



Powering

THE NEXT GENERATION OF DIGITAL MEDIA.

Right now.



2015 WILL CHALLENGE YOUR STREAMING STRATEGY

LIKE NEVER BEFORE

MEDIA IS SHIFTING. DIGITAL VIDEO GROWS, WHILE TRADITIONAL TV CONSUMPTION IS IN DECLINE:



FROM 2013 TO 2014
TIME SPENT WATCHING DIGITAL
VIDEO HAS GROWN BY

↑65%



WHILE MEDIA TIME
IN FRONT OF TV SCREENS
IS DOWN BY

↓2%

BUT ON WHICH
DEVICES ARE
viewers

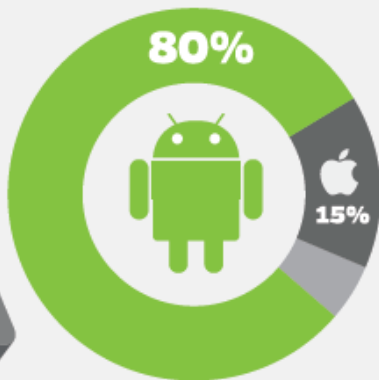
Watching
VIDEOS?

DISTRIBUTION OF ONLINE TV VIEWING ACROSS DEVICES



LET'S LOOK AT THE TWO BIGGEST MOBILE PLAYERS

iOS AND ANDROID



ANDROID & iOS
DOMINATE THE MOBILE OS MARKET
MARKET SHARE ANDROID: 80%
MARKET SHARE iOS: 15%



THOUGH ANDROID DEVICES NOW

dominate

THE SMARTPHONE MARKET,
THE LION'S SHARE OF MOBILE PHONE

Viewing TAKES PLACE
ON iOS:

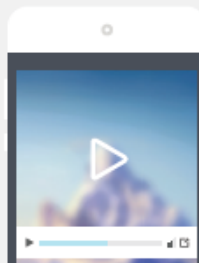


64%



36%

64% OF MOBILE VIDEO
IS PLAYED
ON iOS
WHILE JUST **36%** IS PLAYED
ON ANDROID



THIS IMPLIES THAT iOS USERS WATCH
8X MORE VIDEO ON
THEIR DEVICE THAN
ANDROID USERS DO

WHY IS VIDEO CONSUMPTION ON ANDROID LAGGING BEHIND?

FRAGMENTATION

IN 2014, THERE ARE
18,796
Distinct devices ↑ UP FROM **11,868** IN 2013
THAT'S **6,928** NEW DEVICES WITHIN ONE YEAR!



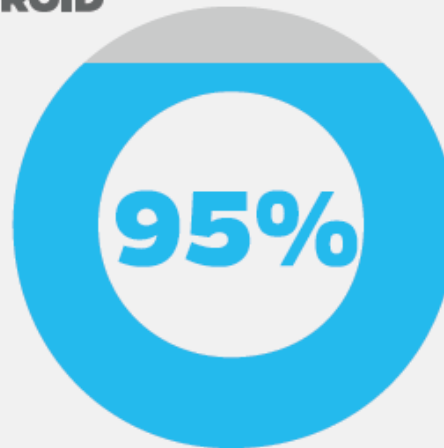
THERE ARE *only 24 different*
ios
DEVICES

IF THE SHEER NUMBER OF ANDROID DEVICES WASN'T ENOUGH



only **50%** of Android users are on the latest two OS versions

Compare that to **95%** of iOS users who switched to the latest two versions. The Android OS environment is much more fragmented, making it harder to develop consistent and compelling experiences across devices.



AND THIS FRAGMENTATION IS GETTING WORSE!



GOOGLE IN 2014
ANNOUNCED 3 MORE
ANDROID VERSIONS



WEAR



AUTO



TV

SO, WHAT DOES THIS FRAGMENTATION MEAN FOR CREATING GREAT USER EXPERIENCES ACROSS ALL DEVICES?

