Reducing Infrastructure Cost During Development and in Production

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Do more with less Bring the cost down Reduce the cloud bill \$\$\$\$



https://www.pexels.com/photo/people-discuss-about-graphs-and-rates-3184292/
https://a.slack-edge.com/production-standard-emoji-assets/14.0/apple-large/1f
4b8.png

Story Time - Your Dev Environment

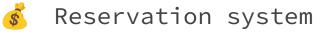
Engineers want their own environment

Engineers go home for the day/weekend/vacation

💰 Cloud bill goes 🚀

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What did we do?



- 💰 Auto deletion of cloud resources
- 💰 Regular individualized emails

Other ideas

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💰 Using cheaper resources

- \circ Spot instances vs on-demand
- \circ Slower storage
- \circ Less replication
- \circ $% \left({{{\rm{Limit}}}} \right)$ Limit instance types

Instance A name	On-Demand hourly rate ▽	vCPU ⊽	Memory ⊽	Storage ⊽	Network ⊽ performance
t4g.2xlarge	\$0.2688	8	32 GiB	EBS Only	Up to 5 Gigabit
t3.2xlarge	\$0.3328	8	32 GiB	EBS Only	Up to 5 Gigabit
t3a.2xlarge	\$0.3008	8	32 GiB	EBS Only	Up to 5 Gigabit
t2.2xlarge	\$0.3712	8	32 GiB	EBS Only	Moderate
m7a.2xlarge	\$0.46368	8	32 GiB	EBS Only	Up to 12500 Megabit
m7g.2xlarge	\$0.3264	8	32 GiB	EBS Only	Up to 15 Gigabit
m7gd.2xlarge	\$0.4271	8	32 GiB	1 x 475 NVMe SSD	Up to 15 Gigabit
m7i.2xlarge	\$0.4032	8	32 GiB	EBS Only	Up to 12500 Megabit

https://aws.amazon.com/ec2/pricing/on-demand/

Other ideas



Using cheaper resources

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- Slower storage
- \circ Less replication
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How good are your tests?

 \circ $\,$ Do you need to be using cloud resources for each engineer?

Story time - Your Prod Environment



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- You're a success story
- More customers
- Adding more features/products
- Scaling your infra
- 🕻 Cloud bill goes 🚀

What do we do?

💰 Autoscaling 💰 AMD vs ARM

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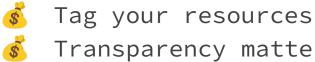
What do we do?

Autoscaling
AMD vs ARM
Batch processing
The big rearchitecture

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Takeaways

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- Transparency matters
- An effective solution may not be technical
- \$ Start with the low hanging fruit first

Thank you!

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