



Serverless like a hero



Build serverless applications at scale

Why going serverless? 🤔

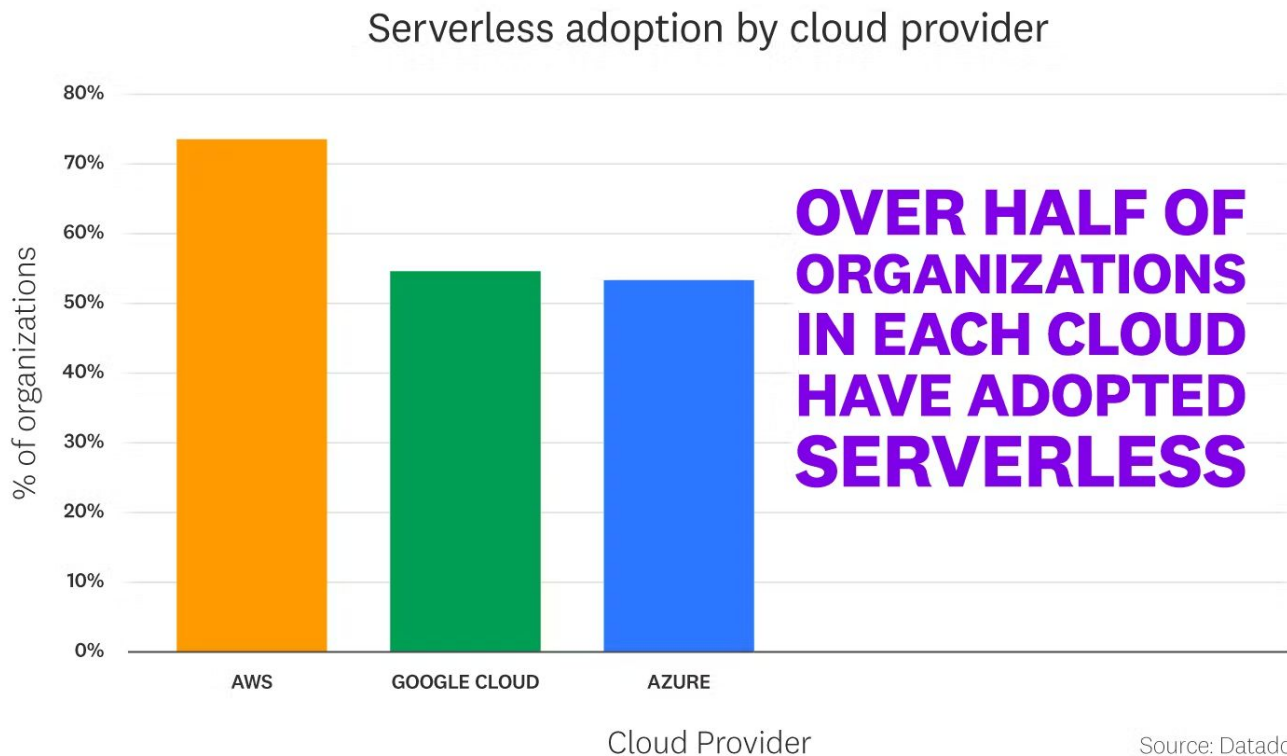


Why going serverless?

“Serverless is a trend”

