

# **“The Cloud is Just Someone Else’s Computer” – and Other Myths**



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# A (very) Brief History of Modern Computing

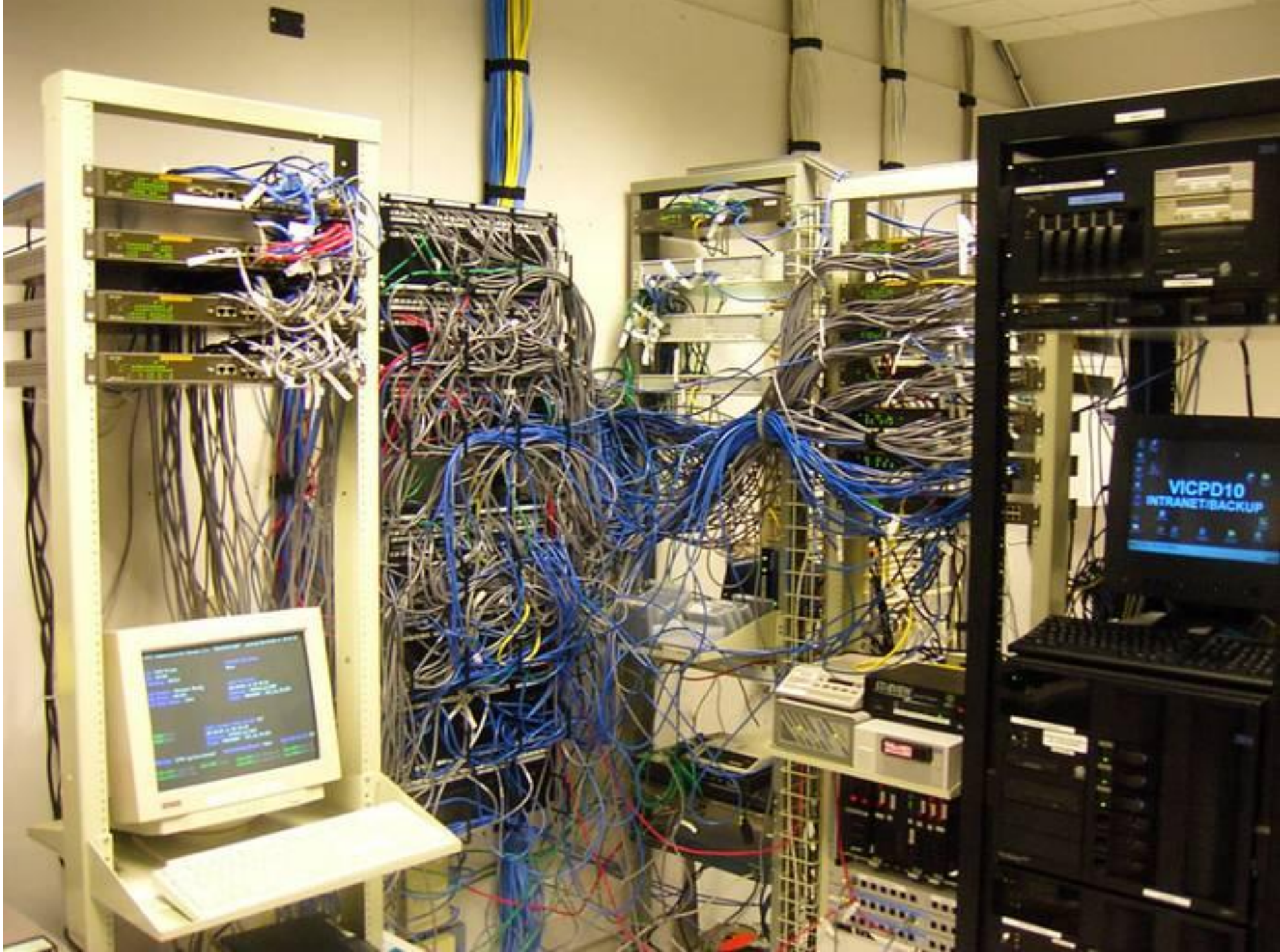


















# KEY PRIORITIES for CSU Information Technology

In support of Graduation Initiative 2025

September 2017



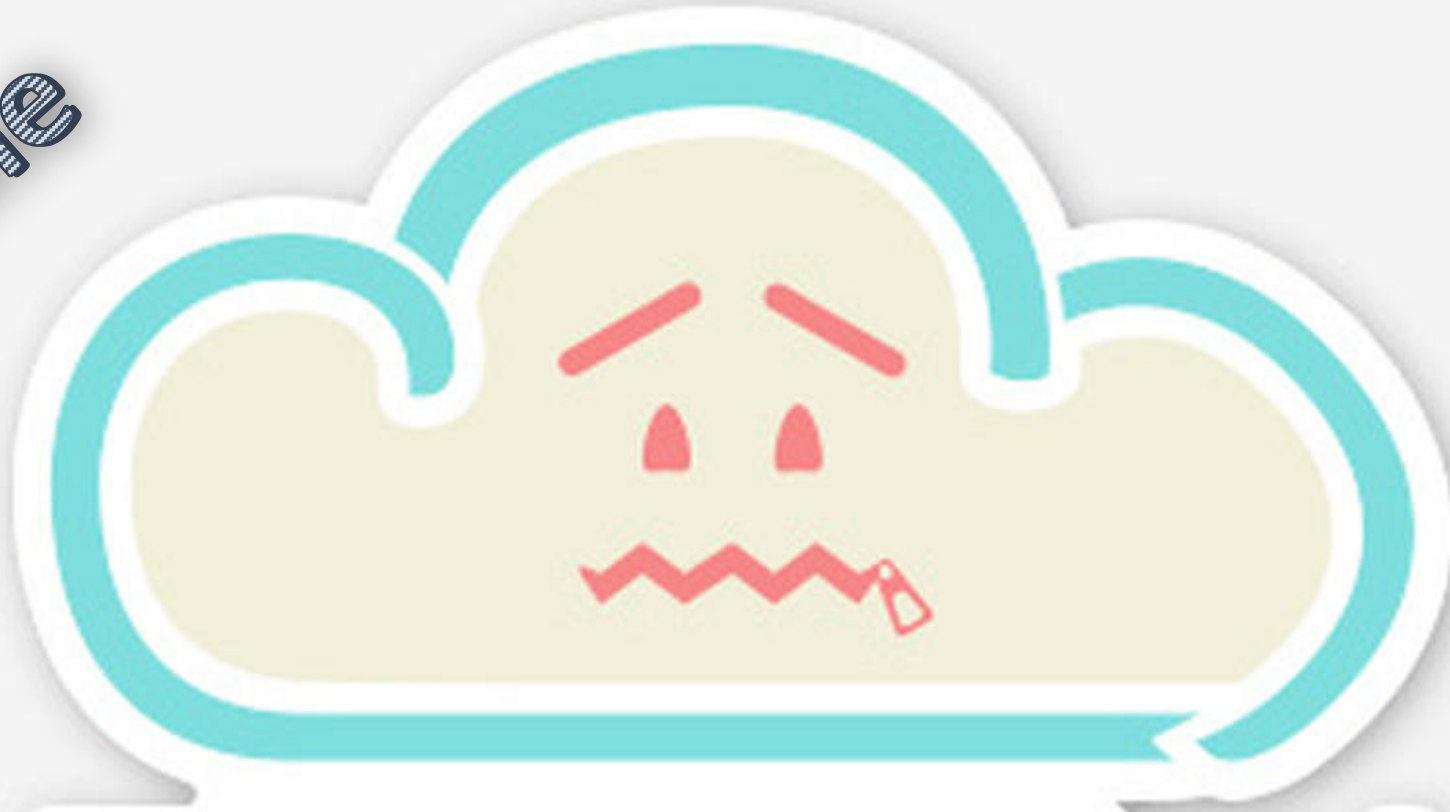
## VISION 1

### Transformation and Innovation

## KEY PRIORITIES

- 1.1 Support Innovation
- 1.2 Create a "CSU Anywhere" Unified Student Experience
- 1.3 Develop an Enterprise Resource Planning Roadmap
- 1.4 Create a Cloud Strategy and Roadmap

Myth One



