

Using the cloud for classified media

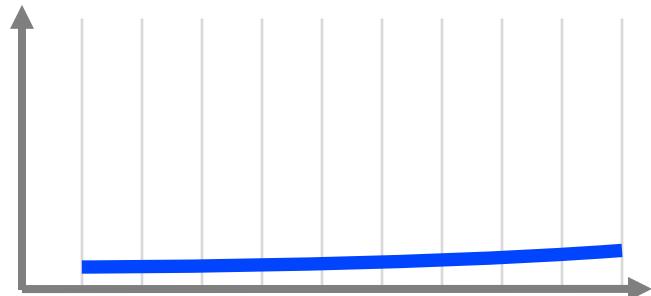
How Amazon Web Services can be used



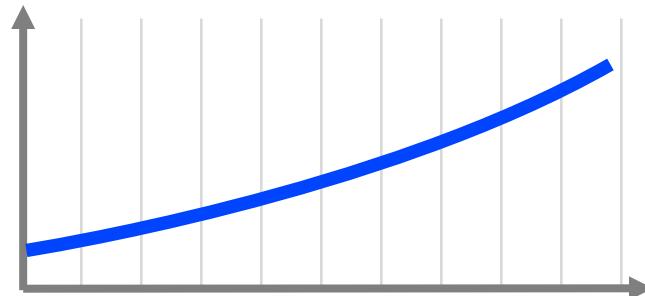
Steffen Krause
Technical Evangelist
@AWS_Aktuell
skrause@amazon.de



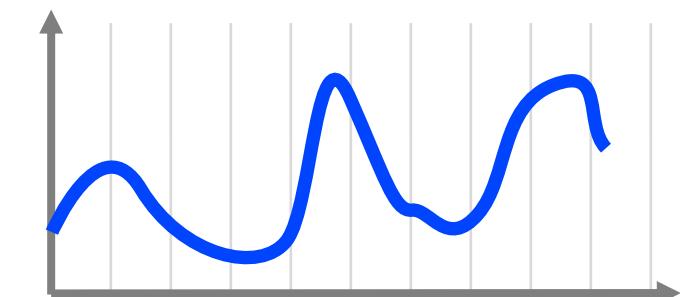
How will your site be?



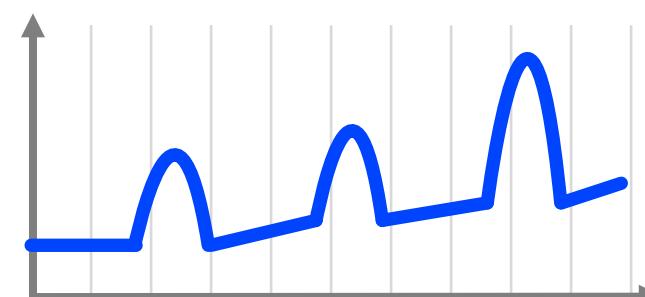
Slow but steady



Fast Growth

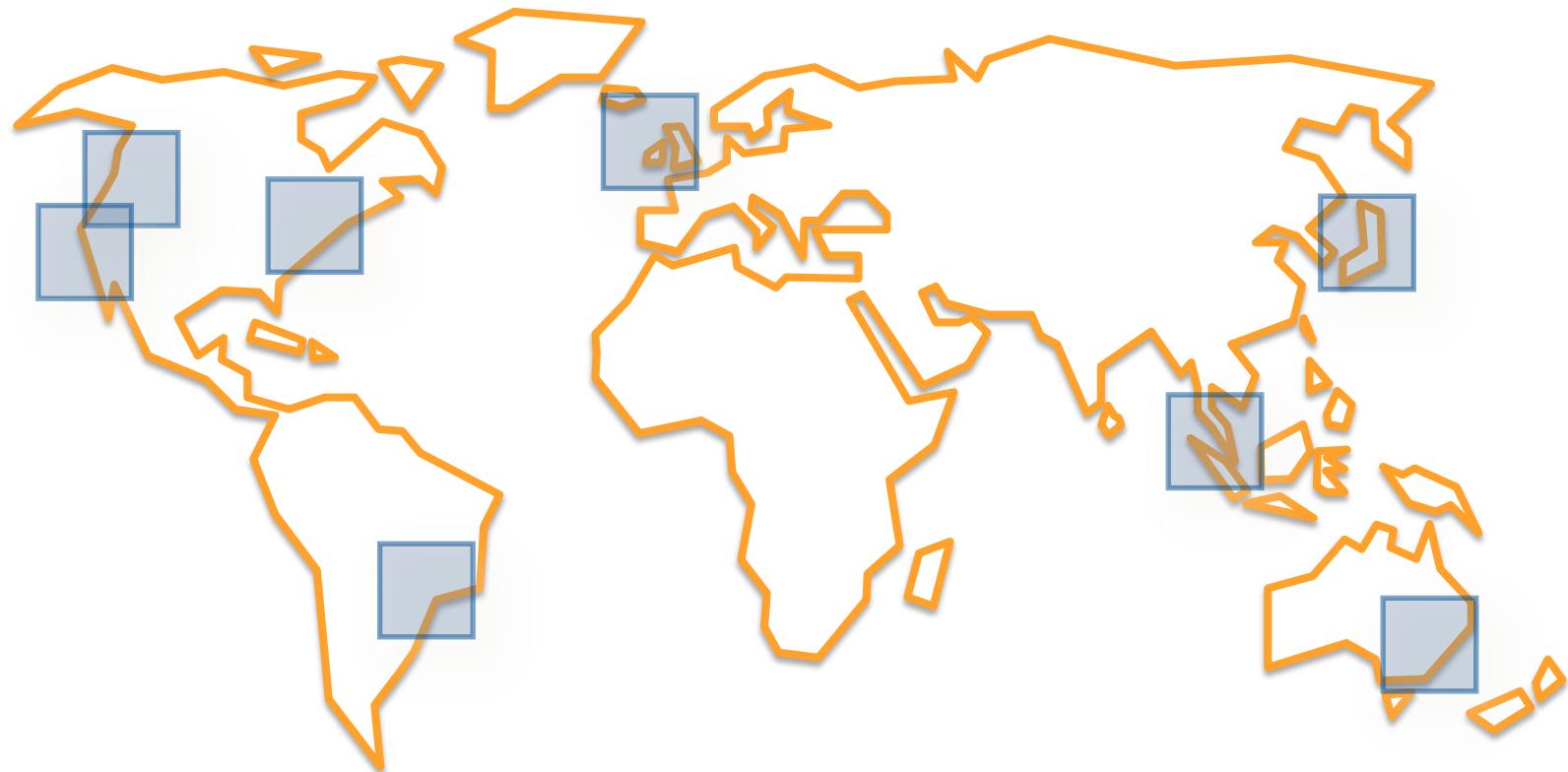


Variable peaks



Predictable peaks

Where are your users?



503

Service Temporarily Unavailable

The server is temporarily unable to service your request due to maintenance downtime or capacity problems. Please try again later.

503

~~Service Temporarily Unavailable~~

The server is temporarily unable to service your request due to maintenance, downtime or capacity problems. Please try again later.

How do you plan for the
unplannable?

Use lots of money...



