Cloudinary

2022 STATE OF VISUAL MEDIA

2022 State of Visual Media

Managing more of everything

Case Study: Dune London

Pro Tip: Tap into AI-based transformations

Epic scale is the new normal for e-commerce

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Composable architectures empower brands to win

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Going green with image and video optimization

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WINNING BRANDS SEE POWER IN PICTURE-PERFECT VISUAL STORYTELLING

Welcome to Cloudinary's 2022 State of Visual Media report. For our fourth annual report, we analyzed data across more than 375 global customer brands spanning 13 vertical industries and an average of 219 billion transactions per month to gain insights into how visual media content is produced, managed, viewed, and consumed.

The picture is clear: brands that optimize and harness the power of visual media assets are reaping a wide range of business benefits.

Brands must balance two challenges: deploying optimal visual media while also ensuring they're doing so in the most efficient and flexible way possible. Capabilities that were once merely nice to have are now business imperatives. Visual media can be your biggest competitive advantage – taking you from good to great – or the bottleneck that's holding you back.

Whether you're launching new products and services, running promotions, building community, expanding into new markets, or hitting sustainability targets, the extent to which your visual media performs well and delights audiences across channels increasingly matters.

As more and more of our lives move online, it's little wonder that image and video bandwidth has grown substantially since our inaugural report in 2019. In the last year alone, image bandwidth grew by 25% and video traffic across industries like retail and e-commerce grew by 37%.

But brands need to prepare for more than just scale. They must also be nimble enough to react to new trends fast. From launching new TikTok campaigns to enabling more complex Direct-to-Avatar (D2A) commerce in the metaverse, the ability to manage and deliver the visually rich experiences consumers love requires an IT stack in which every component is open, pluggable, scalable, and if necessary, replaceable.

Today's requirements don't stop at scalability and flexibility. Brands need their digital experiences to meet new goals like sustainability and accessibility. This year's report offers data, real world use cases, and tips on how to meet these requirements and react to new trends so that visual media becomes a catalyst for growth, not a bottleneck.

Key findings from the 2022 State of Visual Media Report include:

- Managing for scale, new formats, and a multitude of browsers is key for media experience management today and beyond
- In e-commerce, epic scale has become the new normal
- Speed and flexibility demand a composable IT architecture open to change
- Social media requires visual-first mindset as platforms like TikTok continue to rise in popularity
- Major brands turn to image and video optimization to reach sustainability goals

SECTION

MANAGING MORE OF EVERYTHING

From traffic volume and formats to browsers and channels

This year, our data revealed a dramatic rise in image bandwidth traffic: 25% across all industries. On average, Cloudinary managed 199 billion image requests each month. And while the top three supported image formats remain the same as last year, the rankings have changed. While JPEG remains the leader, lighter-weight WebP has overtaken PNG, and now ranks second.

When it comes to image usage, however, WebP emerged as this year's frontrunner. Our data revealed that brands used this less bandwidth-hungry alternative more than twice as often as JPEG. From March to May 2022, WebP received 59% of requests but consumed only 35% bandwidth, whereas JPEG received 23%, but consumed 38% of bandwidth. Usage of other newer lightweight formats such as JP2, HEIC, and AVIF also grew markedly, though brands still don't support these as widely as the top three.

Video traffic also grew and gains were most impressive in retail and consumer goods, where video bandwidth spiked by 37% to 1,489 TB. Other industries where video traffic made gains include software and technology, travel and recreation, automotive and manufacturing, and real estate.

Video codec support and usage followed a similar trend. The established MPEG-4 is still the most supported codec, followed by WebM and Transport Stream. However, in terms of video requests, the more lightweight WebM clearly emerged as number one, with almost 74 billion requests over the analyzed time frame. This was followed by the streaming file format Transport Stream (58 billion), with MPEG-4 (21.5 billion) ranking a distant third.

This year's data also reinforced the need for brands to support a growing range of devices and engagement touch points, including game consoles and smart TVs. For example, an average of roughly 2.7 million image requests were delivered to Sony BRAVIA TVs per month.