POSSIBLY DEALING WITH MANY DIFFERENT STREAMING FORMATS!

THERE ARE **3 ADAPTIVE BITRATE** STREAMING FORMATS FOR REACHING MOBILE AND OTHER ONLINE DEVICES



HTTP Live streaming
implemented by Apple



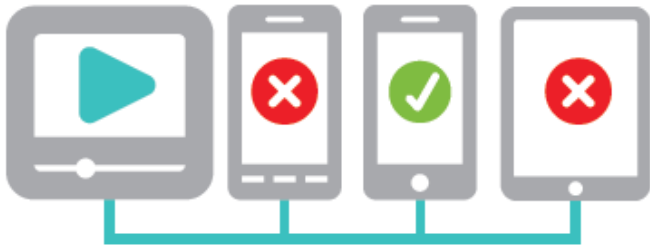
HTTP Dynamic streaming
implemented by Adobe



Smooth streaming
implemented by Microsoft



ADAPTIVE BITRATE VIDEO IMPROVES OR DEGRADES THE QUALITY OF THE VIDEO AS A USER'S BANDWIDTH FLUCTUATES, SO THE USER'S VIDEO STARTS QUICKLY AND NEVER STOPS OR BUFFERS.



**BUT THERE IS
NO SINGLE PROTOCOL
THAT CAN REACH
EVERY DEVICE**



Mobile & Tablet – iOS, Android, Windows, Blackberry
Web Browsers – Safari Only
Game Consoles – PS3, PS4, Xbox 360, XboxOne, Nintendo Wii
OTT Devices – Roku, Apple TV, Samsung



Mobile & Tablet – Android, Windows
Web Browsers – Firefox, IE, Chrome, Safari
Game Consoles – None
OTT Devices – Google TV, Samsung



Mobile & Tablet – iOS, Android, Windows, Blackberry
Web Browsers – Firefox, IE, Chrome, Safari
Game Consoles – Xbox 360, XboxOne
OTT Devices – Roku, Google TV

THIS MEANS, YOU MIGHT END UP

encoding your entire video

**AT LEAST TWICE, MAYBE THREE TIMES,
TO REACH EVERY IMPORTANT
CONSUMER DEVICE**

NOW ADD *adaptive*
TO THAT *bitrate*

Not only are you encoding once for each video format, adaptive bitrate video protocols require that you encode up to 8 different versions of each piece of content to match possible network conditions:

**HERE IS A TYPICAL PROFILE SET FOR ONE
ADAPTIVE BITRATE FORMAT**

	DIMENSIONS	FRAME RATE	TOTAL BITRATE	VIDEO BITRATE
CELL	416x234	12	264	200
CELL	480x270	15	464	400
WIFI/CELL	640x360	29.97	664	600
WIFI	640x360	29.97	1296	1200
WIFI	960x540	29.97	3596	3500
WIFI	1280x720	29.97	5128	5000
WIFI	1280x720	29.97	6628	6500
WIFI	1920x1080	29.97	8628	8500



WHAT THIS MEANS:

COSTS EXPLODE AS LIBRARY SIZE AND FORMATS INCREASE!

