

# Cloud computing

/thoughtworks





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# In house: manual -> automat



1950



1960



1980



# In house -> Colocated -> Hosted



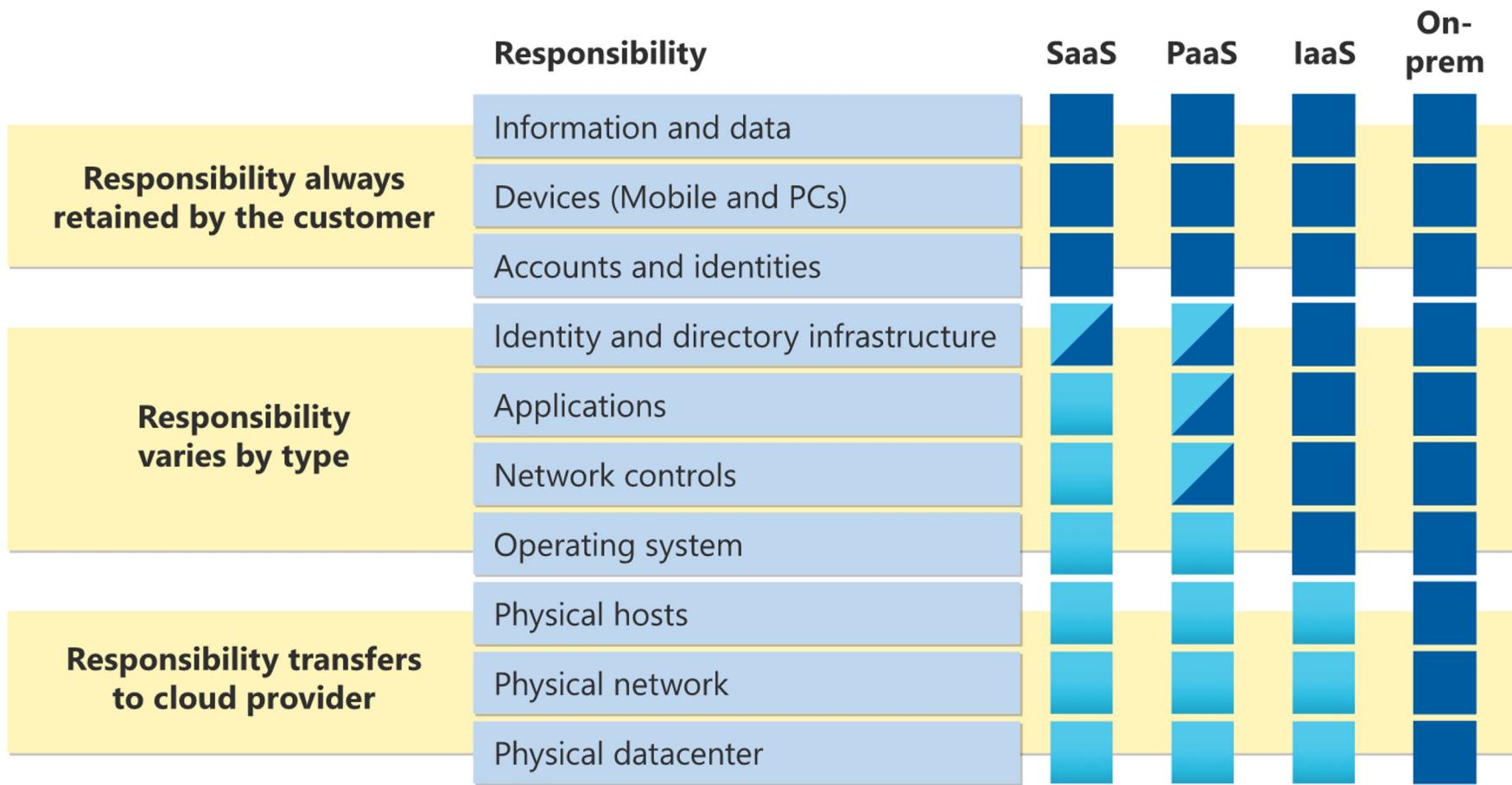
1990



2000



2020



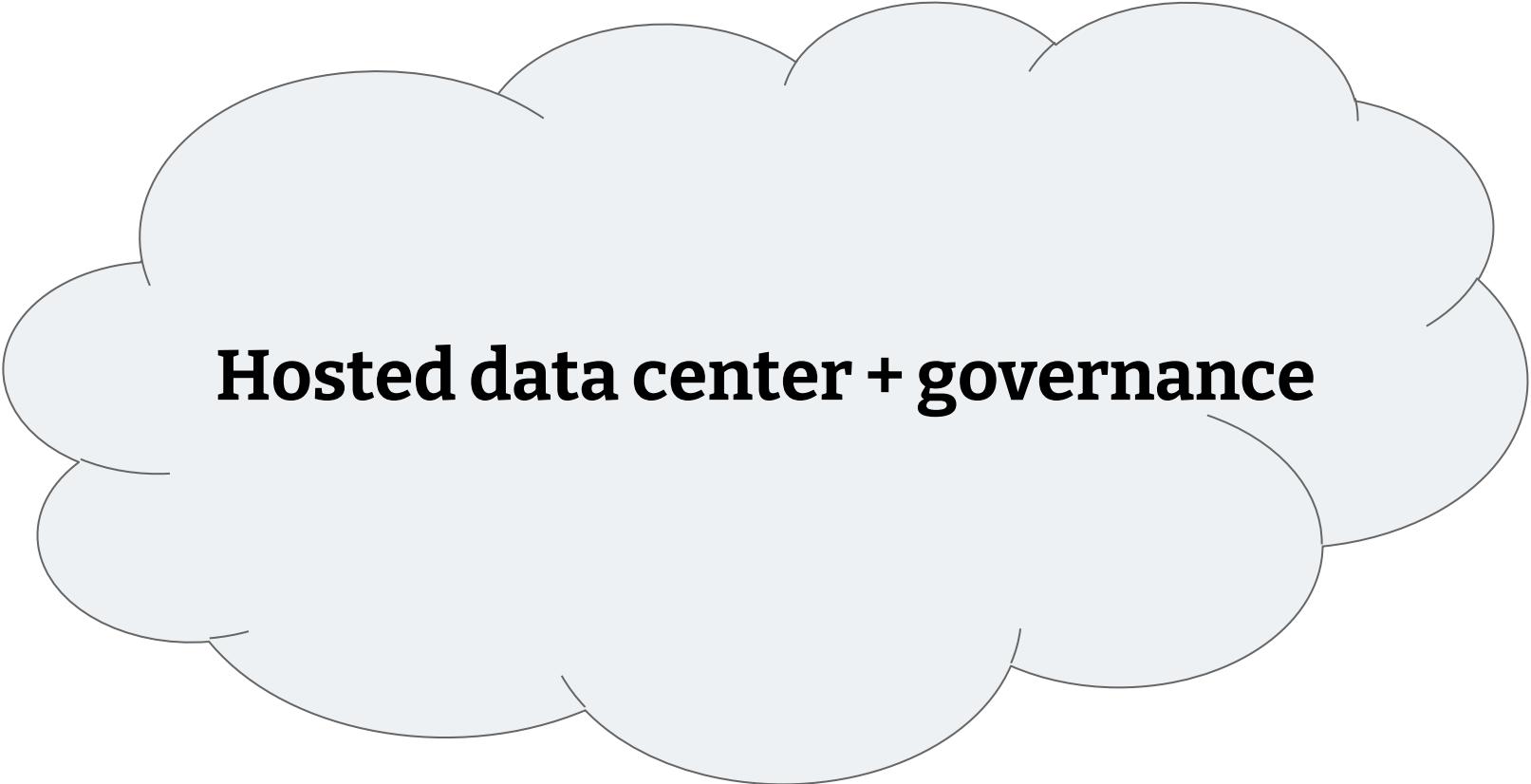
Microsoft



Customer

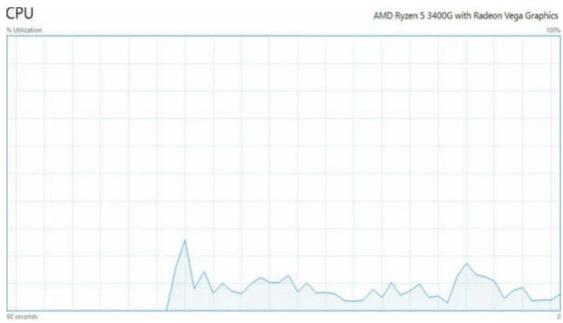


Shared

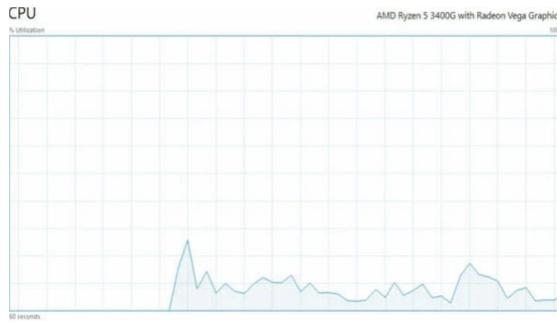


**Hosted data center + governance**

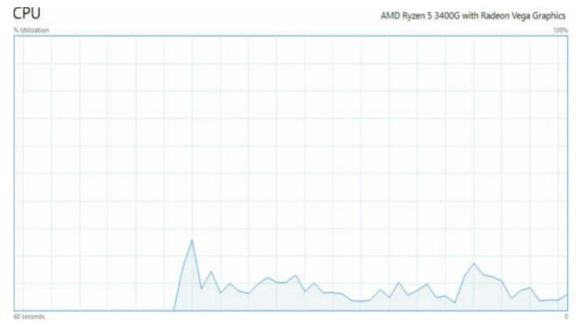
# Shared resources & costs



compagnie 1



compagnie 2



... compagnie N

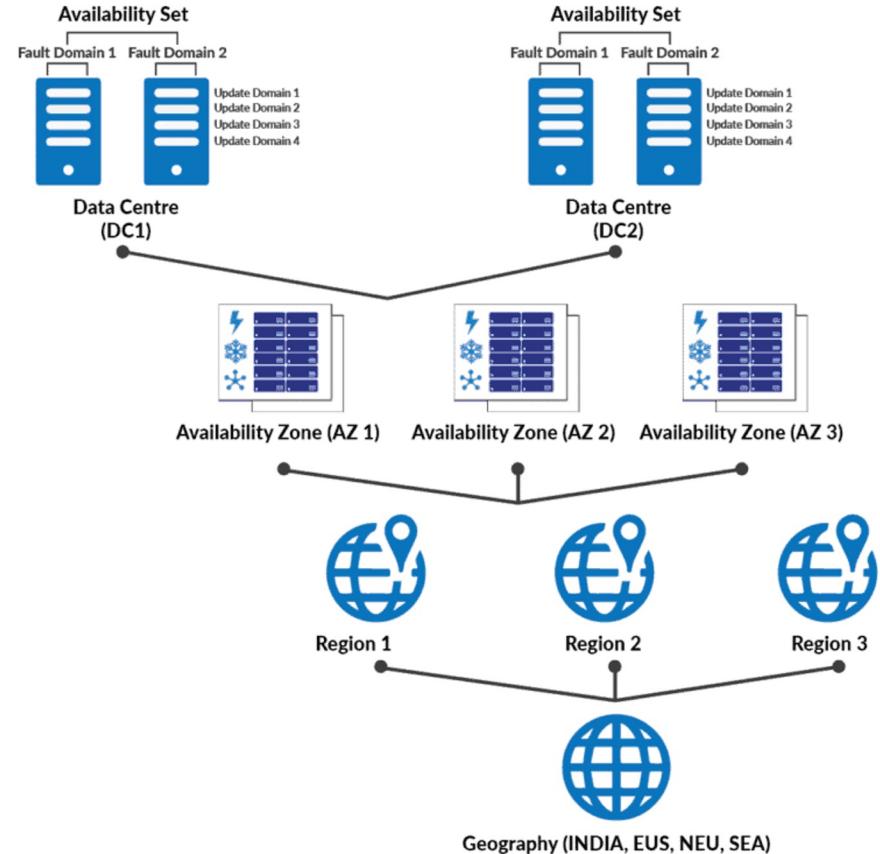


# Pay as you go



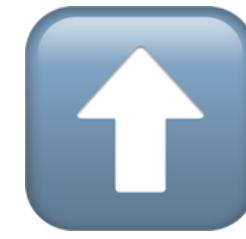