25% ↑
increase in image bandwidth

37%
INCREASE IN VIDEO BANDWIDTH IN RETAIL AND CONSUMER GOODS

MANAGING MORE OF EVERYTHING

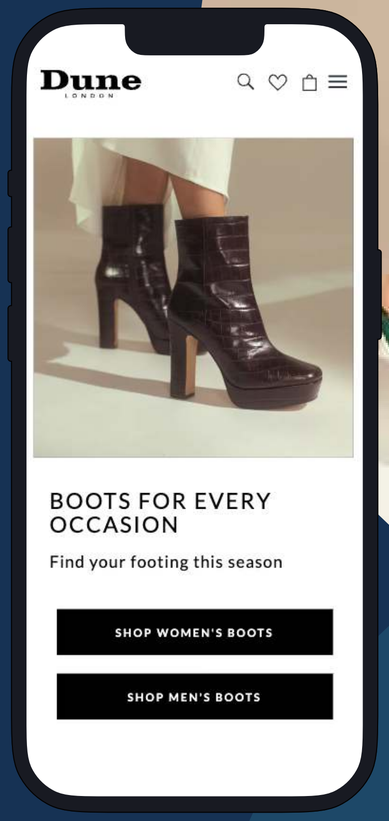
CASE STUDY

Dune LONDON

DUNE LONDON

When global luxury shoe brand The Dune Group set out to overhaul its commerce site, it encountered a major hurdle: managing and sharing visual content from its huge digital asset library was complicated and inefficient. That meant Dune London not only needed to radically improve its outdated web platform, but also the way its teams and third-party partners, including all those within its franchise network, worked with its massive library of images and video assets. Seeking a new DAM partner, Dune London turned to Cloudinary for its innovative media experience solution and tight integration with Salesforce Commerce Cloud.

- Modern DAM to meet Dune London's modern CX needs
- 50% reduction in license and network storage costs
- Seamless integration with Salesforce Commerce Cloud and CMS
- Optimized experience for mobile, where 80% of Dune London's customers shop



> **We rely heavily on 360s [panoramic images], which are composed of about 20 images stitched together. We're replacing some of those with videos, but that doesn't work for every product. Per season we can have 2-3,000 products with this 360 format—and then we've got all the campaign imagery and assets on top of these.**

Elaine Smith
Head of Digital Product
DUNE

PRO TIP

TAP INTO AI-BASED TRANSFORMATIONS

At this scale, staying on top of image and video developments requires AI and automation. Regularly check the latest AI-based transformations to optimize and personalize your media assets.

SECTION

EPIC SCALE IS THE NEW NORMAL FOR E-COMMERCE

As our data show, image and video bandwidth traffic is climbing. Epic scale has become the new normal for e-commerce brands. But even in the most impressive mountain ranges, some peaks stand out. What Mount Everest is to the Himalayas, Black Friday is to visual media bandwidth.

According to our data, e-commerce companies overall saw their image bandwidth grow by 186% around Black Friday compared to their average traffic annually. Even more impressive was the increase we saw for small and medium e-commerce sites, which experienced peaks of up to 415%. The largest brands in our study experienced many similar spikes throughout the year, with just a slightly higher peak during Black Friday.

Interestingly, where video is concerned, the trend is just the opposite: video traffic remained quite steady over the year for smaller brands, whereas bigger e-commerce brands saw their video bandwidth increase during Black Friday. One of our largest e-commerce customers saw their video bandwidth traffic shoot up from around 20 TB a week to 52 TB over the Black Friday period.

Managing and delivering this epic scale of video and image assets is impossible without automation and AI. This explains why despite these big numbers, the brands in our study did not have to increase their storage use around Black Friday; they could simply use the images and videos they had already stored in Cloudinary and automatically adapt those for their Black Friday campaigns with little or no extra work thanks to the AI.

These scaling capabilities will become even more important as new trends continue to transform the e-commerce experience. For example, our data show a remarkable growth for TikTok with 100% more requests in April 2022 than April 2021. Regardless of whether it's TikTok, 3D asset galleries via shoppable videos, or user-generated content to Direct-to-Avatar (D2A) commerce in the Metaverse, the trends that are reimagining e-commerce use images and videos powered by automation and AI.

415%↑

increase in image bandwidth by smaller e-commerce brands during Black Friday

52 TB

WAS THE PEAK OF VIDEO TRAFFIC OF A MAJOR E-COMMERCE BRAND DURING BLACK FRIDAY

EPIC SCALE IS THE NEW NORMAL FOR E-COMMERCE

CASE STUDY

minted.

