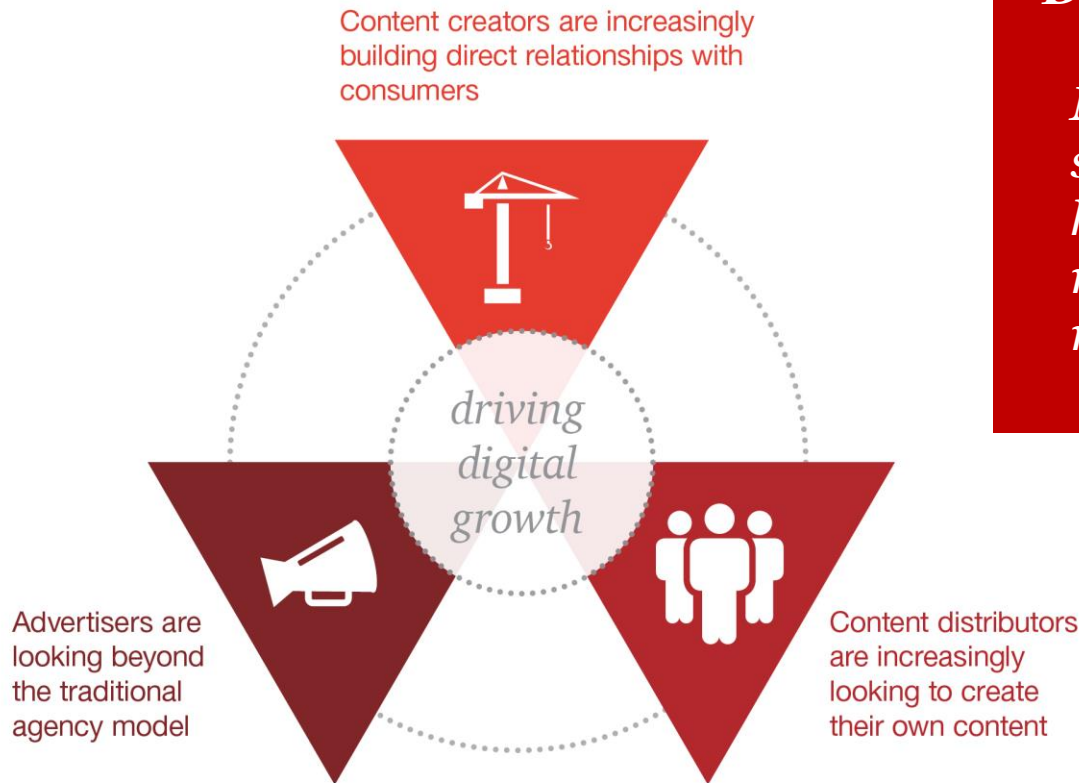
As multi-platform strategies emerge, an organization's ability to execute relies on managing the complexities of rights issues

For a leading cable network, the process to determine rights clearances takes up to 2 weeks.

A major MSO's rights are buried in unsearchable contract PDFs.



Media asset distribution in D2C business models for the Content Ecosystem's multi-screen experiences



Distribution Channel Growth

Media clouds must support near-simultaneous availability of higher resolution content on multiple devices and thru multiple channels

My role is to take care of distribution of content be it TV, digital or physical. We have cost pressure especially these days.

-- EVP Technology, Major Studio

Digital distribution

Top devices for watching streaming or downloaded video content are:

- Laptops (52%)
- Desktop PCs (44%)
- HDTVs (40%)
- Smartphones (32%)
- Tablets (31%)

-- Consumer Electronics Association (CEA)

