

THE FIN-TASTIC WAY TO BOOST YOUR CLOUD ROI

AN INTRODUCTION TO FINOPS ON AZURE

RENÉ VAN OSNABRUGGE

@RENEVO



#KATRINA

EAT
THE
RICH.

EAT
THE
RICH

EAT
THE
RICH





cloud & DEVOPS GO HAND IN HAND



**THE SAME MODEL THAT
BROUGHT FREEDOM
REMOVED CONTROL**

A stylized illustration of a hand in a dark blue suit jacket pointing directly at the viewer. The hand is rendered with a halftone dot pattern. The background is a brick wall with vibrant graffiti in shades of orange, yellow, and teal. The text 'THIS IS ABOUT YOU!' is written in a white, bold, sans-serif font across the bottom of the image.

THIS IS ABOUT YOU!



WHY NOW?

THE CLOUD PROMISE

ZDNET Tomorrow belongs to those who embrace it today

Home / Innovation / Cloud

Survey: Cost, scalability are primary drivers for cloud usage

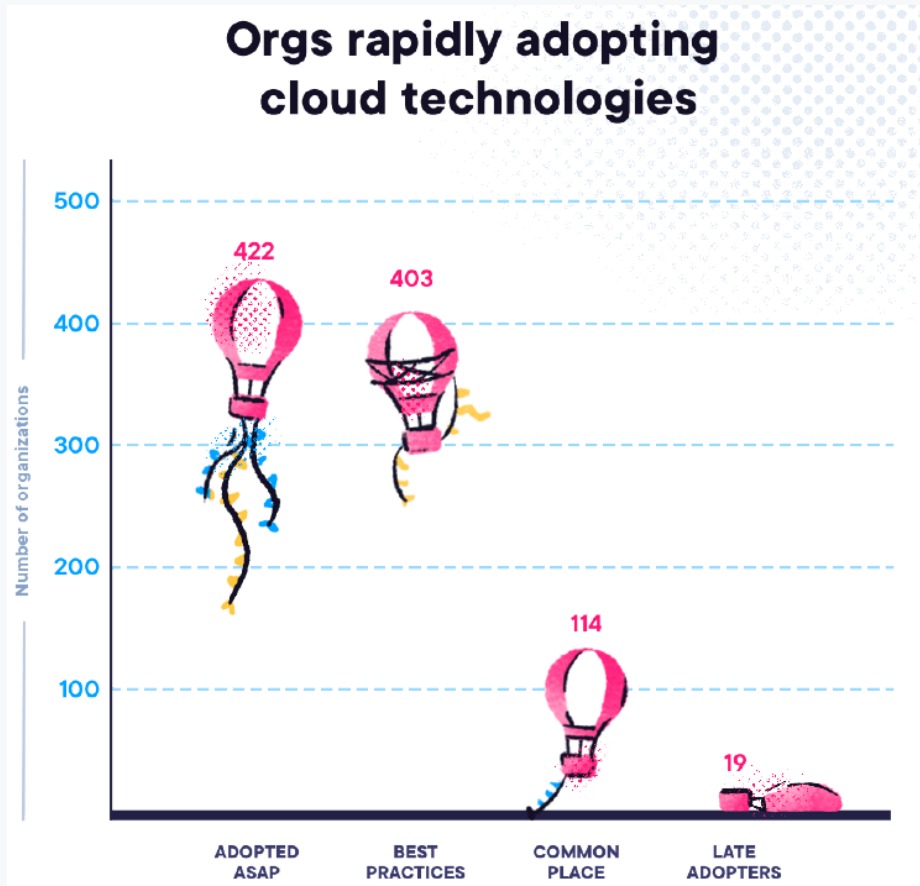
There's nonstop talk about how cloud computing is in its infancy this week at GigaOm's Structure conference in San Francisco. Nevertheless, more companies are favoring the cloud each day for different reasons, but there are a few that stick out.

Written by [Rachel King](#), Contributor on June 23, 2011

There's nonstop talk about how cloud computing is in its infancy this week at GigaOm's Structure conference in San Francisco. Nevertheless, more companies are favoring the cloud each day for different reasons, but there are a few that stick out.

According to the "[Inaugural Future of Cloud Computing Survey](#)," the primary drivers for cloud usage are more flexible scalability and the potential for lower costs on the part of the customers.

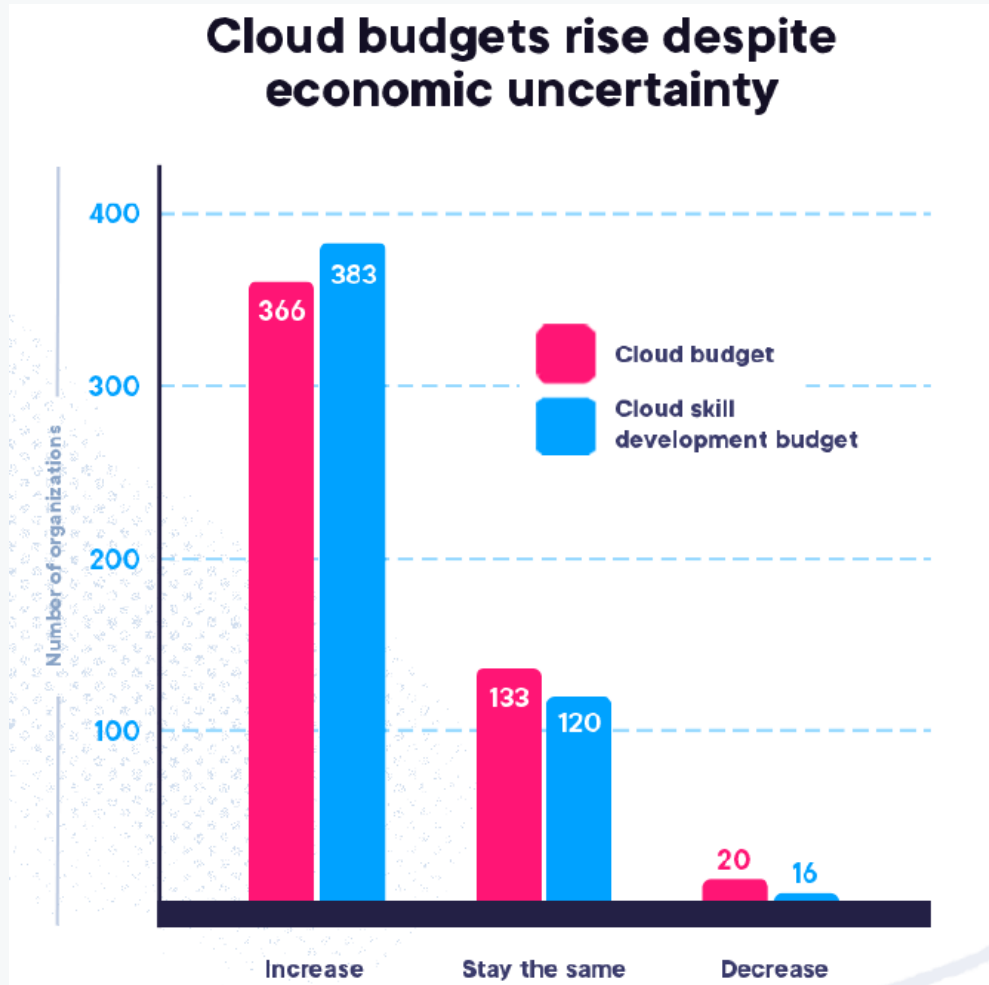
And cloud is here to stay...



70% of organizations has over 50% of their infrastructure in the cloud.

49% actively move data to the cloud.

