

Using the cloud for classified media

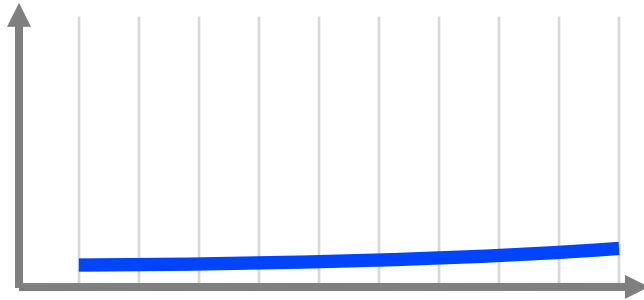
How Amazon Web Services can be used



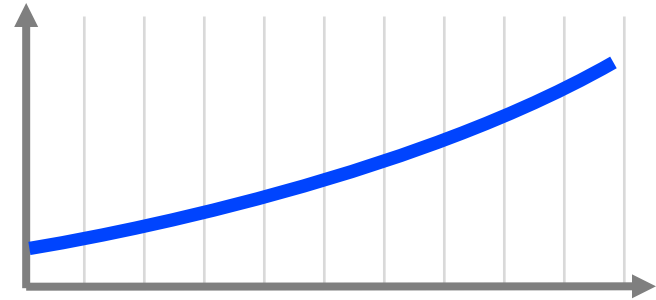
Steffen Krause
Technical Evangelist
@AWS_Aktuell
skrause@amazon.de



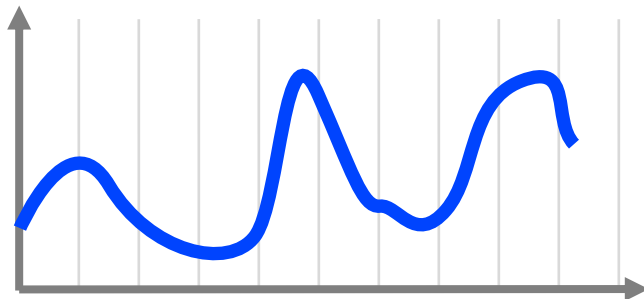
How will your site be?



