
AWS
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Accelerators: Streamline development in serverless and beyond

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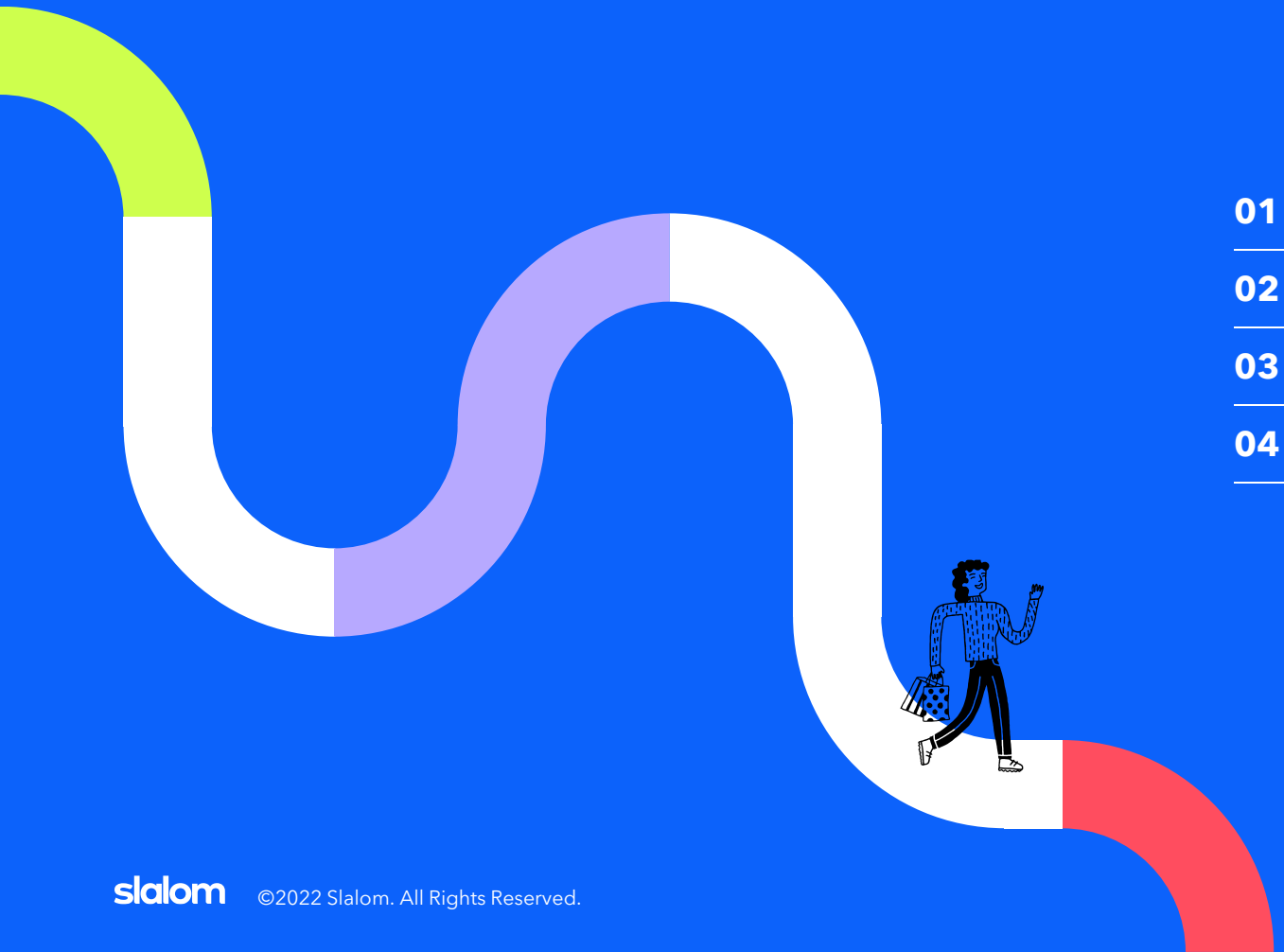


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aws
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Presentation contents



01	Introduction to accelerators
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03	Creating a serverless accelerator
04	Impact and lessons learned

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We build accelerators for software development

An accelerator is a combination of tools, processes, and best practices, fitted together as one reusable asset.