Utility computing

On demand

Pay as you go



Uniform

Available

On demand

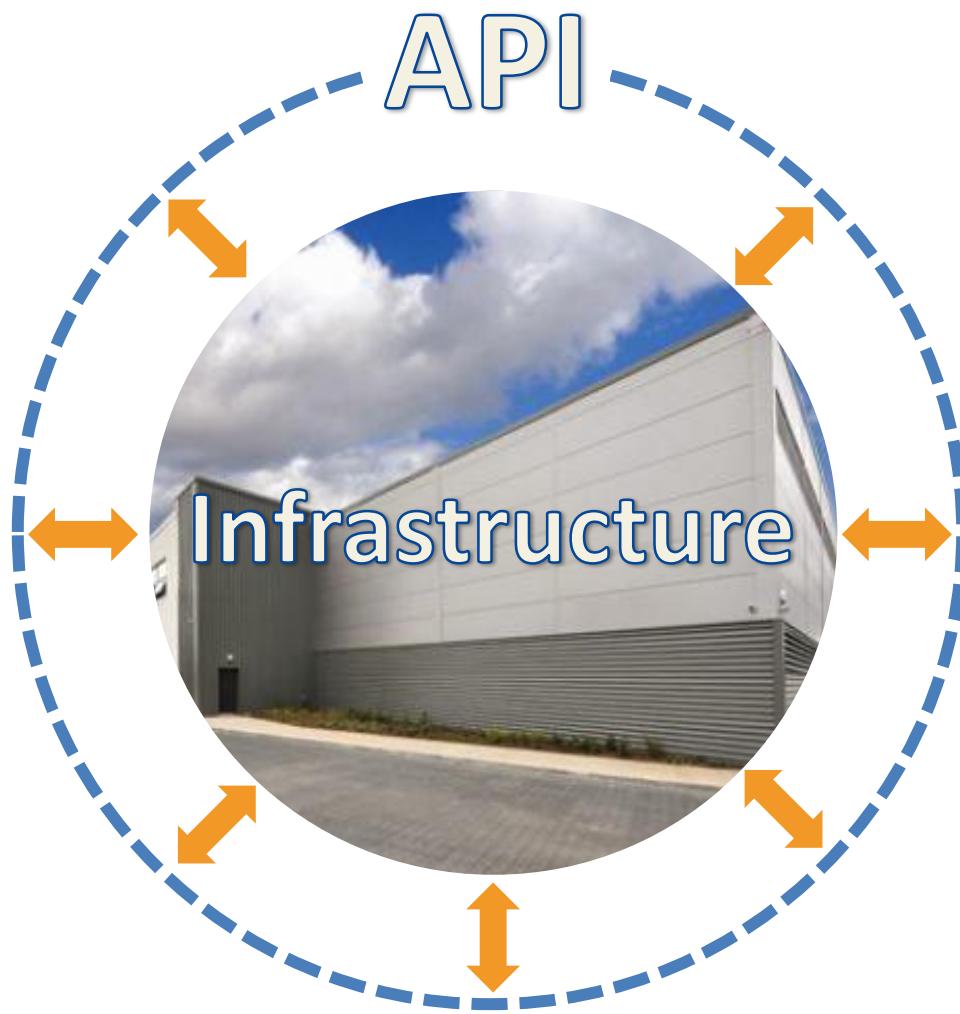
Pay as you go

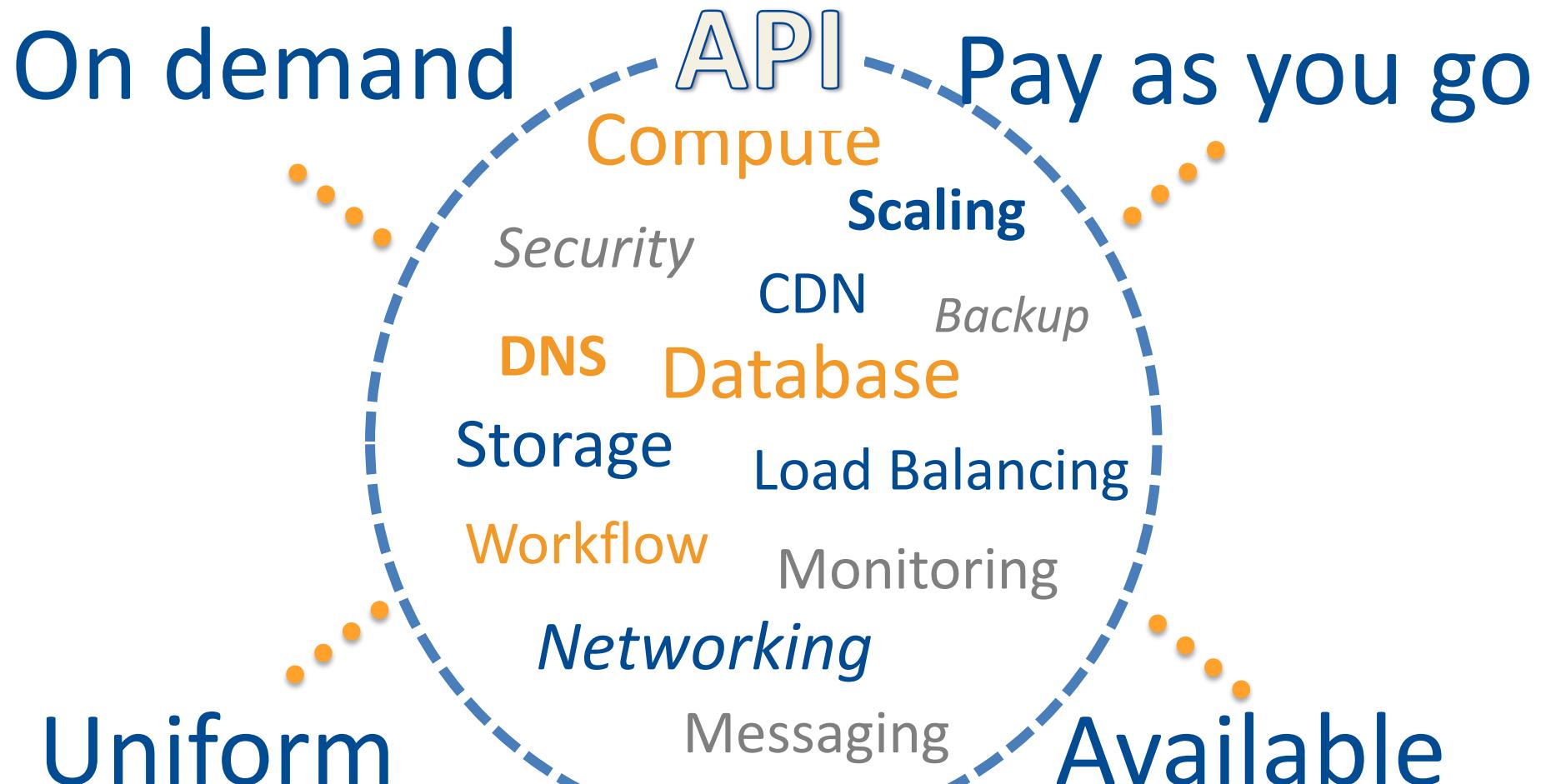


Uniform

Available

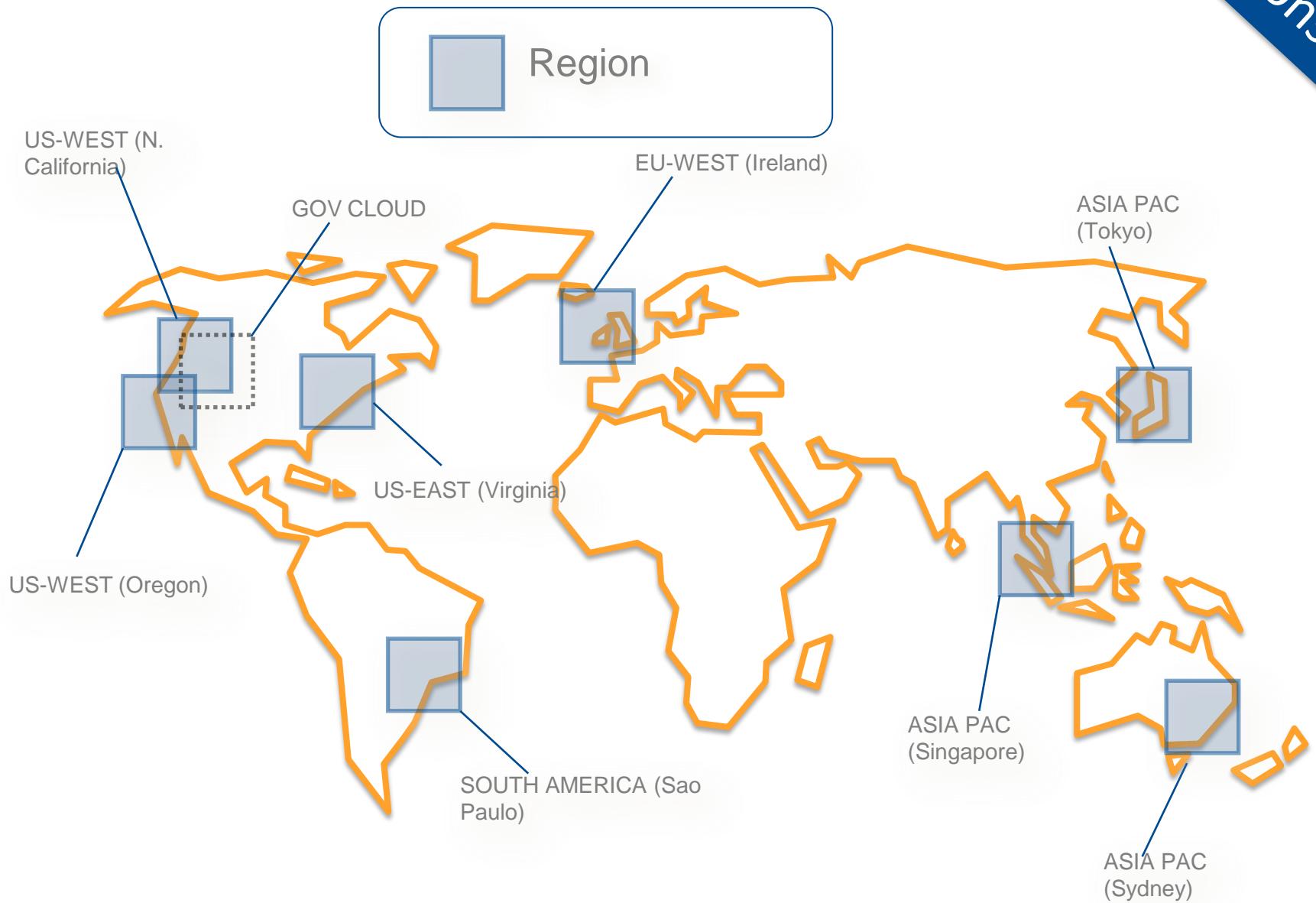
Utility computing





On a global footprint

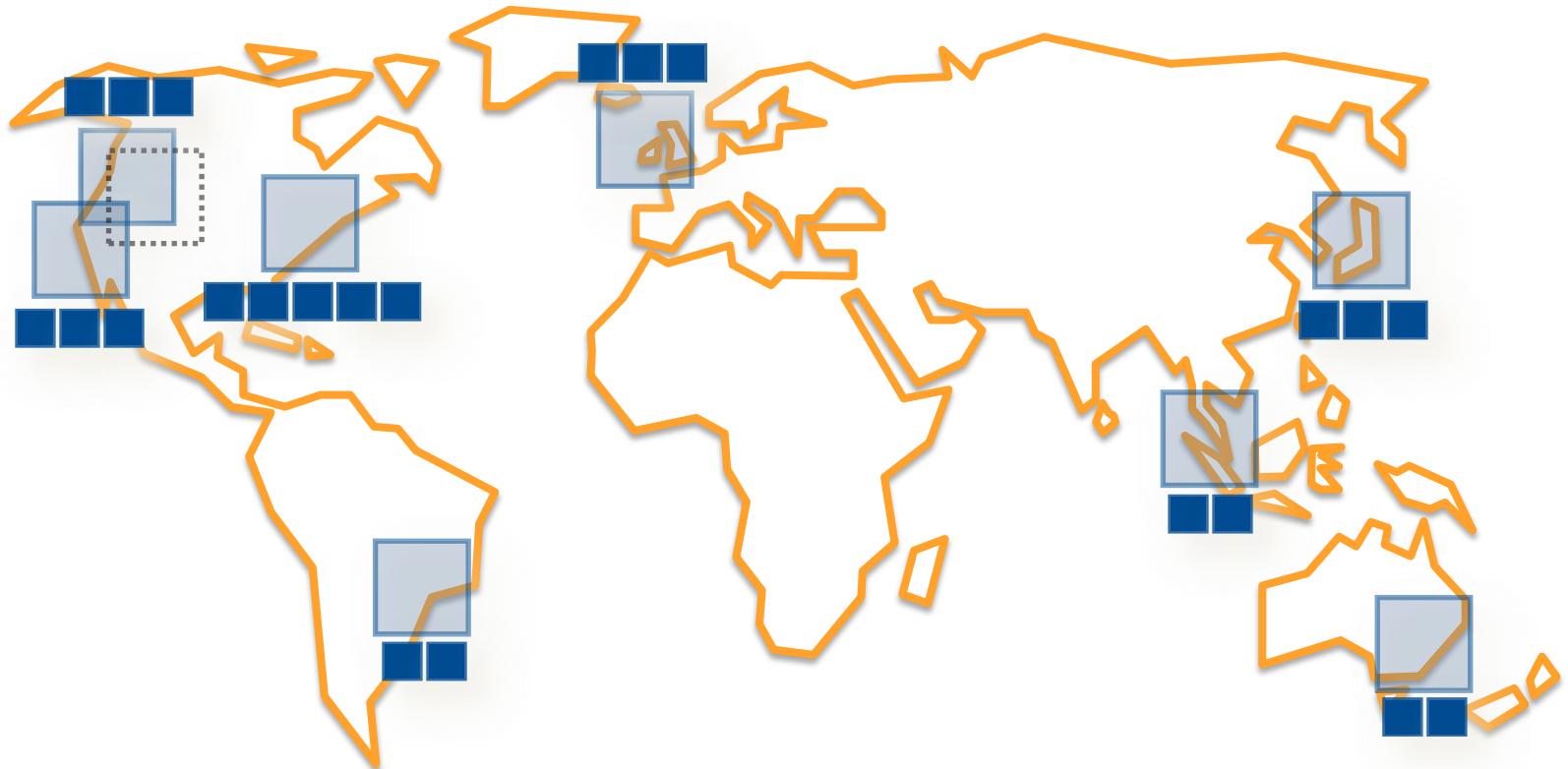
Regions



On a global footprint

Zones

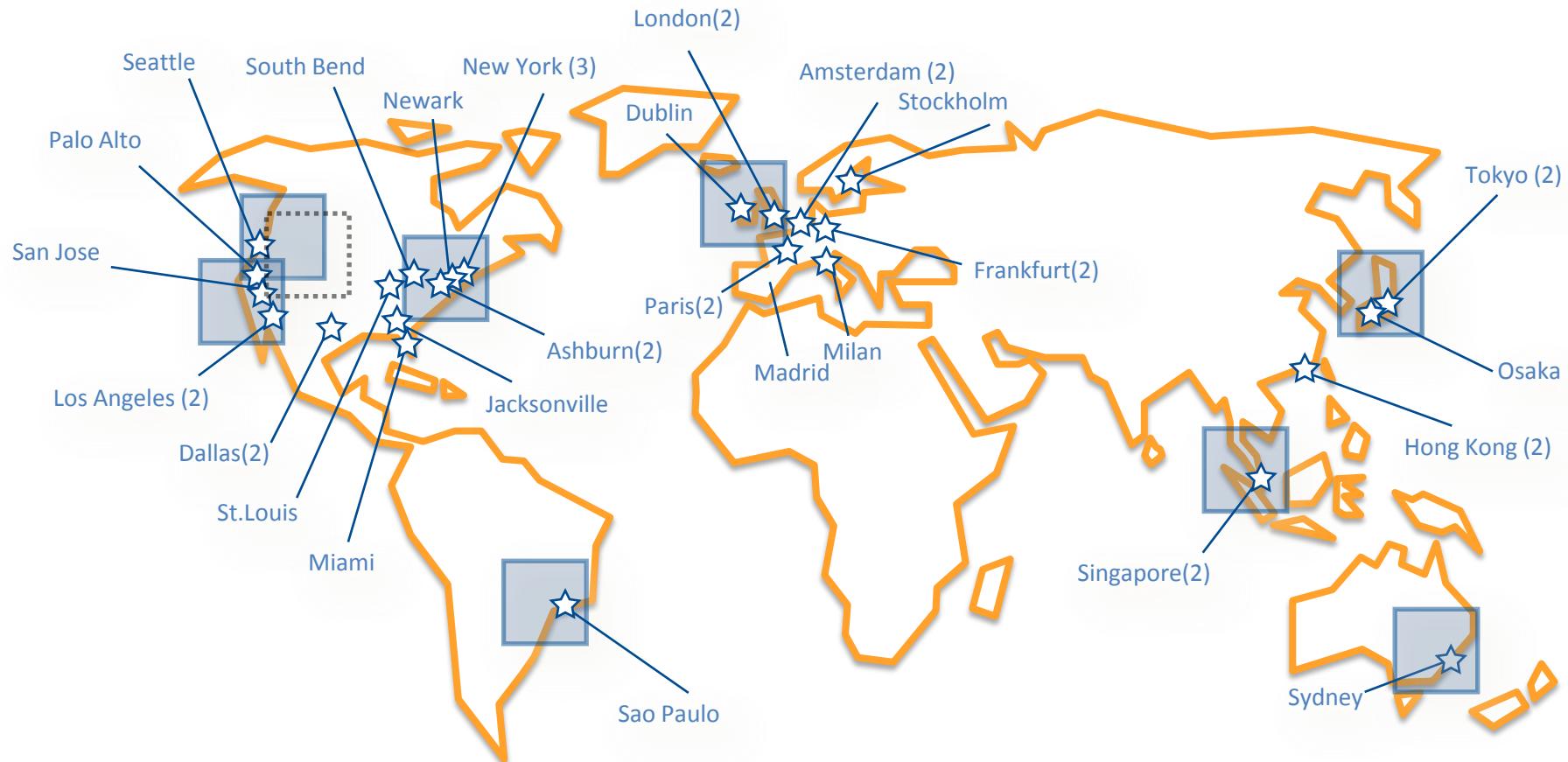
■ Availability Zone



On a global footprint

Edges

Edge Locations



The cloud in classified media