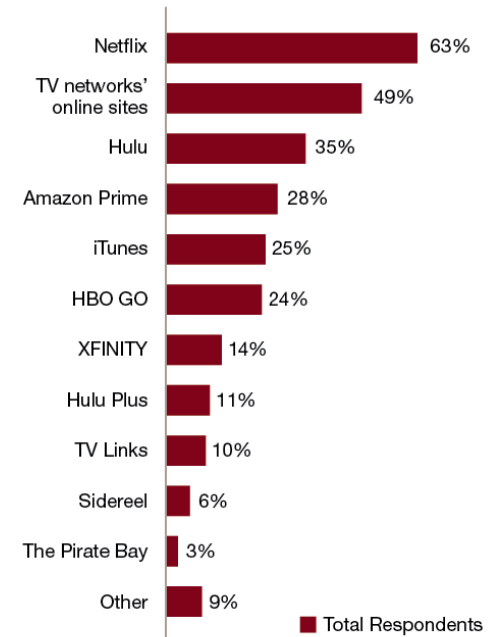
While traditional subscription service still dominates, online content gains momentum, particularly with the younger demographic.

66%

respondents access some content online



What sites do you go to access TV content online?



“Netflix [was] nominated for Emmys this year. That’s the shocker right there”
– (21-34)

Proliferation of video viewing devices and formats

With the growth of digital content comes higher resolution formats, multiple versions, custom edits, devices, and global service providers

“[Studio] is making 300+ versions of titles because of all of the devices and formats required”

– Producer

“[Online Video Service] is testing for 350 devices. There is no way we can do this.”

– SVP New Technology, Broadcast Network

[A major studio] reports that they produce 35,000 different versions of each movie release, considering: languages, formats, subtitles, and custom edits

-- *SMPTE Journal*



These kind of volume, transcoding and distribution requirements seem to cry out for a more cost-effective, scalable solution

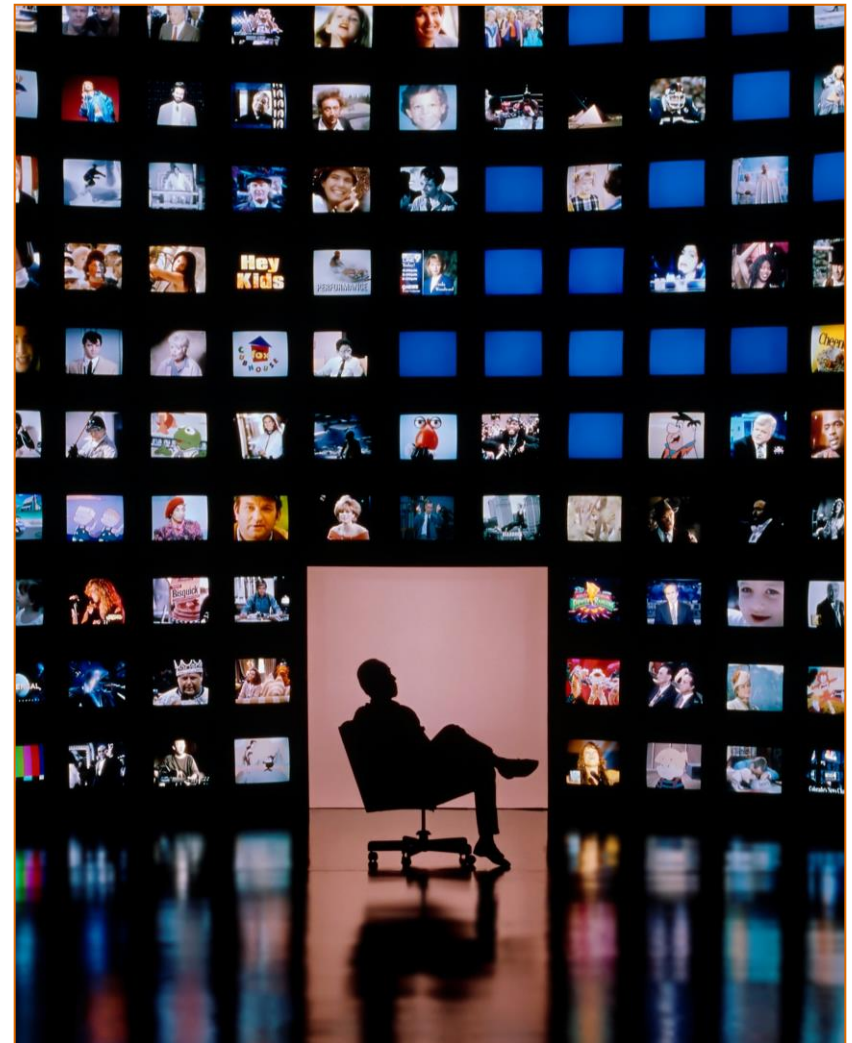
Higher resolution video formats increase ingest and storage requirements