Benefits

- Avoid re-creating the wheel
- Drive down the cost and time of development while maintaining high quality standards
- Allow developers to work on more differentiated work
- Elevate developers within the company



Challenges

- Maintenance at scale requires leader support across functions
- Adoption of accelerators depends heavily on first impressions and experiences
- It can be difficult to prioritize the most valuable accelerators

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Why we started with AWS

We do a ton with AWS, which is one reason we built our first serverless accelerator using AWS services.

2,600+

AWS Certifications

530+

AWS customers

1,000+

AWS projects in 2022

200+

Projects delivered with serverless accelerator

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The AWS serverless landscape

AWS has a large set of services that enable serverless applications.

Here's a set of core services that are the foundation of serverless applications with AWS.



AWS Lambda



Amazon API Gateway



Amazon DynamoDB



Amazon Simple Notification Service (Amazon SNS)



Amazon Simple Queue Service (Amazon SQS)



Amazon EventBridge

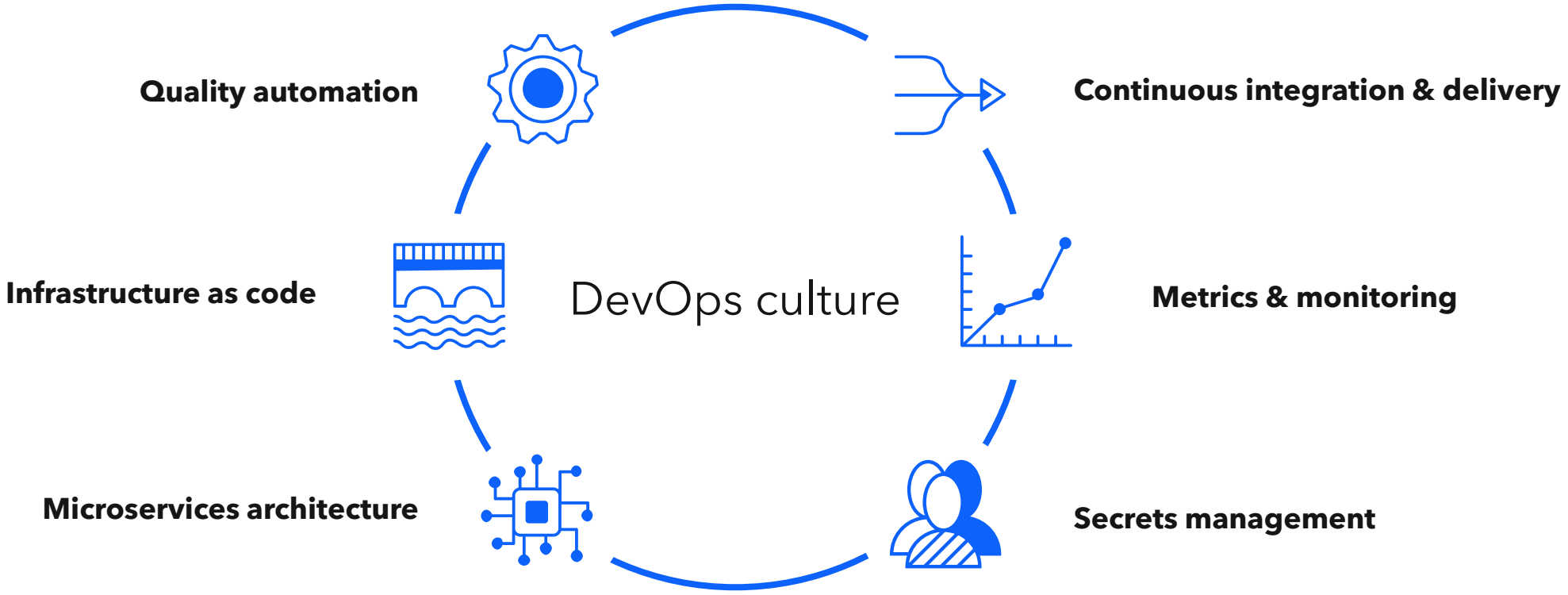


Amazon Simple Storage Service (Amazon S3)

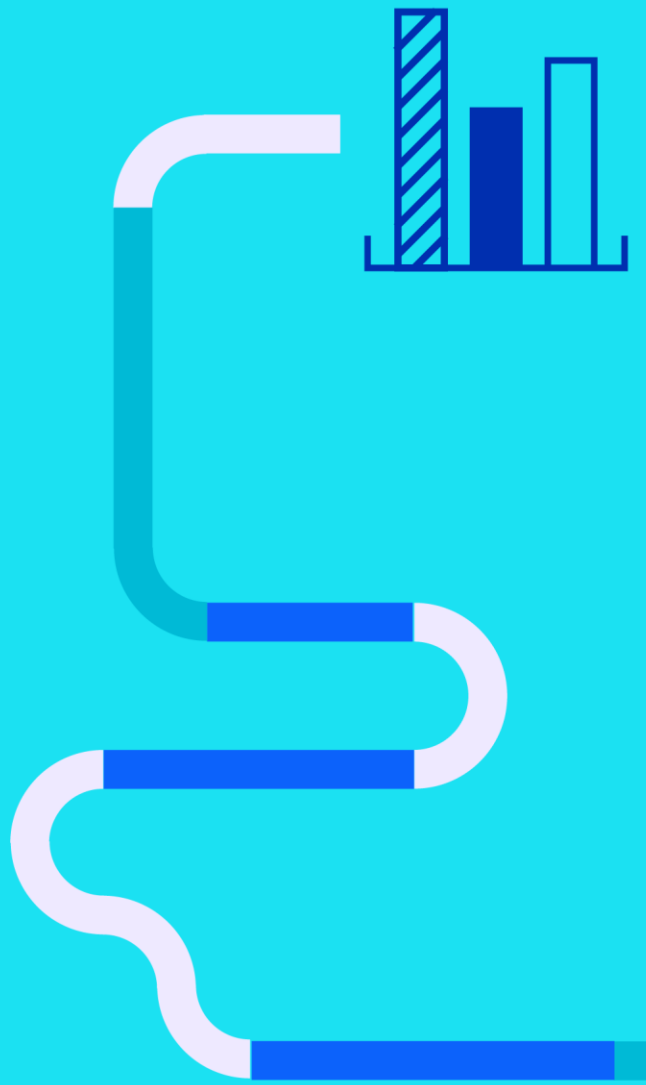
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Critical serverless enablers

Adopting a DevOps culture and continuous delivery practice is central to the successful application of serverless.