**There is no cloud**

it's just someone else's computer



## Your Server



## Someone Else's Server (or your server managed by someone else)



### Server Hosting

Operating System	You manage
Application	You manage
Security	You manage
Disaster Recovery	You manage
Single point of failure?	Yes
Fixed capacity?	Yes



**Dropbox**



**Office 365**

**Docu** *Sign*®





# Software as a Service (SaaS)

SaaS	
Operating System	They manage
Application	They manage
Security	Shared
Disaster Recovery	Shared
Single point of failure?	No
Fixed capacity?	No

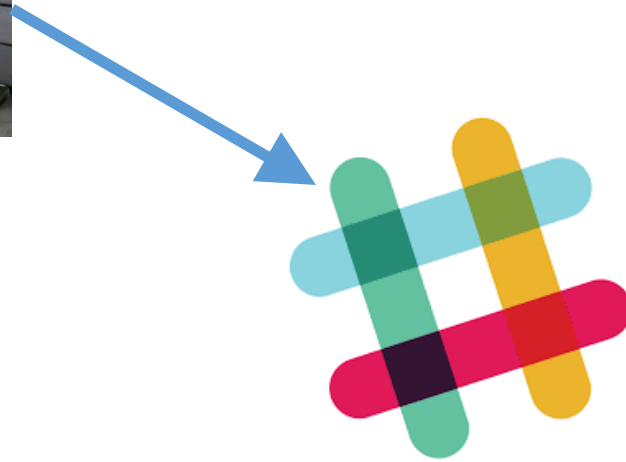
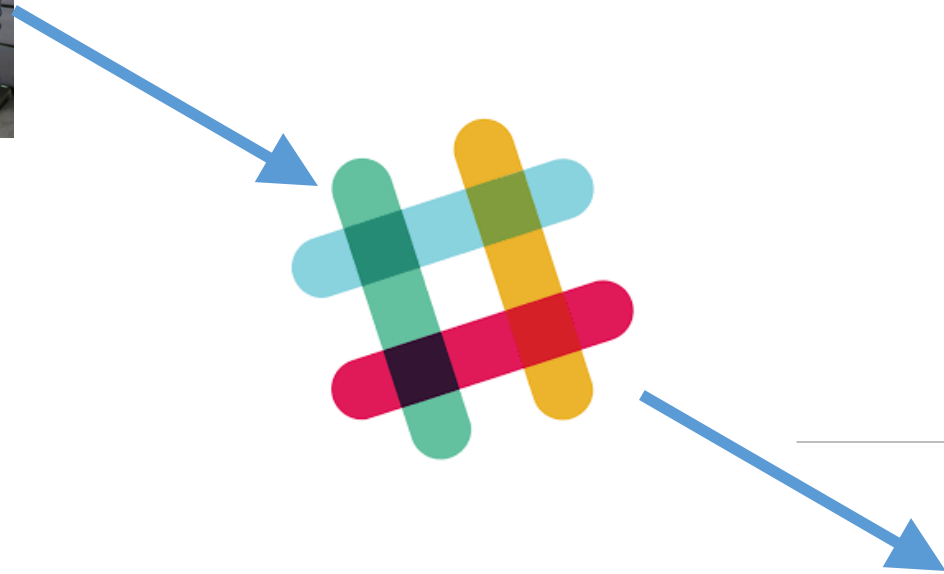