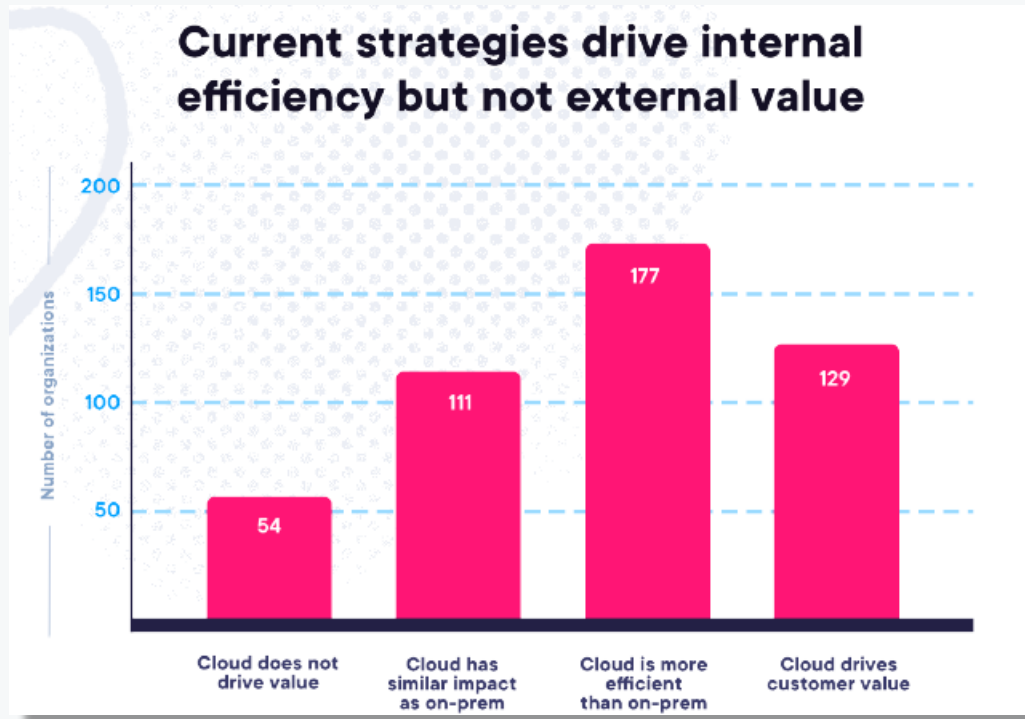
Cloud budgets rise



71% of leaders saying their cloud budgets will increase over the next 12 months

74% of leaders also expect their cloud skill development budgets to increase

But cloud does not reach its full potential



80% struggle to improve performance and measurement of cloud systems.

27% of leaders succeed in driving consumer value with their cloud solutions

61% of organizations able to push out new code to consumers more than once per month


BEFORE & AFTER

ZDNET tomorrow belongs to those who embrace it today

Home / Innovation / Cloud

Survey: Cost, scalability are primary drivers for cloud usage

There's nonstop talk about how cloud computing is in its infancy this week at GigaOm's Structure conference in San Francisco. Nevertheless, more companies are favoring the cloud each day for different reasons, but there are a few that stick out.

 Written by Rachel King, Contributor on June 23, 2011

[in](#) [f](#) [t](#)

There's nonstop talk about how cloud computing is in its infancy this week at GigaOm's Structure conference in San Francisco. Nevertheless, more companies are favoring the cloud each day for different reasons, but there are a few that stick out.

According to the "[inaugural Future of Cloud Computing Survey](#)," the primary drivers for cloud usage are more flexible scalability and the potential for lower costs on the part of the customers.

businesswire ANALYSIS | TECHNOLOGY | COMPANY

Log In Sign Up

anodot

New Survey Reveals that Organizations Struggle with Skyrocketing Cloud Computing Costs Amidst the Move to Remote Work

Independent Survey Sponsored by Anodot Points to Need for AI-Based Cloud Monitoring and Machine Learning to Reduce Cloud Costs Within 30-60 Days

June 10, 2021 09:00 AM Eastern Daylight Time

ASHBURN, Va. --(BUSINESS WIRE)--Anodot, the autonomous business monitoring company, today announced the results of an independent survey that reveals how organizations struggle to control skyrocketing cloud computing costs of the remote workforce, even as business moves to a hybrid model.

"Cloud costs are extremely hard to track"

[Tweet this](#)

In Q2 of 2021, Anodot surveyed more than 100 senior IT, finance, and operations leaders on their experiences managing cloud costs during the pandemic and shortly thereafter as vaccinations became commonplace and more people returned to work. The survey revealed the following:

- **Cloud costs are skyrocketing, and most organizations are having a hard time controlling these costs**
 - Fewer than 20% of survey respondents stated that they were able to immediately detect spikes in cloud costs
 - Greater than 25% stated that it can take months or weeks or several days to notice a spike in cloud costs

WHAT WE HEAR

SAVE COST OPTIMIZE COST EXPENSIVE POLICIES
PREDICT COST CLOUD SPEND INVISIBLE CLOUD FEAR
DATA CENTERS SAVE COST OPTIMIZE COST EXPENSIVE
POLICIES PREDICT COST CLOUD SPEND INVISIBLE CLOUD
FEAR DATA CENTERS SAVE COST OPTIMIZE COST
EXPENSIVE POLICIES PREDICT COST CLOUD SPEND
INVISIBLE CLOUD FEAR DATA CENTERS SAVE COST
OPTIMIZE COST EXPENSIVE POLICIES PREDICT COST
CLOUD SPEND INVISIBLE CLOUD FEAR DATA CENTERS
SAVE COST OPTIMIZE COST EXPENSIVE POLICIES
PREDICT COST CLOUD SPEND INVISIBLE CLOUD FEAR
DATA CENTERS SAVE COST OPTIMIZE COST EXPENSIVE
POLICIES PREDICT COST CLOUD SPEND INVISIBLE CLOUD
FEAR DATA CENTERS SAVE COST OPTIMIZE COST
EXPENSIVE POLICIES PREDICT COST CLOUD SPEND
INVISIBLE CLOUD FEAR DATA CENTERS SAVE COST



SOME QUESTIONS
TO YOU



WITH GREAT
POWER



COMES GREAT
RESPONSIBILITY

YET ANOTHER ...OPS



FINOPS IS AN EVOLVING CLOUD FINANCIAL MANAGEMENT DISCIPLINE AND CULTURAL PRACTICE THAT ENABLES ORGANIZATIONS TO GET MAXIMUM BUSINESS VALUE BY HELPING ENGINEERING, FINANCE, TECHNOLOGY AND BUSINESS TEAMS TO COLLABORATE ON DATA-DRIVEN SPENDING DECISIONS.