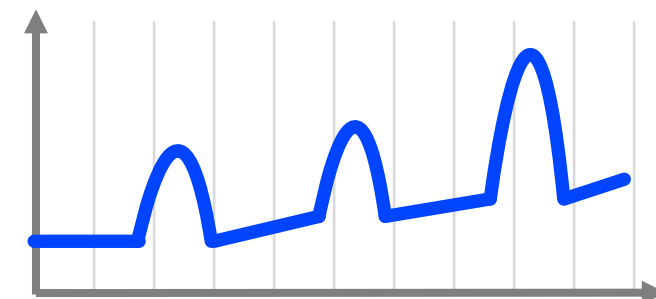
Slow but steady



Fast Growth

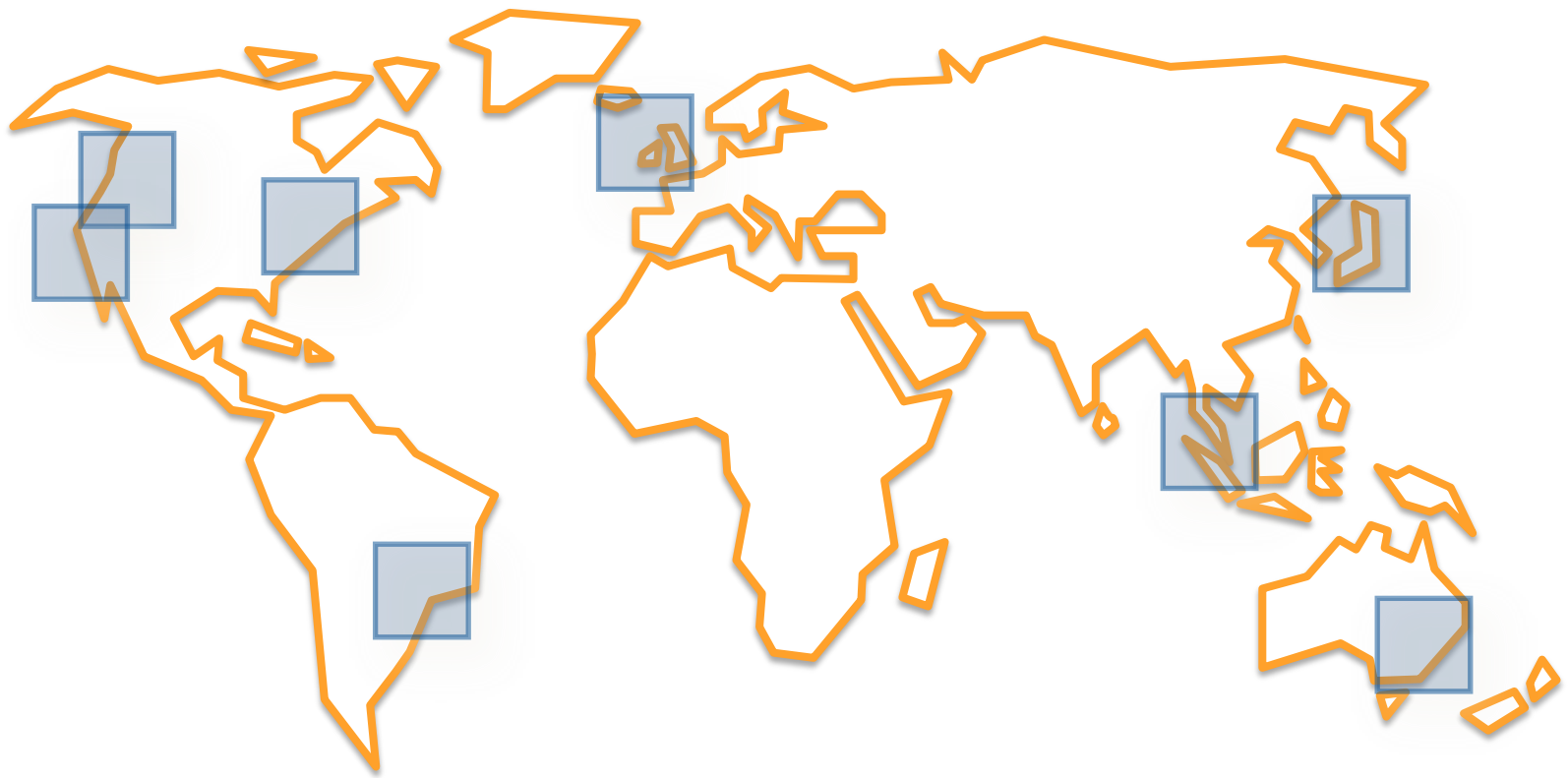


Variable peaks



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

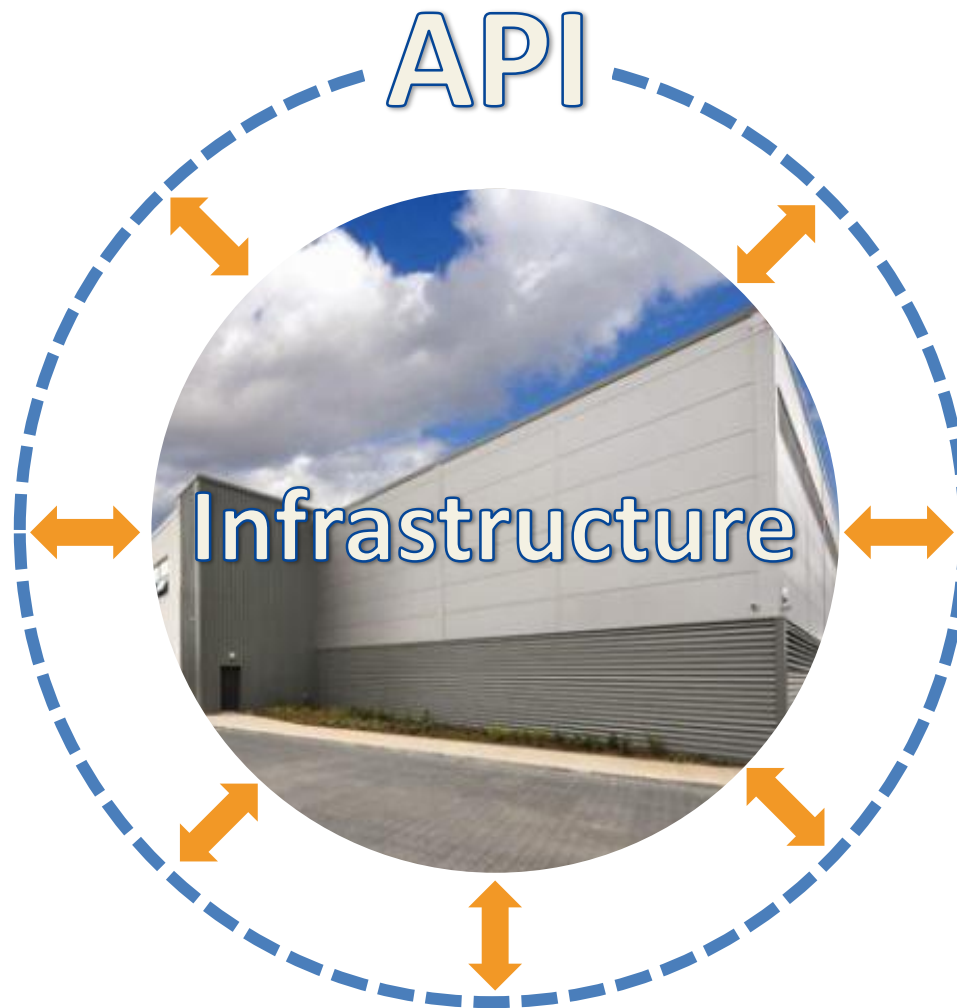
Pay as you go



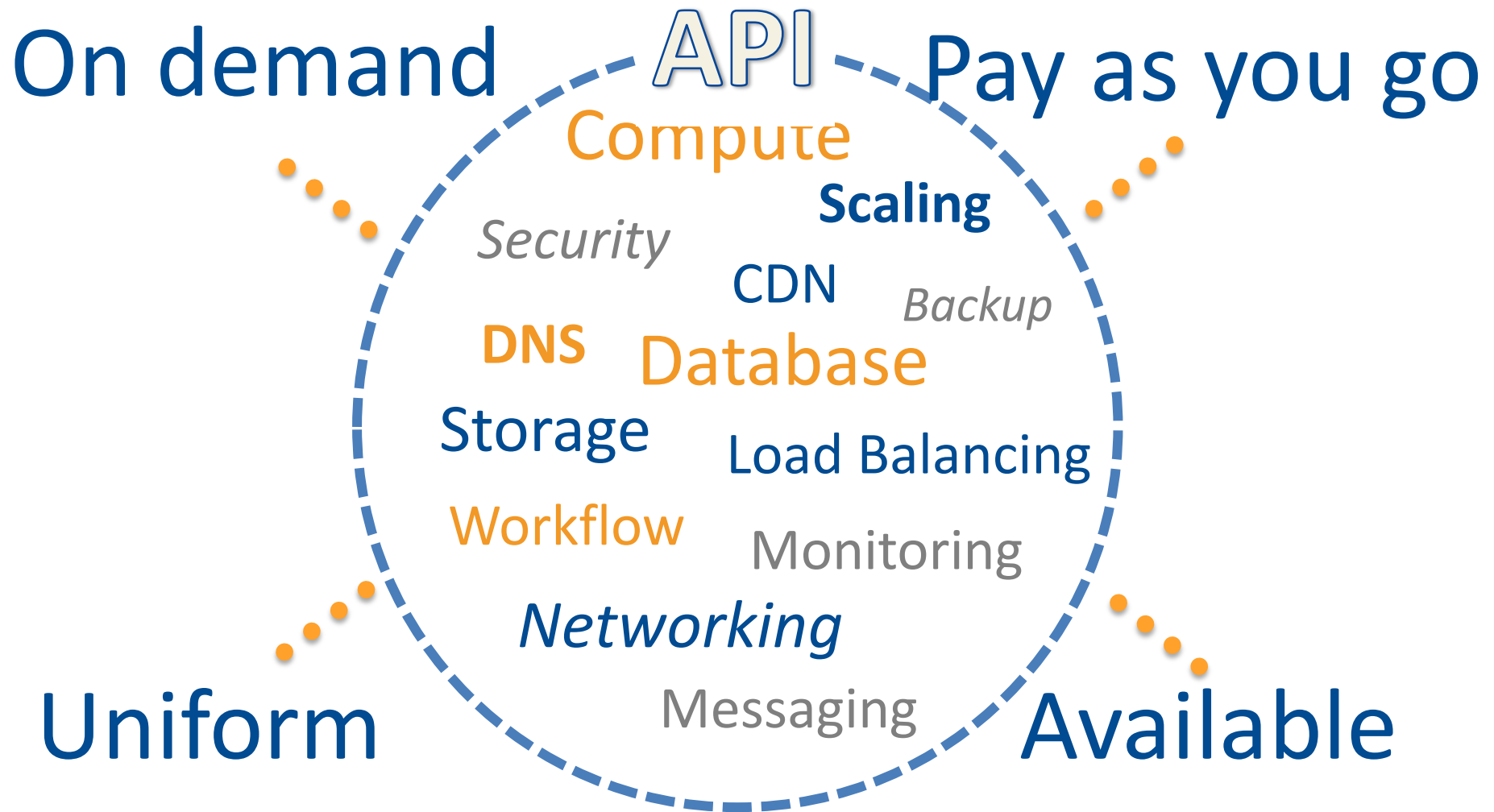
Infrastructure

Uniform

Available

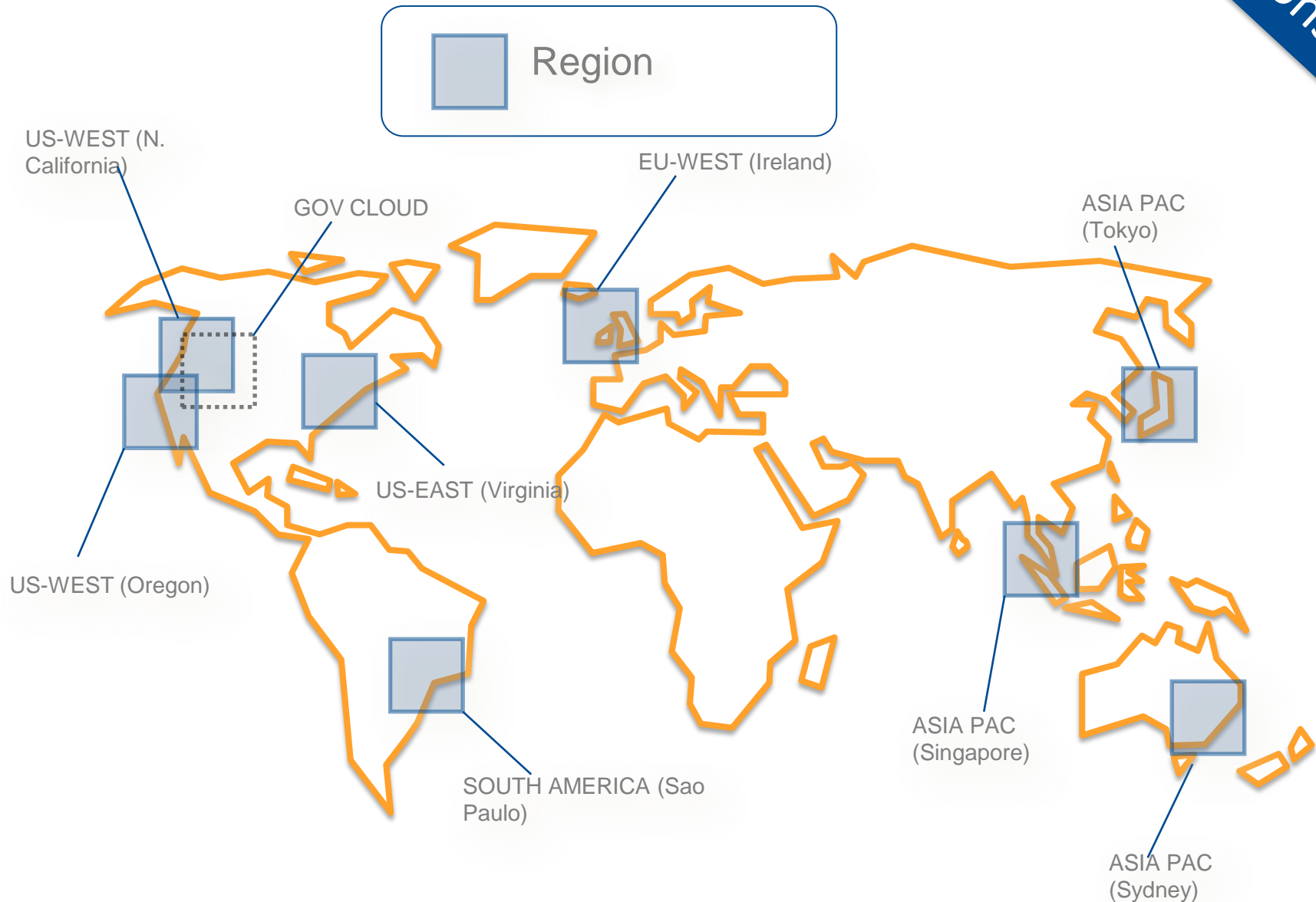


Utility computing



On a global footprint

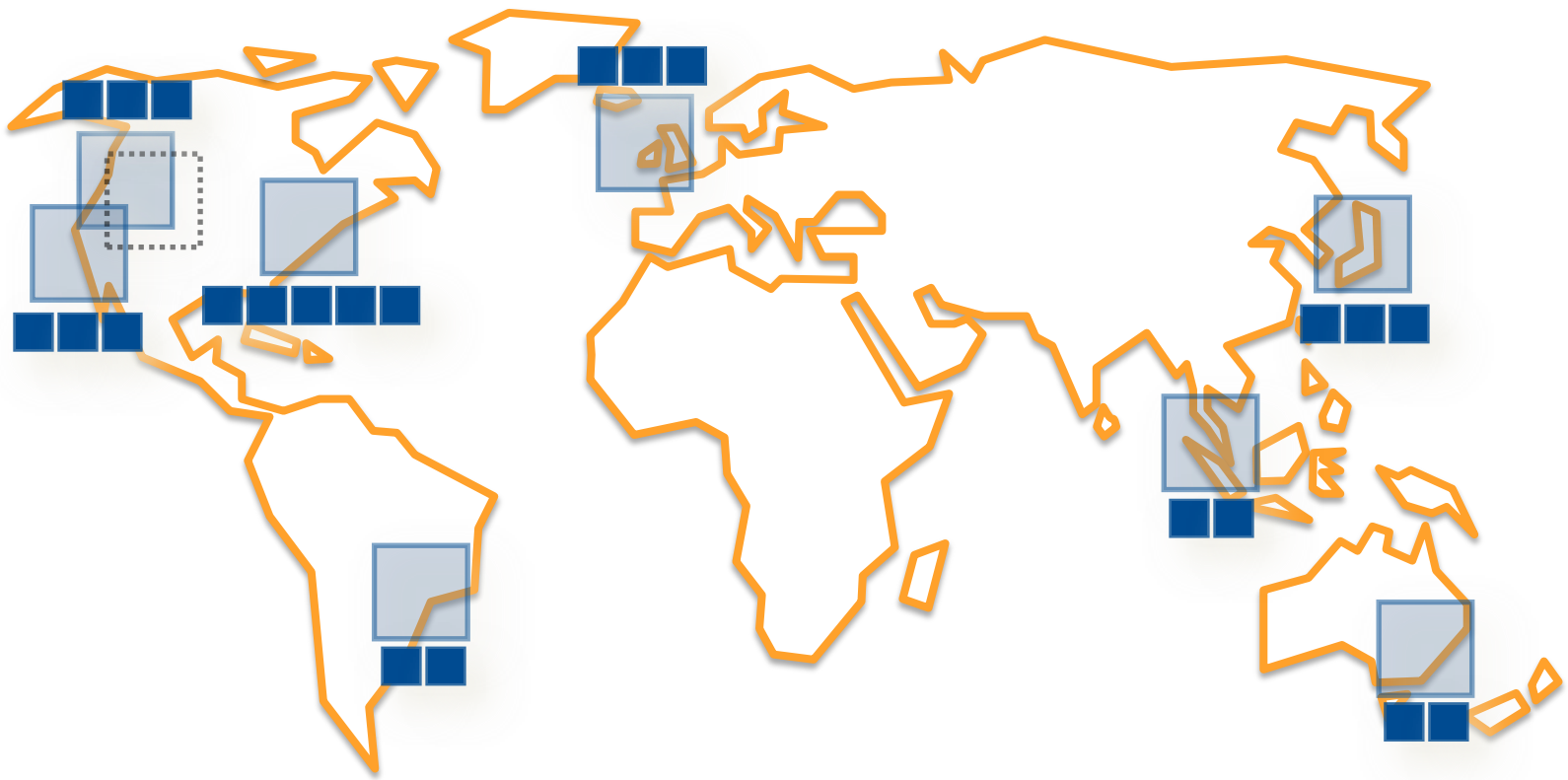
