
AWS
re:Invent
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STG003

Shutterstock's cloud storage revolution with Amazon S3

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Agenda

Architecture and migration to AWS

Shutterstock's Amazon S3 evolution and access patterns

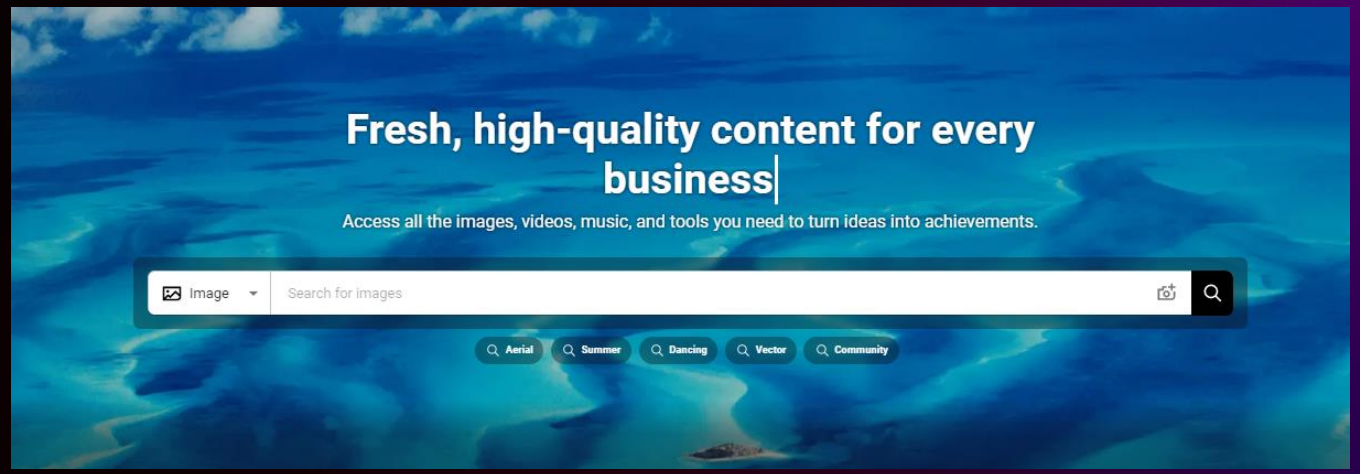
Cost savings with Amazon S3 Intelligent-Tiering

Ongoing development and future state

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Shutterstock storage use case

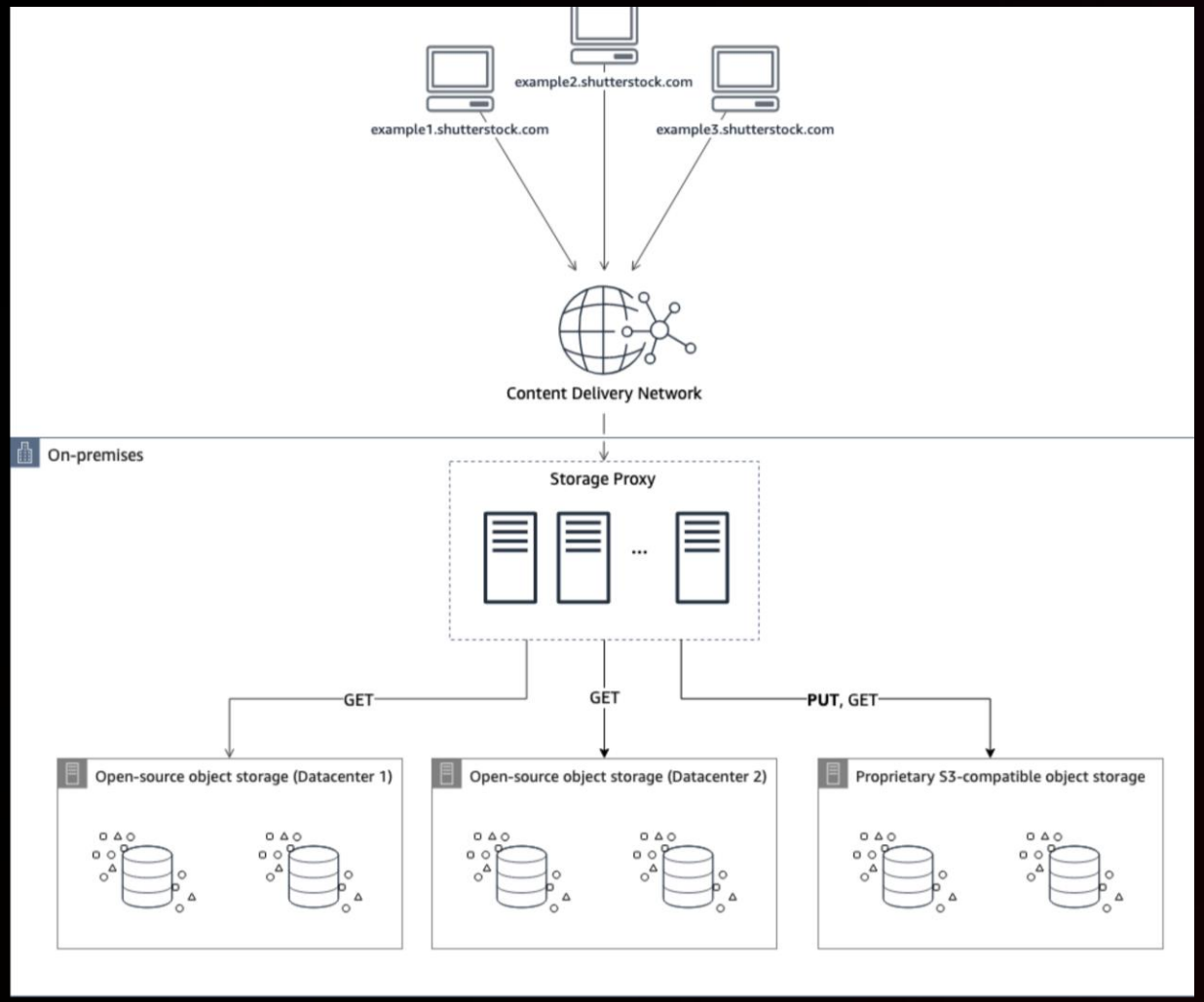
- 420 million images
- 25 million videos
- Millions of MP3s, sound effects, and 3D models
- Multi-PB data lake
- Catalog grows ~200,000 images each day