Elasticity for campaigns

Storing and delivering static media

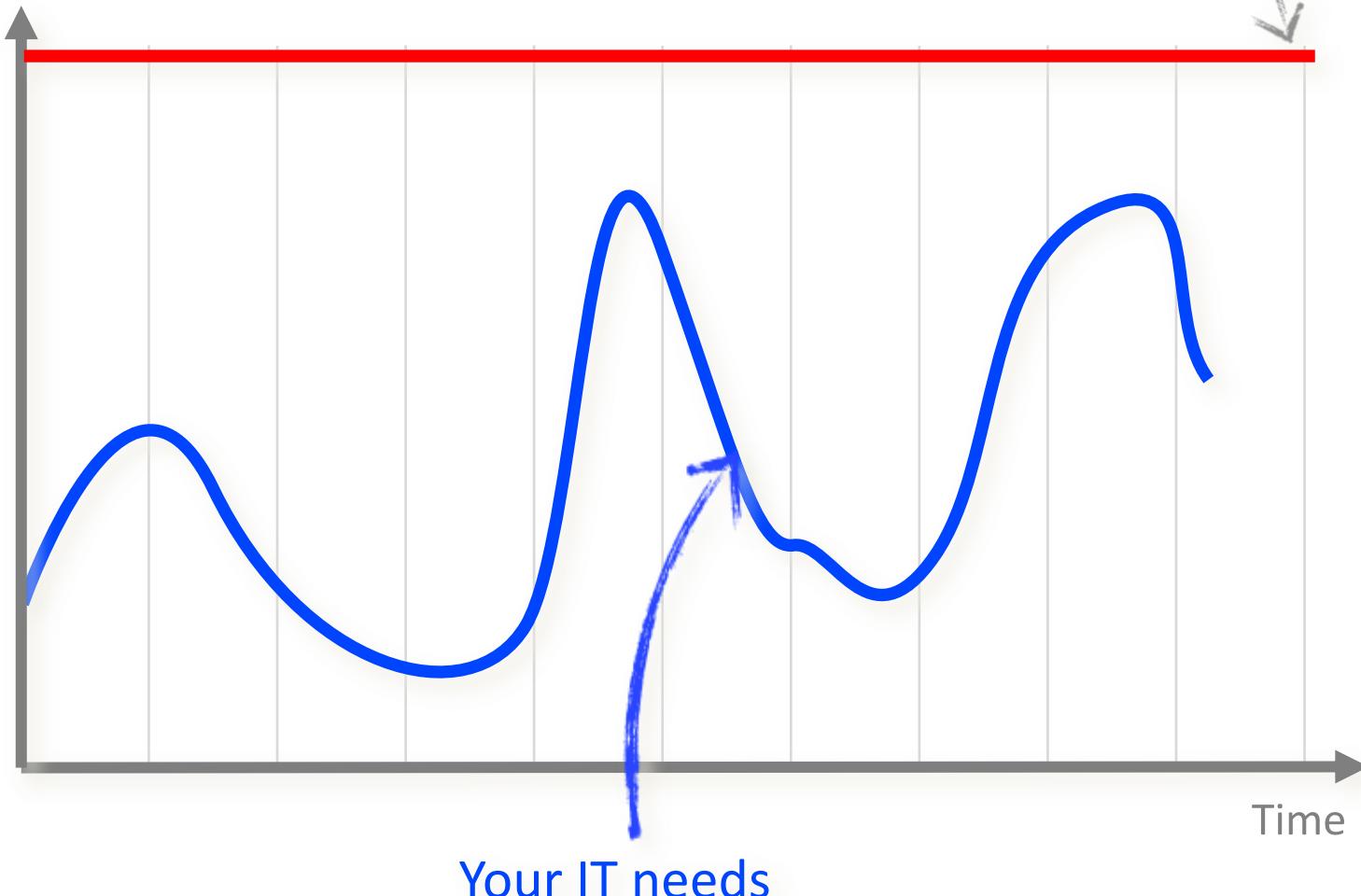
Using big data for ad focusing

Using human workforce as an on-demand resource

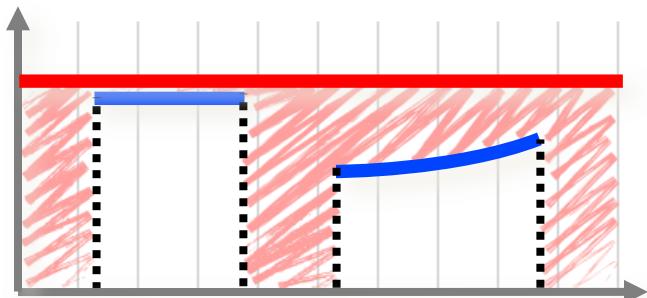
Elastic capacity

Capacity

Traditional IT
capacity



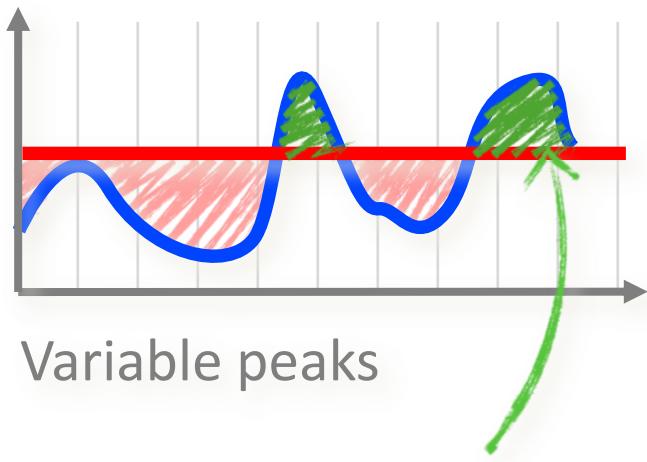
Elastic capacity



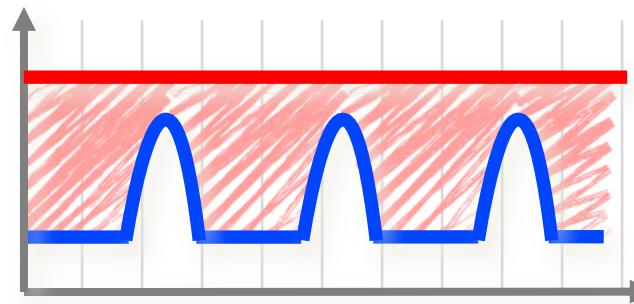
On and Off



Fast Growth



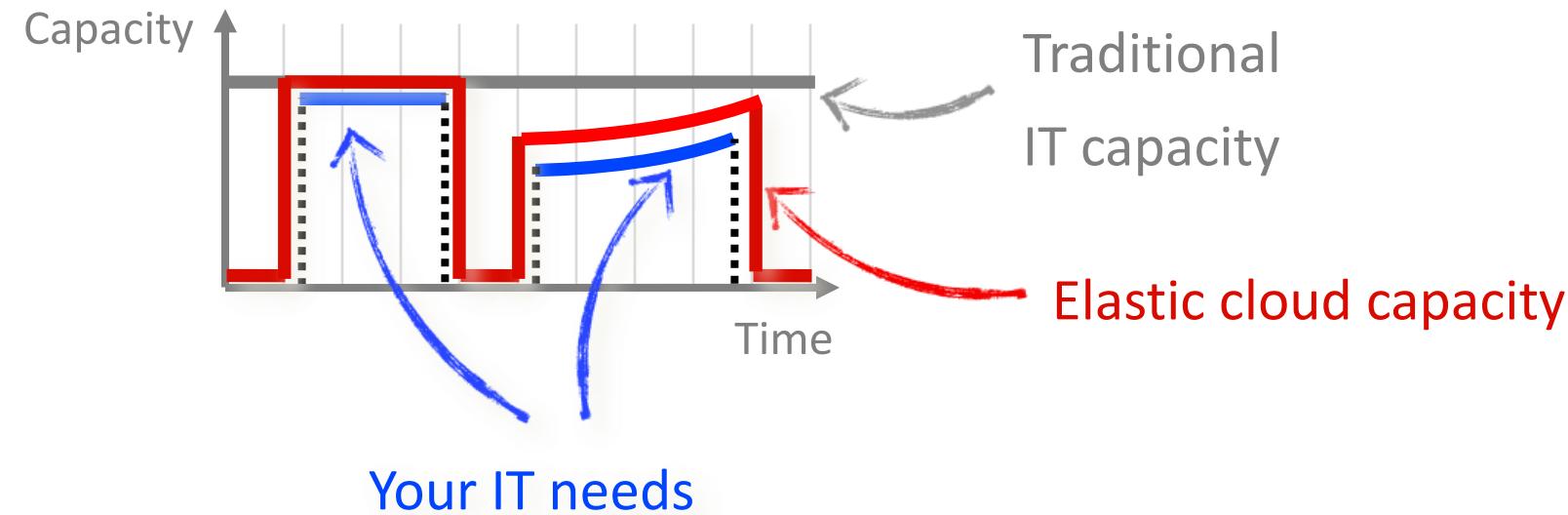
Variable peaks



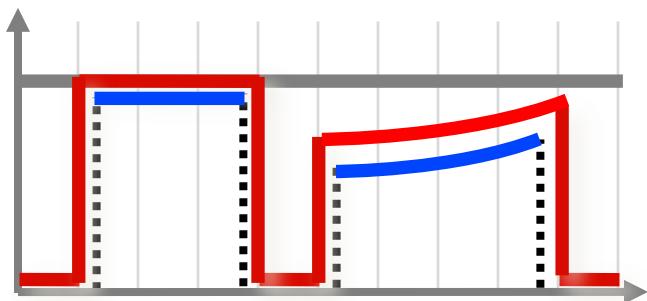