Regions



On a global footprint

Zones

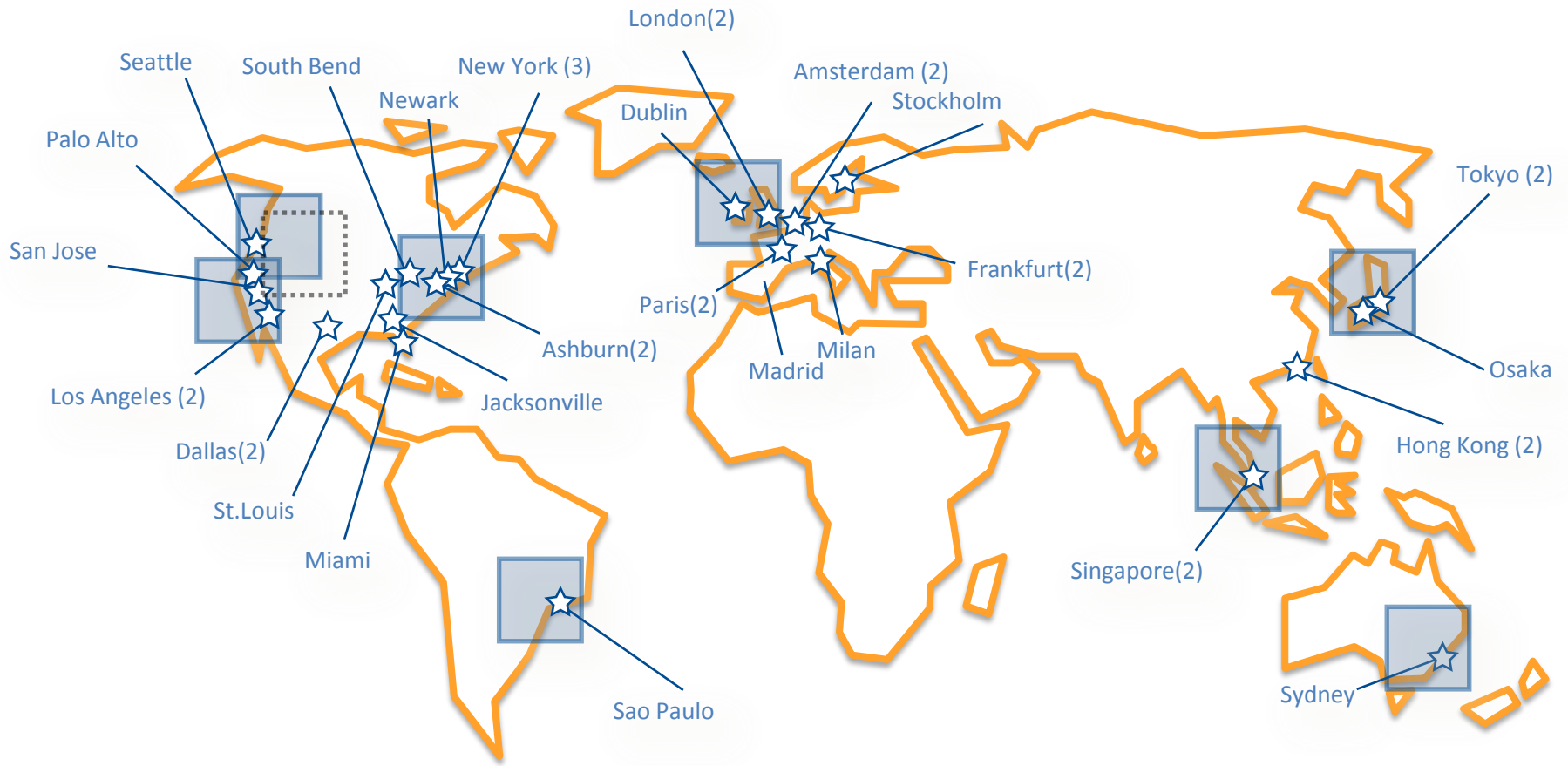
■ Availability Zone



On a global footprint

Edges

★ Edge Locations



The cloud in classified media

Elasticity for campaigns

Storing and delivering static media

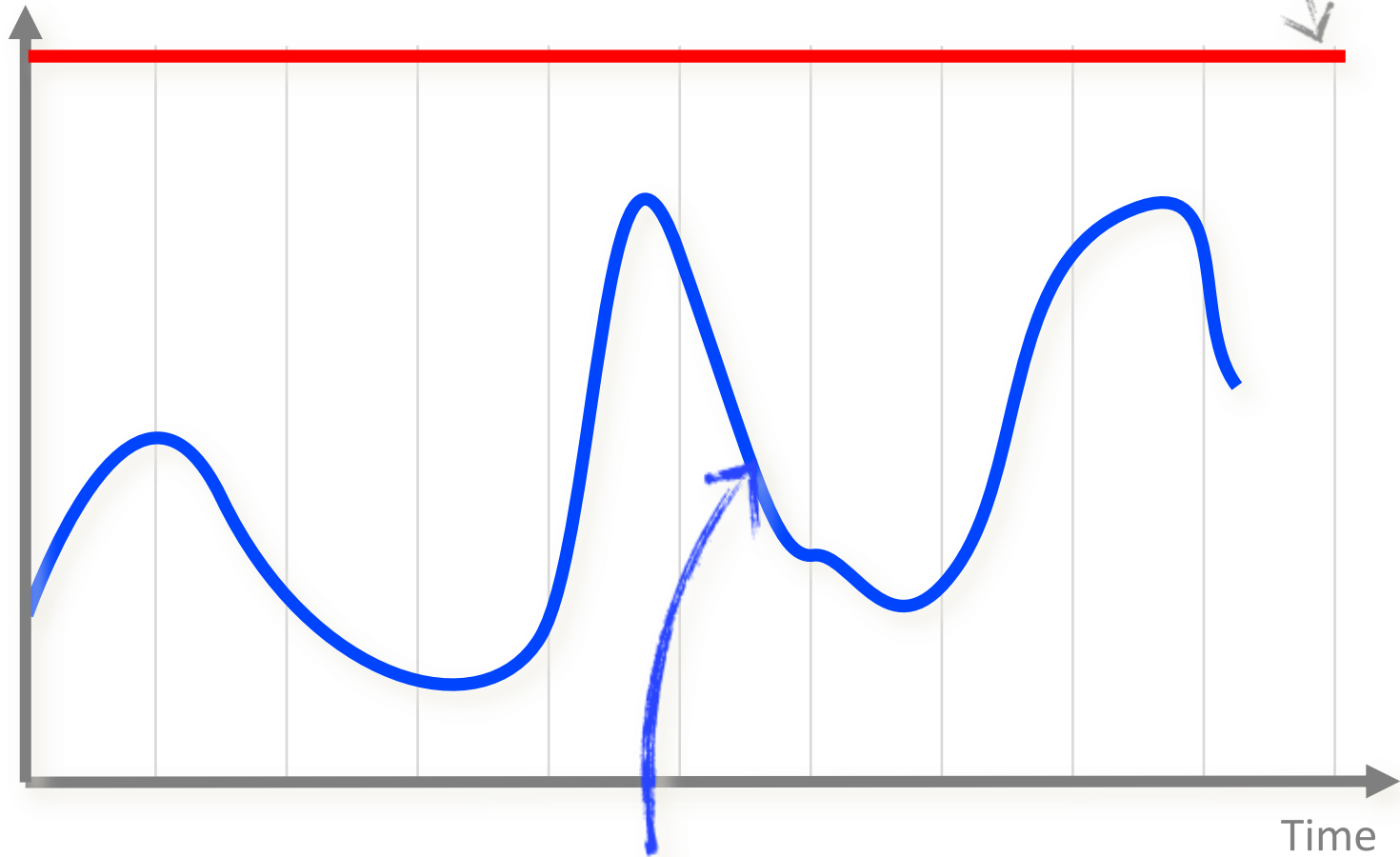
Using big data for ad focusing

Using human workforce as an on-demand resource

Elastic capacity

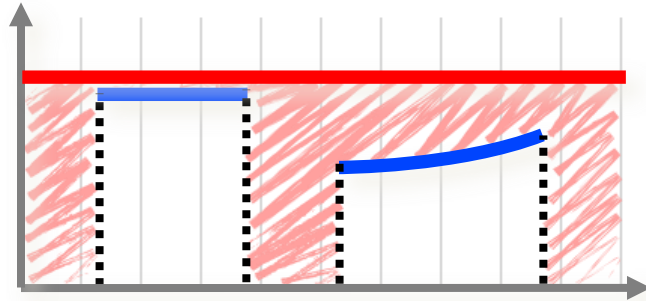