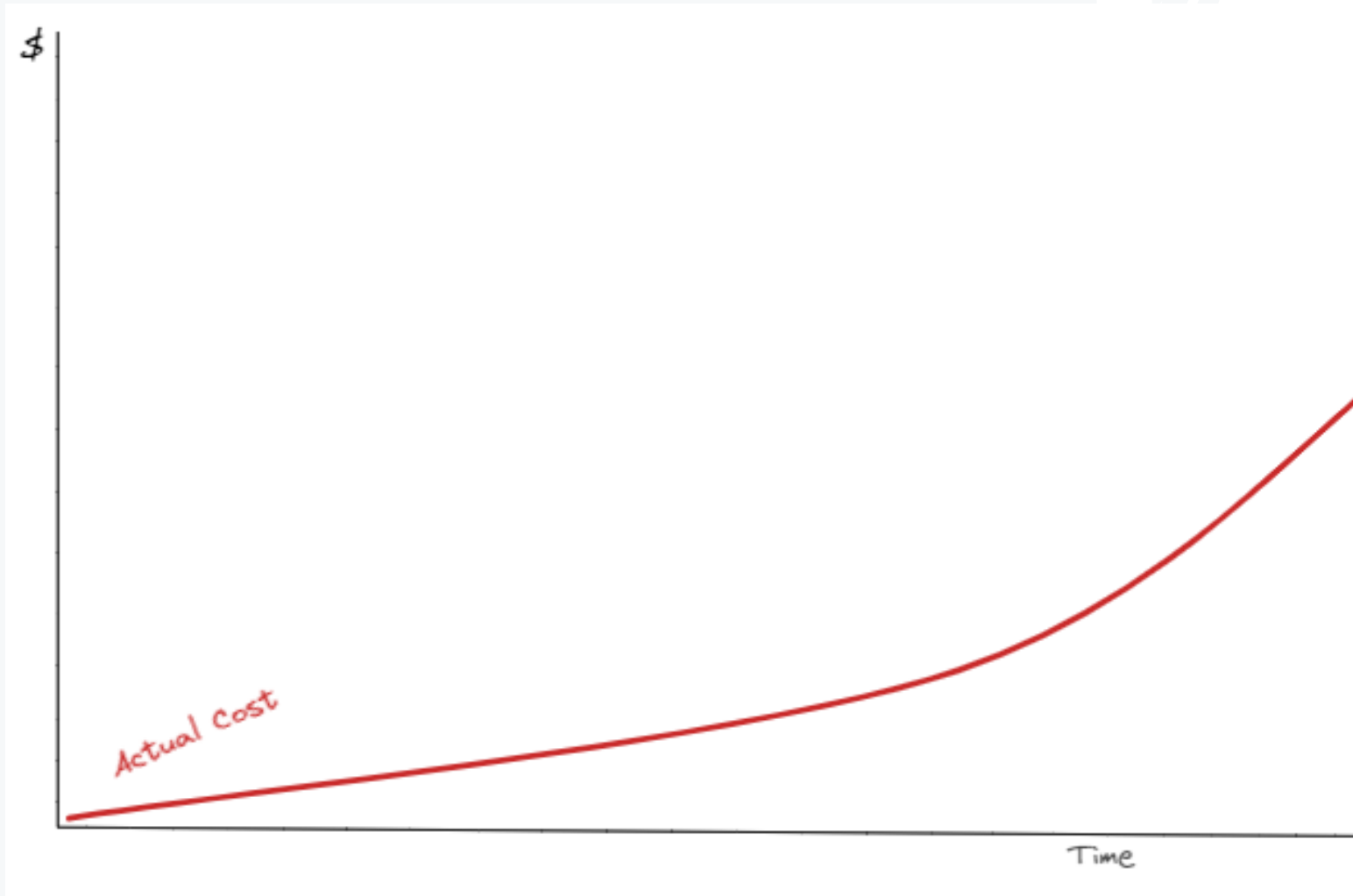


VISIBILITY

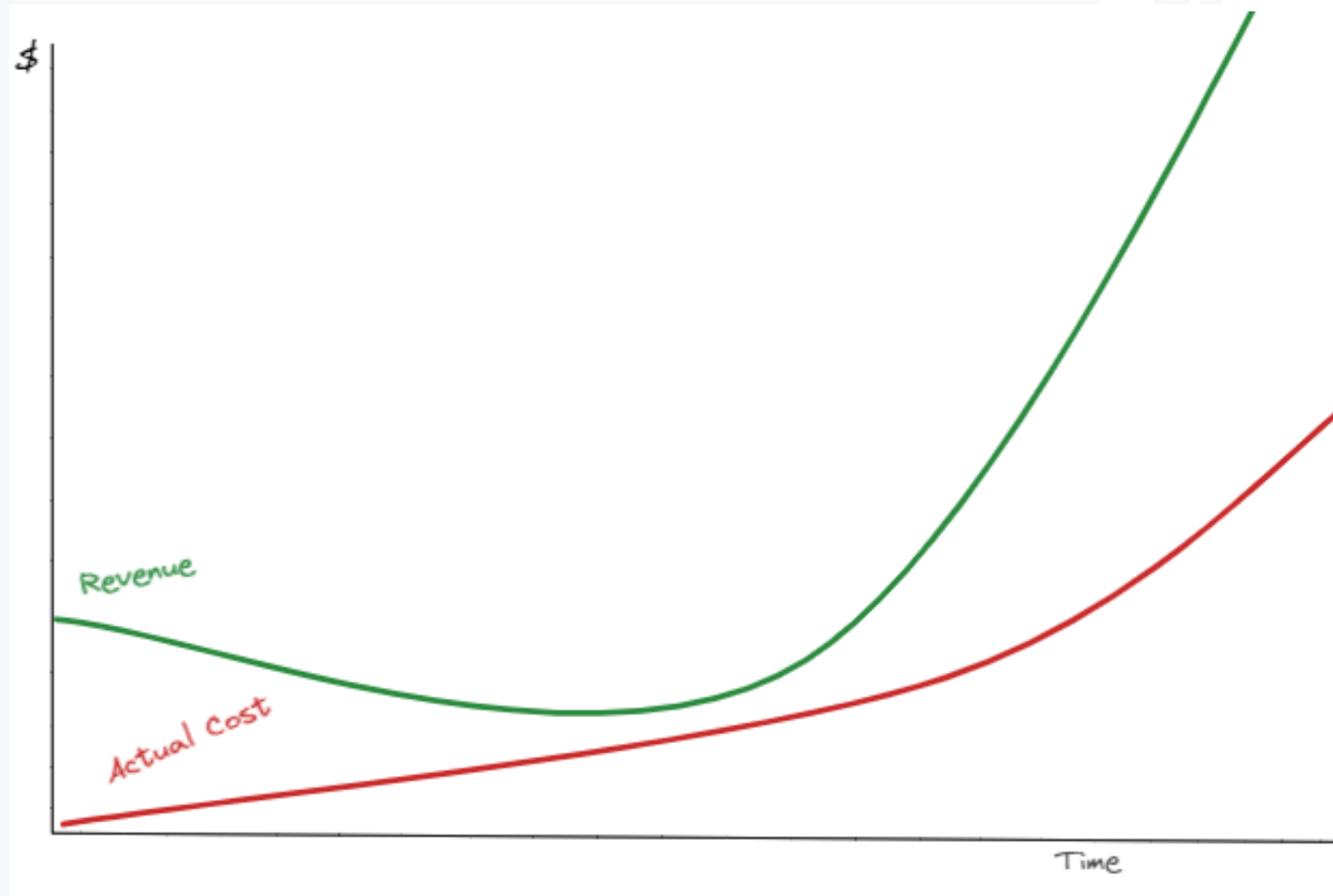
**COST
ARCHITECTING**

OWNERSHIP

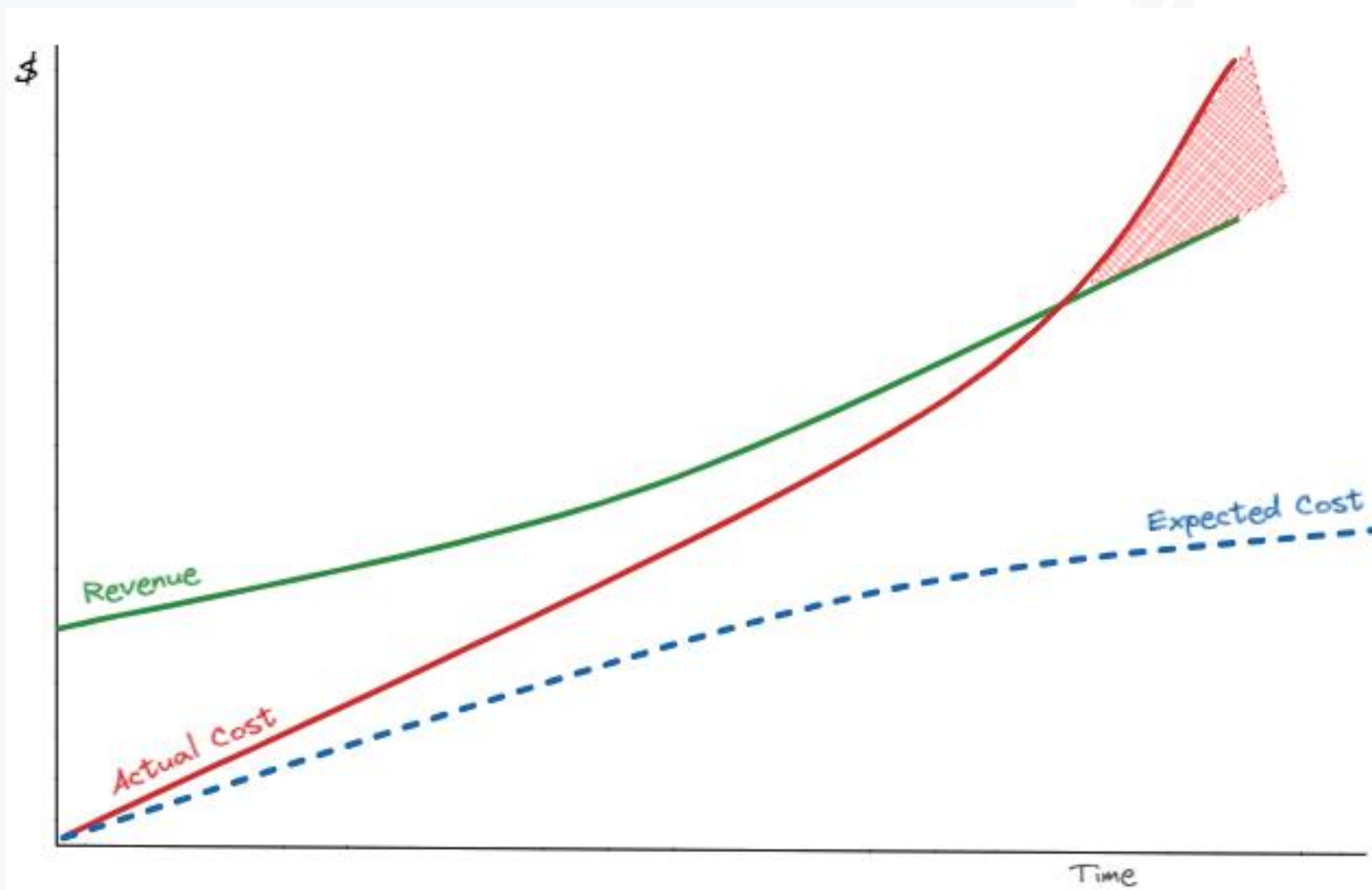
Cloud is too expensive!



And now?



And now?



#PERSPECTIVE



AC 18.481

WHAT IS
CLOUD
SPEND?



**Bill to**Contoso
1234 Address Way
City, State Zip**Customer PO No.** 512
Invoice No. E12345JTHE
Billing Cycle 3/5/2017 to 4/4/2017
Invoice Date 4/5/2017
Payment Method Credit Card**Pay-As-You-Go**
Account Owner Email Joe@contoso.com**Invoice Summary****Production Storage**Previous balance 664.14
Payment - Thank you! -216.00
Outstanding balance (from previous billing cycle) 448.14**Current Charges**
Usage charges 219.45
Adjustments -20.00
Total Pre-Tax Charges 199.45
VAT (0.000%) 0.00**Total Amount** **647.59** USD

*Payment instructions on page 2

Contoso

Invoice No. E12345JTHE



Usage Charges