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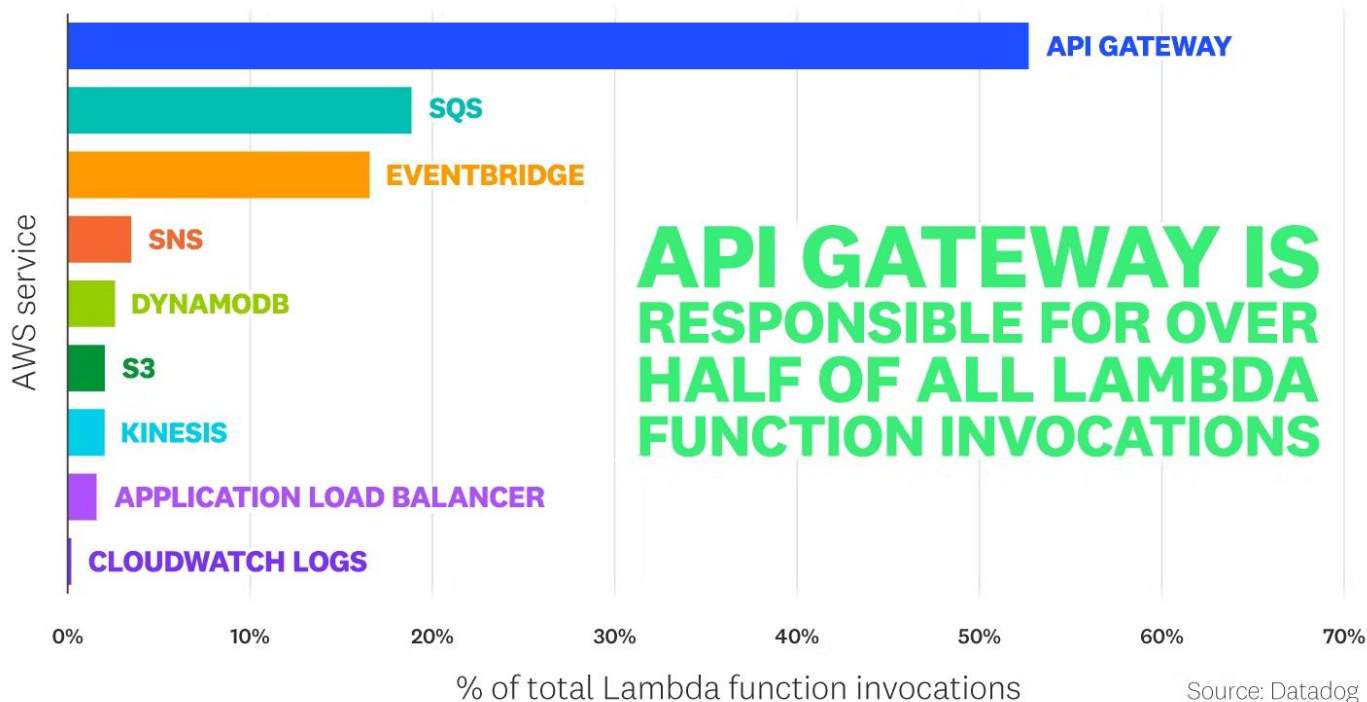
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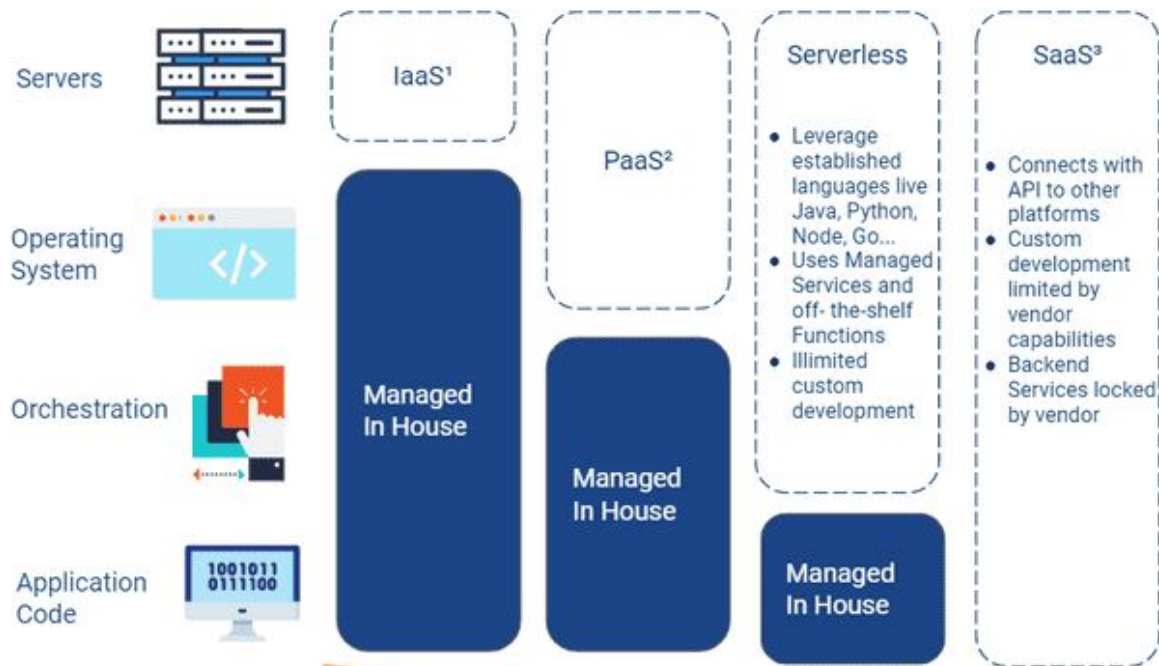
AWS services invoking Lambda functions



Note: This graph does not include Lambda function invocations from AWS AppSync or Step Functions.