Traditional IT
capacity

Capacity



Your IT needs

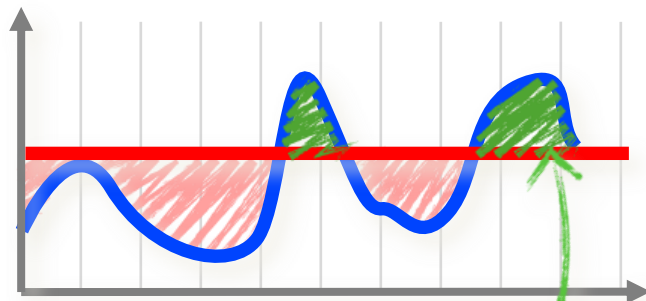
Elastic capacity



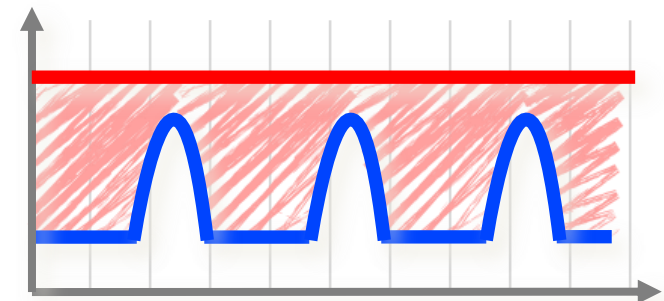
On and Off



Fast Growth



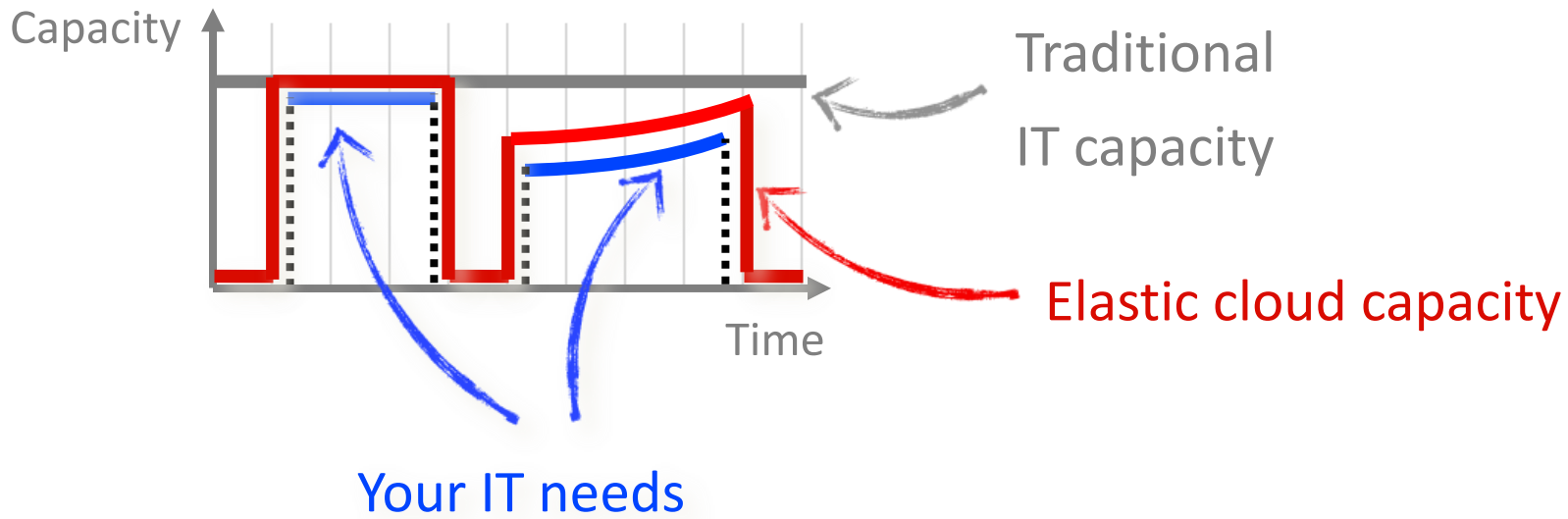
Variable peaks



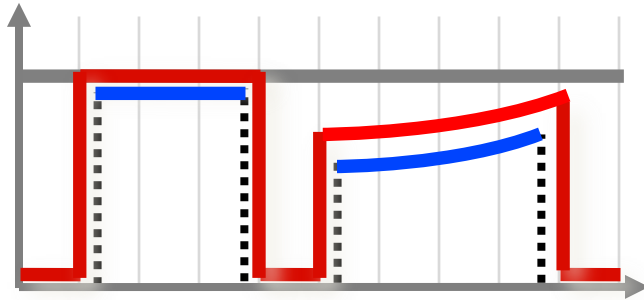
Predictable peaks

CUSTOMER DISSATISFACTION

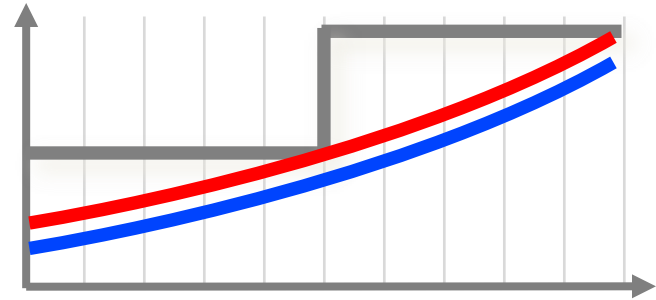
Elastic capacity



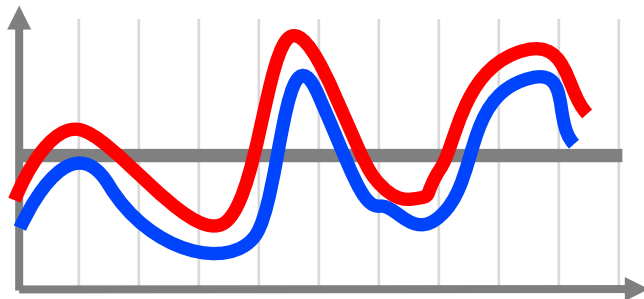
Elastic capacity



