Amazon Web Services:

Infrastructure in a few clicks

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WE TOOK THE HOSTAGES, SECURED THE BUILDING, AND CUT THE COMMUNICATION LINES LIKE YOU SAID.
EXCELLENT.
BUT THEN THIS GUY CLIMBED UP THE VENTILATION DUCTS AND WALKED ACROSS BROKEN GLASS, KILLING ANYONE WE SENT TO STOP HIM.
AND HE RESCUED THE HOSTAGES?
NO, HE IGNORED THEM. HE JUST RECONNECTED THE CABLES WE CUT, MUTTERING SOMETHING ABOUT "UPTIME".
SHIT, WE'RE DEALING WITH A SYSADMIN.

About the presenter

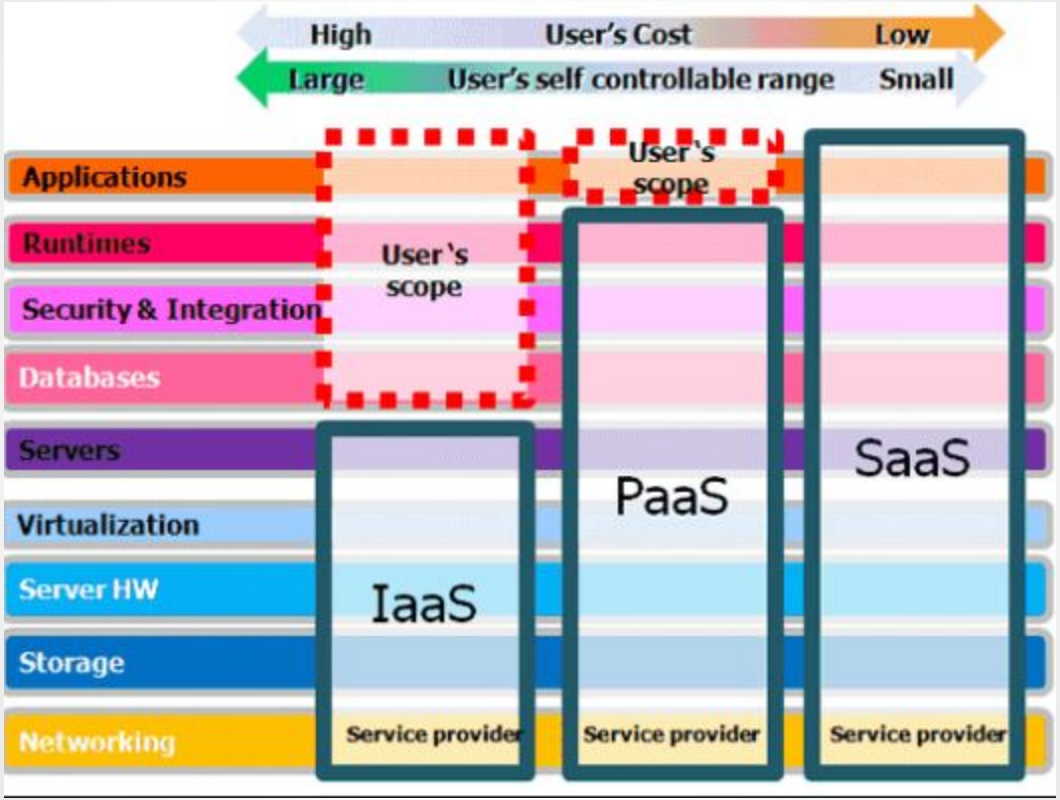
- Systems Architect for a small startup
- Application Integration specialist
- Back-end Java Developer
- SysAdmin poser
- No affiliation with Amazon!

