

PaaS- Development Environment

Cloud9

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The three pillars of software development

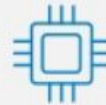
RUN



RELEASE



CREATE



Compute

Amazon EC2 | AWS Fargate | Amazon ECS | AWS Lambda | ...



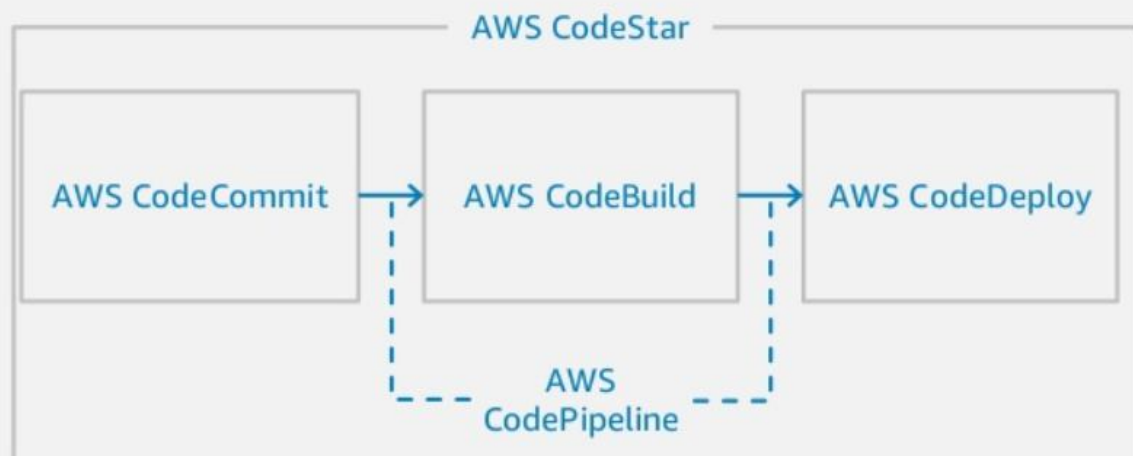
Storage

Amazon Aurora | Amazon RDS | Amazon Redshift | ...