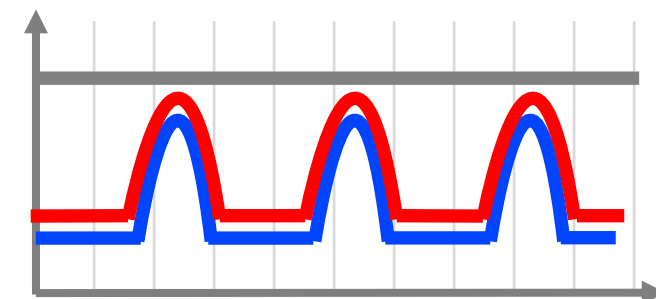
On and Off



Fast Growth



Variable peaks



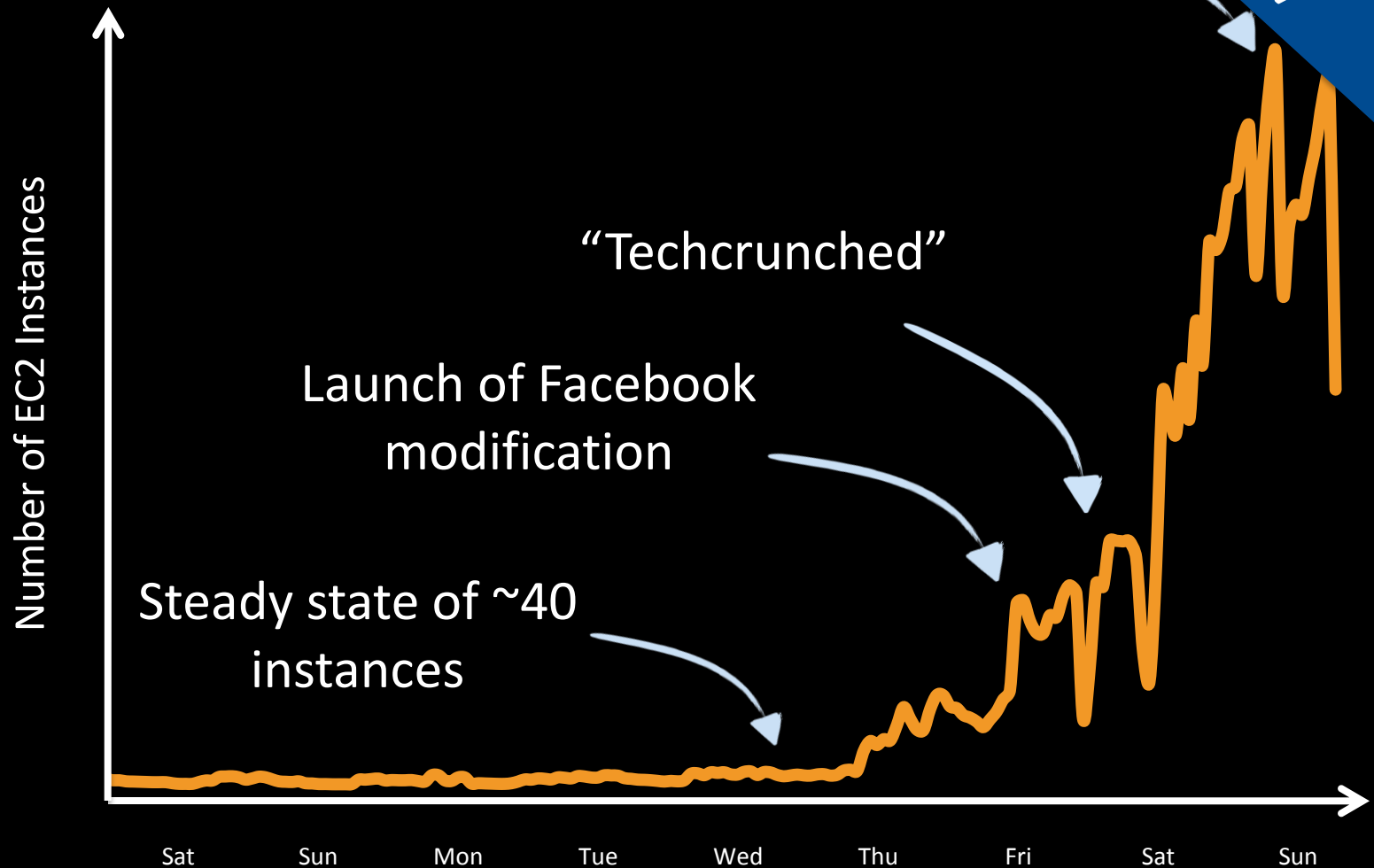
Predictable peaks

40 servers to 5000 in 3 days



Case Study

EC2 scaled to peak
of 5000 instances



Customer references



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

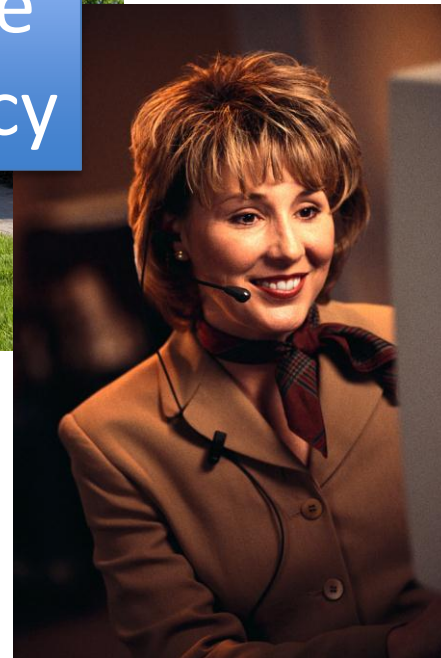
Classified needs richer media



Classified needs richer media



Reliable
Affordable
