



Why You Should Build Your Next Product With AppSync

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Hello there!

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- CTO at Trilo
- Software Developer and Software Architect for over 12 years
- AWS Community Builder (Serverless)
- Writer for The Serverless Mindset newsletter



Agenda

- The evolution of AppSync
- *Reason #1*: Rapid Prototyping
- *Reason #2*: Infinite Scalability
- *Reason #3*: Team Collaboration
- *Reason #4*: Native AWS Integration
- *Reason #5*: Error Reduction
- *Reason #6*: Cloud-Native Evolution
- *Reason #7*: Empowering Small Teams

The evolution of AppSync

- The building blocks
 - Schema
 - Data sources
 - Resolvers

The evolution of AppSync

- The old AppSync
 - VT-hell
 - Not so great DX
 - Business logic very hard to test

```
Set query expression for @key **
lQueryExpression = {} )
Validate key arguments. **
isNull($ctx.args.initiatorNarwhalId) && $util.isNull($ctx.args
or("One of 'initiatorNarwhalId' or 'acceptorNarwhalId' must be

.isNull($ctx.args.initiatorNarwhalId) && !$util.isNull($ctx.ar
or("Only one of 'initiatorNarwhalId' or 'acceptorNarwhalId' mu

lidate key arguments. **
.isNull($ctx.args.initiatorNarwhalId) )
dex = "ByInitiatorNarwhalIdCreatedAt" )
delQueryExpression.expression = "#narwhalInitiatorAgreementsId
delQueryExpression.expressionNames = {
InitiatorAgreementsId": "narwhalInitiatorAgreementsId"

delQueryExpression.expressionValues = {
orNarwhalId": {
"$ctx.args.initiatorNarwhalId"

.isNull($ctx.args.acceptorNarwhalId) )
dex = "ByAcceptorNarwhalIdCreatedAt" )
delQueryExpression.expression = "#narwhalAcceptorAgreementsId
delQueryExpression.expressionNames = {
AcceptorAgreementsId": "narwhalAcceptorAgreementsId"

delQueryExpression.expressionValues = {
rNarwhalId": {
"$ctx.args.acceptorNarwhalId"
```

The evolution of AppSync

- The *new* AppSync
 - Javascript resolvers
 - Lambda resolvers
 - More direct connections

```
import { util } from '@aws-appsync/util';

/**
 * Request a single item from the attac
 * @param ctx the request context
 */
export function request(ctx) {
  return {
    operation: 'GetItem',
    key: util.dynamodb.toMapValues({ id
  });
}

/**
 * Returns the DynamoDB result directly
 * @param ctx the request context
 */
export function response(ctx) {
  return ctx.result;
}
```

Rapid Prototyping

1. Build a UI
2. Write the interactions in GraphQL
3. Figure out the AWS services needed
4. Write the resolvers
5. Amplify codegen
6. Good to go 🎉

Infinite Scalability

- Automatic scaling
- 100% serverless
- Real-time data sync
- IAM authentication
- Multi-region support

Team Collaboration

- GraphQL as a shared language between frontend and backend
- Reduce misunderstandings
- Parallelise work

Native AWS Integrations

- Easy to connect *directly* to AWS services
- No need for glue code

Error Reduction

- Less reliance on custom code
- Fewer potential points of failure
- Less boilerplate