Photo: Beverly Yuen Thompson – via Flickr – CC-NC-2.0



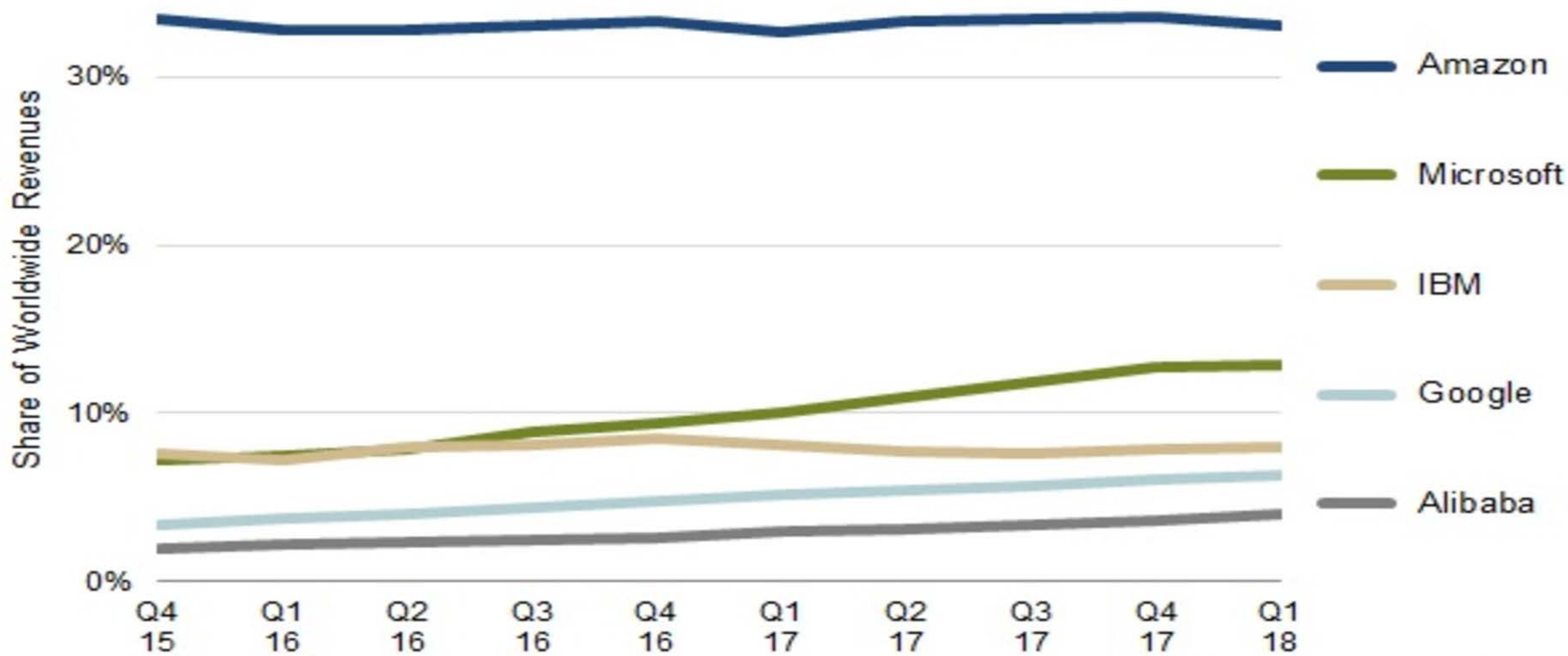


# Infrastructure as a Service (IaaS)

IaaS	
Operating System	They manage
Application	You manage
Security	Shared
Disaster Recovery	Shared
Single point of failure?	No
Fixed capacity?	No

## Cloud Infrastructure Services - Market Share Trend

(IaaS, PaaS, Hosted Private Cloud)