Predictable peaks

CUSTOMER DISSATISFACTION

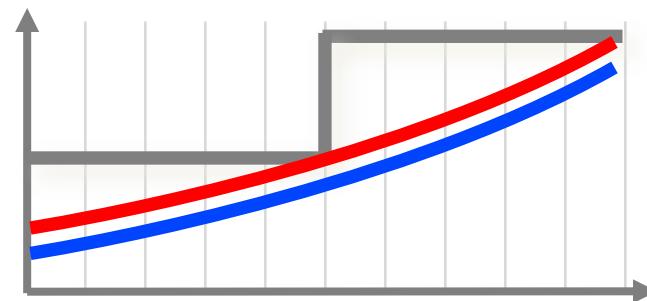
Elastic capacity



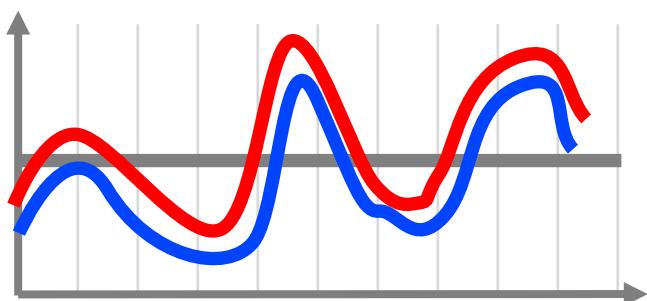
Elastic capacity



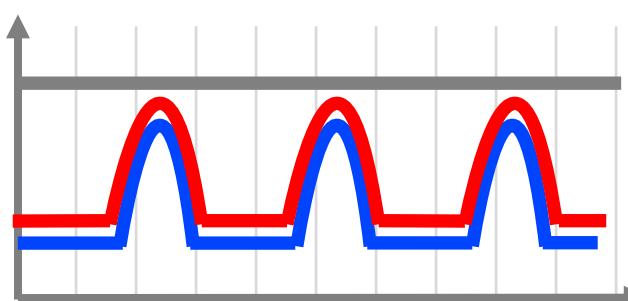
On and Off



Fast Growth



Variable peaks

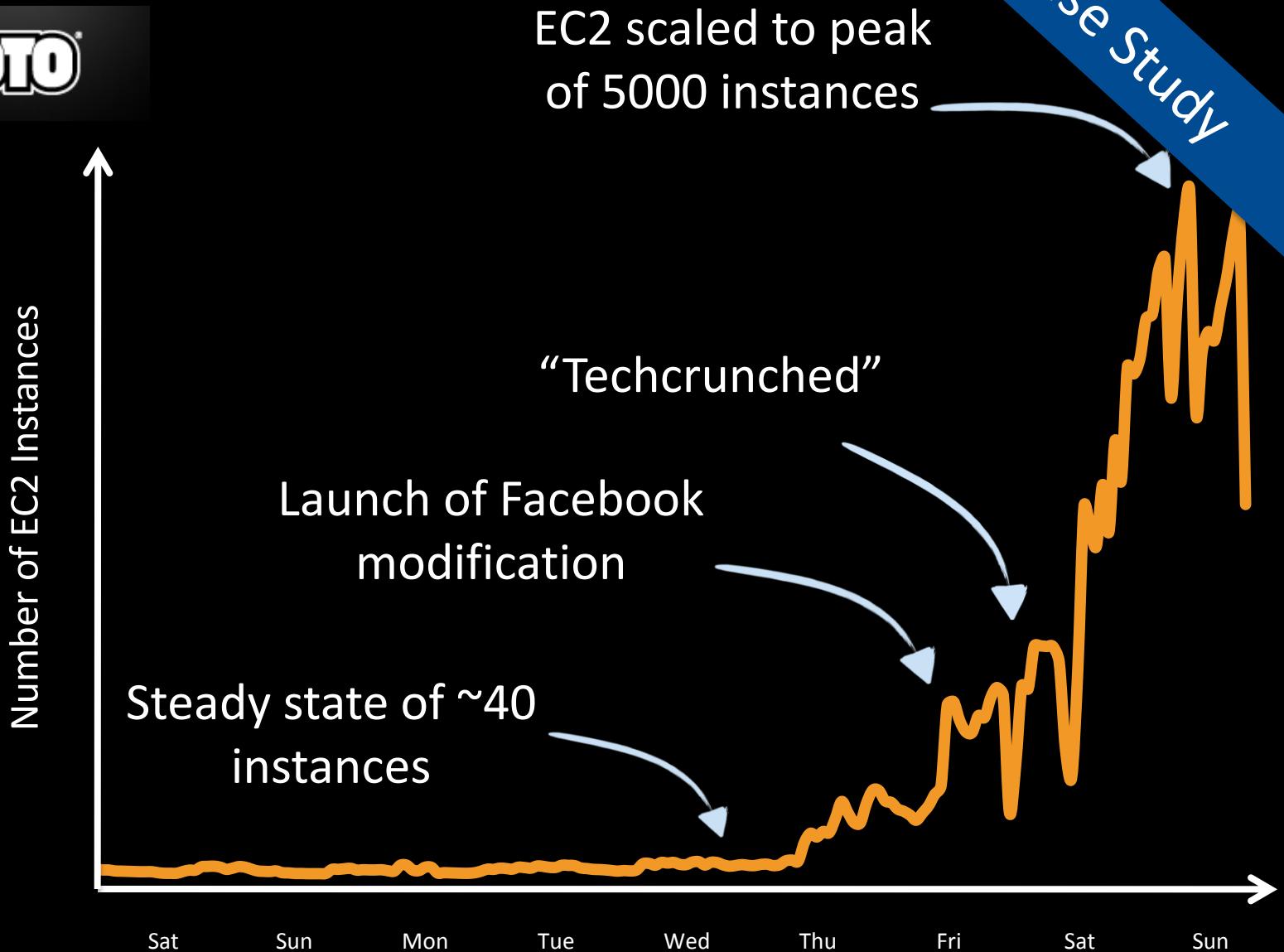


Predictable peaks

40 servers to 5000 in 3 days



Case Study



Customer references



STANDARD
& POOR'S



The New York Times



ticketmaster

ERICSSON



NASDAQ

LIONSGATE



bankinter.