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shutterstock

2015 – On-premises footprint



- Strangler Fig Pattern application design
- 4 PBs of images
- 4 data centers with 5,000 physical drives
- Runaway upkeep costs

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2020 – Amazon S3 driving savings

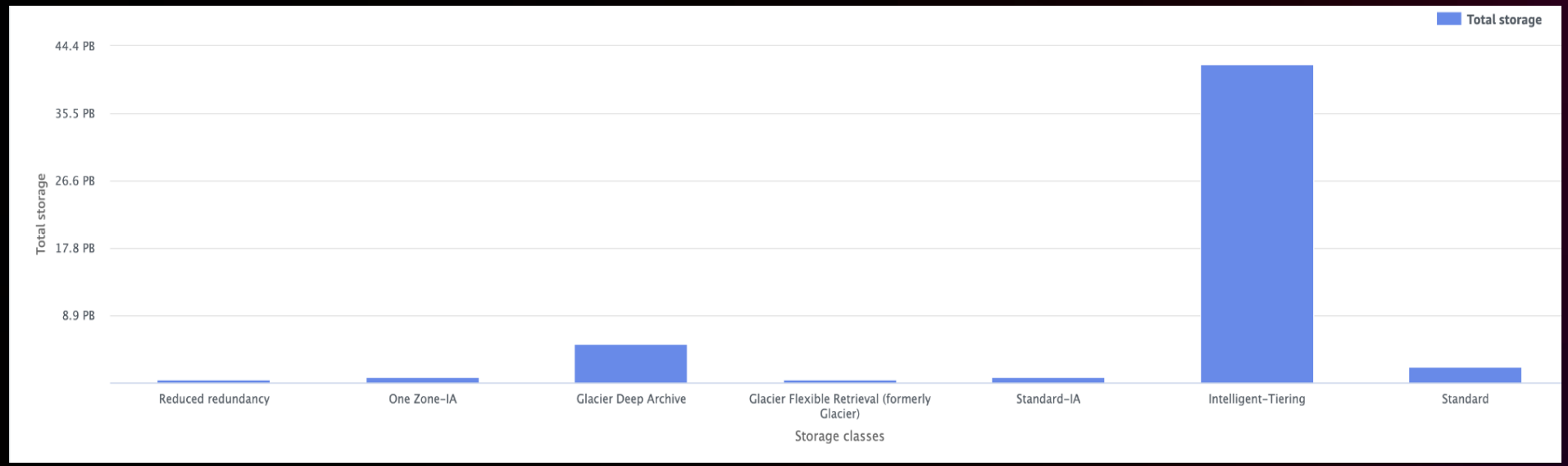


- Scaled from 4 PB to 16 PB of customer content (40 PB+ data lake)
- Scaled from a single account to hundreds of accounts
- Applications directly leverage S3 for content delivery and ingestion
- Infrastructure teams recovered 20 - 50% of working time from maintenance activities
- Amazon CloudFront performs just-in-time image transcoding offloading 1 billion requests per day to S3