Just when you survived the HD transition ... there is yet another hi-res format, at 4X HD storage required

- DCI 4K for film
- 4K UHD for TVs with a 16:9 aspect ratio
- Streaming 4K with a 4:3 aspect ratio
- Compressed HEVC (H.265)

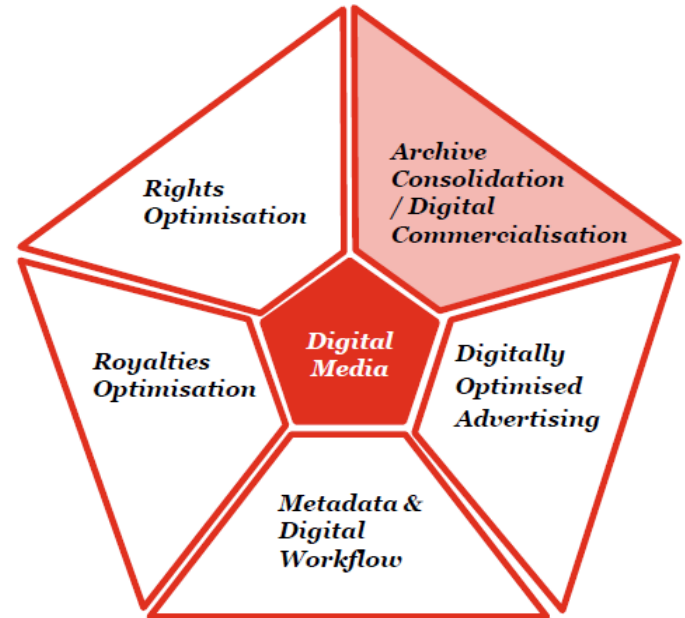
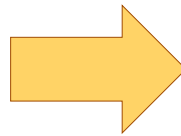
CBS employed six 300 fps 4K cameras at the Super Bowl to acquire footage at 3840 x 2160 pixels for slo-mo replays and highlights

-- Bob Seidel, SVP CBS, as reported in *TV Technology*



Digital era requires managing and monetizing media assets in a better way

Today, managing media is about more than simply cataloguing, searching, storing and archiving