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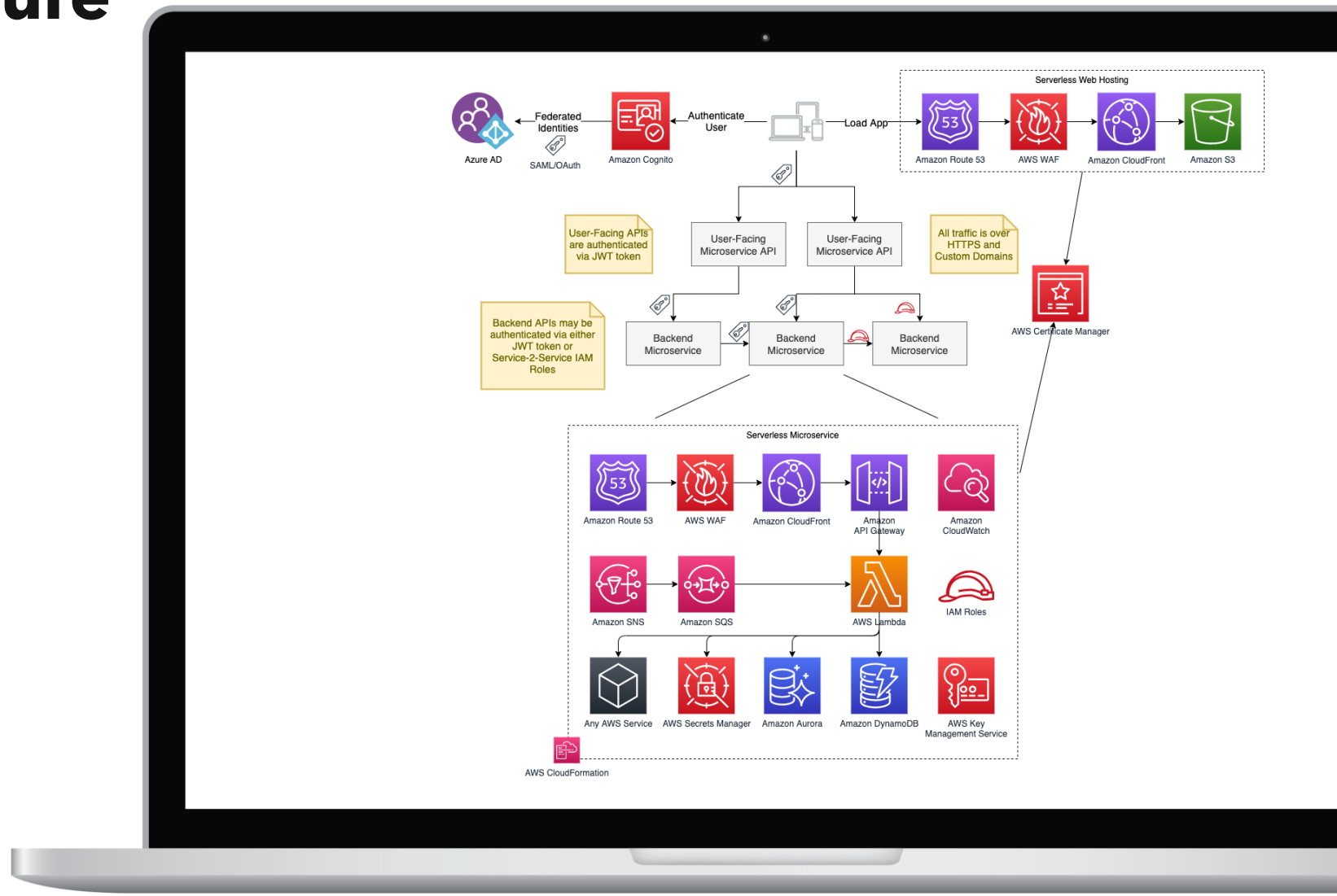
> [The serverless accelerator] is what your infrastructure or DevOps team would spend their first 6–8 weeks on, in order to get to be able to show a demo-able product.

Engineering Leader
Slalom



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Reference architecture with serverless