Autodesk®

OUTBACK
STEAKHOUSE®

HAVEN
POWER

SPIEGEL.TV

IBM

the guardian

-KENNETH COE



Airport Nürnberg

EINFACH ABHEBEN.

SAP

LAFARGE

SEGA®

amazon.com

UniCredit

Wooga

barcoo

SILVER A STYLE

EyeEm

movinary
Fotos werden Videos

sage

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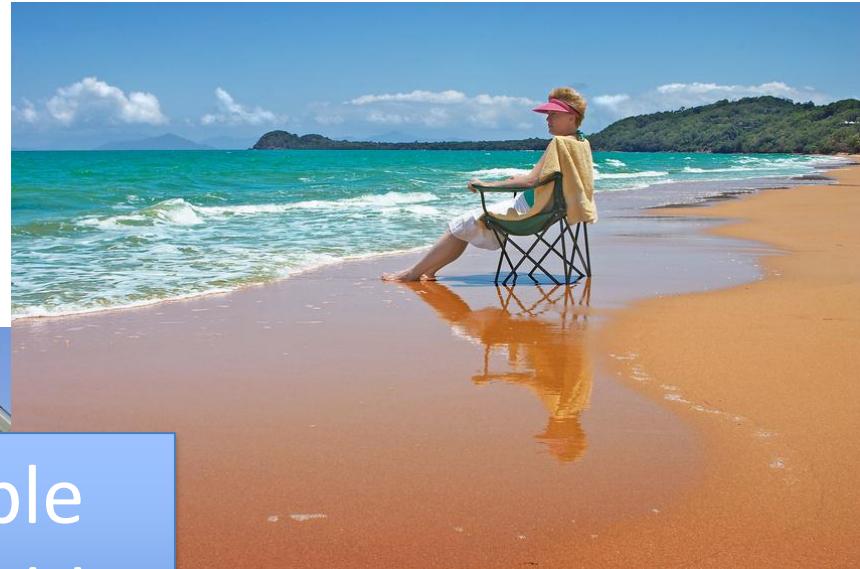
Classified needs richer media



Classified needs richer media



Reliable
Affordable
Low latency



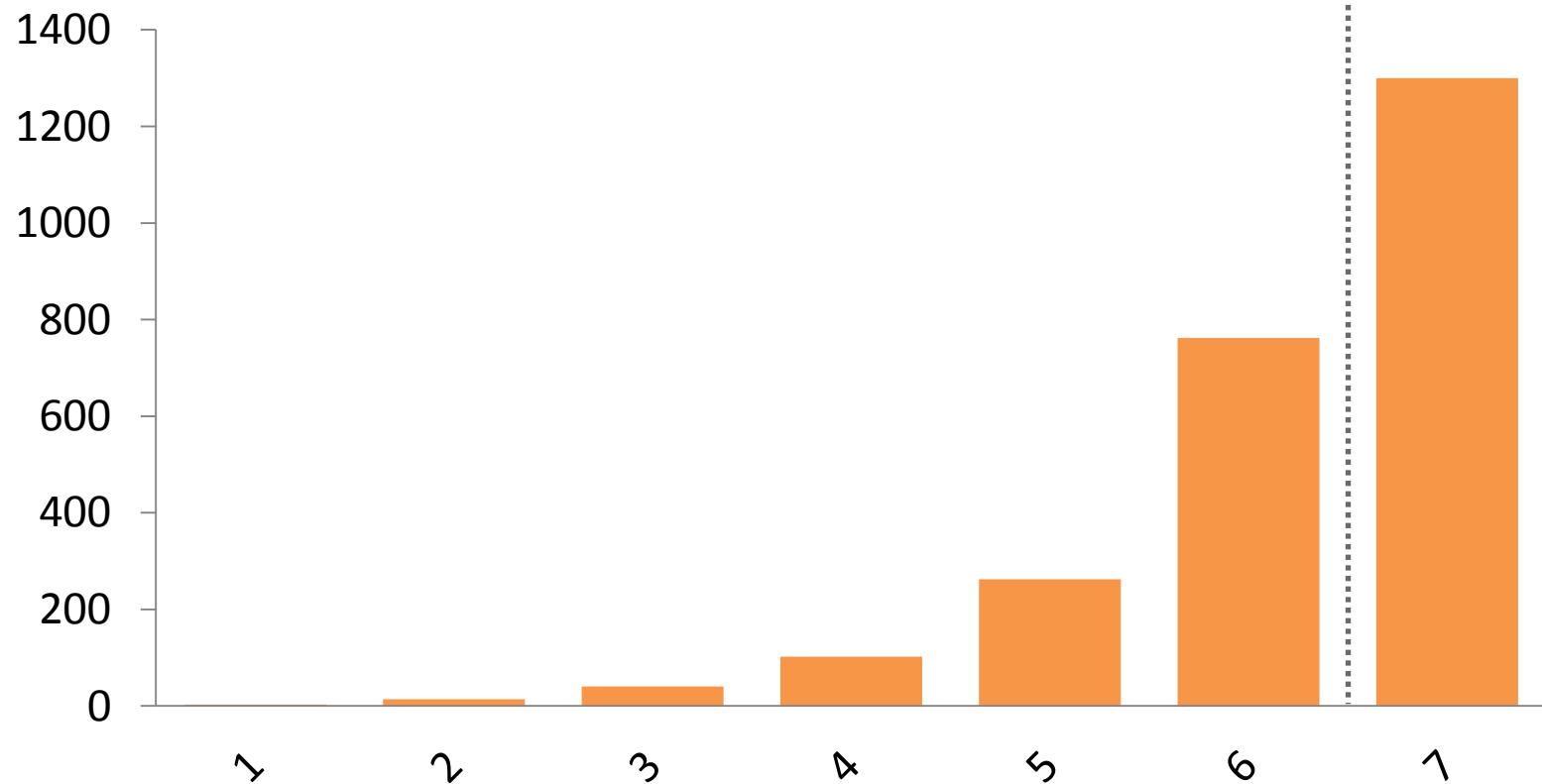
99.999999999%

Durability

Objects in S3

1.3 Trillion*

Billion* objects



835k+ peak transactions per second

* - US measurements: Billion= 10^9 , Trillion= 10^{12}

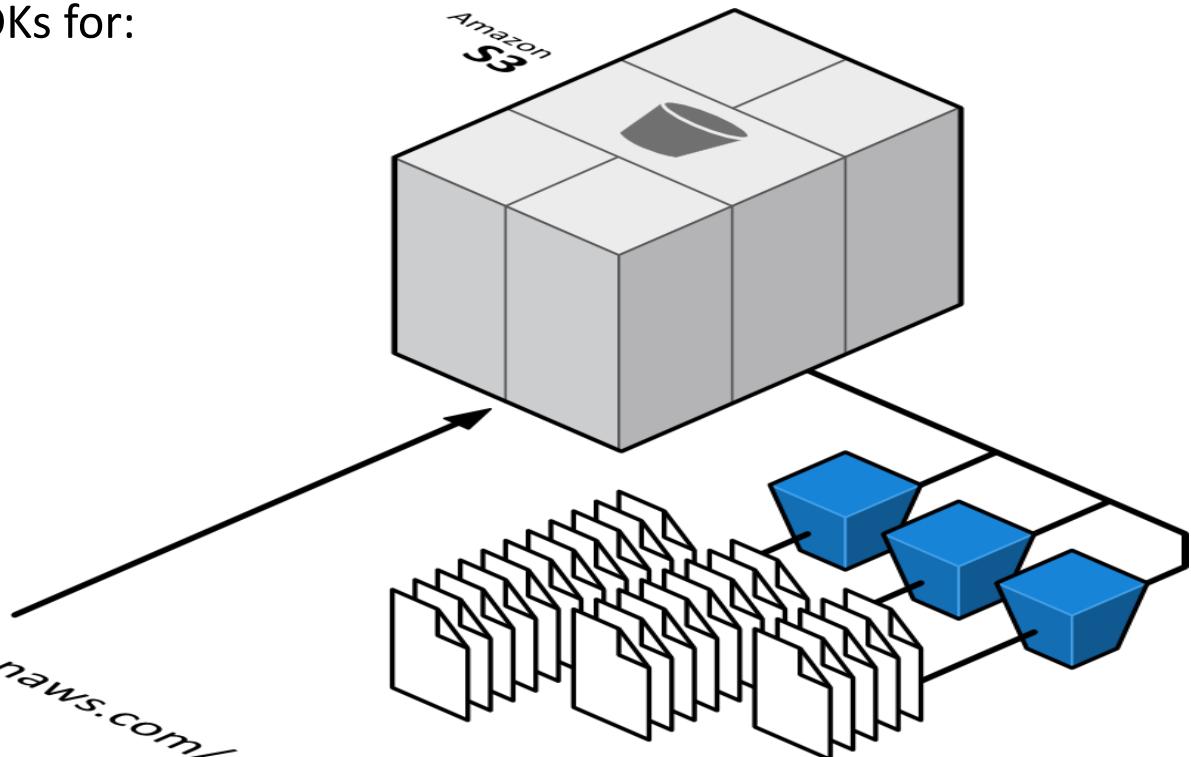
Store unlimited objects

Access S3 via REST or SDKs for:

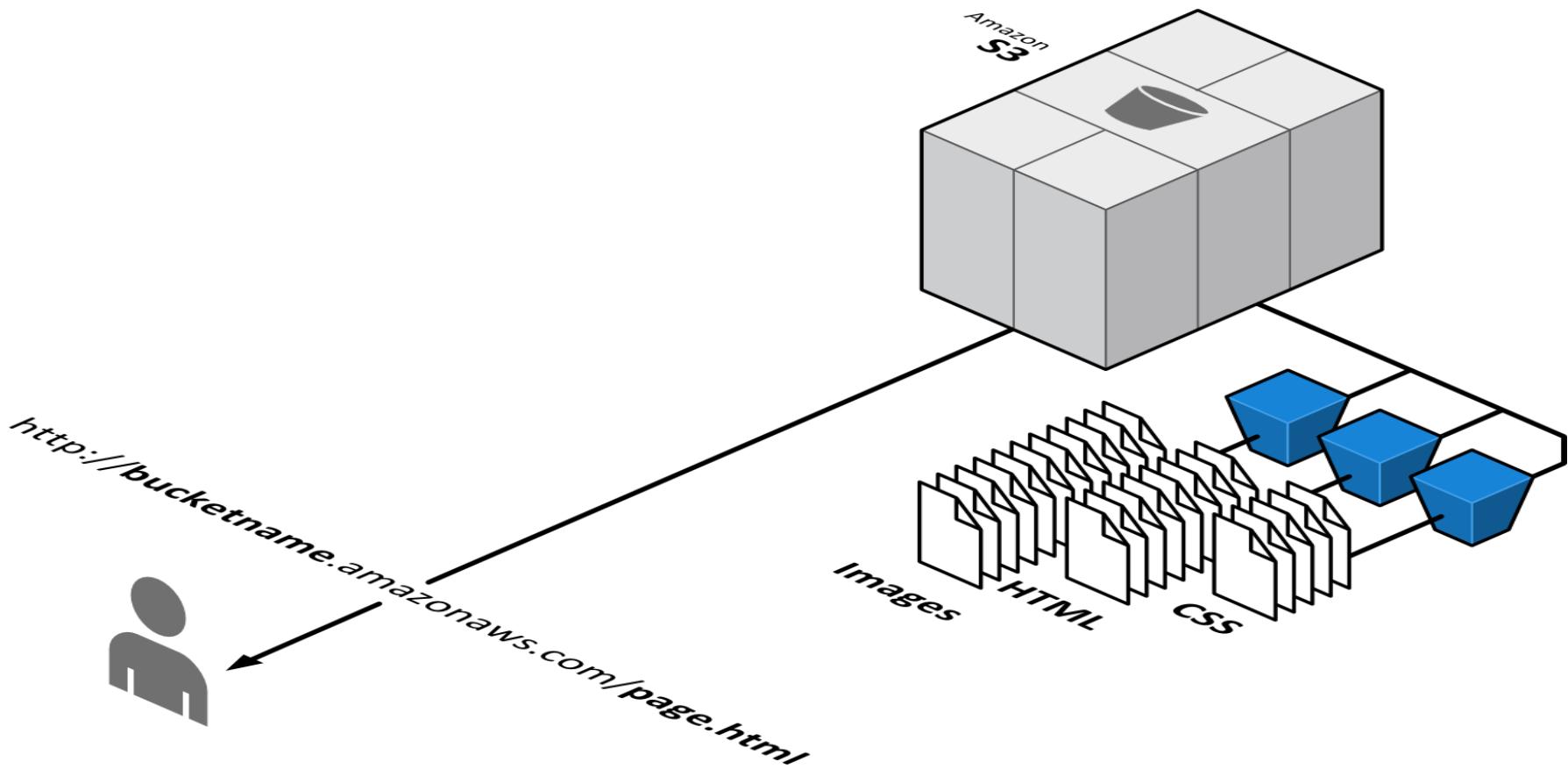
- Java
- .NET
- PHP
- Ruby
- Python
- iOS

Android

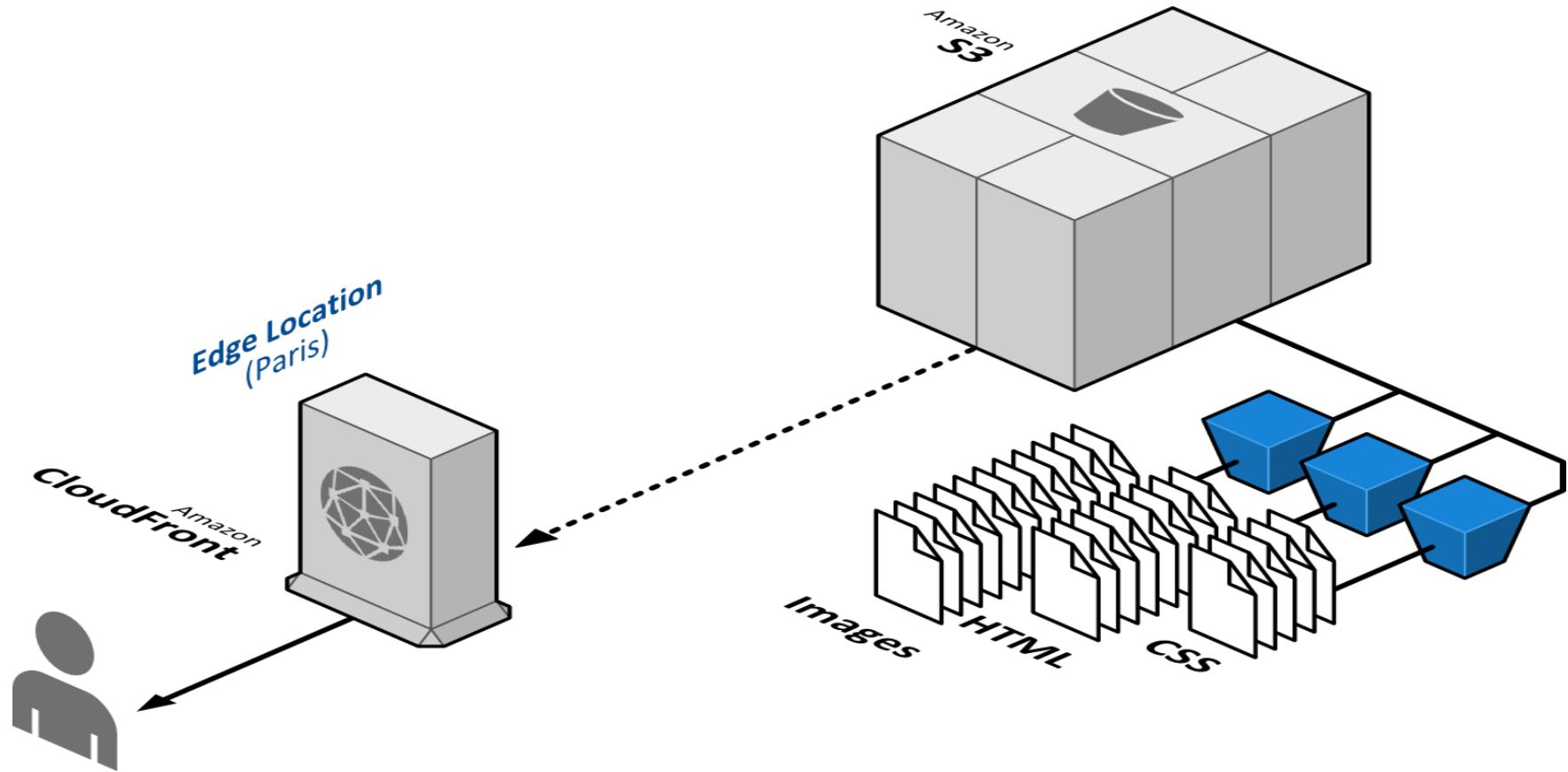
`http://bucketname.amazonaws.com/objectname`



Serve static content



Low latency delivery



Archive integration

Automatically move Amazon S3 files to Glacier via Lifecycle Policies
Archive data at 1 cent per GB and month

Lifecycle Rule Cancel 

Create a lifecycle rule to schedule the [archival](#) of objects to Glacier and/or [permanent removal](#) of objects. Objects transitioned to Glacier will no longer be immediately accessible. Most restores for transitioned objects will take 3 to 5 hours. [Learn more](#).

Enabled:

Name (Optional):

Apply to Entire Bucket:

Prefix:

Time Period Format: Days from the creation date Date

Action	Time Period	Remove
Move to Glacier	100 days from object's creation date	
Expiration (Delete Objects)	200 days from object's creation date	