Why going serverless?

Serverless in the Cloud Landscape



¹ Infrastructure as a Service

² Platform as a Service

³ Software as a Service

Size of Engineering Team

Theodo



Why going serverless?

Pros:

- **Cost-effective:** “pay for what you use”
- **Scalability:** automatically scale
- **High availability:** distributed
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Cons:

- **Limite control** over infrastructure
- **Cold start**
- **Vendor lock-in**
- **Debug:** many services interactions
- **Costs:** challenging to estimate
- **Security:** Cloud Provider limitations + Hosting code

Using a framework when going
serverless is a must 🙌

Serverless Frameworks



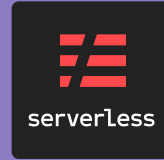
Serverless Frameworks



Serverless Framework vs SST

	Serverless Framework 45k ★ / v3	SST 17k ★ / v2
Founded	2015	2021
Architecture	Partly open source with hosted deployment engine	Completely open source and self-hosted
Infrastructure Definition	CloudFormation	CDK
	Hard to manage large applications	Easy to reuse infrastructure code
Local Development	Mocking or serverless-offline	Live Lambda Dev
	Repeatedly deploying changes	Setting breakpoints
Flexibility	Use community plugins	Use any CDK construct
	Create your own plugin	Write your own CDK construct

Serverless Framework





Serverless Framework : Concepts



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Unit organization = 1 serverless config file



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- (Plugins, Typescript...)



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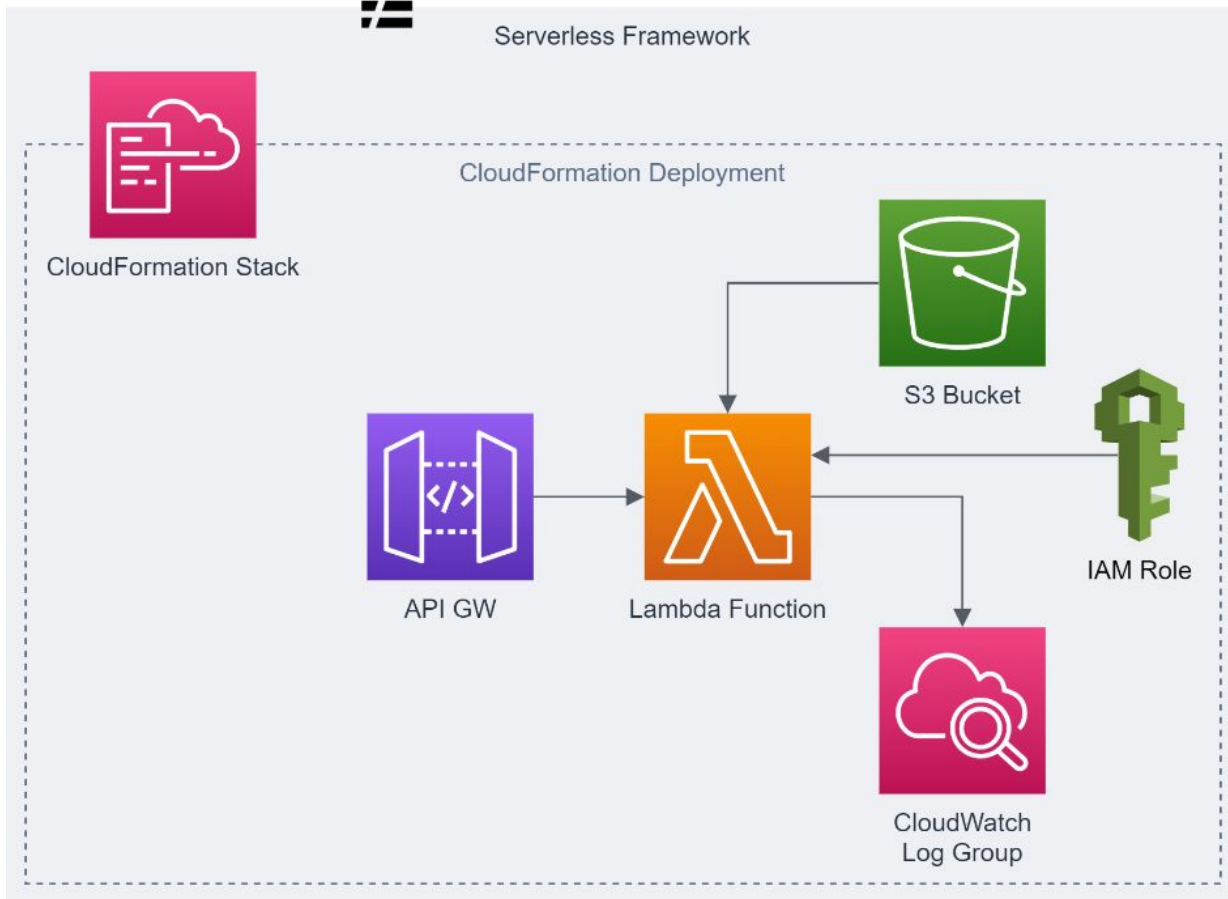
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- **Easy local development** : invoke local, serverless-offline...
- **Lambda layers**
- **IAM function permissions** : by service and/or by function
- **Stage parameters**
- **Multi-stages**
- **Composing services**
- ...