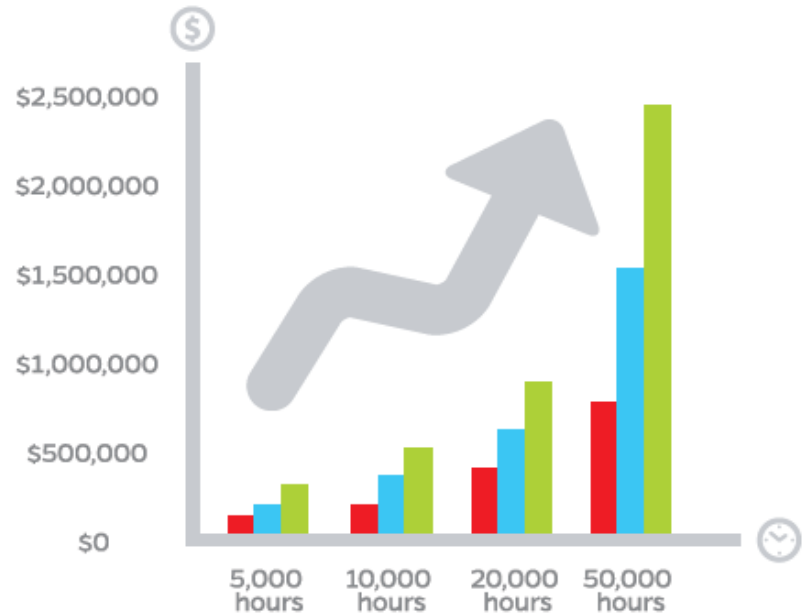


All together, one hour of content encoded results in approximately

11 GB
of data files

A typical cloud based-encoding service costs between **\$1.50 and \$1.80**

per GB
output



P.S.: this doesn't account for a myriad of other costs including storage, backup, DRM, analytics and file transfer that are associated with using multiple formats.

🔴 ONE FORMAT 🔵 TWO FORMATS 🟢 THREE FORMATS



THERE IS A BETTER SIMPLER WAY!

WITH OUR PATENT-PENDING TECHNOLOGY, WE MAKE YOUR VIDEO WORK ACROSS ALL DEVICES AND BITRATES – USING JUST ONE STREAMING FORMAT!



TRADITIONAL APPROACH



VERIZON SIMPLIFIED APPROACH



P.S.: We also simplified pricing! Hours of content encoded, stored, and streamed are the only charges you will see. Everything else is included, like analytics, encryption and ad integration. Our customers are seeing an average **40% reduction** in their digital media supply chain costs after switching to Verizon.



AND BETTER YET: OUR APPROACH WORKS ACROSS DEVICES THAT ARE NOT EVEN OUT YET — INSTEAD OF WORRYING ABOUT NEW DEVICE FORMATS, YOU CAN FOCUS ON YOUR DIGITAL STRATEGY.

A FUTURE OF OPPORTUNITY

BECAUSE 2015 WILL BE A TRUE TEST FOR YOUR STREAMING STRATEGY! IT WILL BE THE YEAR OF FURTHER FRAGMENTATION AND NEW DEVICE TYPE INTRODUCTIONS!



CAN YOUR VIDEO STREAMING APPROACH KEEP UP WITH THESE SHIFTS IN DIGITAL MEDIA?

DEVICE RELEASES IN 2015

- Apple iWatch,
- Google Smartwatch
- Google Glass (mass availability)
- Oculus Rift
- Steam boxes

ALSO EXPECT THESE MAJOR PRODUCT UPDATES

- iPad Air 3, iPad Mini 4
- Microsoft Surface Mini
- Samsung Galaxy Note 5, Samsung Galaxy S6

AND NEW OS RELEASES:

- Windows 10
- Android M
- iOS 9
- Steam OS

OUR NEXT GENERATION PLATFORM

Next generation means simplification.

It means taking your digital content and turning it into instantly gratifying experiences.

PREPARE

- One format, any device
- Cloud encoding
- VOD, Live, Linear
- Feed syndication



DELIVER

- Superior performance
- Global reach
- Powerful security
- Scalability



DISPLAY

- High quality streaming
- Engaging user experiences
- Advanced advertising
- Every screen, anywhere

The Network: Global Reach



VERIZON DIGITAL MEDIA SERVICES
A global footprint delivering speed and security to end users worldwide.

10 TBPS
Network Capacity

70+
PoPs

5
Continents

2000+
Interconnects

Monthly Objects

5,850,000,000,000+

Egress Capacity

10 terabits/second+

Servers

10,000+

Continents

5

Improved Performance at the Edge

Improved performance by offloading content and application business logic to globally distributed servers

Intelligent Network Design for today's Internet

SuperPOP model combined with Intelligent load balancing ensures content is delivered from the server that is fastest for each user

Questions?

Thanks!

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