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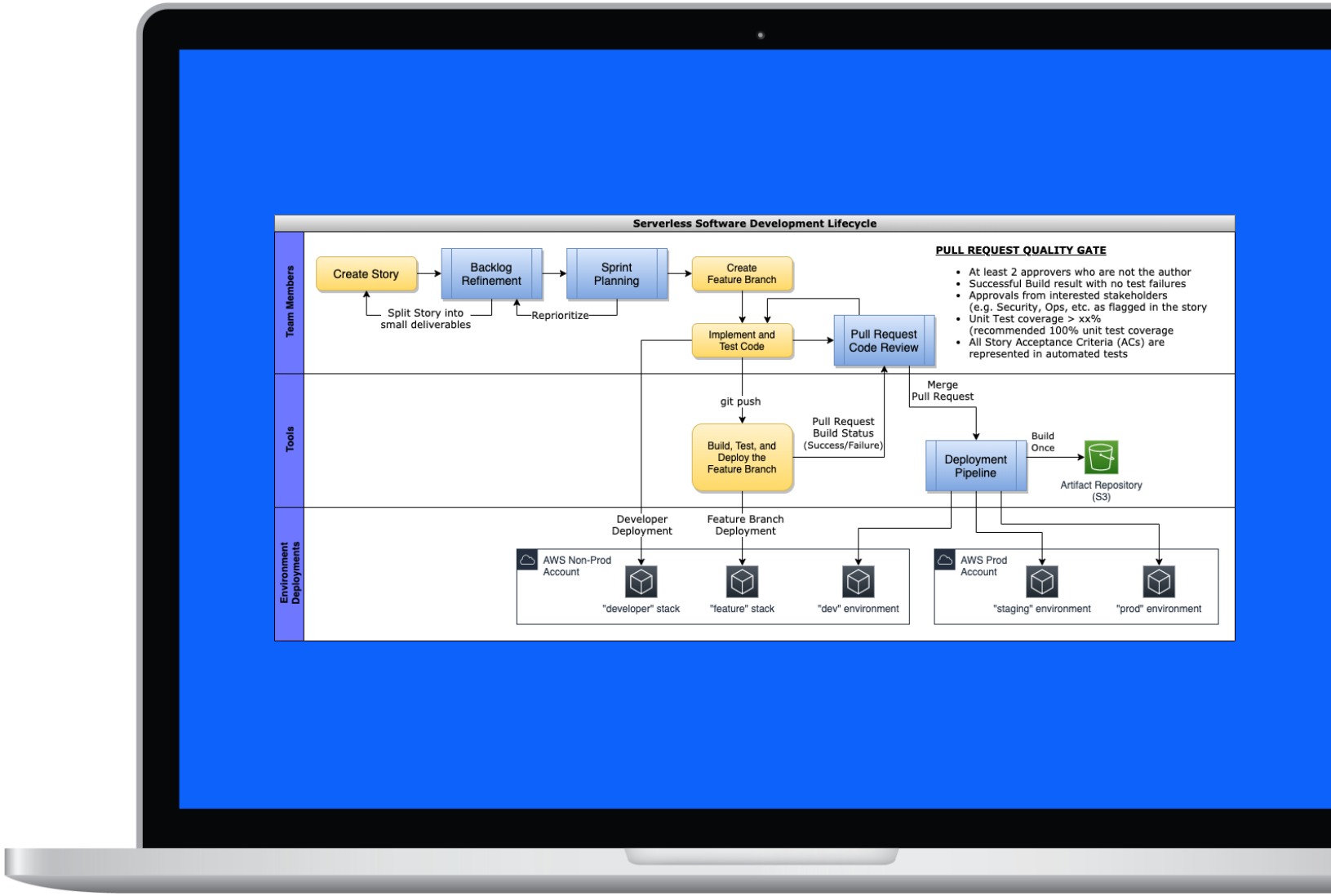
> **It's like a book of riddles with the answers laid out. The answer to a riddle might be a single word (or a single line of code), but if you don't know the answer to the riddle, you could noodle on it for days.**

Engineering Leader
Slalom



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Software development lifecycle with serverless



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> **It's a guidebook for good process around the entire software development lifecycle. Even if you don't like the tools chosen, it's a good idea to implement a similar process in your tool of choice.**

Engineering Leader
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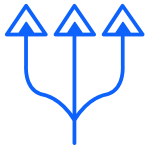


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Putting the pieces together:
Features of the serverless accelerator