Serverless Framework

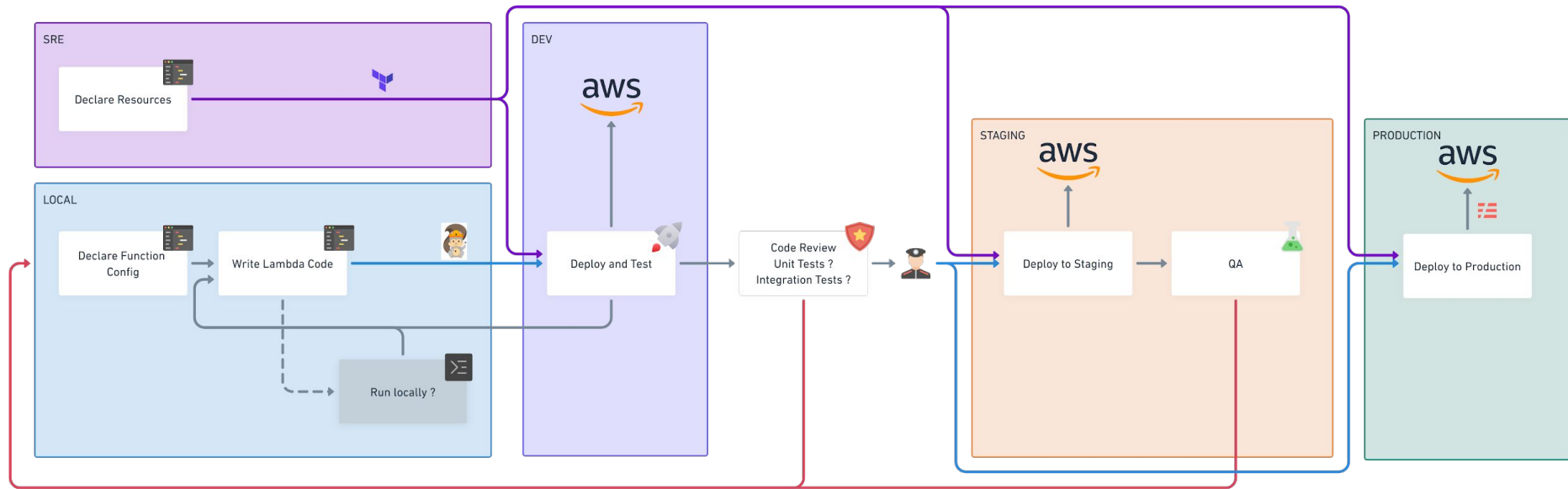


Serverless Framework

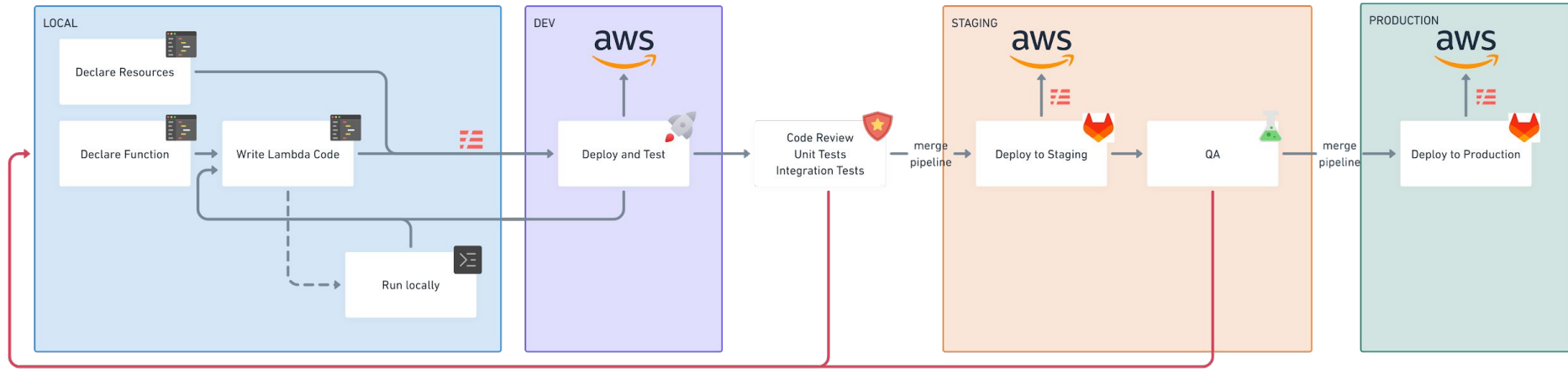


Serverless Framework workflow: From Dev to Production 🚀

From Dev to Production : today ✈️



From Dev to Production : with Serverless





What about SRE ?



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★ **Build robust serverless architectures!**

