



How to build low-cost CI/CD solution on top of AWS

Who am I?

How?

Why?

What?

The Bill


Jenkins Ninja's

The Solution



Valera Bronshtein

Head of DevOps at Memphis.dev

- 31 years old
- Married + 2
- More than 10 years in IT world
- Experienced in building enterprise scale environments
- Fathering in my free time 

 @ValeraBronsht

 @valeraBr

 @valeraBr

Who am I?

How?

Why?

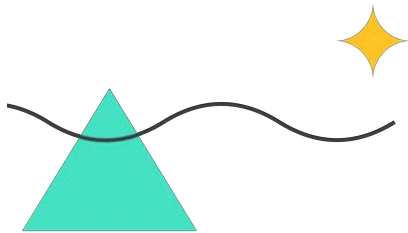
What?

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My Jenkins story



How did it start?

Who am I?

How?

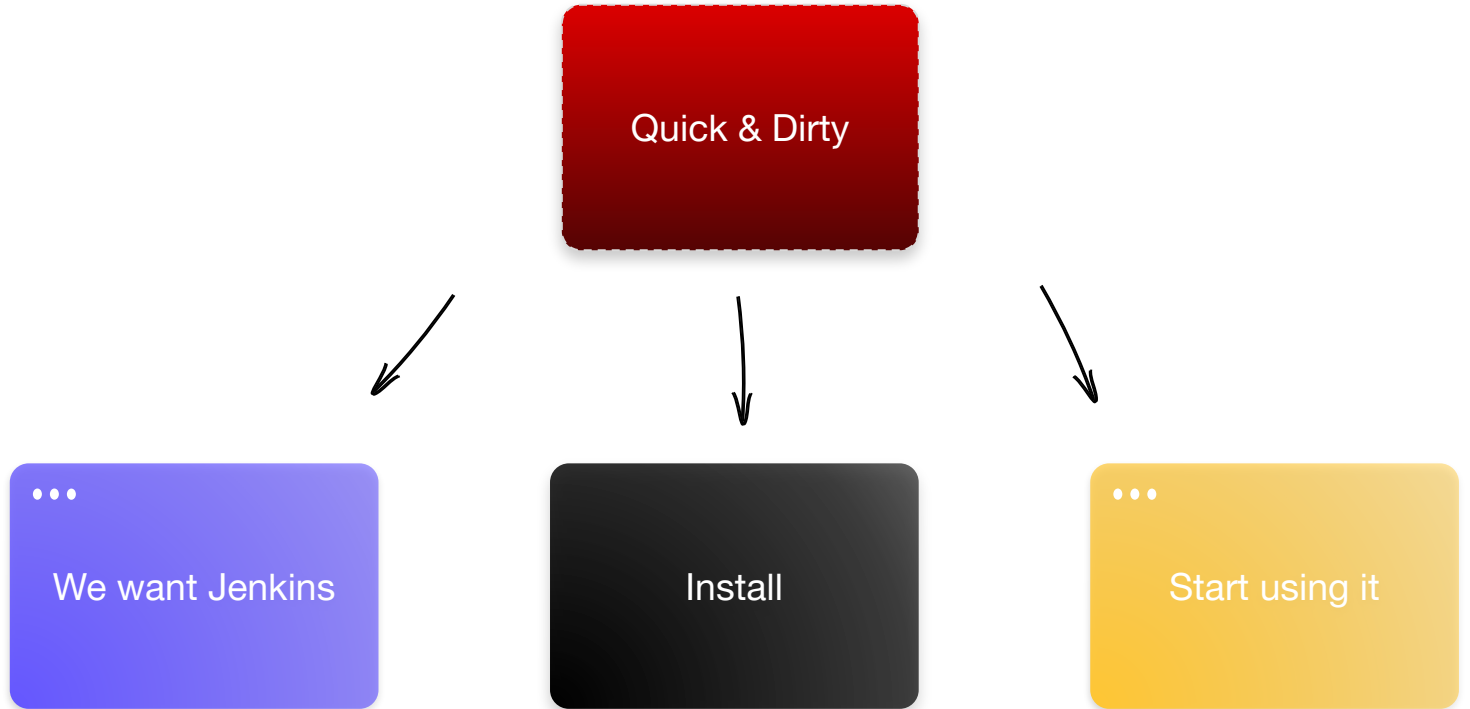
Why?

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Who am I?