CI/CD pipeline



Feature branch deployment



Quality automation



Data security



Observability and monitoring



Coding style and patterns



Local developer emulation



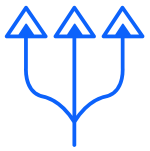
DNS design

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Fitting the pieces together from the beginning



CI/CD pipeline



Feature branch deployment



Quality automation



Data security



Observability and monitoring



Coding style and patterns



Local developer emulation

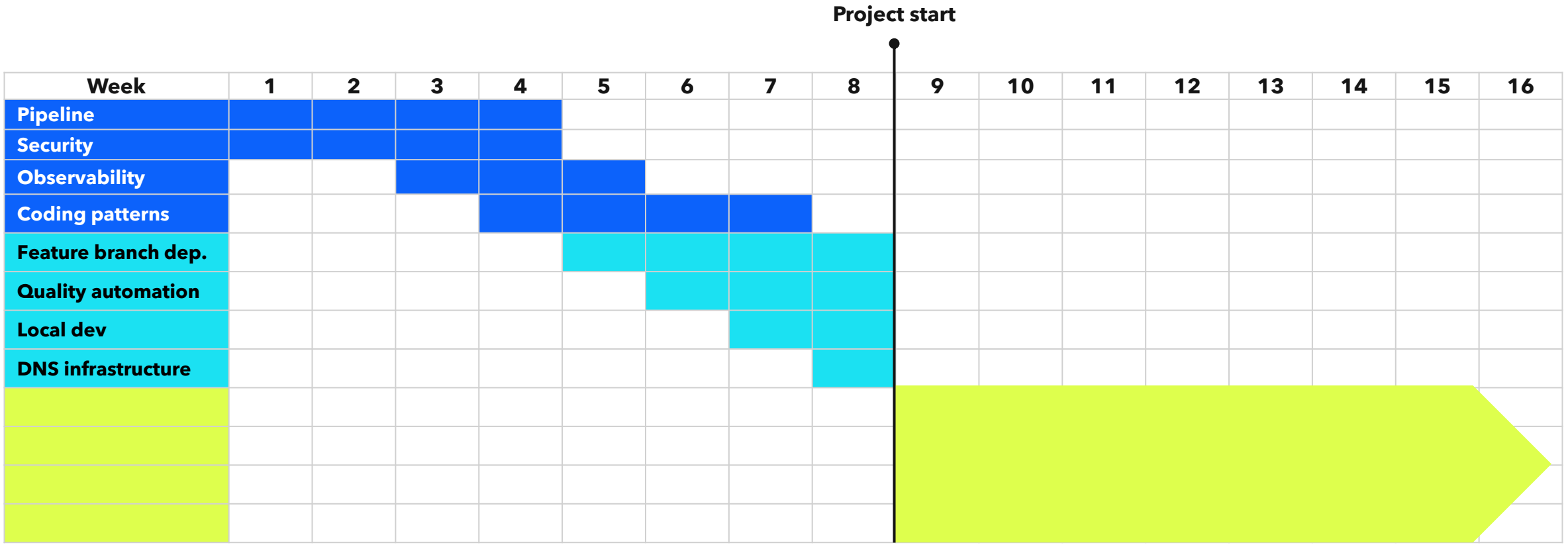


DNS design

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ROI from avoiding this much effort:

Six to eight weeks' worth of work to reinvest in later phases of your project



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Lessons from building 20+ accelerators

We have 13,000+ team members in 6 countries and 43 markets around the world—and we're growing fast.

The more you scale, the more it helps to:

- **Band together:** Engineering leaders across the company (with expertise across cloud platforms) review accelerators to ensure quality.
- **Set standards:** Beyond a technical repository in Bitbucket, accelerator packages must include a .README with technical details and instructions, associated sales collateral, and a presentation deck that is externally shareable.
- **Have priorities:** We use data to identify our most essential, common, repeatable engineering work to consider for new accelerators.



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