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Best Practices

Monitoring

CI/CD

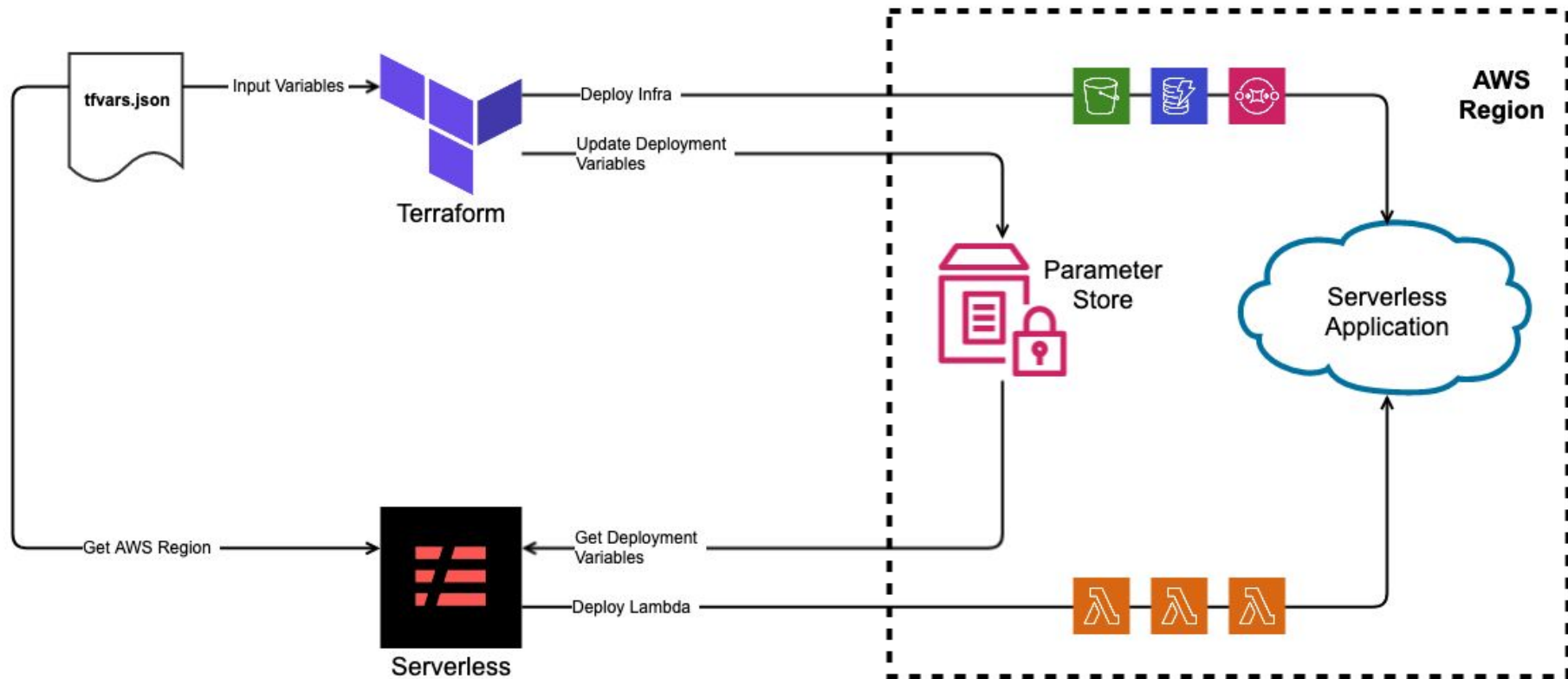
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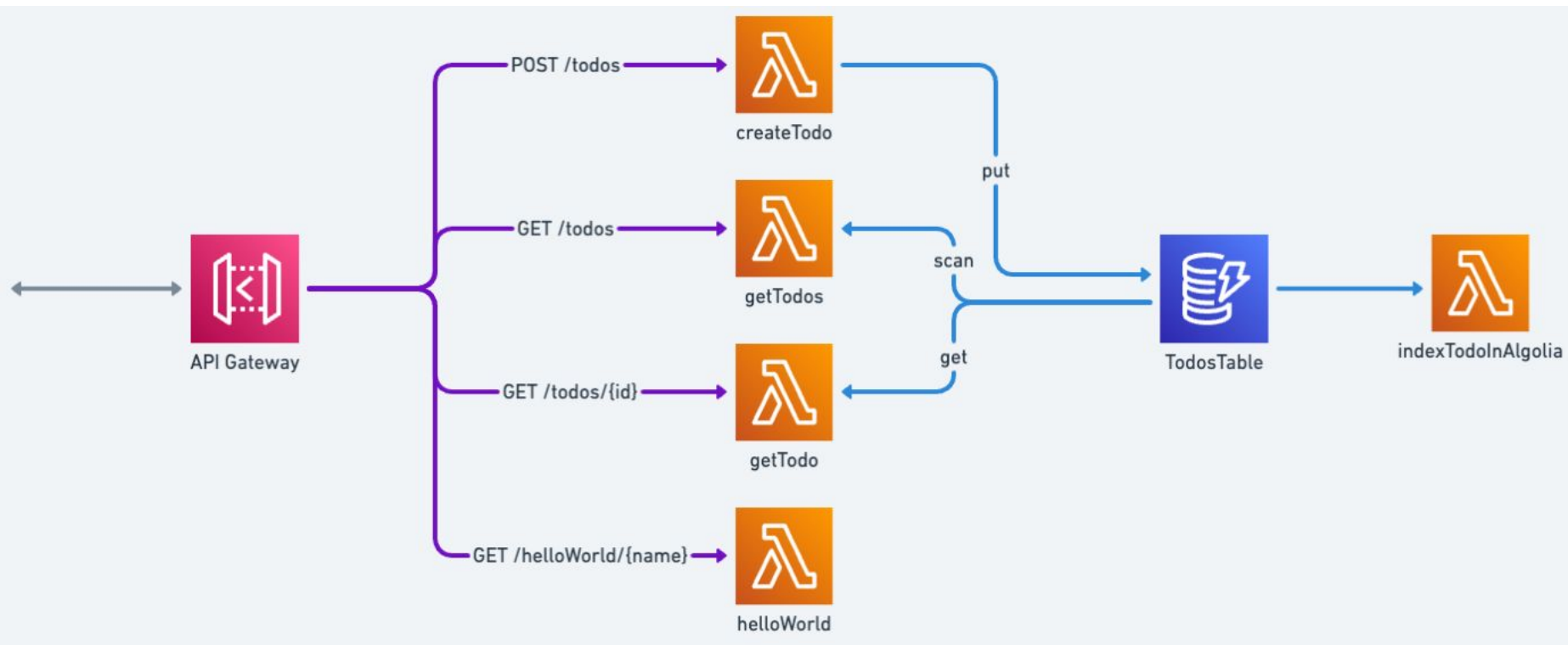
Bonus : both worlds 🤝🤝



Serverless Framework: Demo



Serverless Framework: Demo



Let's play 



Resources

Go further with Serverless

- <https://serverlessland.com/>
- <https://dev.to/kumo>
- <https://theburningmonk.com/>
- <https://www.serverless.com/>