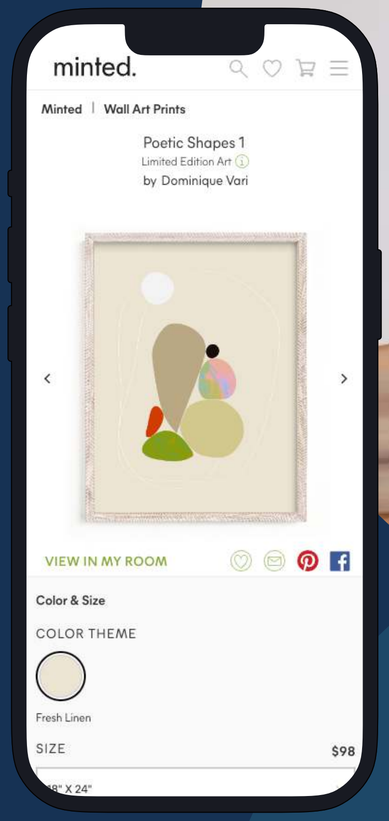
MINTED

Minted is a design marketplace that crowdsources the best content from a global community of independent artists. The company's art, stationery, and textiles products have reached over 75 million homes worldwide.

The majority of Minted's catalog are configurable and personalized products with many different options and attributes. A product at Minted can have more than 100,000 variants, and as a premium design brand, each variant must appear as pixel-perfect product images that exactly match the configuration selected by the customer. By using Cloudinary, Minted engineers have optimized the image generation pipeline for its important art business with a full set of 2D/3D transforms and automation technology.

Automated and streamlined generation of 60 million complex images across 4,000 art products in Minted's crowd-sourced marketplace

Removed heavy bottlenecks and replaced insufficient homegrown 2D/3D image tools, allowing business to reliably launch new art products in hours versus weeks



> **We started using Cloudinary for our Art product category because it's one of the most complex. All together, we have just shy of 60 million images on Cloudinary for Art alone.**

David Lein
MINTED

EPIC SCALE IS THE NEW NORMAL FOR E-COMMERCE

PRO TIP

USE AUTOMATION FOR D2A VISUALS IN THE METAVERSE

To deliver compelling Direct-to-Avatar (D2A) experiences in the Metaverse, use AI to upload 3D assets efficiently or to generate 3D model effects dynamically.

Learn More about D2A

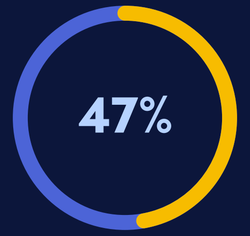
SECTION

COMPOSABLE ARCHITECTURES EMPOWER BRANDS TO WIN

The momentum behind composable (aka agile or headless) architectures continues to gain steam as brands understand the need to balance improvements in efficiency, innovation, and performance. And all while appetites for visual-first experiences remain insatiable. This leaves brands challenged to create numerous visually-rich experiences for every possible channel and touchpoint while ensuring everything performs at lightning speed. Goals can be at odds with one another without the right technology stack in place.

What's more, in an increasingly unpredictable and hypercompetitive business environment, brands must be able to react quickly to change. The travel industry, for example, saw a more than 50% increase in video usage as part of the post pandemic recovery. Brands today must have the ability to scale up and down in an instant. And this urgency for responsiveness calls for open, best-of-breed IT architectures in which adding and replacing new technologies is fast and seamless.

47% of IT leaders moving away from monolithic to best-of-breed, composable software



COMPOSABLE ARCHITECTURES EMPOWER BRANDS TO WIN

The MACH movement

MACH is an acronym that stands for Microservices based, API-first, Cloud-native SaaS and Headless architectures. The MACH Alliance is a vendor-agnostic organization founded in June 2020 dedicated to advocating open and best-of-breed tech ecosystems. The Alliance, of which Cloudinary is a member, aims to “future-proof enterprise technology and propel current and future digital experiences” through MACH technology.

An open, composable architecture ensures that every component is pluggable, scalable, replaceable — and can be continuously improved through agile development to meet evolving business requirements.

The headless Cloudinary solution, for example, works seamlessly alongside a brand’s CMS and automates image and video optimization workflows. This automation includes cropping, applying brand overlays or filters, and optimizing visual media quality and file size for a user’s browser, screen size, and orientation.

A recent MACH survey among IT leaders across several key geographies showed that MACH adoption is high on the agenda. Of those surveyed, 47% said they were aspiring to move from monolithic to best-of-breed, composable software, up from 36% last year. And 79% expressed a strong intention to add more MACH components to their architecture in the future.

The need for speed

For Cloudinary customers, this new approach of a composable IT stack allows them to make easy, incremental changes as needed and without huge investments or big decisions upfront. Their only regret: not acting sooner.