 **Move to Glacier**  **Expiration**

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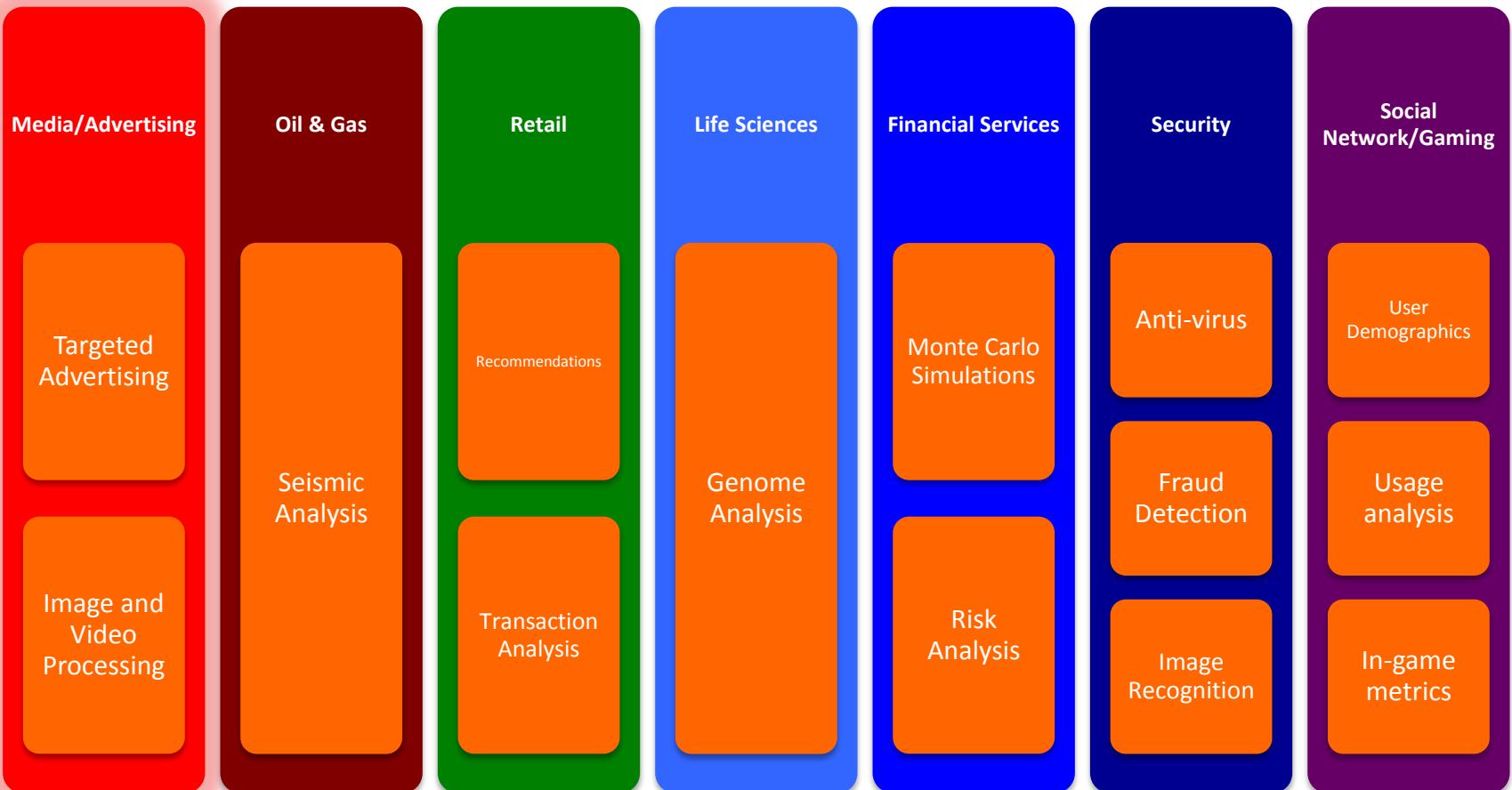
Using big data for ad focusing

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BIG-DATA

The collection and analysis of large amounts of data to create a competitive advantage

Big Data Verticals

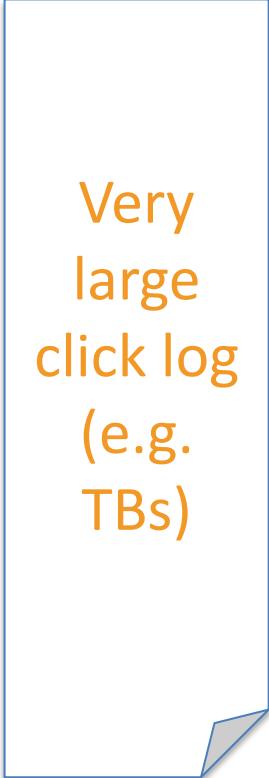


Storage  Big Data  Compute

When data sets and data analytics need to scale to the point that you have to start *innovating* around how to collect, store, organize, analyze and share it

Log Analysis

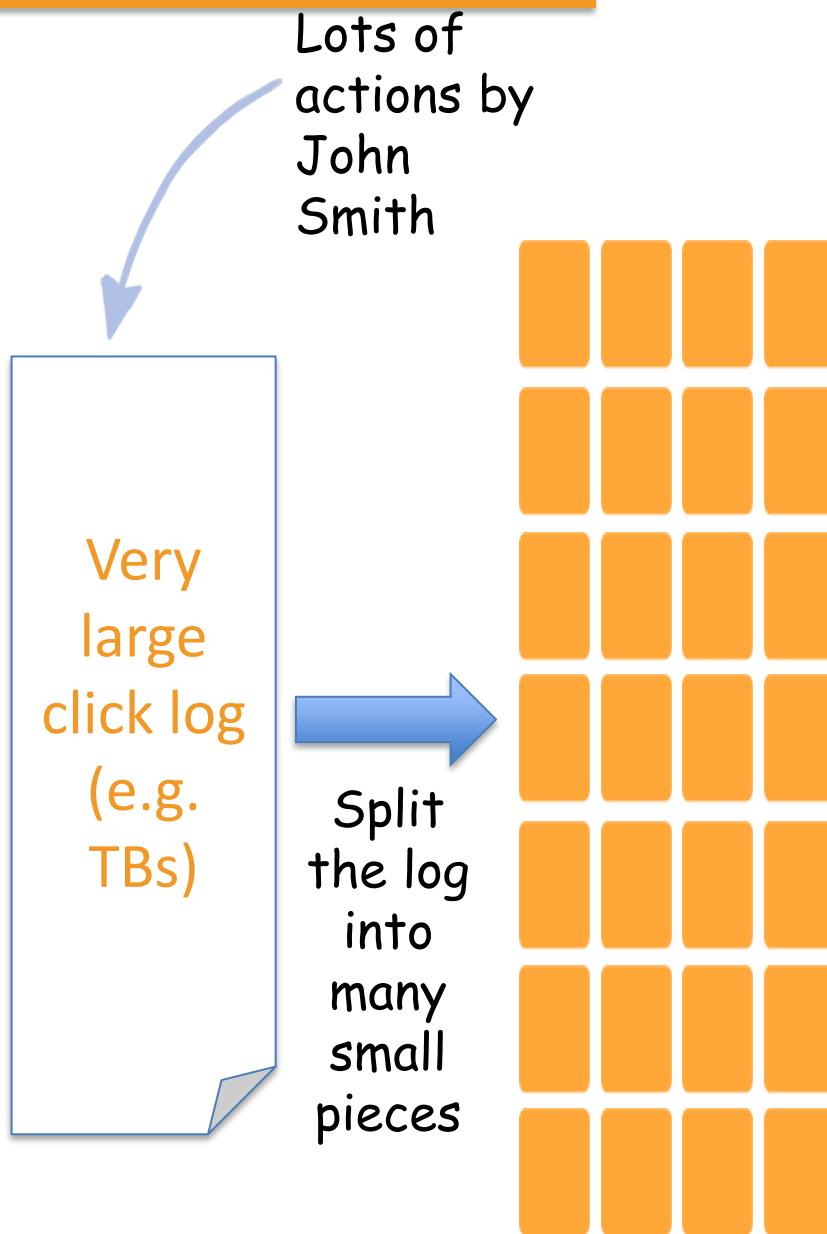
Lots of
actions by
John
Smith



Very
large
click log
(e.g.
TBs)

A blue arrow points from the text "Lots of actions by John Smith" to the bottom right corner of a large blue rectangular box. The box contains the text "Very large click log (e.g. TBs)".

Log Analysis



Log Analysis

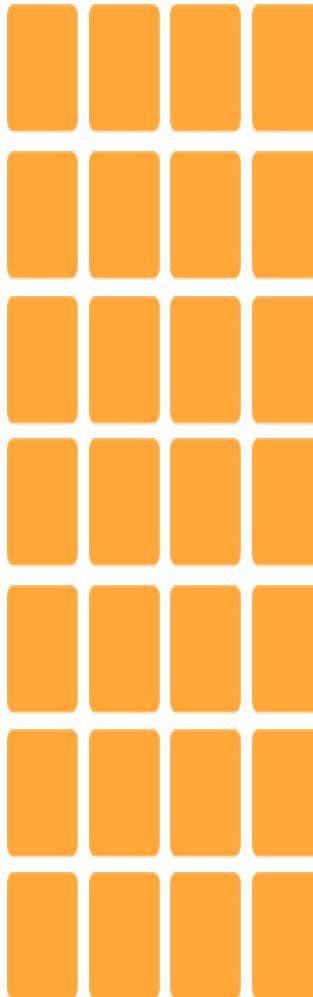
Very large click log (e.g. TBs)