# Scalează după nevoi

# Core data centers





# 🌐 Edge data centers

 latest



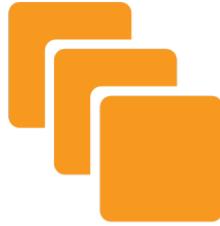
**Delegă  
responsabilitate**

**Intră mai repede pe  
piată**

**Focus: core business**



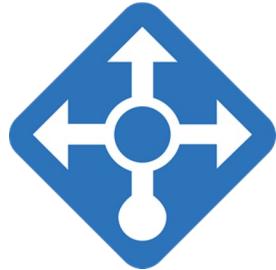
Azure VMs  
& VM scale sets



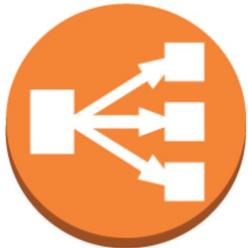
AWS EC2



GCP VM  
& managed instance  
groups



Azure Load Balancer



AWS Network Load  
Balancer



GCP Load Balancer

 Azure App service	 AWS Elastic Beanstalk	 Google App Engine
 Azure Function	 AWS Lambda	 Google Cloud Function
 Azure Kubernetes Service (AKS)	 Elastic Kubernetes Service (EKS)	 Google Kubernetes Engine (GKE)
 Azure SQL Database	 Amazon RDS for SQL Server	 Google Cloud SQL