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Amazon S3 Intelligent-Tiering

- Shutterstock average object size of 2 MB
- 40+ PBs in S3 Intelligent-Tiering
- Automatically delivers lowest cost for rarely access data without impact to performance
- Easy button for storage optimization
- Protected by service control policies

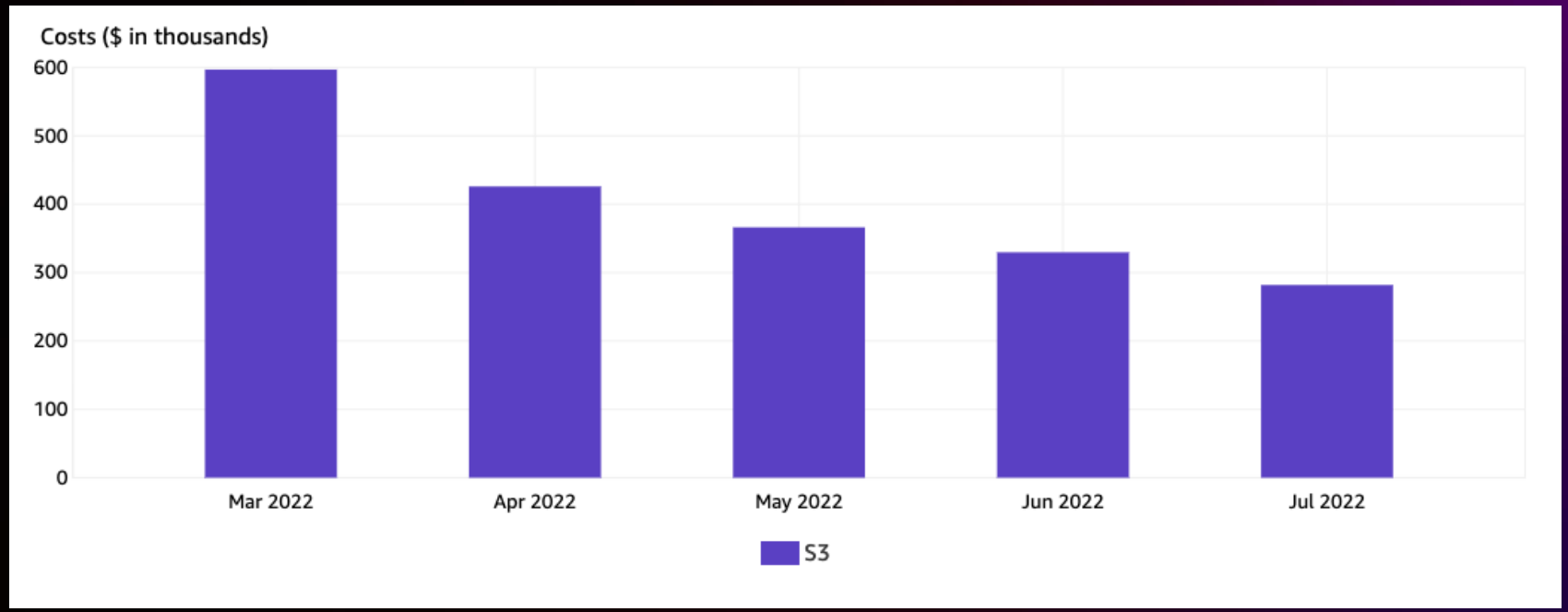


Distribution by Amazon S3 storage class

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Amazon S3 Intelligent-Tiering cost savings

- 53% cost reduction from S3 Standard storage class
- No impact to consumer request latency
- Discounts sustained through 5 months of content ingestion and growth



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2022 and beyond



- Multiple S3 Access Points near applications
- Strangler Fig abstractions moving to software libraries
- Thousands of buckets in hundreds of accounts
- Confidence in future scalability

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Tips for Amazon S3 and Intelligent-Tiering

Use S3 Storage Lens to be aware of object size

Always S3.PUT with object metadata

Don’t be afraid of opt-in tiers

Start with access logs from Amazon CloudFront or ELBs

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Thank you!

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