Low latency

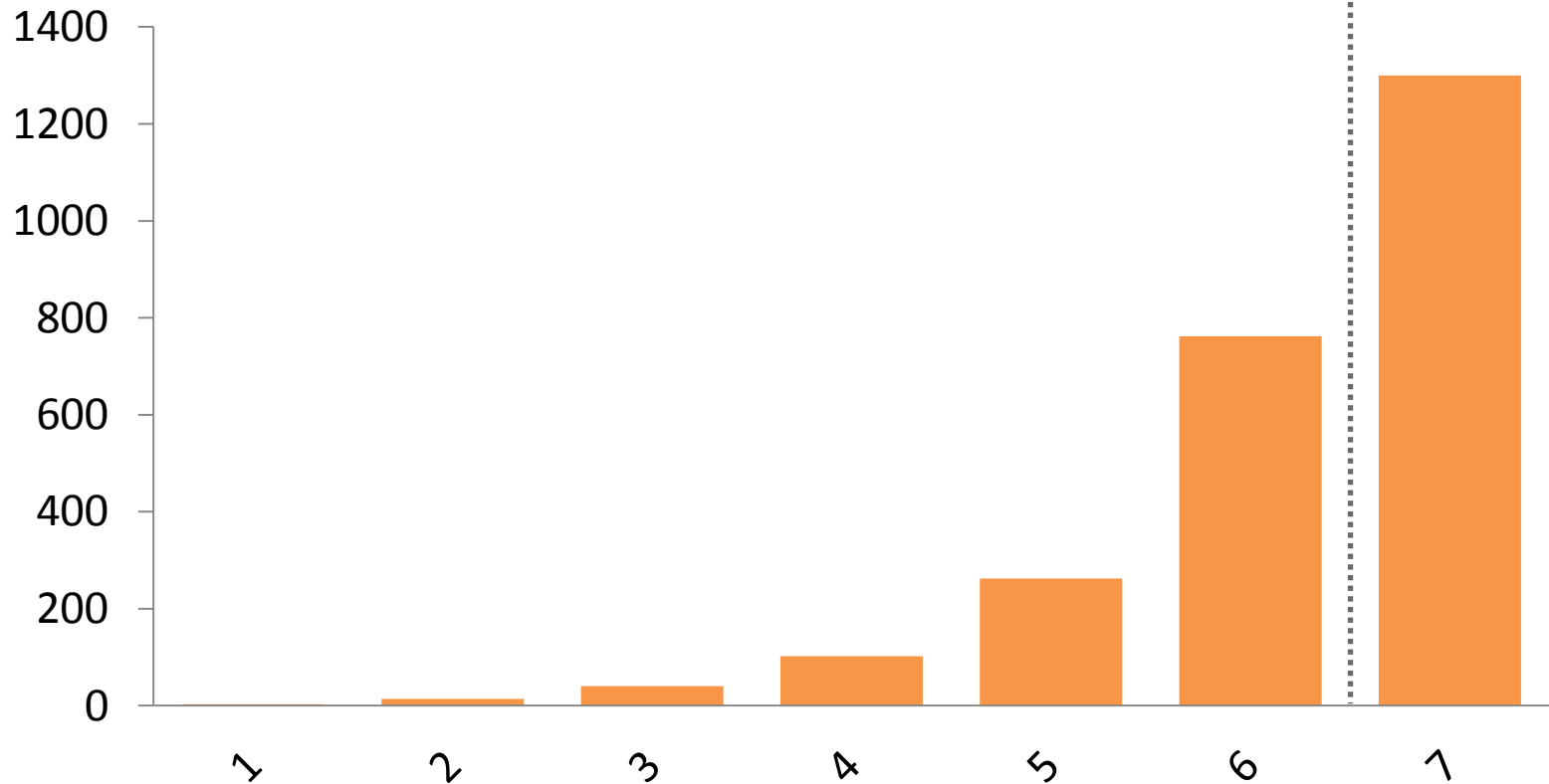


99.999999999999%

Durability

Objects in S3

Billion* objects



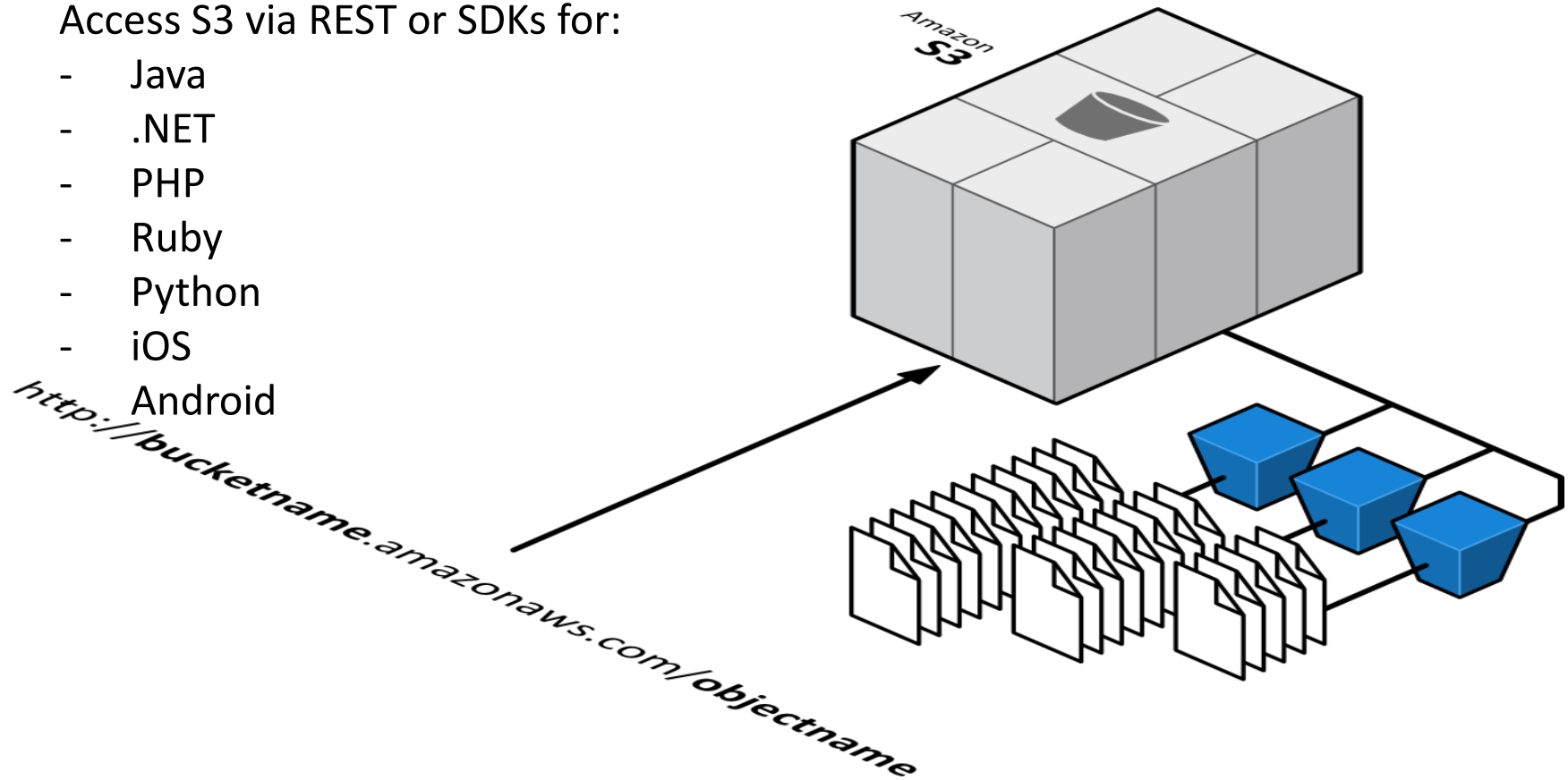
835k+ peak transactions per second

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

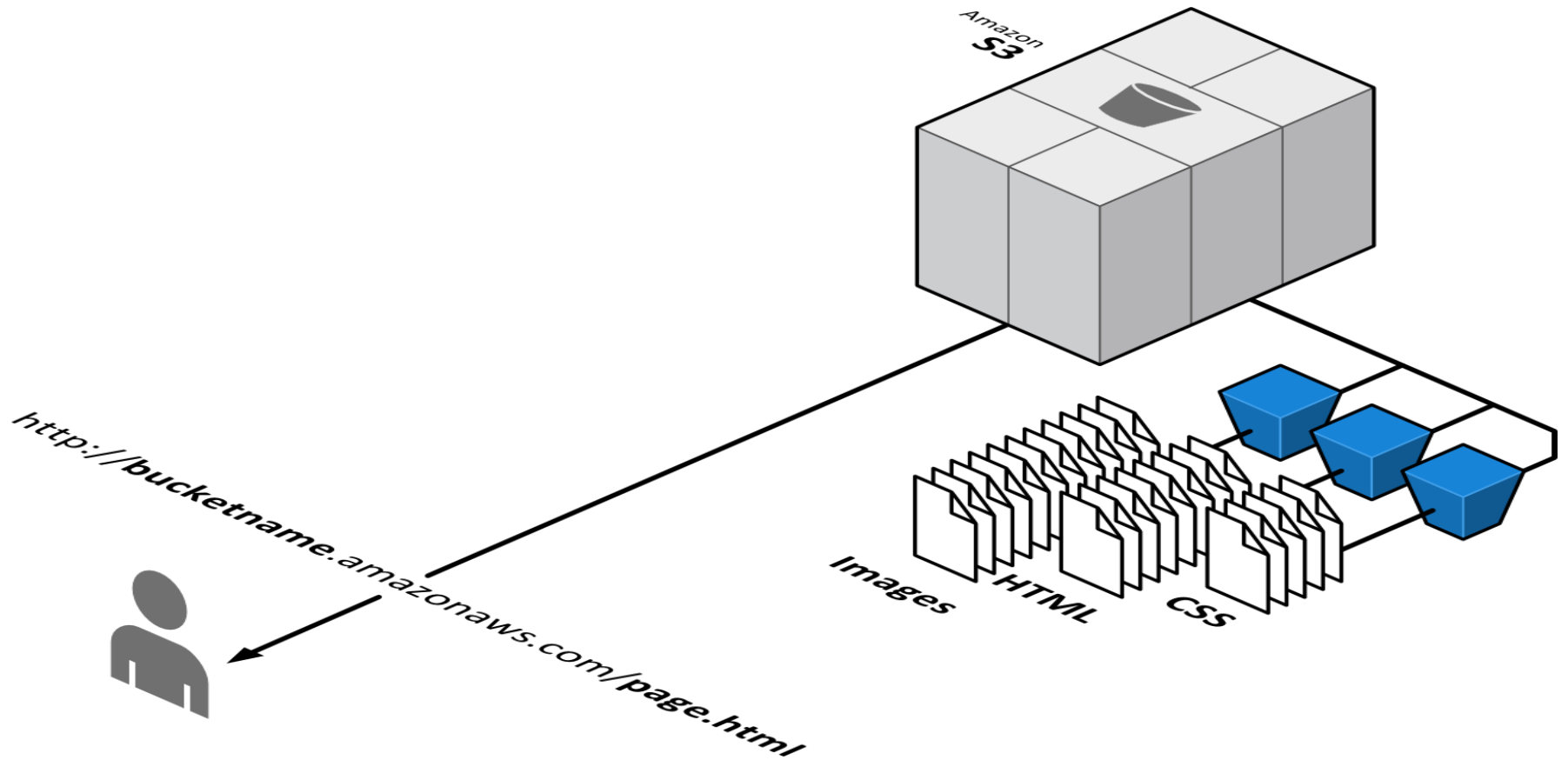
Store unlimited objects

Access S3 via REST or SDKs for:

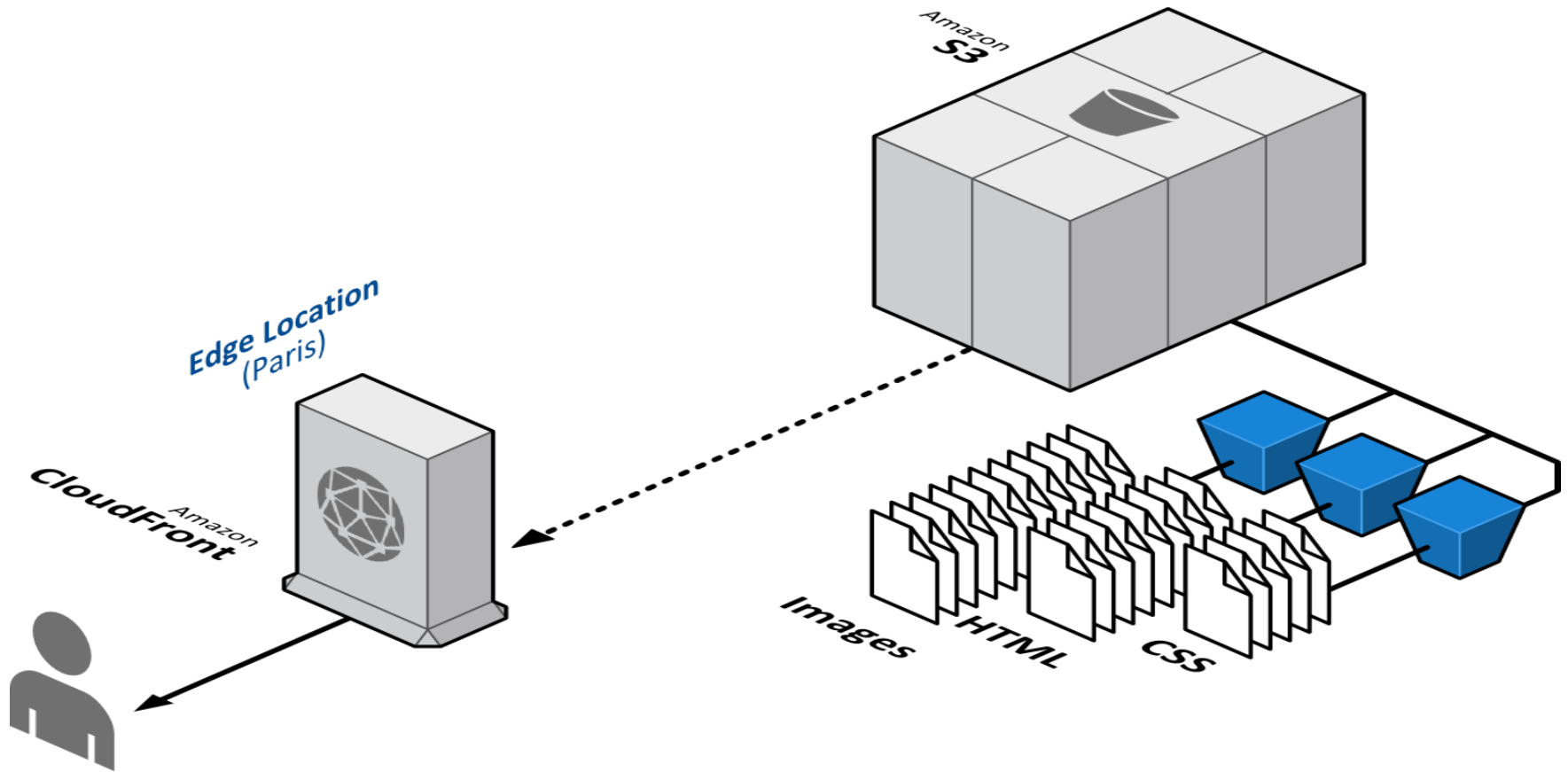
- Java
- .NET
- PHP
- Ruby
- Python
- iOS
- Android