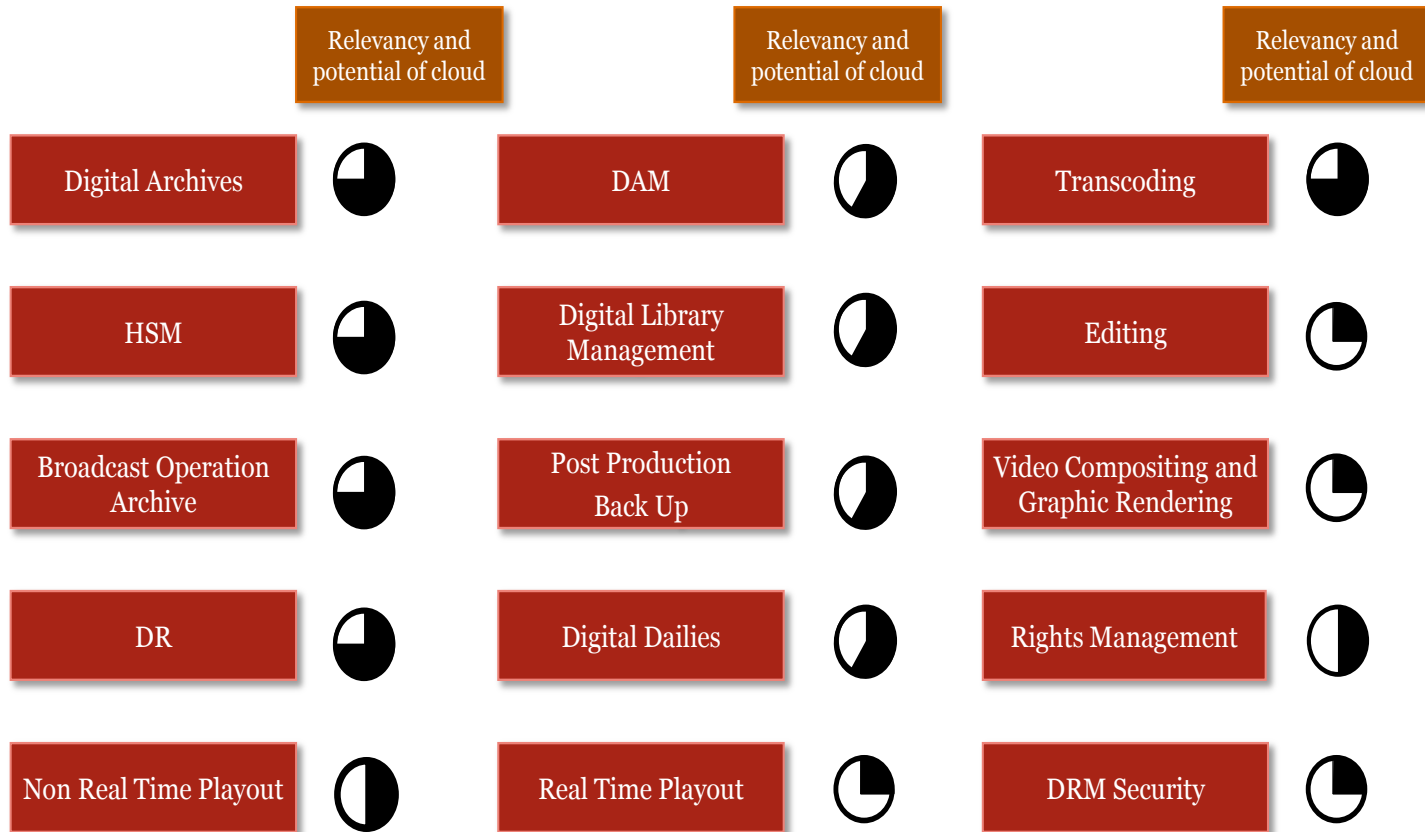


Content owners want to:

- *Identify the best operating model for realizing incremental value from their digital content archives*
- *Rationalize and reduce associated costs of physical archives*
- *Balance the portfolio of investments in strategic content across business units, channels and platforms; allowing MAM to become a key enabler of operational decision making.*

Cloud storage and processing of media assets

The growth of digital content is causing an exponential growth in physical hardware resulting in increased data center space and power



Source: Interviews, PwC analysis

Digital archives are good candidates for cloud
-- SVP IT, Major Hollywood Studio

Understand the total end-to-end cost and upside revenue opportunities

Cost-effective accommodation of ever increasing ingest and storage requirements, due to higher resolution formats, multiple versions, and custom edits