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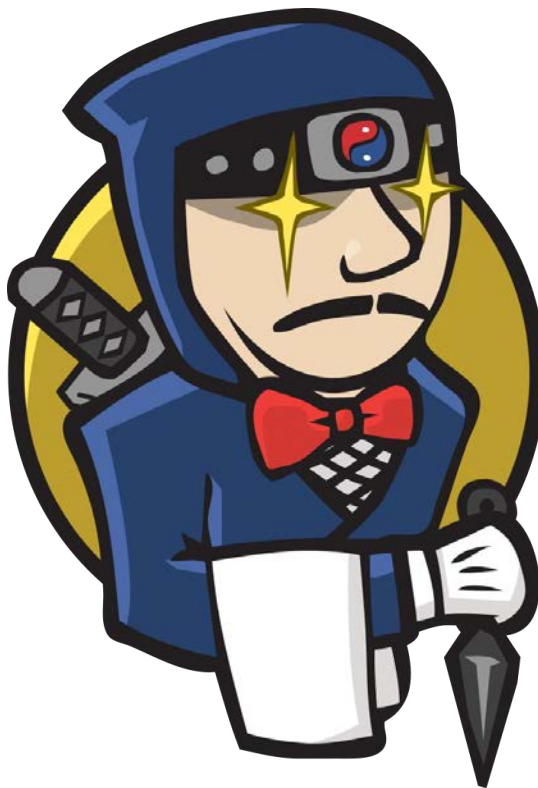
Why?

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Why does it bother me?

Who am I?

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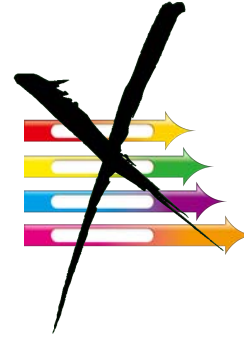
The Solution

✧ Single point of failure

✧ No parallelism

✧ Endless monitoring

✧ The **bill...**



What was the goal???

Who am I?

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Why?

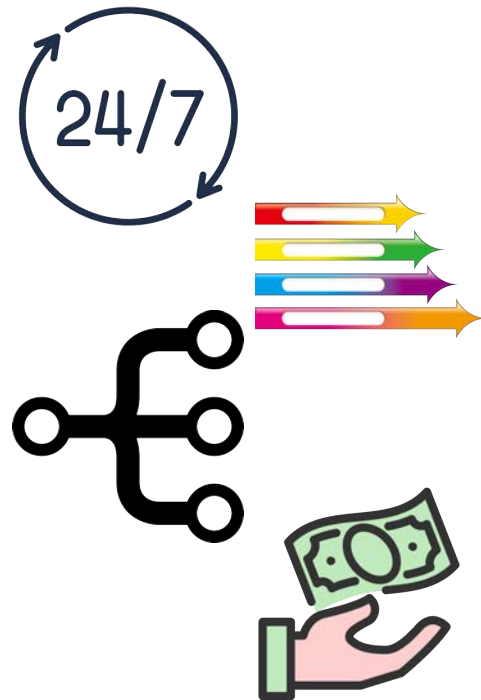
What?

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The Solution

- ✦ High-Availability
- ✦ Parallelism = Faster Builds = Reduce TTM
- ✦ Dedicated compute node per Pipeline type
- ✦ The **bill...**



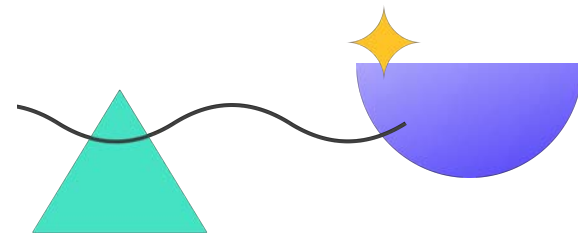
Let's talk about the bill?

Scenario #1: (Before the optimization)

- Instance type: c5a.8xlarge - 32 vCPU , 64 RAM
- **On-Demand**
- Monthly usage
- Estimated cost: ~**1016.160000 USD**

Scenario #1.5: (Before the optimization)

- Instance type: c5a.8xlarge - 32 vCPU , 64 RAM
- **Spot Instance**
- Monthly usage
- Estimated cost: ~**426.787200 USD**



Who am I?

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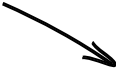
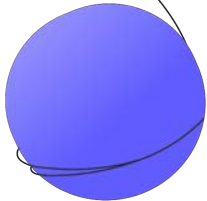
What?

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The Solution

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Who am I?