Name	Type	Resource	Region	Consumed	Included	Billable	Rate	Value
Storage	Locally Redundant	Standard IO - Page Blob/Disk (GB)		1505.0000	0.0000	1505.0000	.0500	75.35
Virtual Machines	BASIC.A3 VM (Windows)	Compute Hours	EU North	365.9500	0.0000	365.9500	.3000	109.79
Storage	Locally Redundant	Standard IO - Table (GB)		318.7142	0.0000	318.7142	.0700	22.31
Data Management		Standard IO - Block Blob Write Operation Units (in 10,000s)		30.0000	0.0000	30.0000	.4000	12.00
Sub-Total								219.45
Grand Total								219.45 USD

B25

101 VV.
DINI
CINTO

8 10V 2

WARD

ADT
STREB
TR
K3
Y059
AMP
"E"
"A"

IOID

COI 4A
2.1.2

SPEND

USAGE X RATE

7.7.8.7

64

81





DEMO

Usage

- Compute power
- Storage space
- Disks
- Network inbound/outbound
- IP Addresses
- Security features
- AI functionality
- Number of instances
- Redundancy
- Etc.



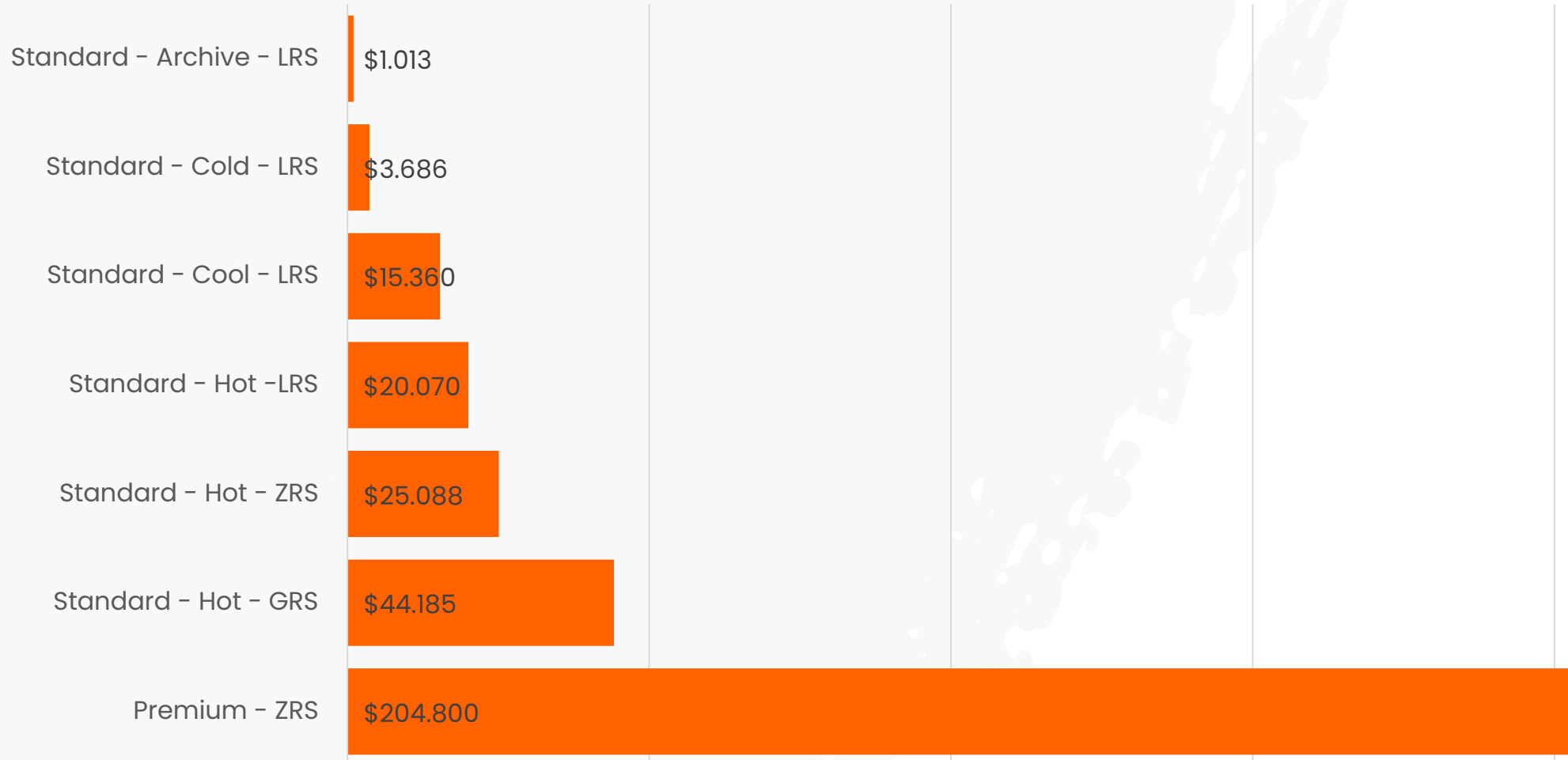
PAY WHAT
YOU USE?