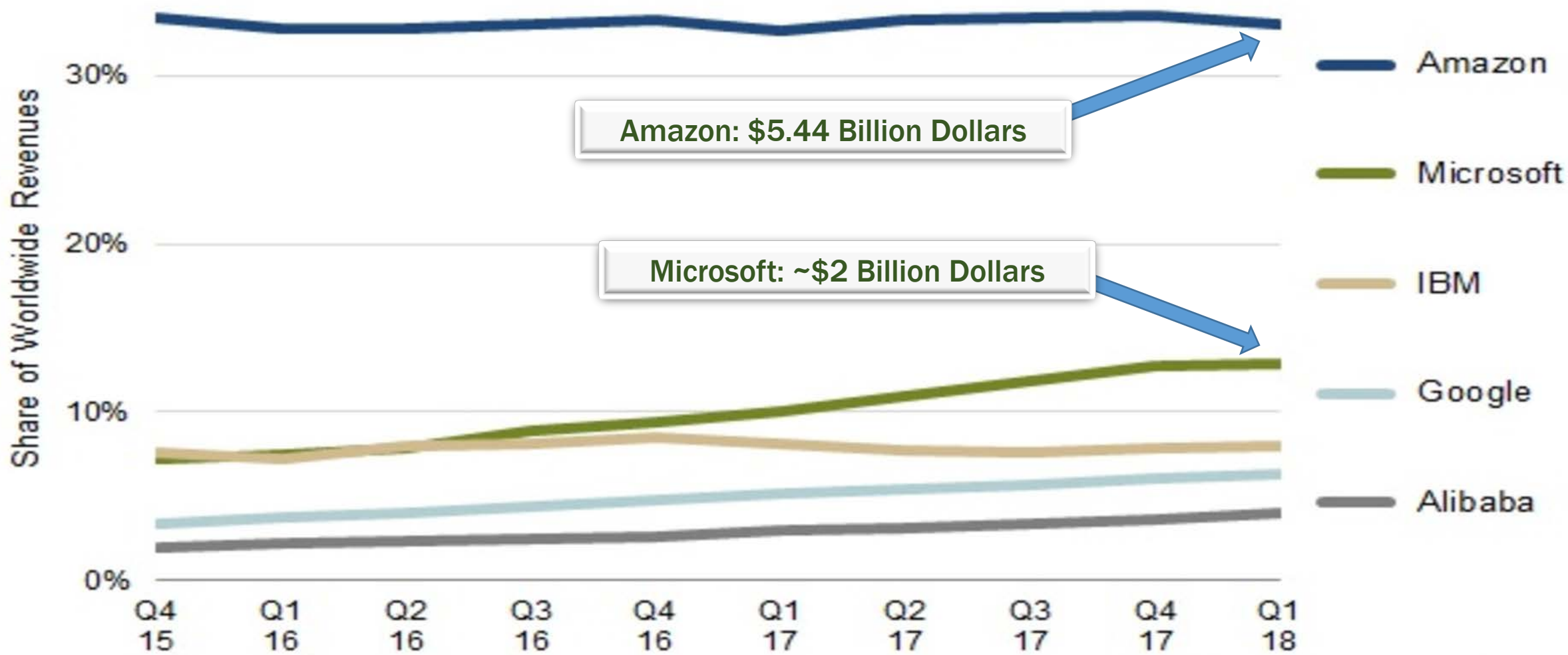


Source: Synergy Research Group



# Cloud Infrastructure Services - Market Share Trend

(IaaS, PaaS, Hosted Private Cloud)