 Azure Cosmos DB	 Amazon DynamoDB	 Google Cloud Spanner
 Azure Cognitive Service for Vision	 Amazon Rekognition	 Google Cloud Vision AI
 Azure Logic App	 AWS Step Function	 Google Cloud Workflow



Office 365



Outlook



Azure DevOps



GitHub



Google Drive



Gmail

# Demo

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# Opțiuni de management

	GUI - Azure Portal, AWS Management Console
	CLI
	REST APIs
	Language-specific SDKs
	Infra as code tools with their own DSLs - Azure Bicep (ex Resource Manager Templates), AWS CloudFormation, Azure Resource Manager, Google Cloud Deployment Manager

# Public cloud

vs

# Private cloud

- + costuri mai mici
- + scalabilitate
- + recuperare
- + minim viabil de responsabilitate în afara core business

- + suprafață mai mică de atac
- + satisfaci reglementări speciale, de ex. locul procesării datelor
- + minim viabil de complexitate
- + folosești hardware pe care îl ai deja

# Cloud-native Single-cloud

vs  
vs

# Cloud agnostic Multi-cloud

- + tool compatibility and standardized application management
- + Built-in cost monitoring and alerting

- + getting best of both worlds
- + preventing vendor lock-in.
- + high availability?

# Stack Overflow - 9 severe sunt de ajuns



# Scaling to exabytes and beyond

// By Akhil Gupta • Mar 14, 2016

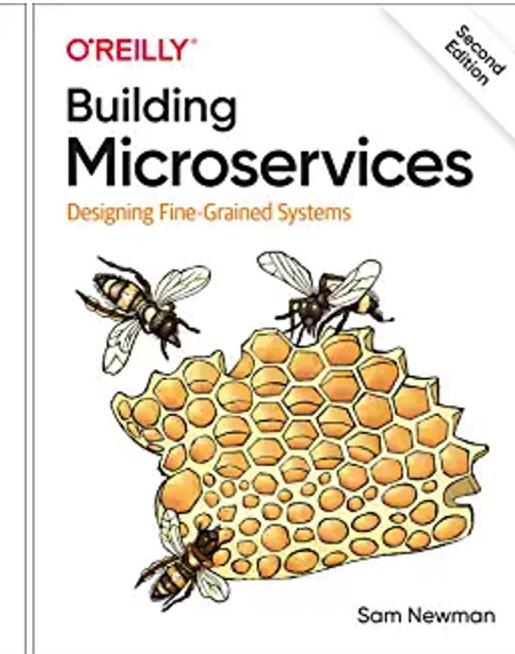
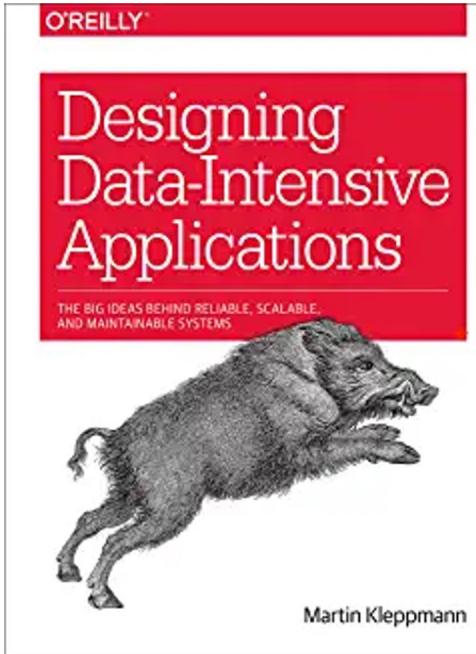
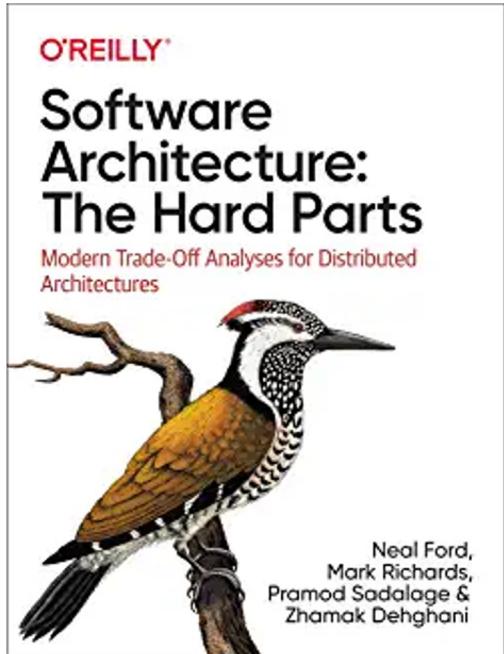