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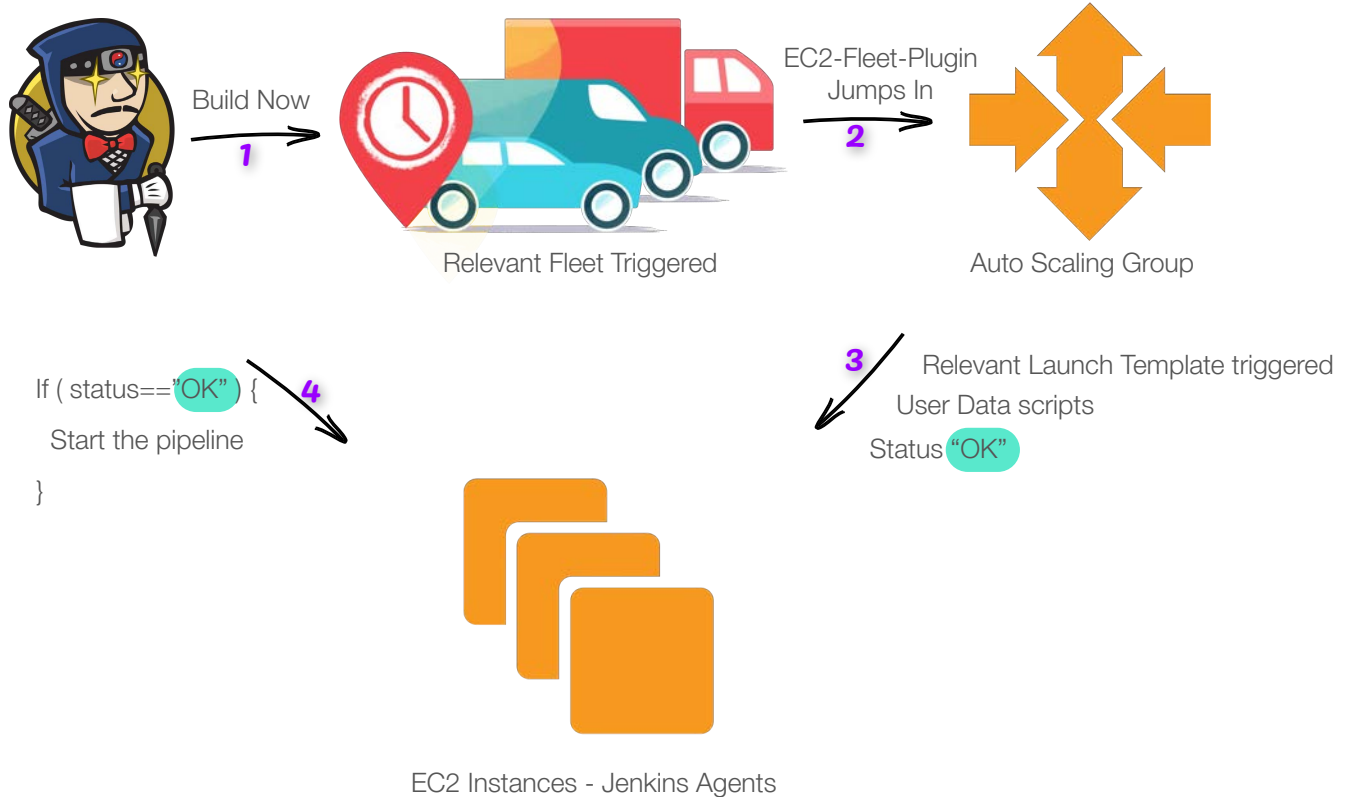
What?

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The Solution

How it works?



Who am I?

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So, what we have now?



Scenario #2: (After the optimization)

- Instance type: c5a.8xlarge - 32 vCPU , 64 RAM
- Spot Instance launched via Auto Scaling Group
- Day2Day **0** instances up
- Approximately 4 peaks in a month
- Every peak ASG will launch 5 Spot instances
- Each Instances have 4 hours of intensive workload.
- Estimated cost: **~40.646394 USD**

2500% SAVED!!!!



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But you will say...

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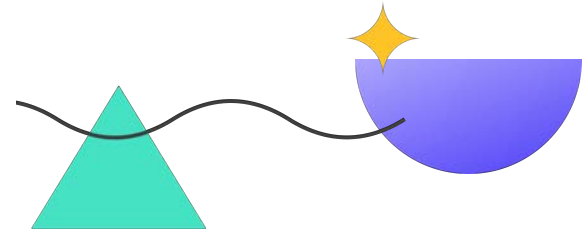
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- It's unfair, you have a monthly charged Jenkins instance that is not part of the calculation.

So:

- Instance type: t3.medium - 2 vCPU , 4 RAM
- On-Demand Instance
- Monthly usage
- Estimated cost: ~**35.040000 USD**



Thank You!

Q&A

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