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	
Move to Glacier	<input type="text" value="100"/> days from object's creation date	X
Expiration (Delete Objects)	<input type="text" value="200"/> days from object's creation date	X

Move to Glacier

Expiration

Save

Cancel

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

BIG-DATA

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

Big Data Verticals

Media/Advertising

Targeted Advertising

Image and Video Processing

Oil & Gas

Seismic Analysis

Retail

Recommendations

Transaction Analysis

Life Sciences

Genome Analysis

Financial Services

Monte Carlo Simulations

Risk Analysis

Security

Anti-virus

Fraud Detection

Image Recognition

Social Network/Gaming

User Demographics

Usage analysis

In-game metrics

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

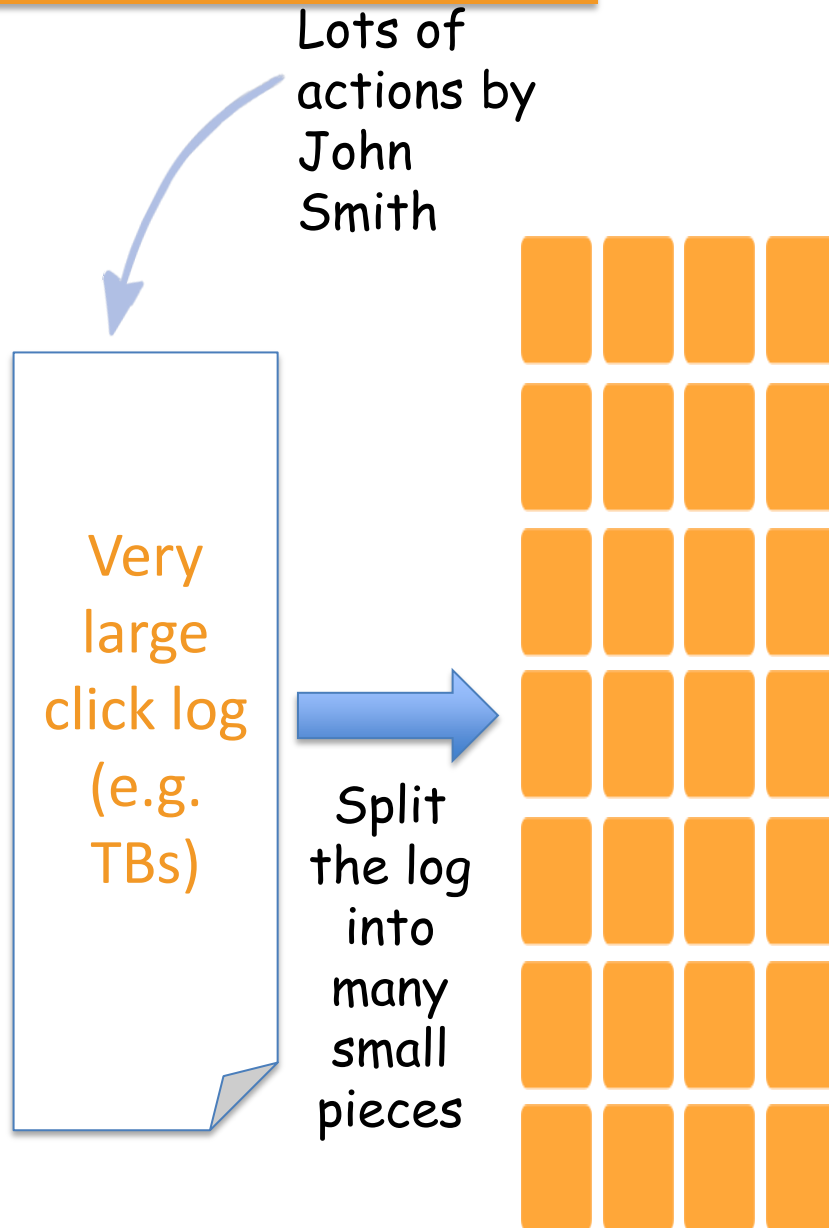
Log Analysis

Lots of
actions by
John
Smith

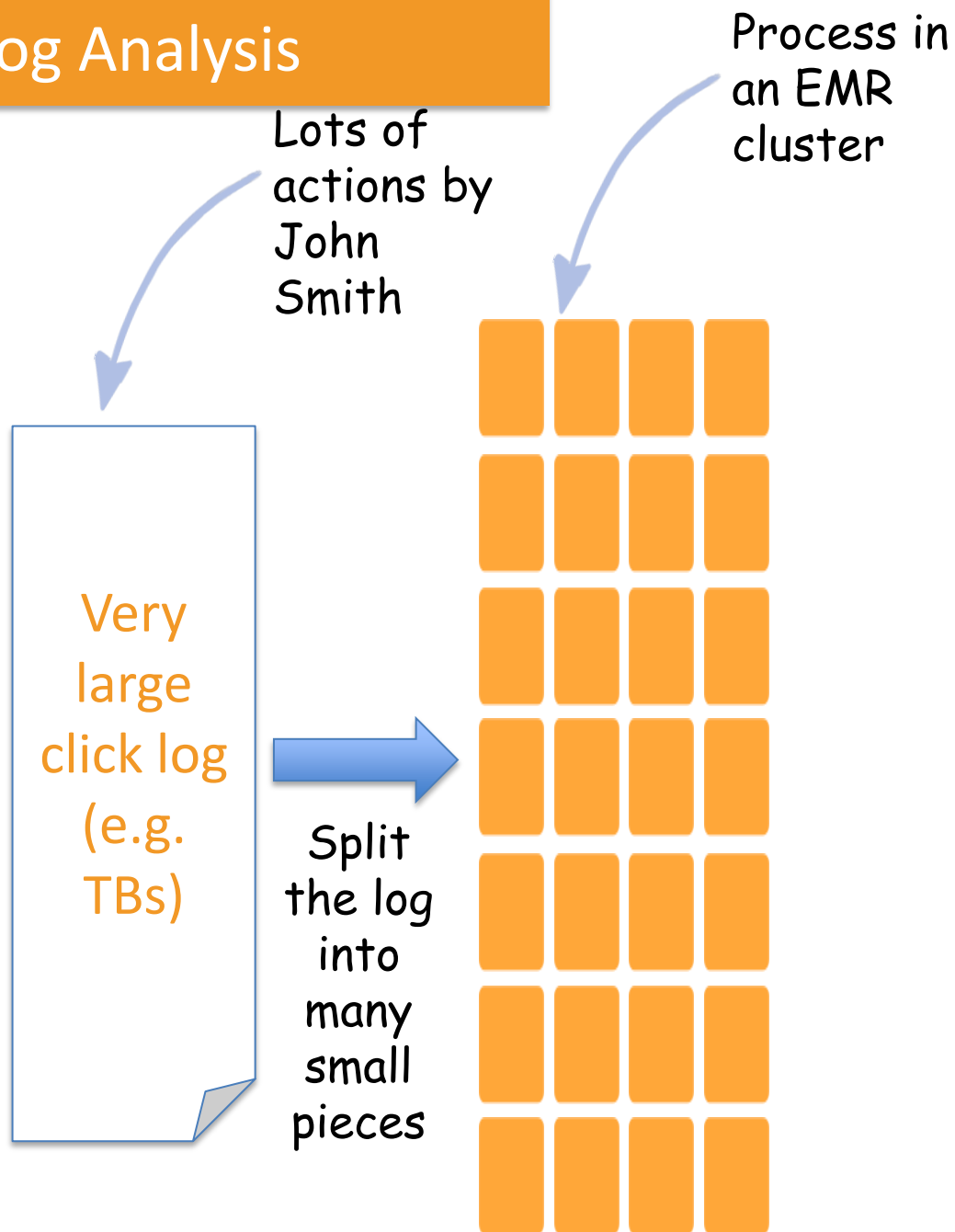


Very
large
click log
(e.g.
TBs)