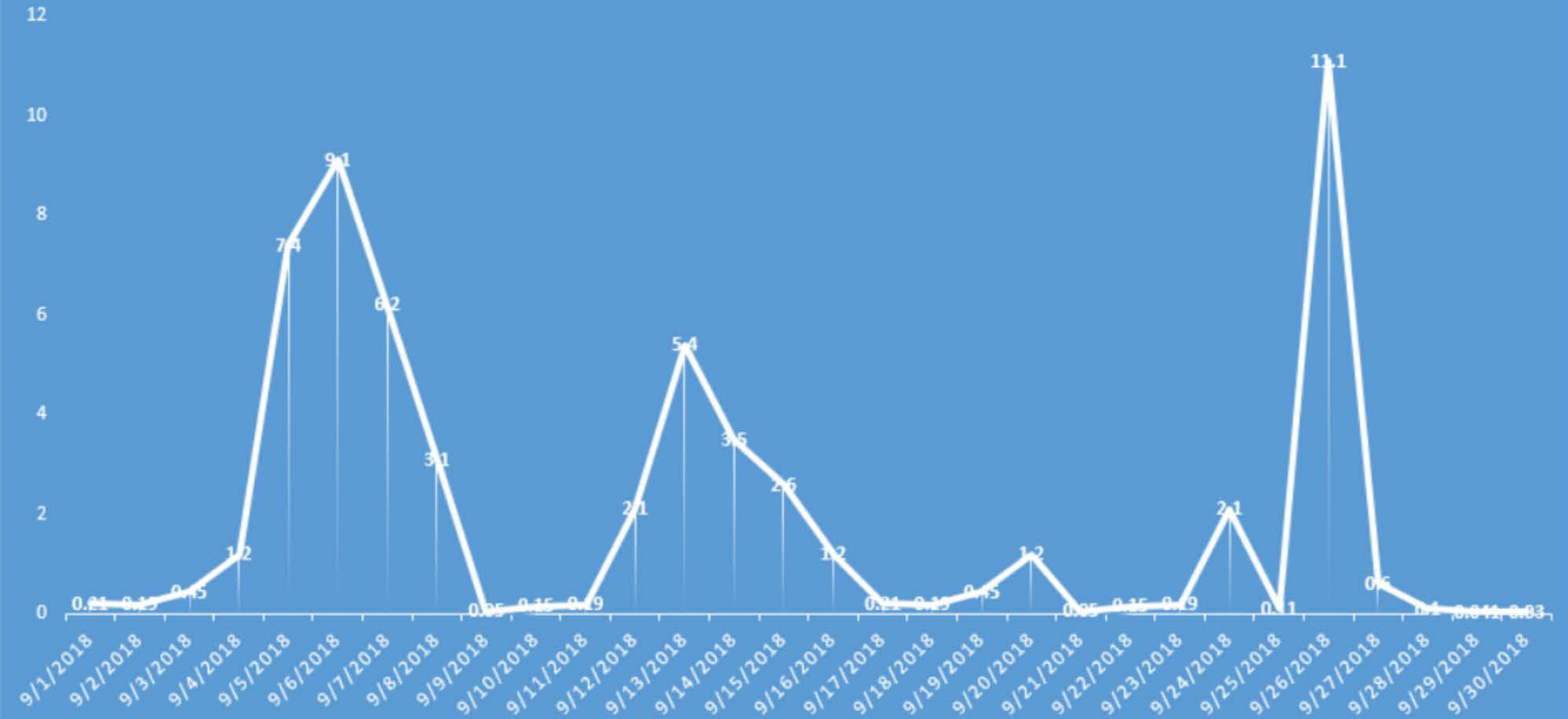
Source: Synergy Research Group



# Let's Talk Elasticity

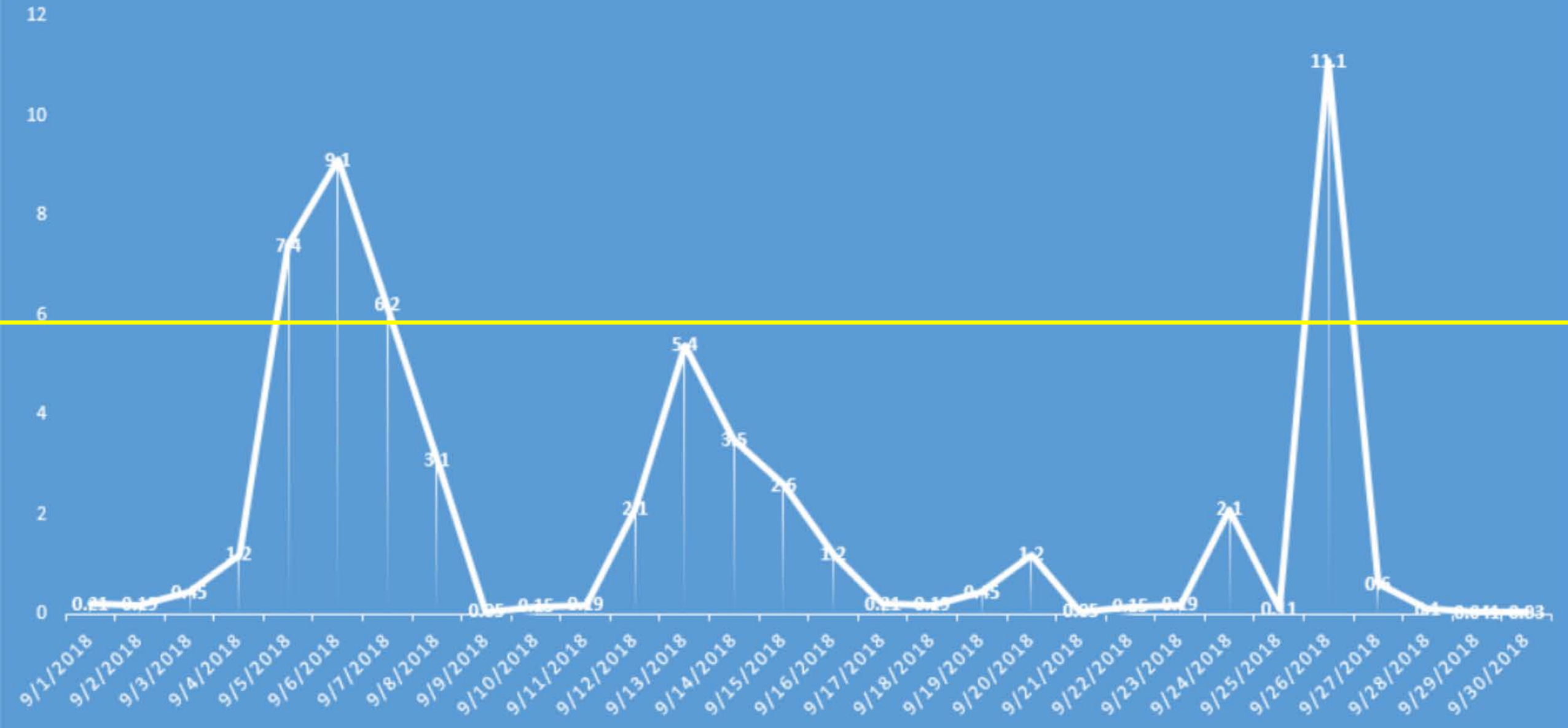
Photo :  
Chris Stevenson  
via Flickr CC-BY-NC 2.0