PAY WHAT
YOU PROMISION?



Example of Storage Account SKU



1 Petabyte storage / month in West Europe

Rates

The amount of money charged or paid for a particular service, product, or activity

Different rates for many different services

Compute, Network, I/O, Scaling, Instances, SKU,
Availability

Rates vary depending on usage





PRICE IS WHAT YOU PAY.
VALUE IS WHAT YOU GET.

WARREN BLANKET

RATE

REDUCTION

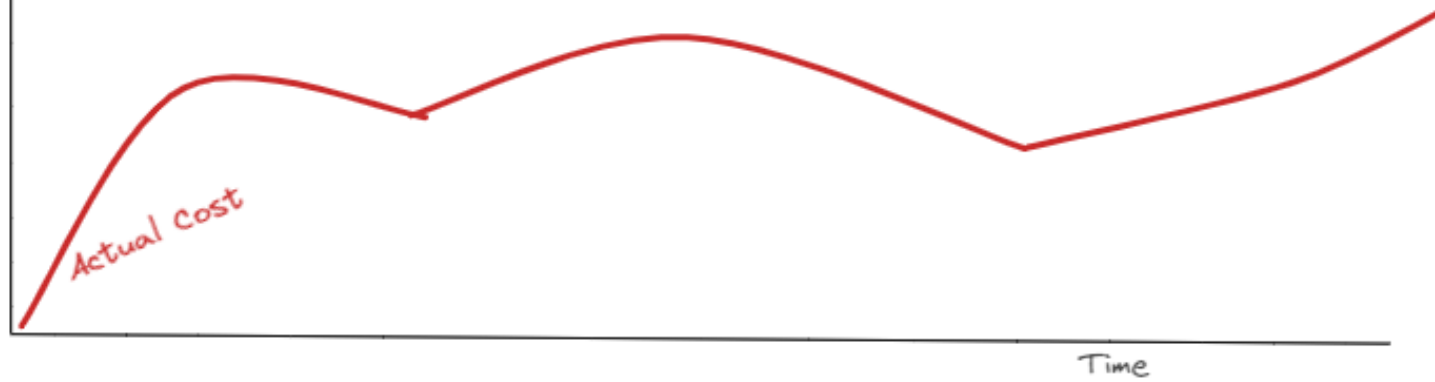


COST

AVOIDANCE

Revisions to the Budget

\$



Rate Reduction

Pay-as-you-go (on-demand)

Spot Instances

Reserved Instances

Saving Plans

Commitment-Based Discounts

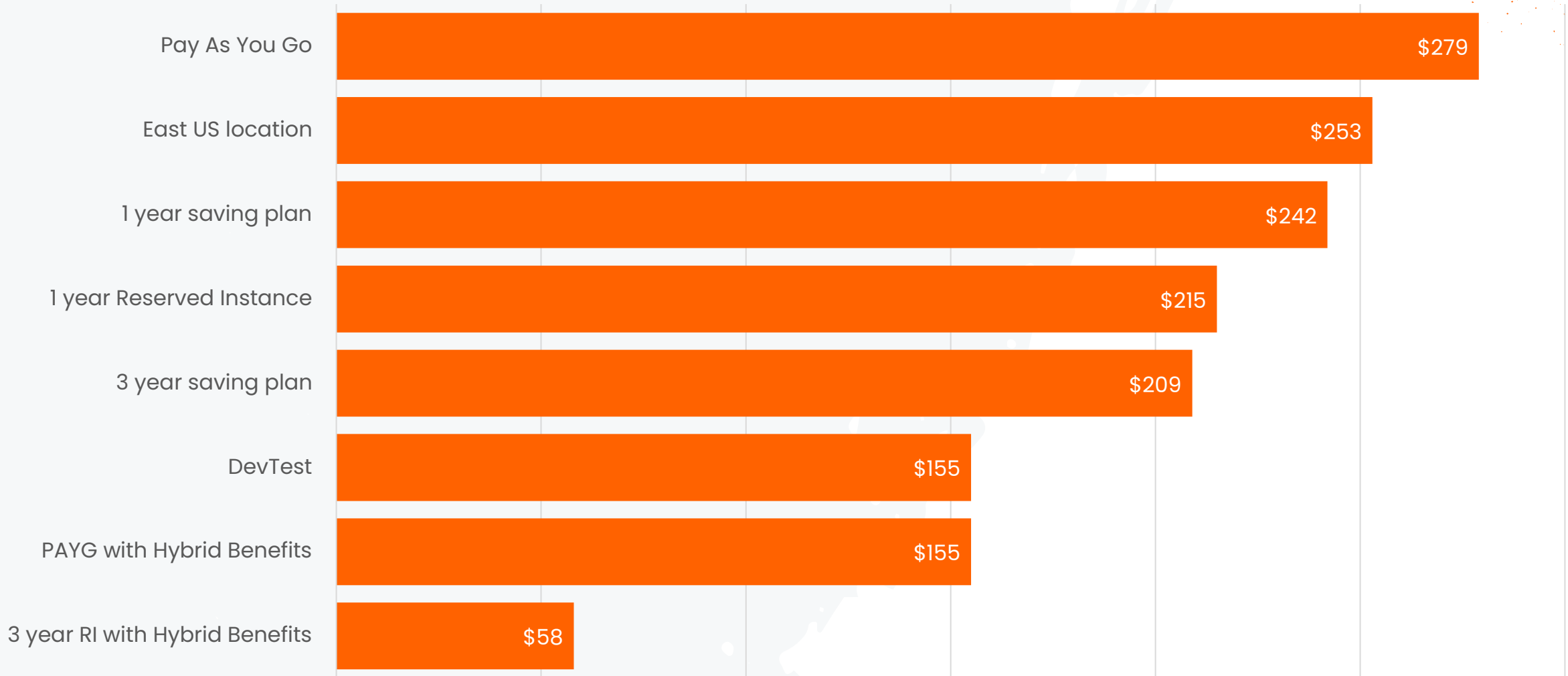
Enterprise Agreement

Dev/Test subscriptions

Hybrid Benefits



Example VM rates



1 VM in West Europe - D4 v5 - 730 Hours - Standard Windows, per Month

Cost Avoidance

Which resources show a stable usage?

Removing / Moving

Data Retention Policies

Delete Resources

Rightsizing

Smart Combining

Shared Services

Prod or Non-Prod?

Selective Use / Scaling

Re-Architecting

SKU





DEMO
COST
ADVISOR

Azure Cost Recommendations

Microsoft Azure | Search resources, services, and docs (G+)

Home > Cost Management: Mechanics

Cost Management: Mechanics | Advisor recommendations

Billing account

Search

Feedback | Download as CSV | Download as PDF | Create alert | Create recommendation digest

Subscription equals 64 of 76 selected | Recommendation Status equals Active | Resource Group equals All | Type equals All | Add Filter

Commitments equals 3 years, 30 days

No grouping

Total recommendations: 8

Recommendations by impact: 5 High impact, 2 Medium impact, 1 Low impact

Impacted resources: 76

Potential yearly savings based on retail pricing: 138,988 USD

For more cost management and optimization capabilities, visit Cost Management

Impact	Description	Potential yearly savings based on...	Impacted resources	Last updated
High	Right-size or shutdown underutilized virtual machines Quick fix	24,084 USD	61 Virtual machines	6/21/2023, 11:14 AM
High	Purchasing a savings plan for compute could unlock lower prices	5,377 USD	1 Subscription	6/21/2023, 06:26 PM
High	Consider SQL PaaS DB reserved instance to save your pay-as-you-go costs	2,911 USD	1 Subscription	6/21/2023, 02:30 PM
High	Consider virtual machine reserved instance to save over your on-demand costs	7,902 USD	1 Subscription	6/21/2023, 04:22 PM
High	Use Standard Storage to store Managed Disks snapshots	No data	11 Managed Disk Snapshots	6/21/2023, 04:30 PM
Medium	Unused running Data Explorer resources	81 USD	1 Data explorer resource	6/21/2023, 06:19 PM
Medium	Enable optimized autoscale for Data Explorer resources	1,893 USD	1 Data explorer resource	6/21/2023, 03:25 PM
Low	Provision the optimal amount of Request Units for Azure Cosmos DB	96,740 USD	1 Cosmos DB account	6/21/2023, 12:02 PM