1. http://www.urbandictionary.com/define.php?term=poser

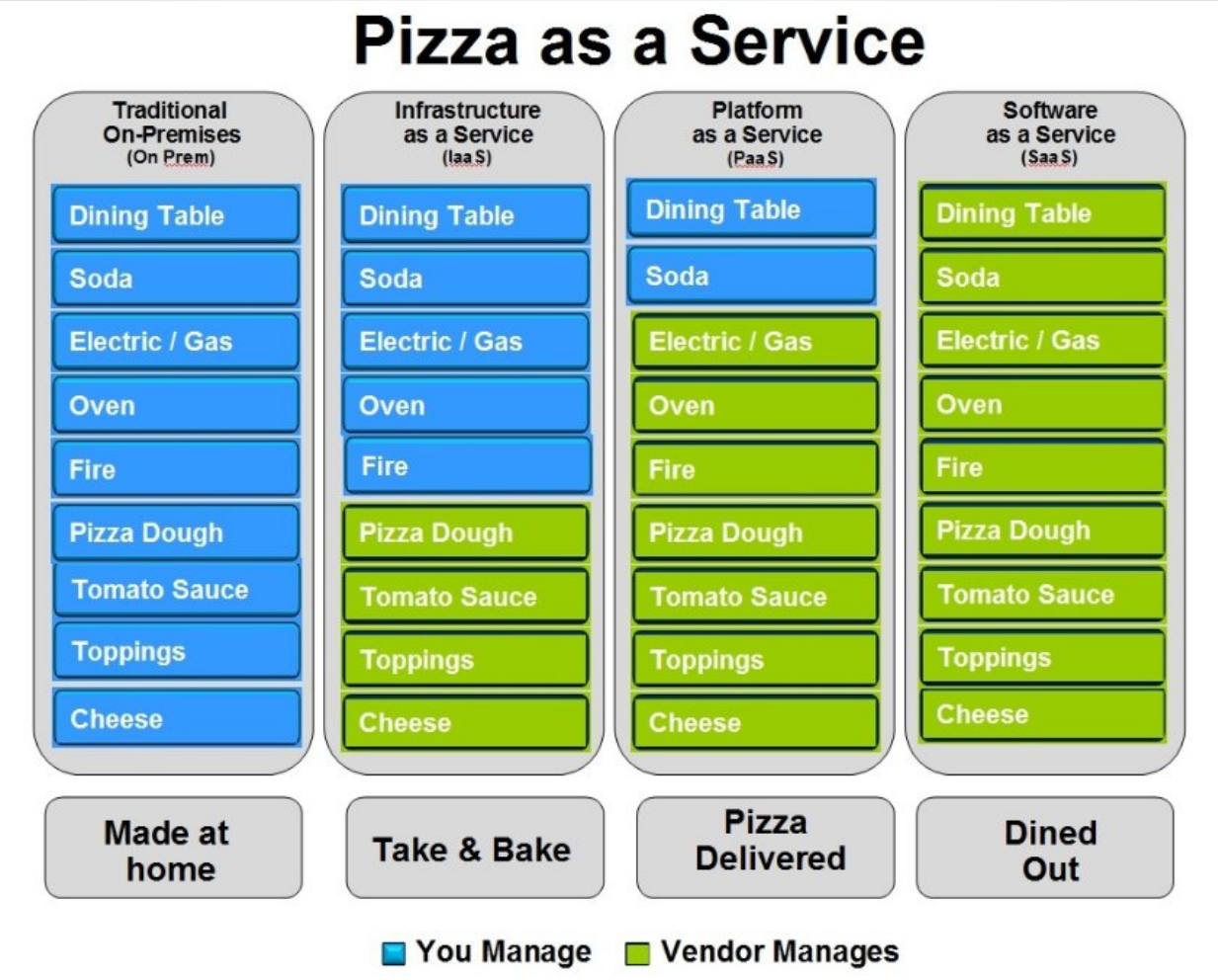
Who is IaaS for?
Why should a developer care?

- Startups/SMBs
- Proof of Concepts
- Agile teams blocked by bureaucracy
- Elastic map-reduce style jobs
- Side/personal projects
- etc...

The cloud infrastructure stack



http://www.itsmonkie.co.uk/choose-saas-paas-iaas-premise/



https://www.linkedin.com/pulse/20140730172610-9679881-pizza-as-a-service

Where does AWS fit into the stack?

Anywhere you want!

The Essentials

- EC2 - server
- RDS - relational database
- CloudWatch - monitoring

Going further

- S3 - Cheap, reliable storage
- Glaciar - Even cheaper S3 storage
- CloudFront - CDN
- DynamoDB - NoSQL database
- ElastiCache - Memcached service
- SQS - Message queues
- SES - E-mail service


Start
DEMO

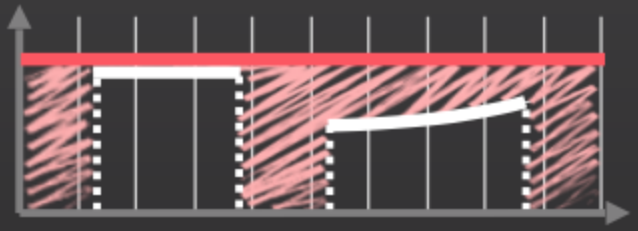
EC2 Demo

- Create instance
- Create database
- Connect + install web server, test database
- Set up monitors/alerts
- Backup server + database
- Restore + scale up instance
- Command line operations

Basic EC2 Concepts

- AMI (Virtual Machine Image)
- Instance Type - vCPUs
- EBS (Storage Volumes)
- VPC (Network security)
- Elastic IP

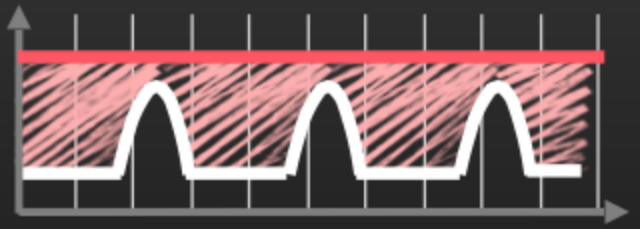
Elastic Capacity (or lack of in this case)



On and Off

Fast Growth

Variable peaks



Predictable peaks

EC2 Advanced

- Load Balancer
- Auto Scaling
- CloudFormation / OpsWorks (Configuation automation)
- Container Service (Docker)
- Private Cloud VPN<->VPC


DISCUSSION