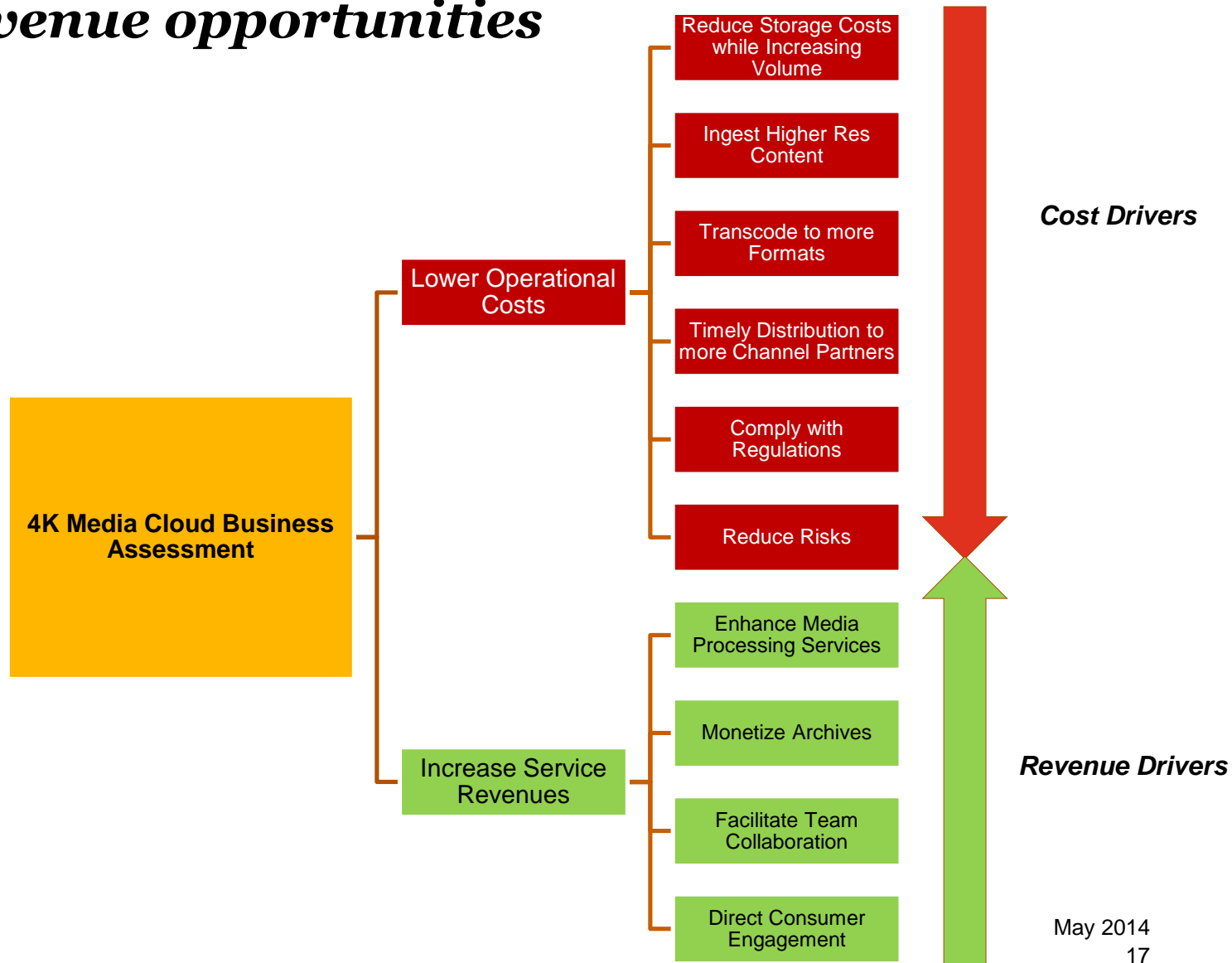
**Media Cloud
Business Assessment**

Lower Operational Costs

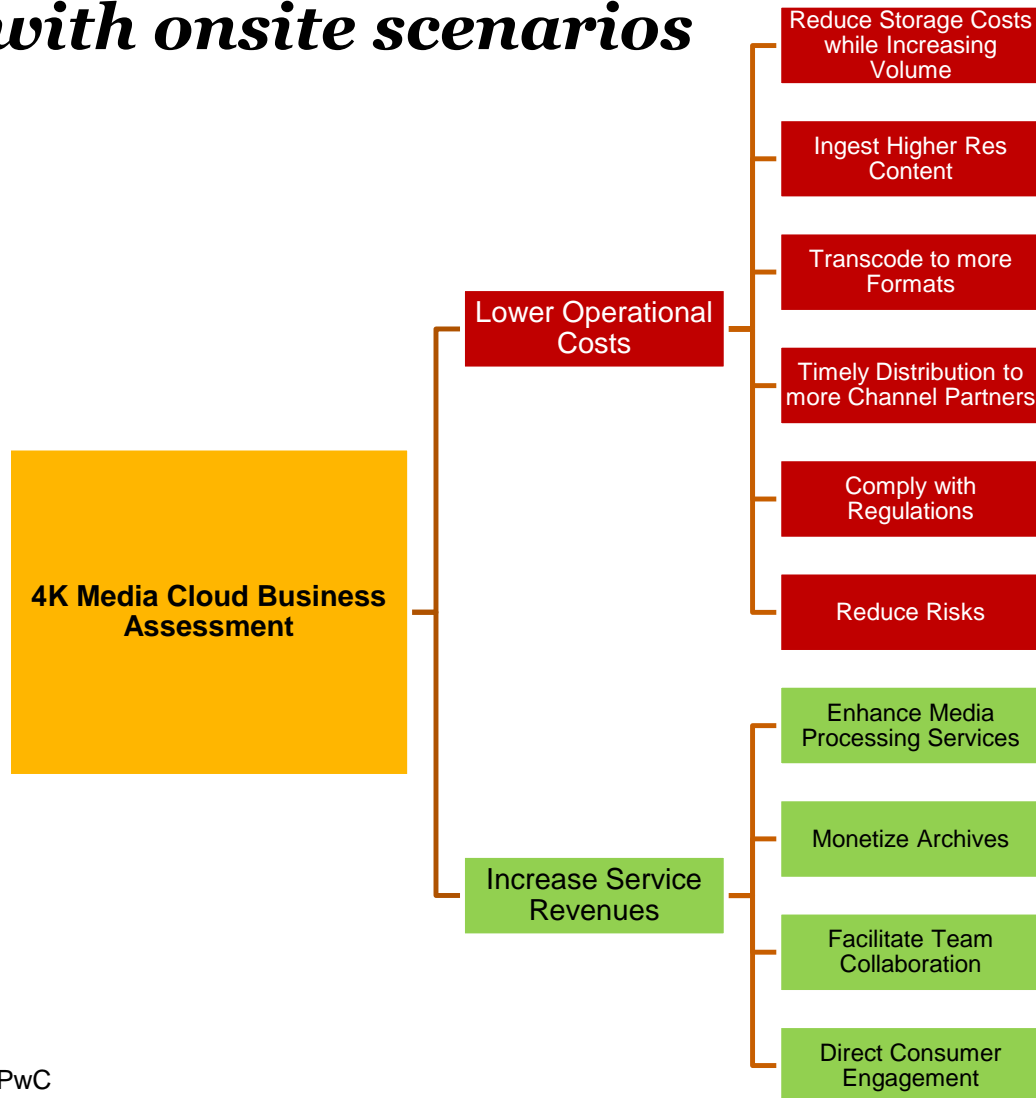
Increase Service Revenues

Enhanced Post Production services and new revenue streams for studio operations for on-lot productions and the broader media industry at large

Understand the total end-to-end cost and upside revenue opportunities



Compare total end-to-end cost and upside revenue opportunities with onsite scenarios



1. Space
2. Power
3. Cooling
4. Labor
5. Training
6. Migration
7. Primary storage hardware
8. DR / Remote site storage hardware
9. Storage growth and upgrades
10. Hardware maintenance
11. Storage management software
12. Backup software
13. Software maintenance
14. Ingest appliances
15. Checksum and QC services
16. Offsite tape storage / vault
17. Cost of capital
18. Asset depreciation
19. Decommission / remove
20. Recycle

Media Assets in the Digital Era

Higher resolution video and the TCO implications for storage, infrastructure and outsourced services for broadcasters and cable networks



“Even if you look at storage, cloud is more expensive (than physical disk).

But if you look at the services associated with the cloud storage there are many values out there related to captioning, transitioning, facial recognition, metadata extraction added back to your asset management system.

People who offer that integration portal and provide a suite of services in a workflow model; that would be very interesting to me. “

-- SVP Emerging Technology, Major Broadcaster

Thank you

For more information

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