## Dropbox - de la AWS S3 la propria soluție

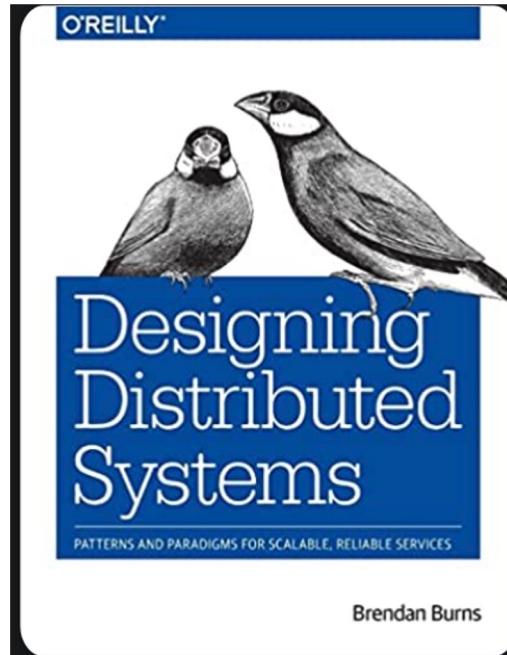
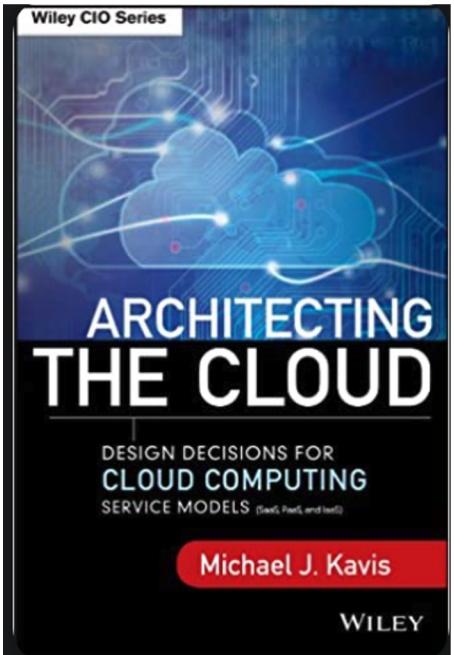
# Strategii de migrare

	Scăpăm de tot de componenta asta?
	O cumpărăm de la altcineva?
	O lăsăm unde e deploy-ată acum?
	Putem să o urcăm pur și simplu? Lift & shift / Relocating / Rehosting
	Adaptăm componente existente la cloud?
	Restructurăm toată arhitectura?

# What next? TBR



# What next? TBR



# What next? Courses & Trainings

- Azure:
  - AZ-900
  - AZ-204
- AWS
  - Introduction to cloud computing
- Google Cloud
  - Google Cloud Learning Path
  - Foundational certification
  - Associate certification

# What next? Build something!

Site static - într-un CDN

Urcați pe cloud proiectele pentru FMI. Colaborați și între echipe!

Clonă de joc gen Gartic phone / Heartstone

Unelte peste ChatGPT

# We look forward to working with you

Călin Darie

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