## PROJECTED REGISTRATION SYSTEM DEMAND, SEPTEMBER 2018

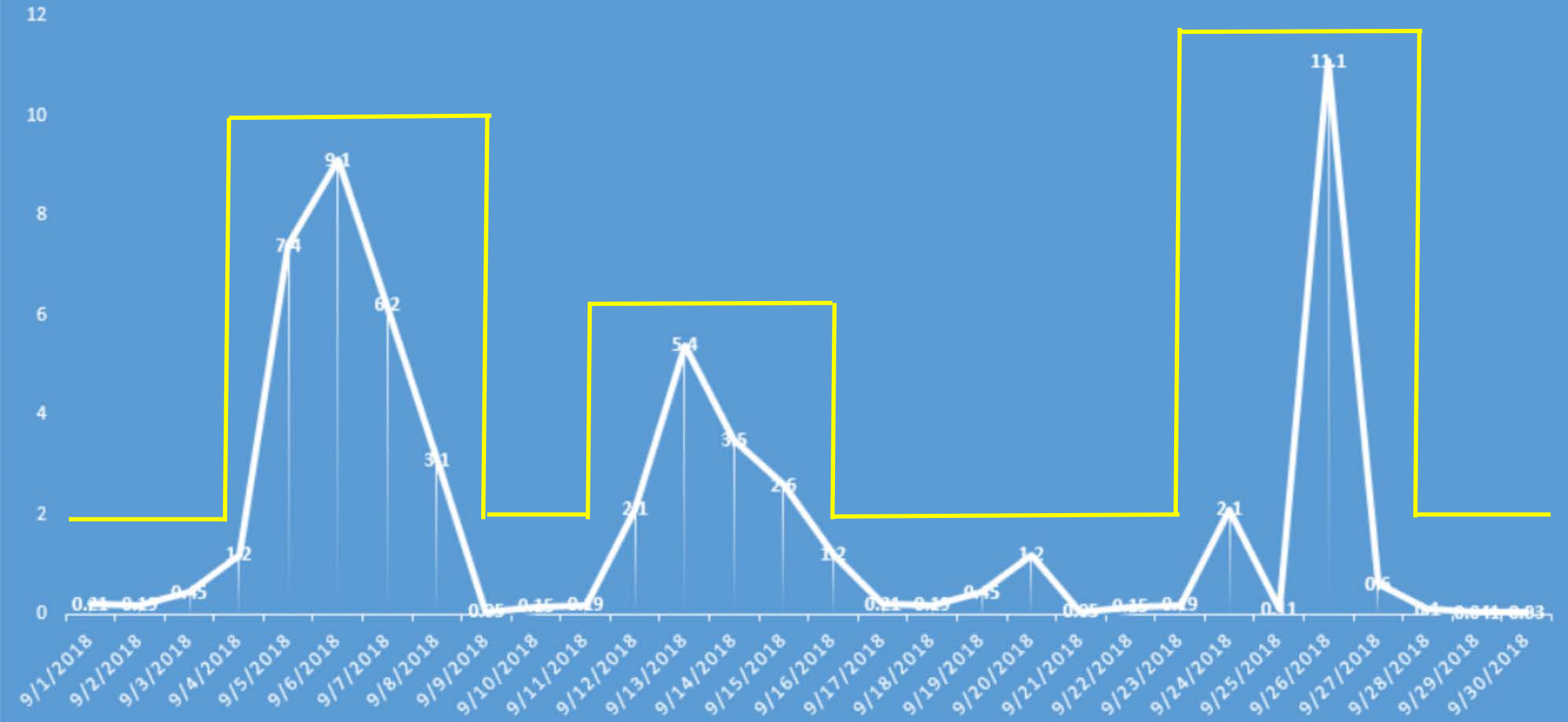




## PROJECTED REGISTRATION SYSTEM DEMAND, SEPTEMBER 2018



## PROJECTED REGISTRATION SYSTEM DEMAND, SEPTEMBER 2018





# Parallelism

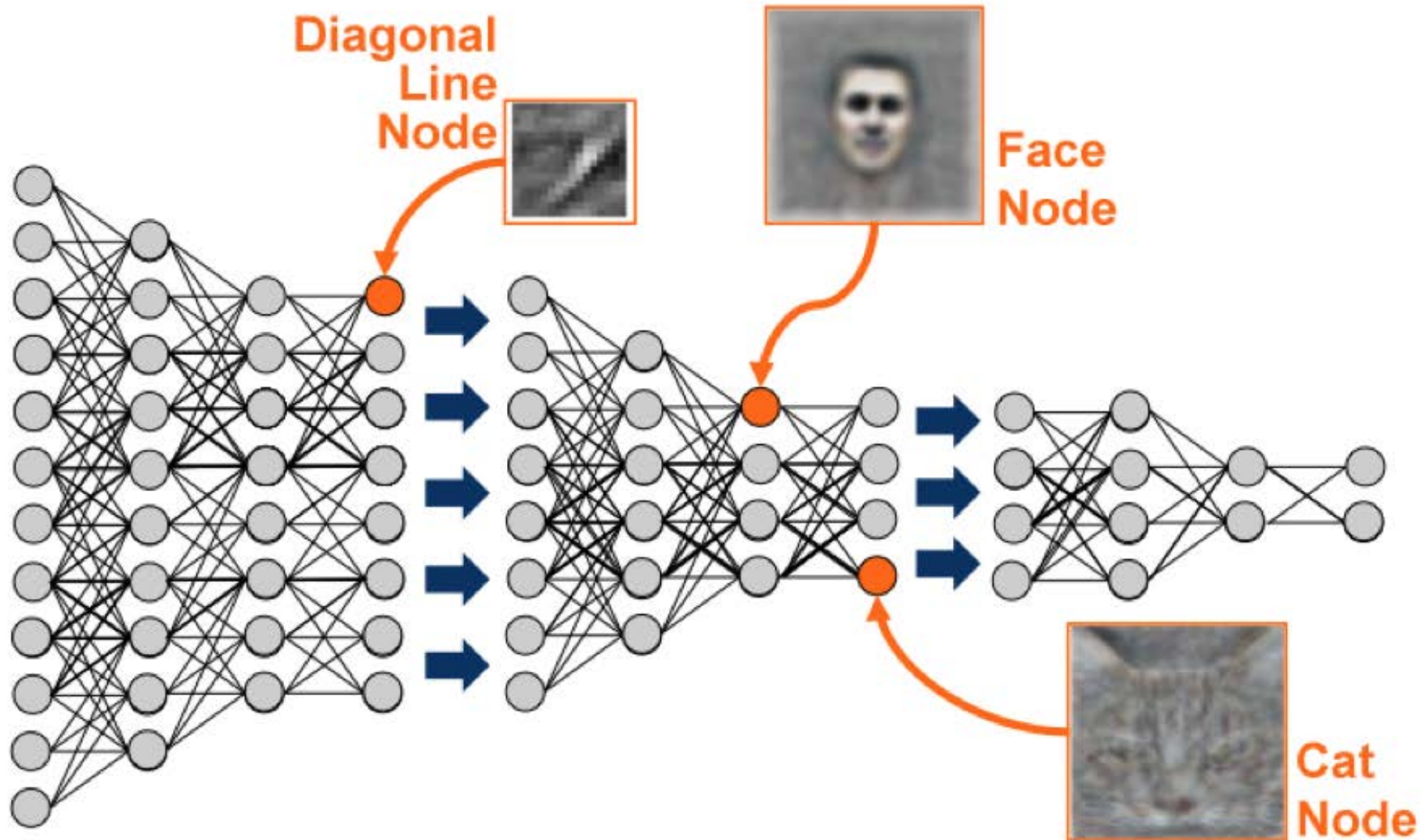
A close-up, low-angle shot of a row of network ports on a server rack. Several white Ethernet cables are plugged into the ports, with their connectors visible. The cables are bundled together, creating a sense of depth and repetition. The background is a blurred server rack, emphasizing the focus on the network connections.