Recommendations are powered by Azure Advisor. [View all recommendations in Advisor >](#)

[Are these recommendations helpful?](#)

Azure Cost Recommendations

The screenshot displays the Azure Cost Management dashboard. On the left, the 'Summary' tab is active, showing an amount due of \$10,047.00 for July 2023. A 'Pay now' button and a 'View invoice' button are visible. Below this, a line chart shows the ending rate and forecast from 07/01 to 07/29. On the right, the 'Upcoming invoices' section shows the billing period for July 2023 and a pre-tax total of \$8,850.20. A 'Copilot in Cost Management' panel is open on the right, providing an insight into the invoice amount and a breakdown of top charges by service.

Copilot in Cost Management

Your invoice has an amount due of \$10,047.00. The billing period was June 1, 2023 to June 30, 2023. Invoice T000990077 is scheduled to be paid on July 31, 2023.

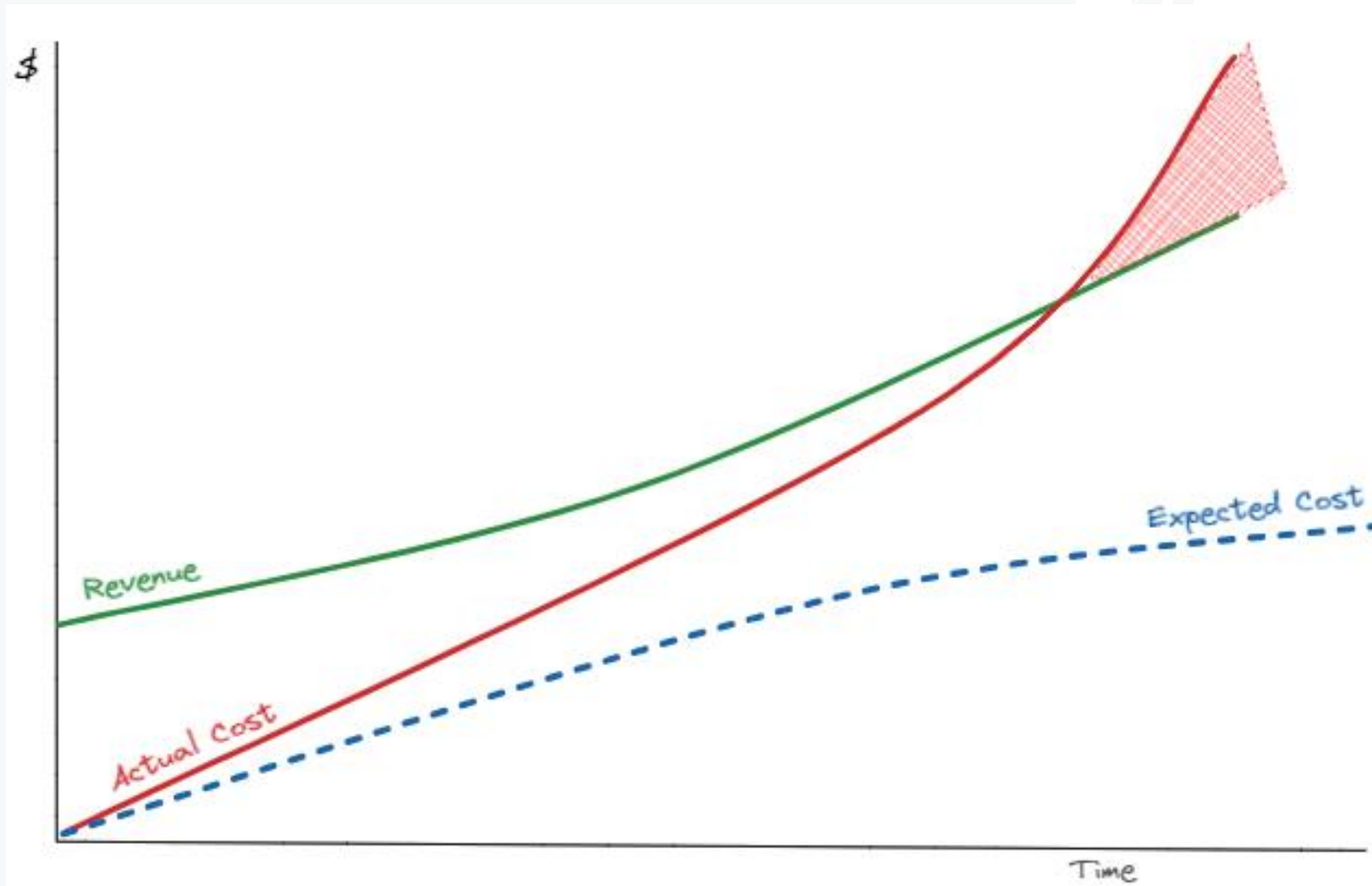
Here are the top charges by service:

Service	Amount	% of total
Networking	\$6,229.14	62%
Storage	\$1,808.46	18%
Compute	\$1,507.05	15%
Other	\$502.35	5%

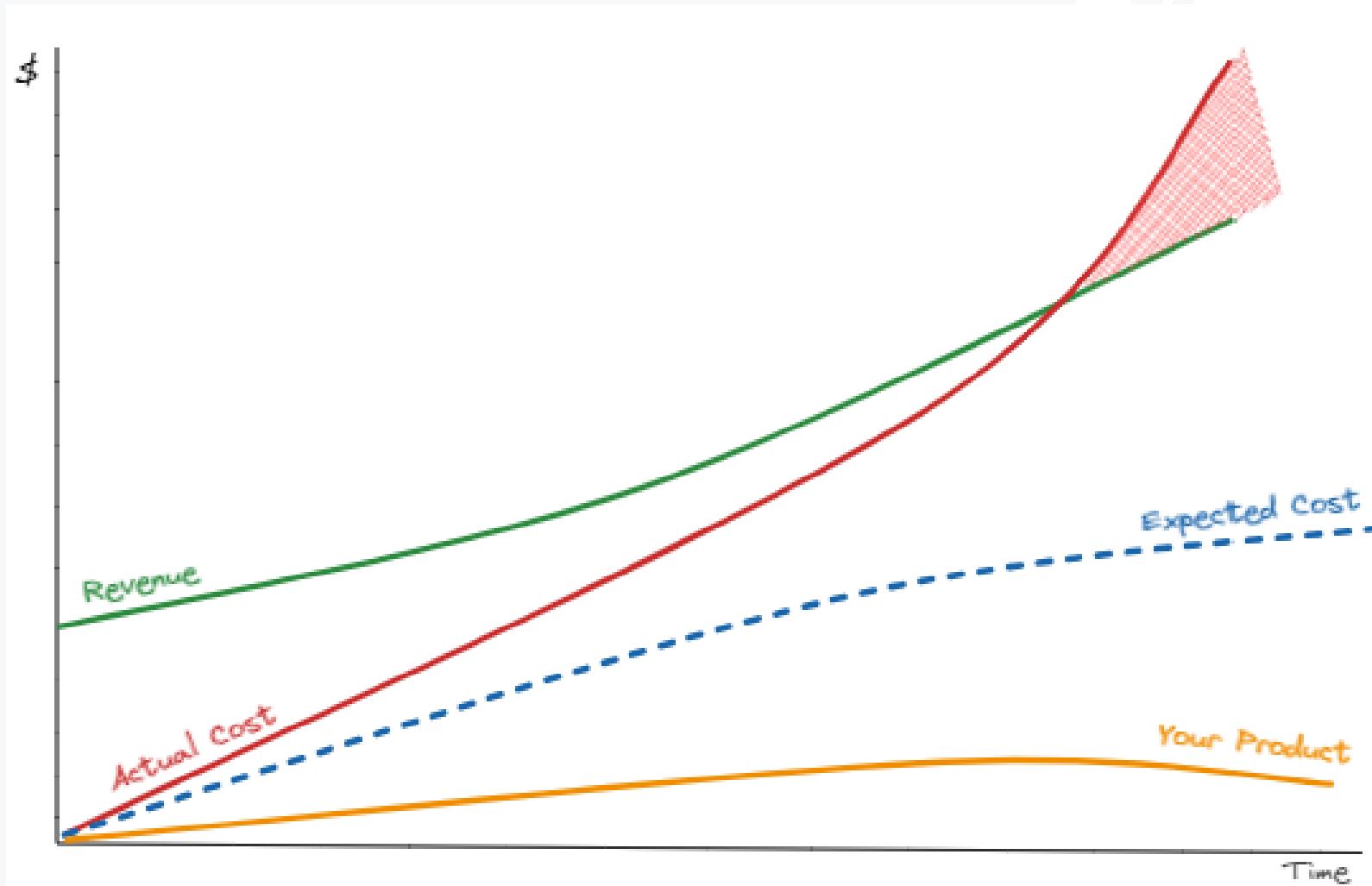
Insight
This is a 12% increase from the previous billing period of May 1, 2023 to May 31, 2023.