Lots of actions by John Smith

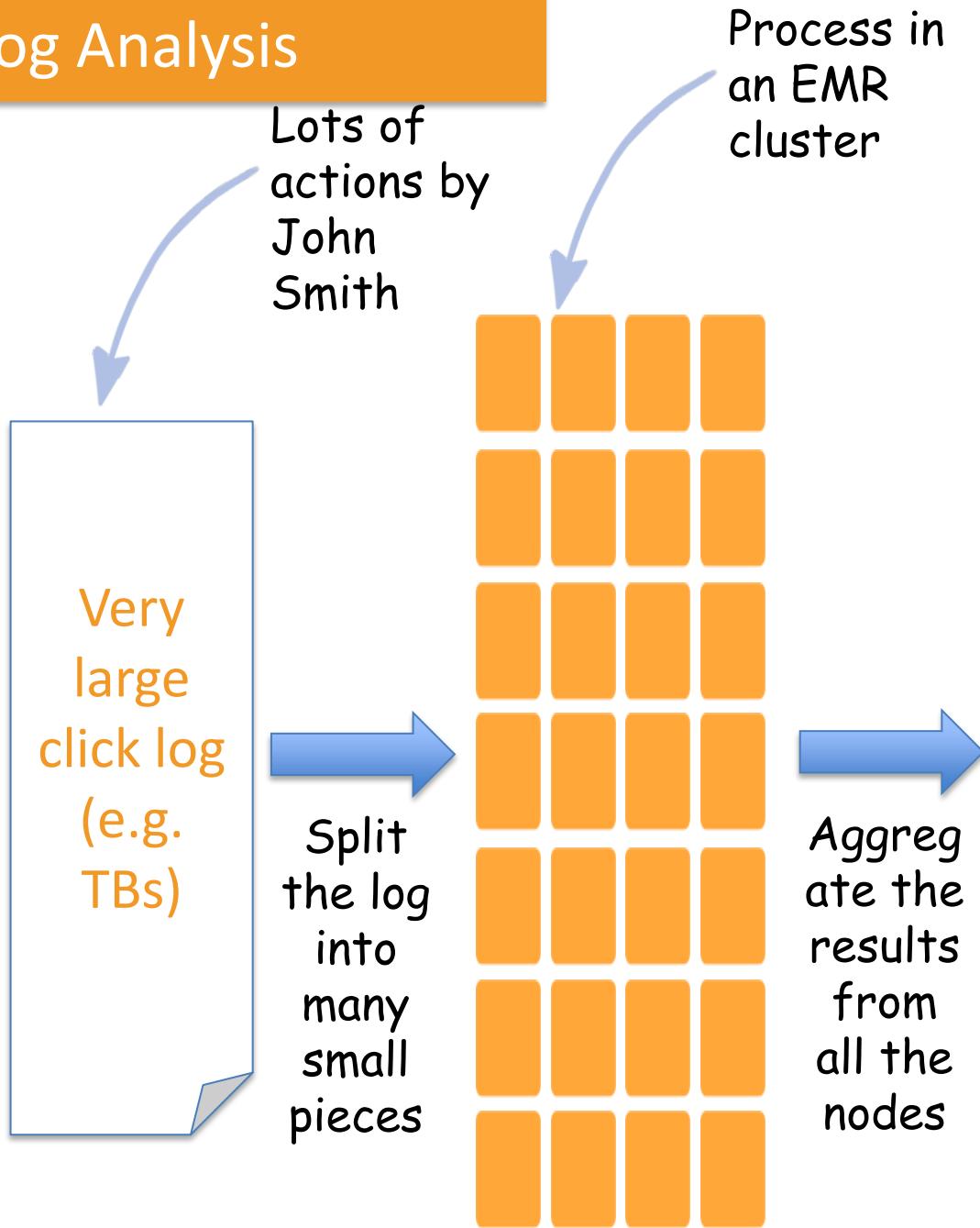
Process in an EMR cluster



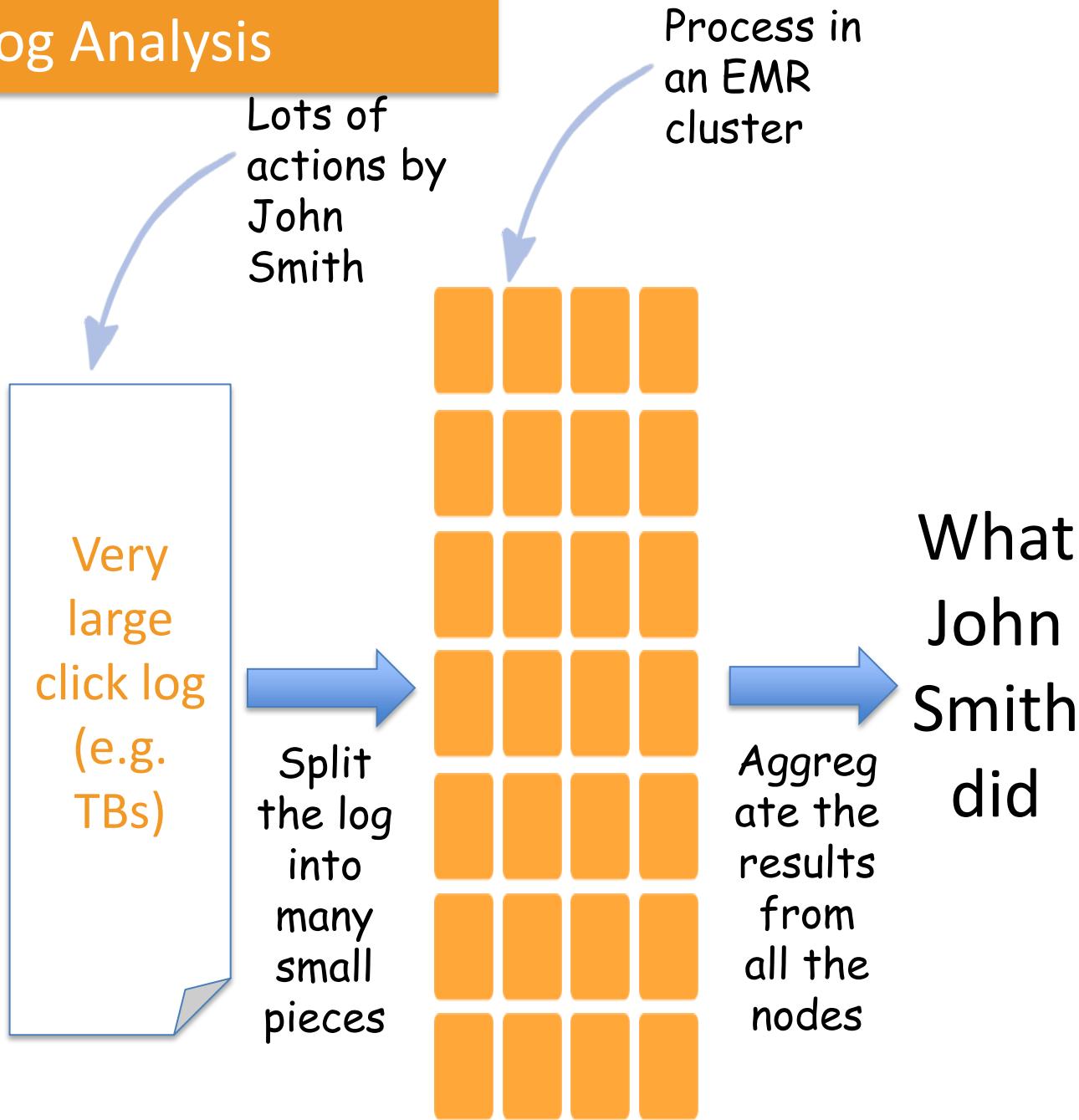
Split the log into many small pieces



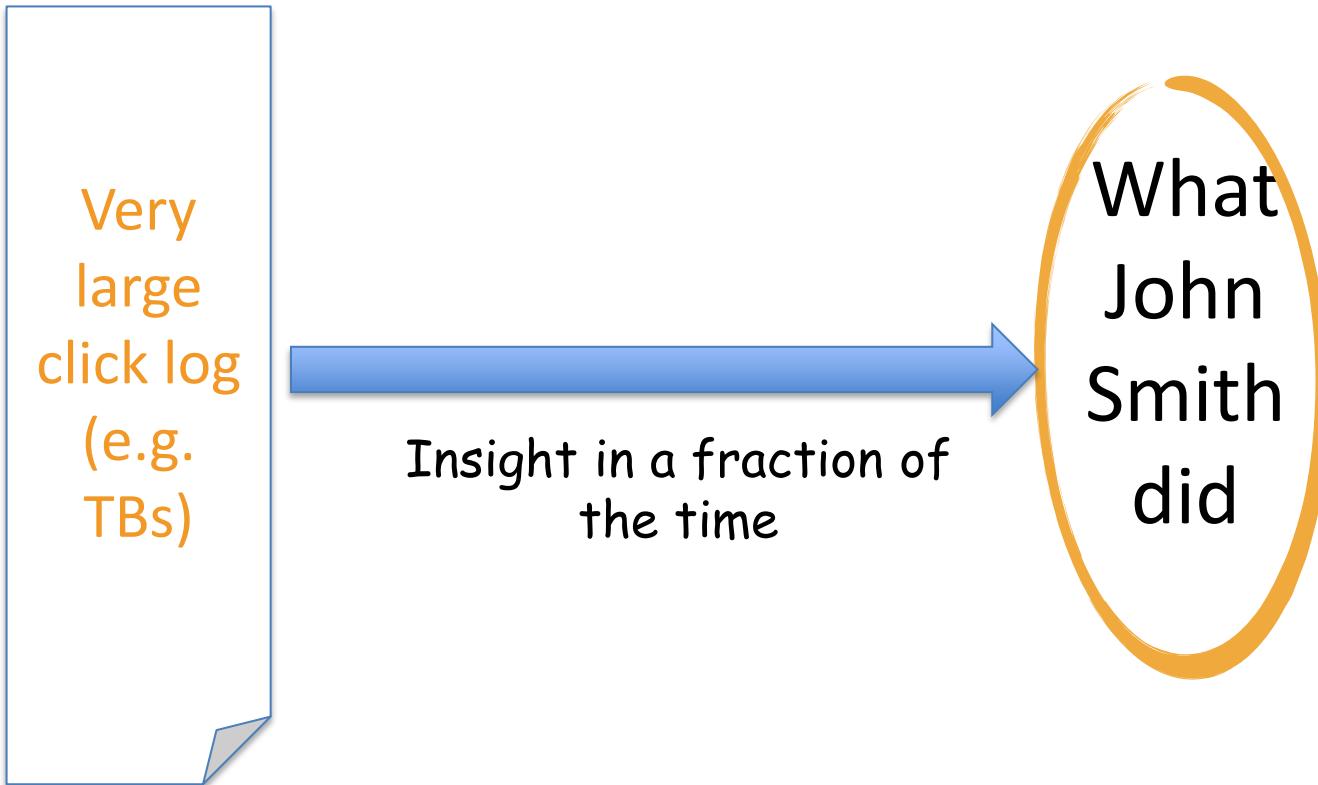
Log Analysis



Log Analysis



Log Analysis



1 instance for 100 hours

=

100 instances for 1 hour

Small instance = \$6

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Mechanical Turk is a marketplace for work.

Mechanical Turk gives businesses and developers access to an on-demand, scalable workforce.

- **Flexibility:** Scale your workforce up and down quickly
- **Accuracy:** Get high quality, efficient and cost effective results.
- **Price:** Pay only when you are satisfied with the results.
- **Speed:** Start receiving results in minutes

Business Challenges

- Requires Human Judgment: Recognition, Reasoning, Context, Prior Knowledge
- Cannot be completely solved algorithmically
- Has unpredictable fluctuations in volume

How are businesses using it?

○ Data Management

- Data Verification
- Data Entry & Collection
- Data De-duplication
- Algorithm Training

○ Categorization

- Classification
- Tagging
- Keywords
- Sentiment Analysis

○ Content & Media

- Moderate Photos & Content
- Content Creation & Editing
- Transcription

○ Business Services

- Search Relevancy
- Data Gathering
- Enhancement

How it works



How to specify work

- Instruction
 - Guidelines for how to do a HIT
- Data
 - “batch” concept
- Question(s)



What kind of dress is this?

- Cocktail
- Sun dress
- Bridal dress

Learn about AWS

- <http://aws.amazon.com/de>
- Getting started with Free Tier:
<http://aws.amazon.com/de/free>
- 25 US\$ credits for new customers:
<http://aws.amazon.com/de/campaigns/account/>
- Twitter: @AWS_Aktuell
- Facebook:
<http://www.facebook.com/awsaktuell>
- Webinars: <http://aws.amazon.com/de/about-aws/events/>