Photo: Alesh Bennett via Flickr CC BY 2.0



# Deep Learning

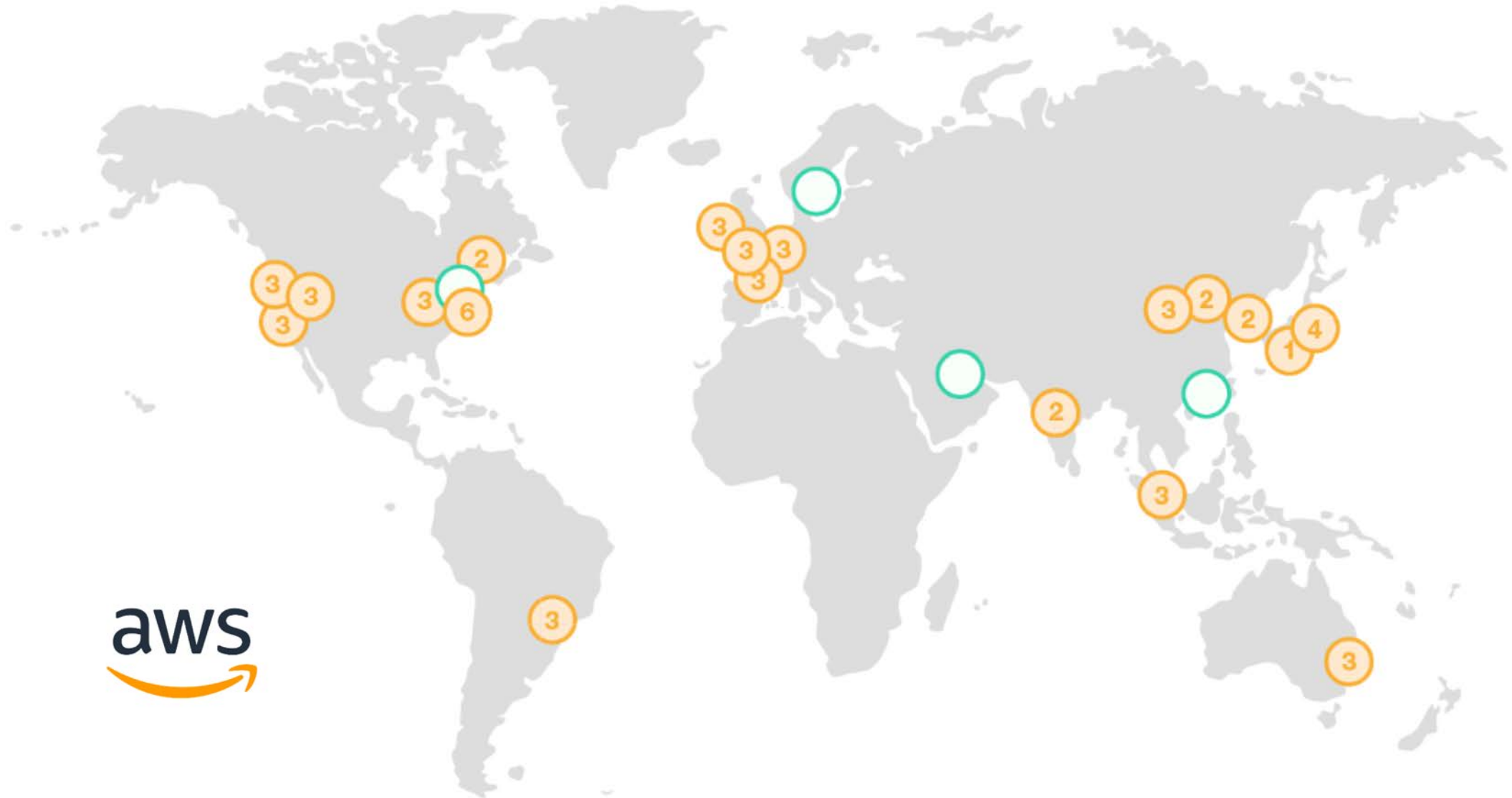
Lots of Data + Neural Nets + Training = Hierarchical & Associational Feature Representation