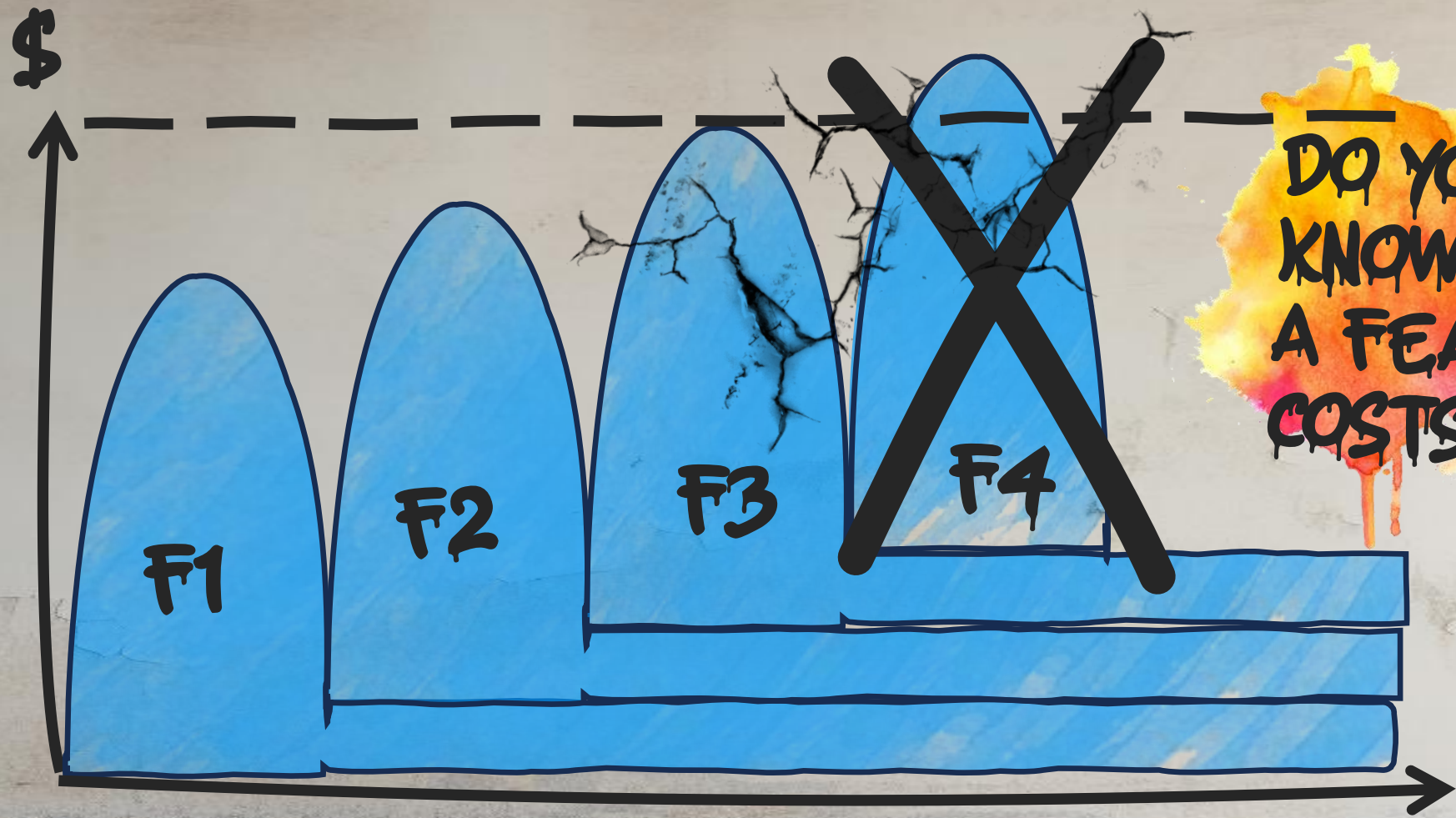
2 references ⌵ AI-generated content may be incorrect 👍 👎

Development teams need to save cost!



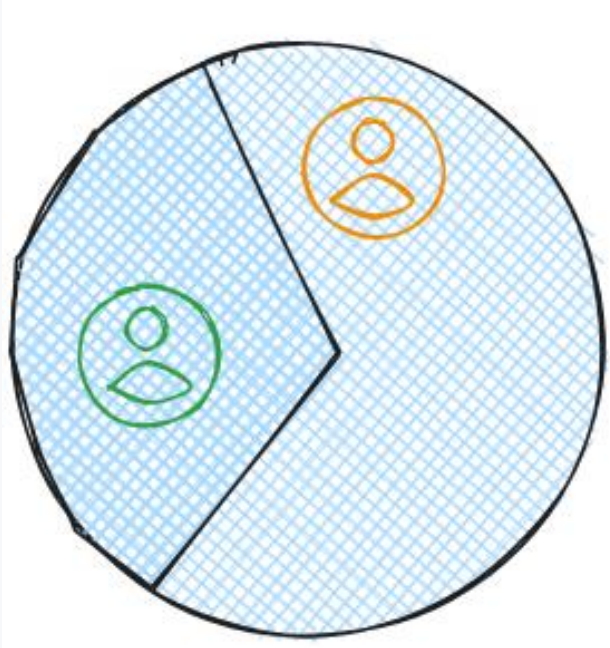
Is that true?