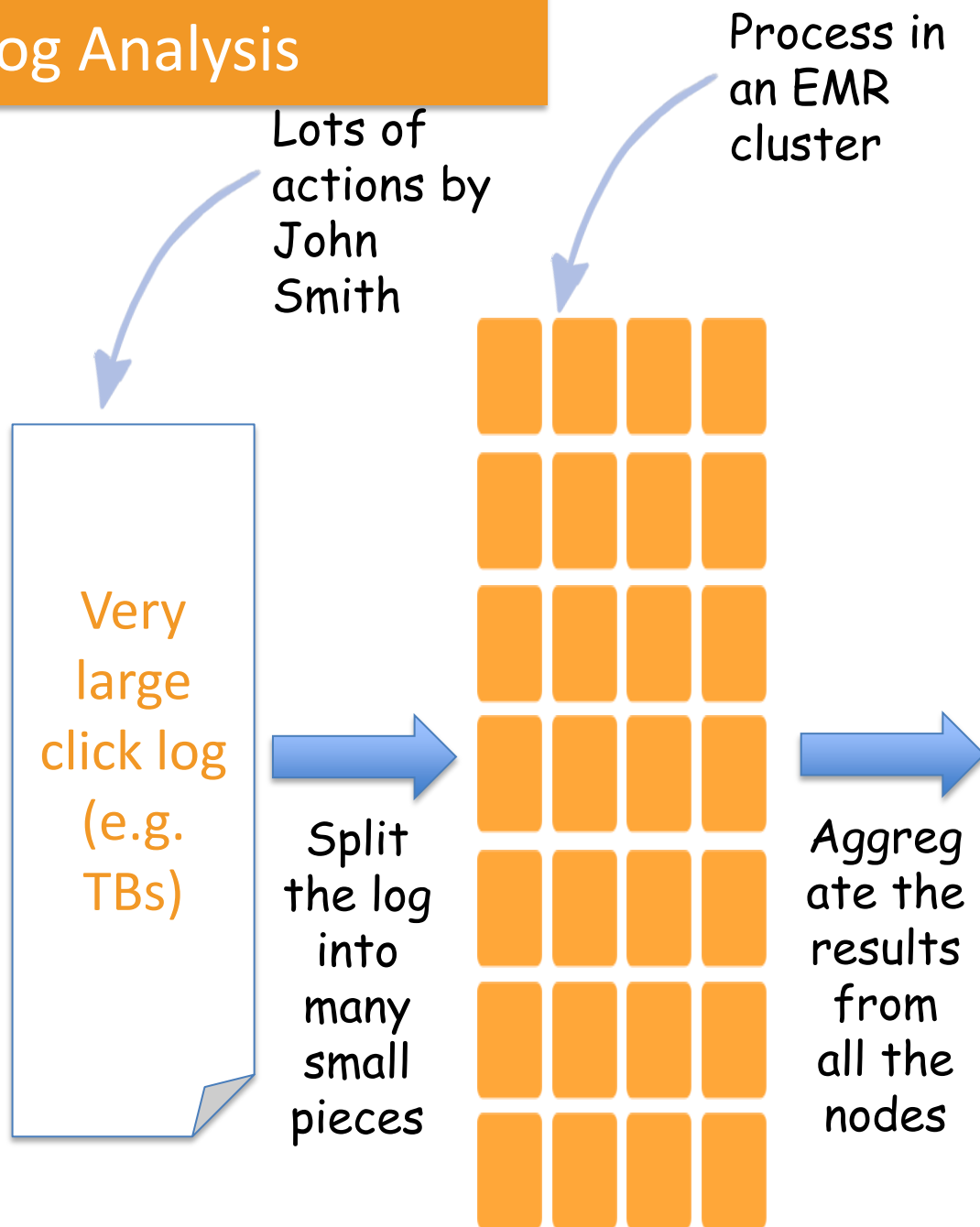
Log Analysis



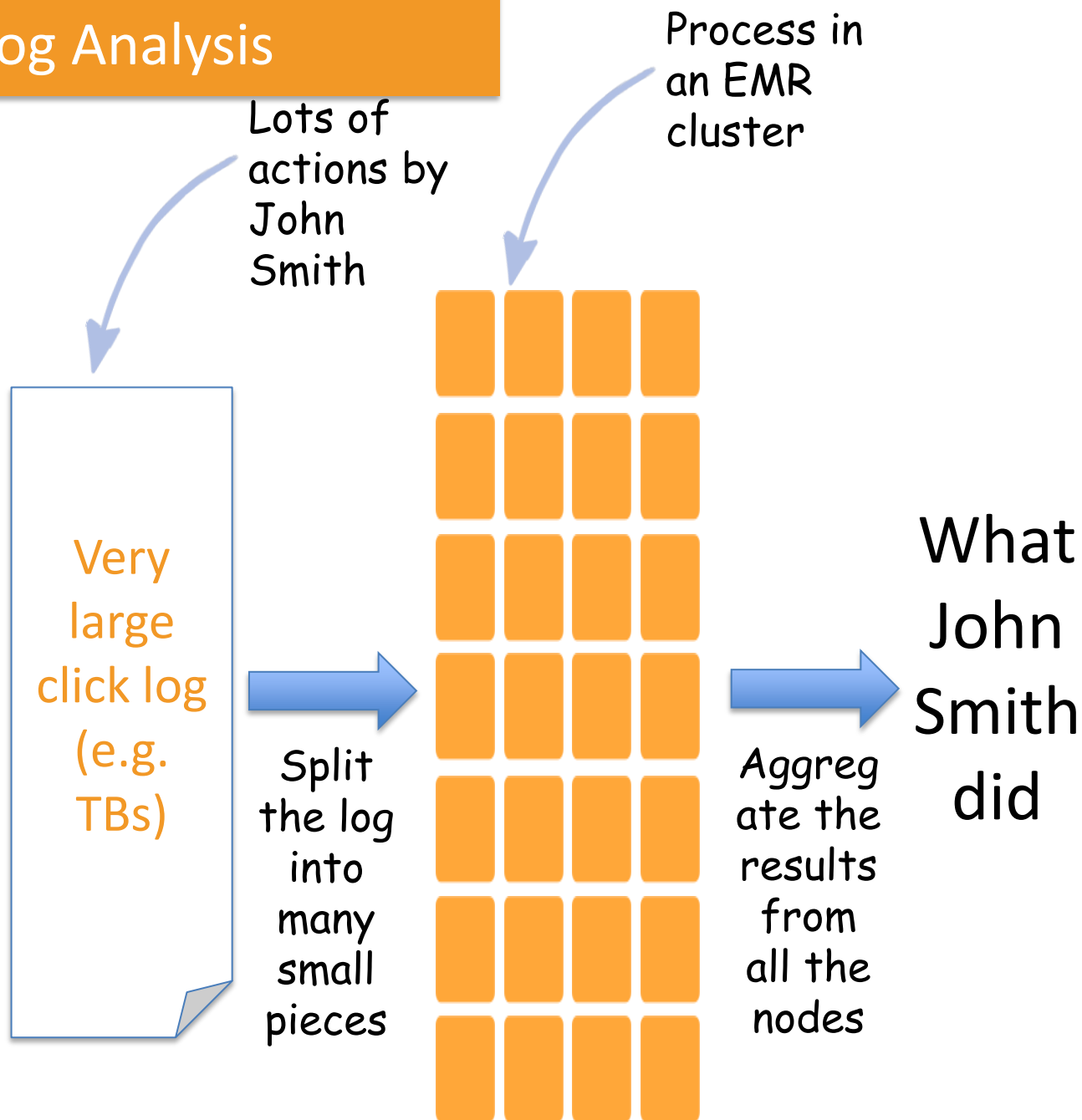
Log Analysis



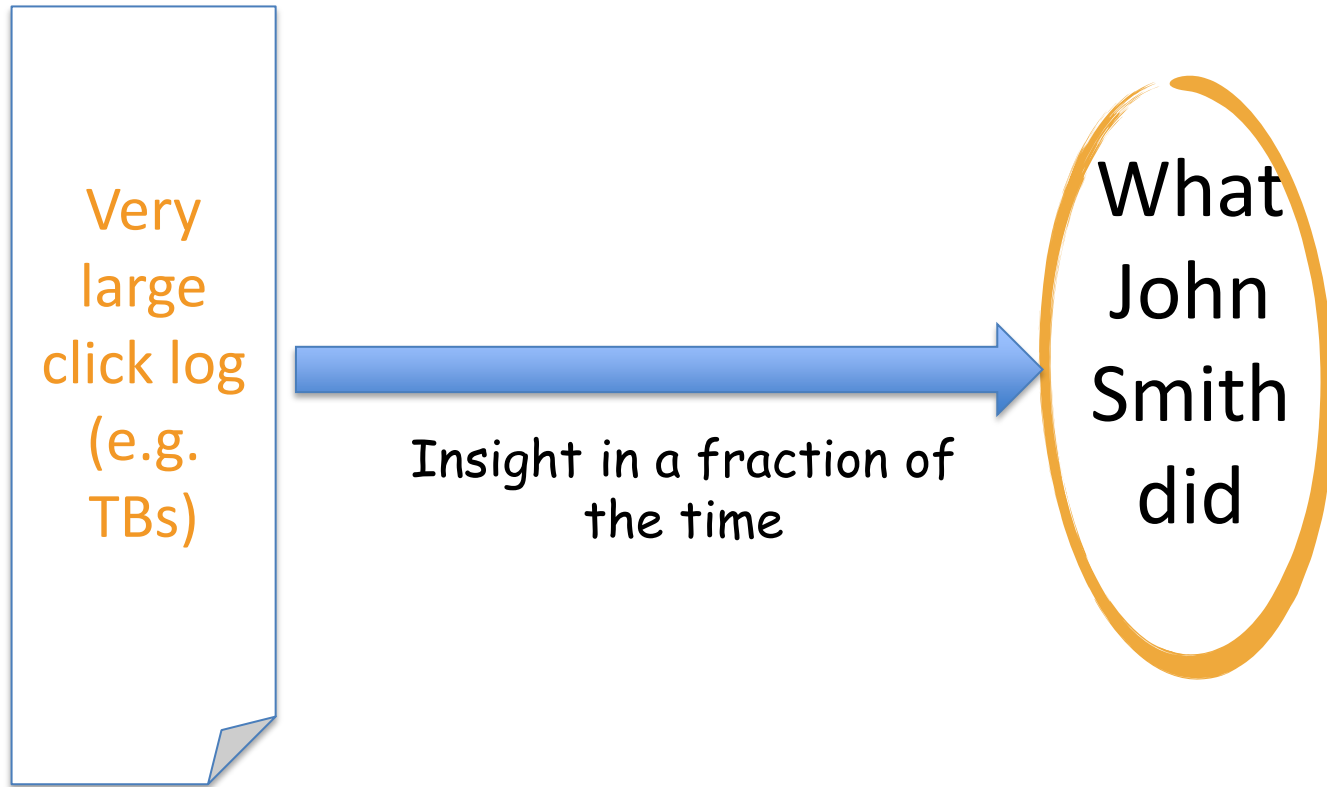
Log Analysis



Log Analysis



Log Analysis



1 instance for 100 hours

=

100 instances for 1 hour

Small instance = \$6

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

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/>