Credit: John Smart, ForesightGuide.com



# Global Infrastructure



55 Availability Zones within 18 Geographic Regions



Photo: Amazon data center in Umatilla, Oregon – by James Thomas, [www.eastoregonian.com](http://www.eastoregonian.com) 8/10/2018

$\lambda$  -  
because  
sometimes  
you don't even  
need a server







<http://www.chriswatten.com/there-is-no-cloud-sticker>



Myth Two

**We're Cheaper**  
*Guaranteed!*

Image: MySalvageStore.com

# Challenge One



***You Are Here***

## Challenge Two

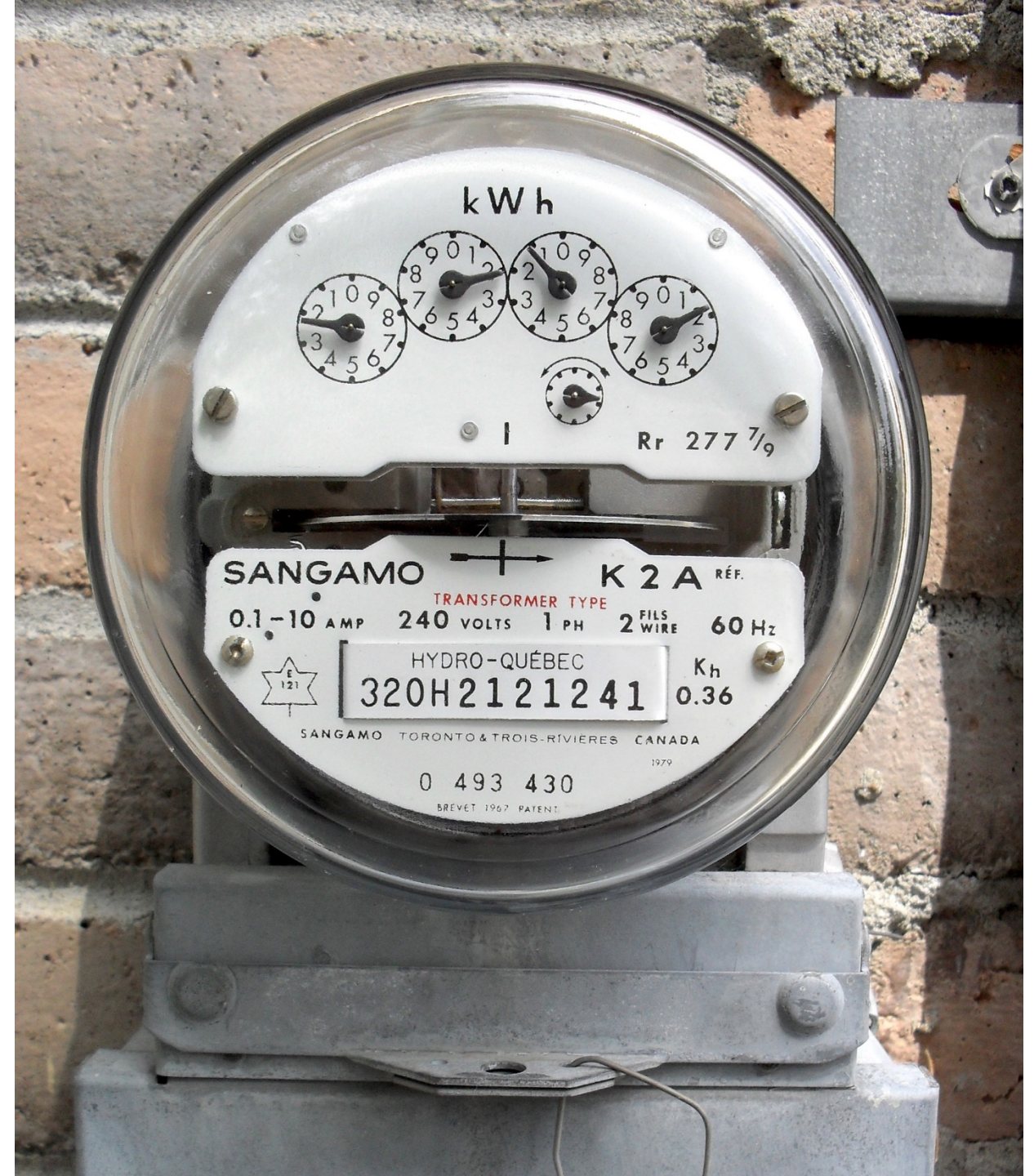


Photo: Kristoferb at English Wikipedia, CC BY-SA 3.0,  
<https://commons.wikimedia.org/w/index.php?curid=10795599c>



# Challenge Three



Photo: Quim Gil via Flickr  
CC BY 2.0



# Challenge Four



Photo: Paul Irish  
via Flickr  
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## Myth Two



Image: MySalvageStore.com



Myth Three

**THE CLOUD IS  
INSECURE!**





Myth Three

**THE CLOUD IS  
SECURE!**









# Myth Three

**THE CLOUD  
INSECT**



Those who don't  
jump will never fly.

Leena Ahmad Almashat

Slide by Michelle Pacansky-Brock

Photo by Kodomut CC-BY





# **Thank You!**

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