79%

OF IT LEADERS STRONGLY INTEND TO ADD MORE MACH COMPONENTS IN THE FUTURE

COMPOSABLE ARCHITECTURES EMPOWER BRANDS TO WIN

CASE STUDY

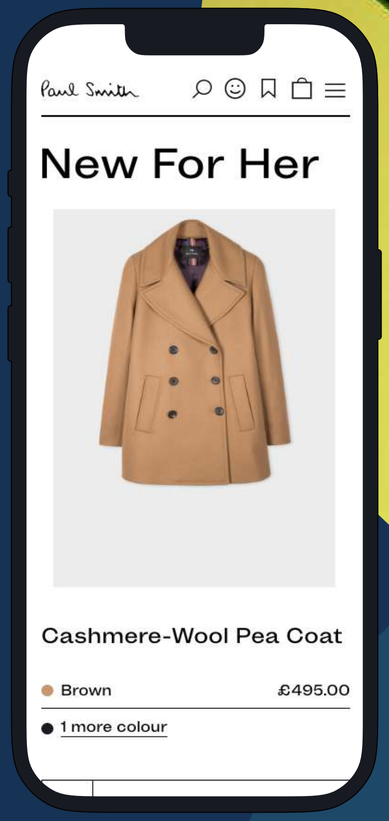
Paul Smith

PAUL SMITH

Global fashion company Paul Smith tailors a bright, headless future

Distinctive fashion retailer Paul Smith's recent move to a headless e-commerce architecture based on MACH (microservices, API-first, cloud-native SaaS, and headless) principles put Cloudinary at the center of its global ambitions. The strategic move to Cloudinary and its Digital Asset Management (DAM) solution is automating and optimizing new, efficient approaches to the way Paul Smith handles its vast library of high-quality fashion imagery and sells online.

- Cloudinary advances move to modern, headless e-commerce tech stack
- +40% reduction in asset management costs
- 45% boost in video-enabled sales
- Major efficiency gains thanks to first-time B2B partner workflows



> We were very happy with our decision to adopt Cloudinary and it's been a big part of our evolution to look deeper at updating our overall tech stack. With Cloudinary we know we can work quite easily with other MACH vendors now that we're fully headless.

Hannah Bennett
Head of Digital
PAUL SMITH

PRO TIP

DON’T RUSH, FIND MACH SUCCESS WITH CROSS-TEAM PLANNING

The change to a MACH architecture is not only about tech, but also about people. And like any change, it will require an important shift of mindset. Take your time to do the research necessary, and a thorough analysis of your needs and your resources.

To find out if MACH is something for your company, listen to the MX matters podcast *Benefits and Factors to Consider with MACH Architecture*.

Listen Now

SECTION

WINNING IN THE EVER-CHANGING WORLD OF SOCIAL MEDIA

There are few areas where brands need to act and react faster than social media. One month — brands run campaigns on TikTok, the next they need to react to a trend on Instagram or a Tweet that's gone viral. We see this speed and volatility as well in our data, where images or videos requested for one platform have a peak one month and a shift the next.

With more than 154 billion image requests, Facebook is the clear number one social media channel, followed by Instagram with 74 billion and Pinterest with 51 billion. However, if we look at the numbers over a year, we see clear trends for these channels. The number of image requests for Facebook and Pinterest are both continuously declining, while Instagram remains stable and TikTok is rising. Comparing April 2021 to April 2022, Facebook requests declined by 23% and Pinterest by 79%, while Instagram increased by 2% percent, and TikTok shot up by 67%. With nearly two billion requests, TikTok is still far behind Facebook. However many brands use Facebook to authenticate users on their sites, which often initiates image requests of users' profile pictures.

Beyond the classic social media channels, people increasingly engage and share links through private messaging apps or "dark social" channels. In these channels the traffic generated from links shared on apps and platforms like Slack, SnapChat, or WhatsApp is difficult or impossible to trace. Our data reveals a growing demand for these channels. In terms of images or videos delivered to these applications, SnapChat is the most popular with more than 5.5 billion requests, followed by WeChat with 4.5+ billion requests and Facebook Messenger with 3.5+ billion requests. Looking at the numbers over the course of a year, image requests for WeChat increased 76%, while SnapChat decreased by 2% percent, and Facebook Messenger by 21%.

In the world of business communications, Slack's image requests grew by 46%. And given its more professional usage, the overall number of more than 83.5 million requests is quite significant.