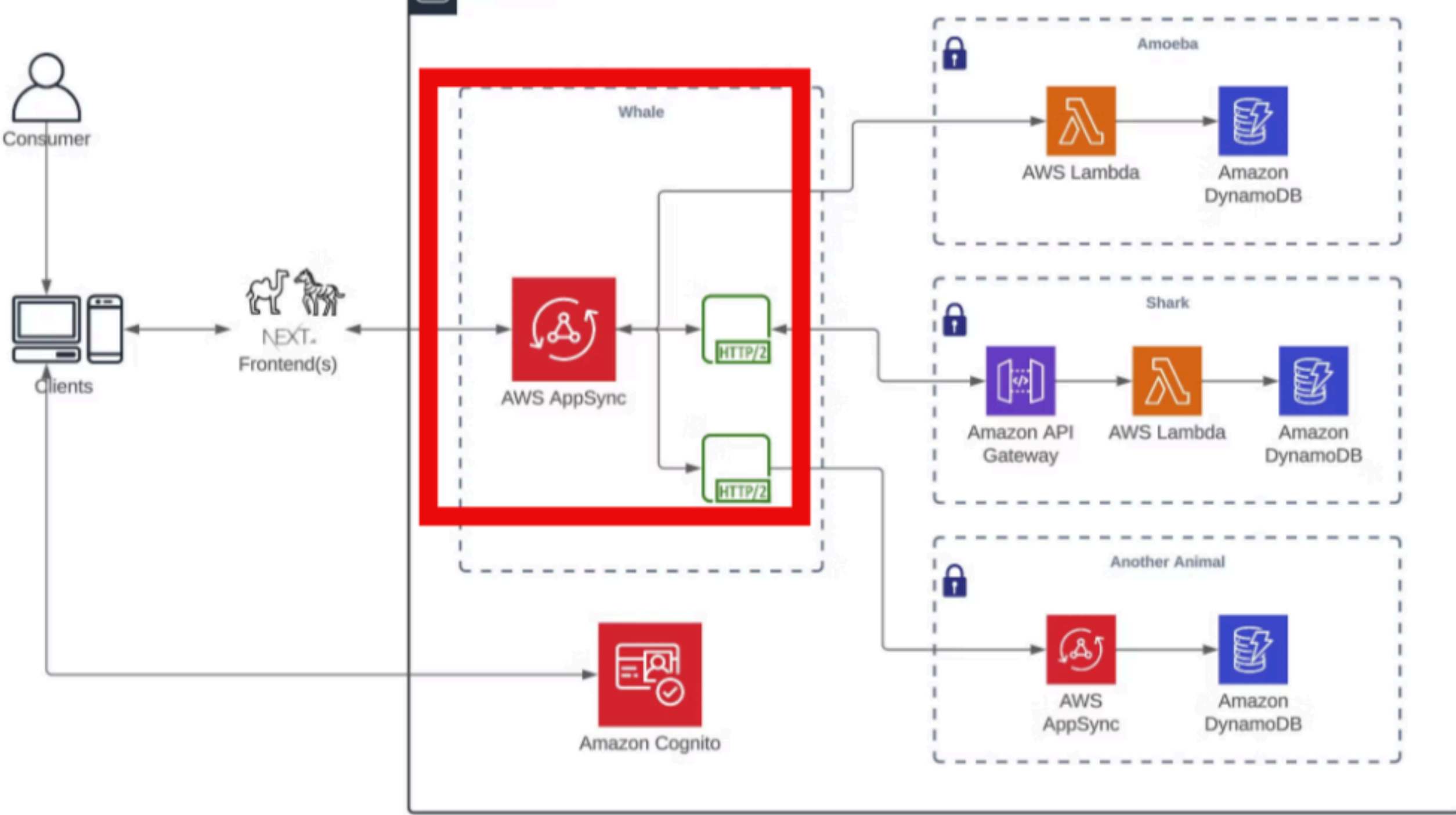
Cloud-Native Evolution

- The convenience of Django, Rails, Laravel (not really, but kinda)
- Backed by the cloud!

(AppSync is not a battery-included framework)

Empowering Small Teams

- We rebuilt our entire API layer in a few weeks
- Made us much more productive and able to parallelise our work
- Has given us clarity over our data access patterns
- Has made it easier for frontend people to venture into the backend



- *Reason #1: Rapid Prototyping*
- *Reason #2: Infinite Scalability*
- *Reason #3: Team Collaboration*
- *Reason #4: Native AWS Integration*
- *Reason #5: Error Reduction*
- *Reason #6: Cloud-Native Evolution*
- *Reason #7: Empowering Small Teams*

Thank You!



Useful Links

 @MarcoTroisi

 linkedin.com/MarcoTroisi

 theserverlessmindset.com

 trilo.io