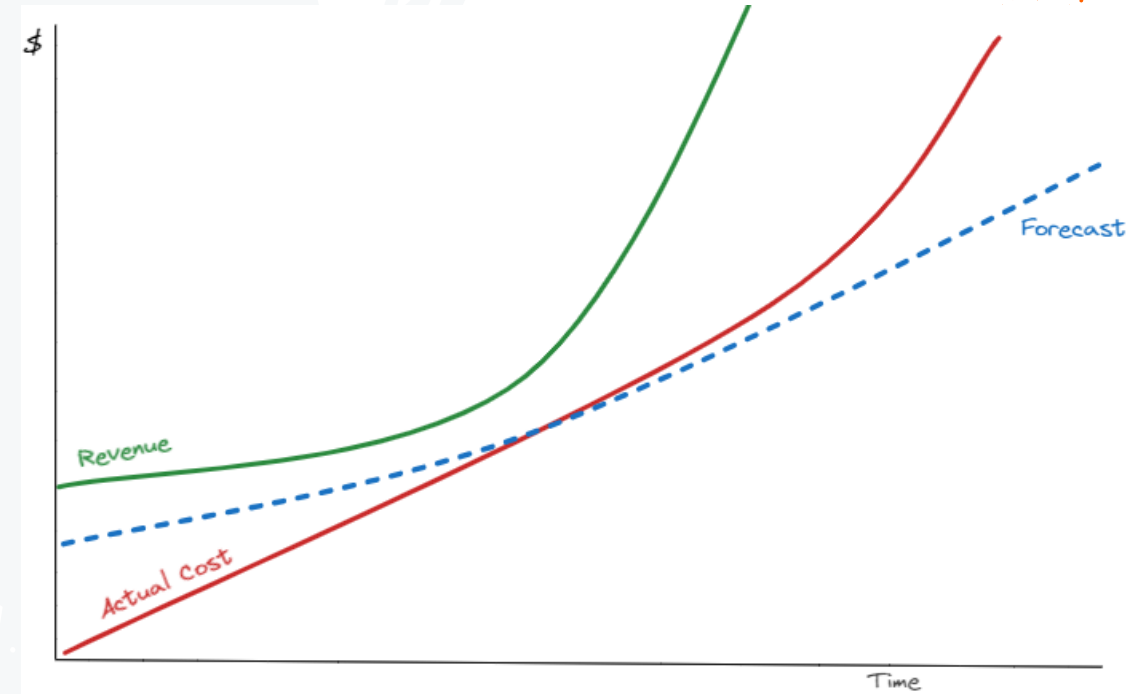


DO YOU
KNOW WHAT
A FEATURE
COSTS?

We need ownership..



..and budgets





OWNERSHIP!

Ownership

Who owns the cost?

- * per product
- * per department
- * per unit

Who owns Shared costs?

How to showback or chargeback



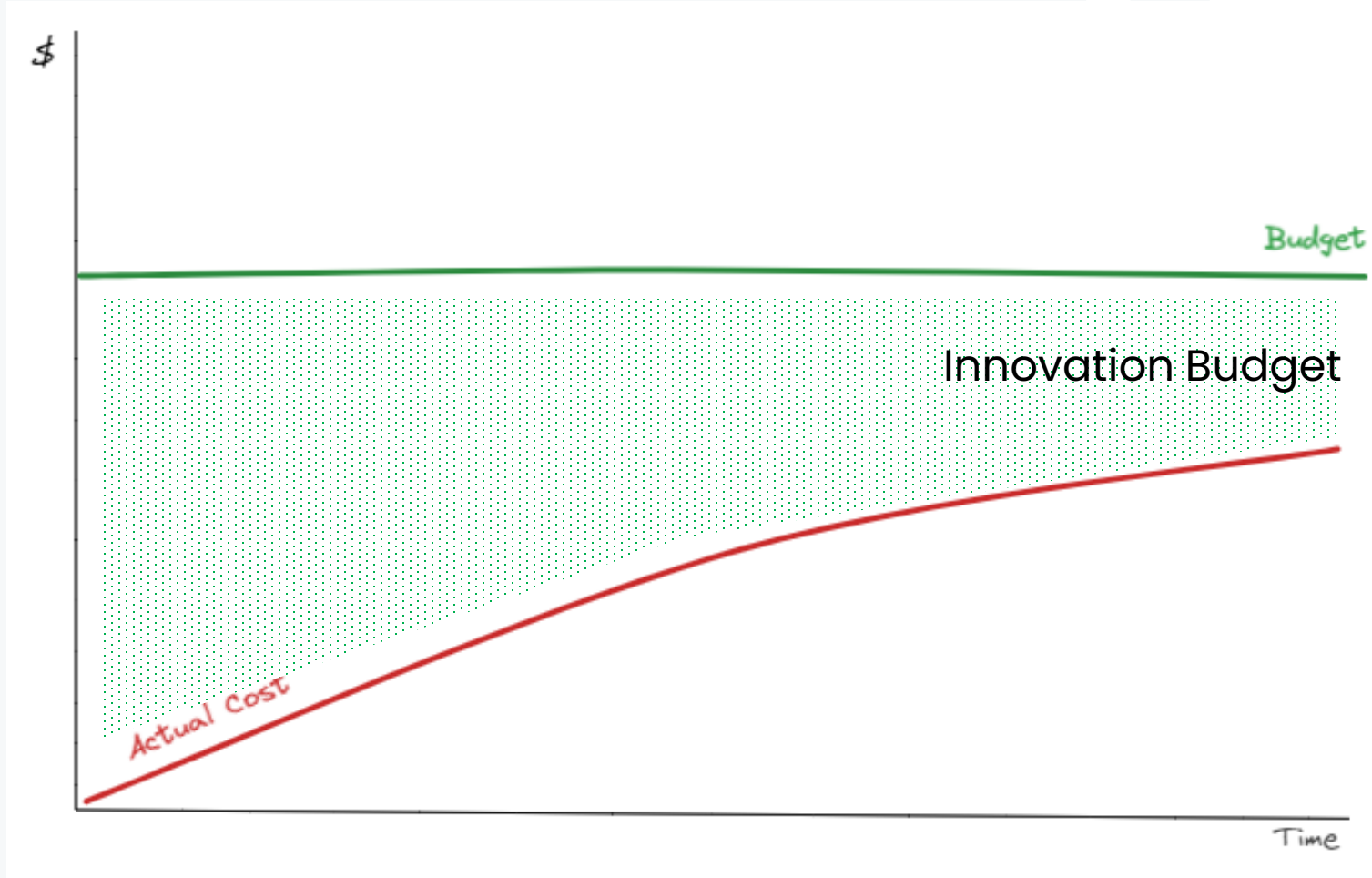


DEMO

Orgs need to focus on creating **value** with cloud tech instead of just consuming it



Budgets are real





AND NOW WHAT

APPLY FINOPS



TEAMS NEED TO COLLABORATE

DECISIONS ARE DRIVEN BY BUSINESS
VALUE OF CLOUD

EVERYONE TAKES OWNERSHIP FOR THEIR
CLOUD USAGE

REPORTS SHOULD BE ACCESSIBLE
AND TIMELY

A CENTRALIZED TEAM ENABLES FINOPS

TAKE ADVANTAGE OF THE VARIABLE COST
MODEL OF THE CLOUD

APPLY FINOPS

USAGE

RATE

USAGE

USAGE

**IT SAYS
NOTHING ABOUT
SAVING COST!**



SHIFT LEFT

REQUIREMENTS

COST IN THE DOD
PRICING CALCULATOR

BUILD

COST ARCHITECTING
DIRECT FEEDBACK LOOPS



RUN

MONITORING & INSIGHTS
ALERTS





DEMO

WRAP-UP

EAT
THE
RICH.

EAT
THE
RICH

EAT
THE
RICH





RENÉ VAN OSNABRUGGE

CTO @ XEBIA | XPIRIT

@RENEVO

RVANOSNABRUGGE@XPIRIT.COM

[HTTPS://ROADTOALM.COM](https://roadtoalm.com)



Attributions

<https://unsplash.com> <https://www.flickr.com/photos/wocintechchat>
<https://giphy.com>
<https://open.spotify.com/user/rvanosnabrugge/playlist/0BWqsNPM5iwgk8ZGIMHeoY?si=I9-tV8FTR8S1J7AbKBz-KA>
<https://www.youtube.com/watch?v=SGAnLY46zAk>

Xebia | Xpirit

RENÉ VAN OSNABRUGGE

CTO @ XEBIA | XPIRIT

@RENEVO

RVANOSNABRUGGE@XPIRIT.COM

HTTPS://ROADTOALM.COM



Attributions

Pictures: Midjourney

Gifs: <https://giphy.com>

Video: <https://www.youtube.com/watch?v=SGAnLY46zAk>

Thanks: Michiel, Matthijs

Xebia | Xpirit