154 B

image requests for Facebook

46%

INCREASE IN IMAGE REQUEST FOR SLACK SHOWS THE IMPORTANCE OF IMAGES IN BUSINESS COMMUNICATIONS

PRO TIP

MAKE YOUR VIDEOS READABLE

For better accessibility, and given that most videos are watched with sound off, add transcripts. AI-based video transcription makes automating this process easy.

For more tips, read our guide *How to Prepare Videos for Social Media*

Read the Guide

SECTION

GOING GREEN WITH IMAGE AND VIDEO OPTIMIZATION

Digital transformation and sustainability: two big initiatives keeping business leaders awake at night. But there is good news: research from Bain & Company and the World Economic Forum found that 40% of executives believe digital technologies are positively impacting their sustainability goals. As brands become increasingly reliant on visual media to connect and engage with consumers, ensuring those assets are managed and delivered as optimally, and sustainably, as possible is critical.

Bandwidth and CO_2

The American Council for an Energy-Efficient Economy, calculates that every gigabyte of data transferred takes 5.12 kWh of electricity. According to the U.S. Department of Energy, the average US power plant expends 600 grams of CO_2 for every kWh generated. This means that transferring 1 GB of data produces roughly 3 Kg of CO_2.

One of the best ways to improve the CO_2 footprint of a website or app is by reducing bandwidth. And one of the most effective ways to reduce bandwidth is to reduce image and video file sizes.

Not as easy as it sounds when you're managing tens of thousands to millions of visual media assets, which is why technologies that automate the process are key. For example, Cloudinary's AI-based tools automatically determine an image or video's optimal file size and quality, and convert it into a newer, more lightweight format or codec that best matches the user's device.

Transferring 1 GB of data produces 3 Kg of CO_2

1 GB=3 Kg

GOING GREEN WITH IMAGE AND VIDEO OPTIMIZATION

Optimizing video saves 1,890 tons of CO_2

To illustrate, a top international sports apparel brand was able to reduce bandwidth consumption by 40% from 6.8 TB per day to 4.05 TB per day. Annualized, the company saved 618 TB of bandwidth, which equals 1,890 tonnes of CO_2 saved. This savings is equivalent to taking more than 400 gasoline-powered cars off the road or conserving enough energy to power 368 homes for a year.

Of course, sustainability is a complex puzzle and reducing the emissions of a website is just one piece of it. But as more and more of our lives move online it's hardly insignificant. Neither is saving 1,890 tons of CO_2 per year. Everything businesses can do to reduce bandwidth takes them that much closer to meeting their sustainability goals.

Read here to learn other actions you can take to save bandwidth.

CASE STUDY

TIPS FOR SAVING BANDWIDTH AND REDUCING CO_2 FOOTPRINT

The easiest way to optimize images and videos is by using automation. AI-based tools like Cloudinary automatically set the optimal file format, file size, compression rate, and visual quality for an image or video ‘on-the-fly’, ensuring as little bandwidth as possible is used but still enough to display well on your visitors' devices.

Other things you can do to save bandwidth:

- **Use smaller, lightweight image formats and video codecs for frequently used images and videos like WebP, AVIF, JP2, HEIC and JPEG XL or AV1.**
- **Use compression not only to reduce the file size of images or videos, but also for HTTP compression for text-based content or compression to optimize JavaScript or CSS code.**
- **Use caching/ CDN to reduce bandwidth load. The closer the cache is placed to the users, the more the traffic and CO_2 footprint can be reduced.**
- **Use lazy loading to display heavy elements, such images or videos, only when the user scrolls down.**
- **Use data centers that use renewable energy.**

CONCLUSION

Are you ready to unleash the full potential of your visual media?

Visual storytelling will always be a blend of art and science, a mix of creativity and technical innovation. Employing the right media-first tactics and technology will ensure your visuals are displaying and connecting the way you intend, in the fastest, most efficient way possible. By removing media bottlenecks, you unleash the full potential of your media and deliver digital experiences that engage and inspire, anywhere in the world, on every channel and device.

Cloudinary

About Cloudinary

Cloudinary's mission is to empower companies to deliver visual experiences that inspire and connect by unleashing the full potential of their media. With 60 billion assets under management and nearly 10,000 customers worldwide, Cloudinary is the industry standard for developers, creators and marketers looking to manage, transform, and deliver images and videos online. As a result, leading brands like Atlassian, Bleacher Report, Bombas, Grubhub, Hinge, NBC, Mediavine, Minted, Peloton and Petco are seeing significant business value in using Cloudinary, including faster time to market, higher user satisfaction and increased engagement and conversions. For more information, visit www.cloudinary.com.