100+ Services



The three pillars of software development



The three pillars of software development



Developer Tools



AWS Cloud9

A cloud IDE for writing, running, and debugging code



1. Developers are building for the cloud, but use local machines

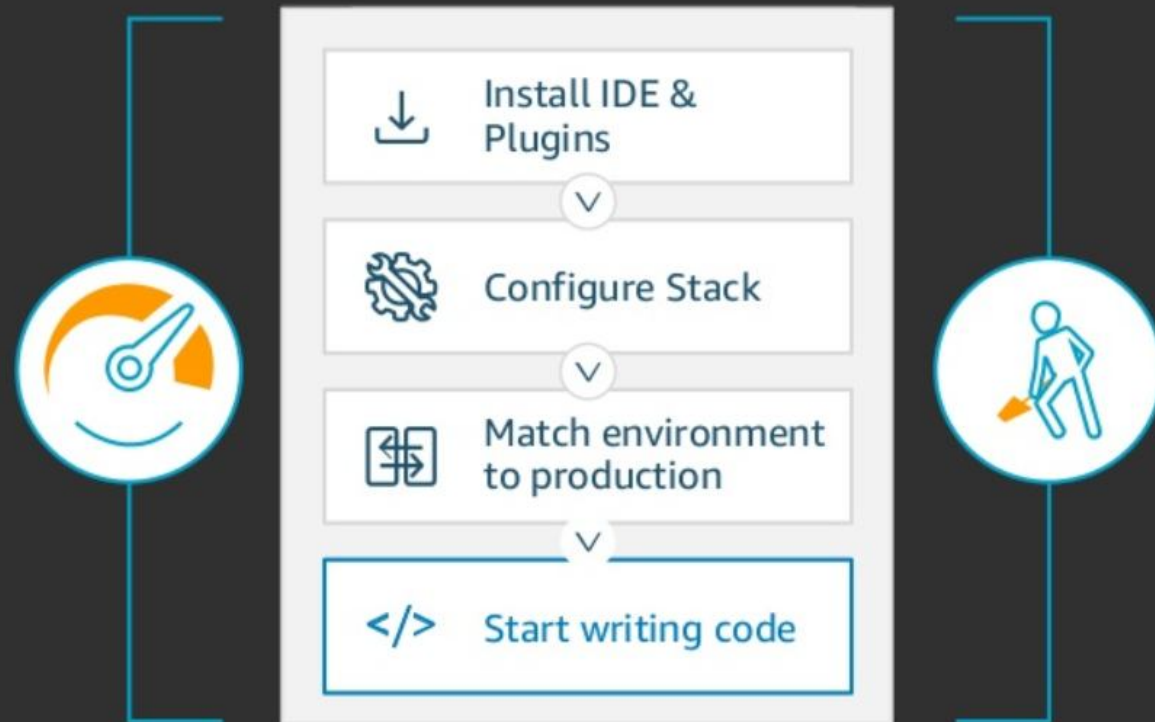


Pain points

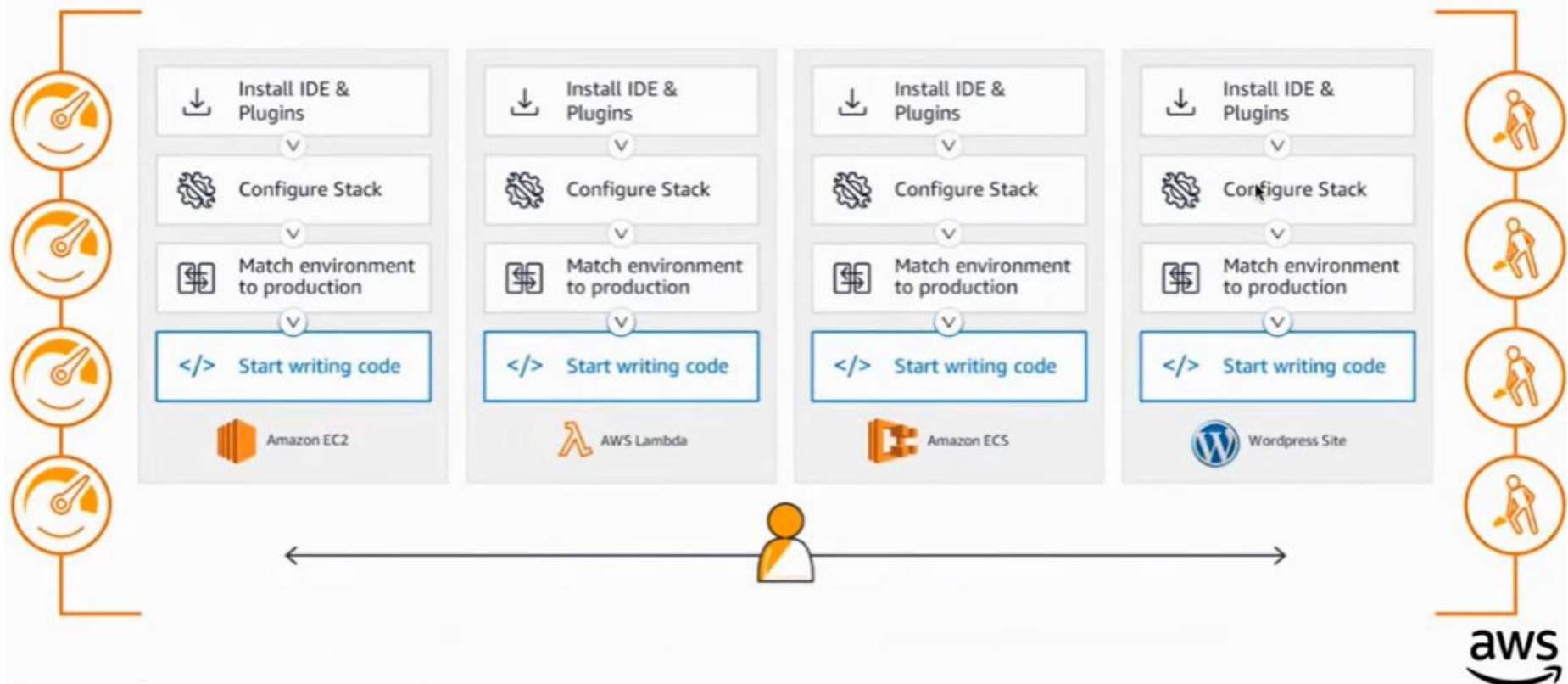
- > Rely on local machine's hardware/configuration
- > Hard to multi-task on various projects
- > Difficult to work from multiple locations

- **Why do we build IDE?**
- Building applications for cloud but use local machines for development
 - Rely on local machines for hardware and software configuration
 - Hard to do multitask on various projects
 - Difficult to work from multiple locations
- **Relief from:**
- Cumbersome (large or heavy)to setup new environment for development
 - Install IDE and plugin
 - Configure your stack such as docker
 - Match the environment in production
 - ***Start writing code only***

2. Cumbersome to set up development environment



2. Cumbersome to setup development environment (contd.)



2. Cumbersome to setup development environment (contd.)



Why need an IDE?

3. Developers need an easier way to collaborate on code

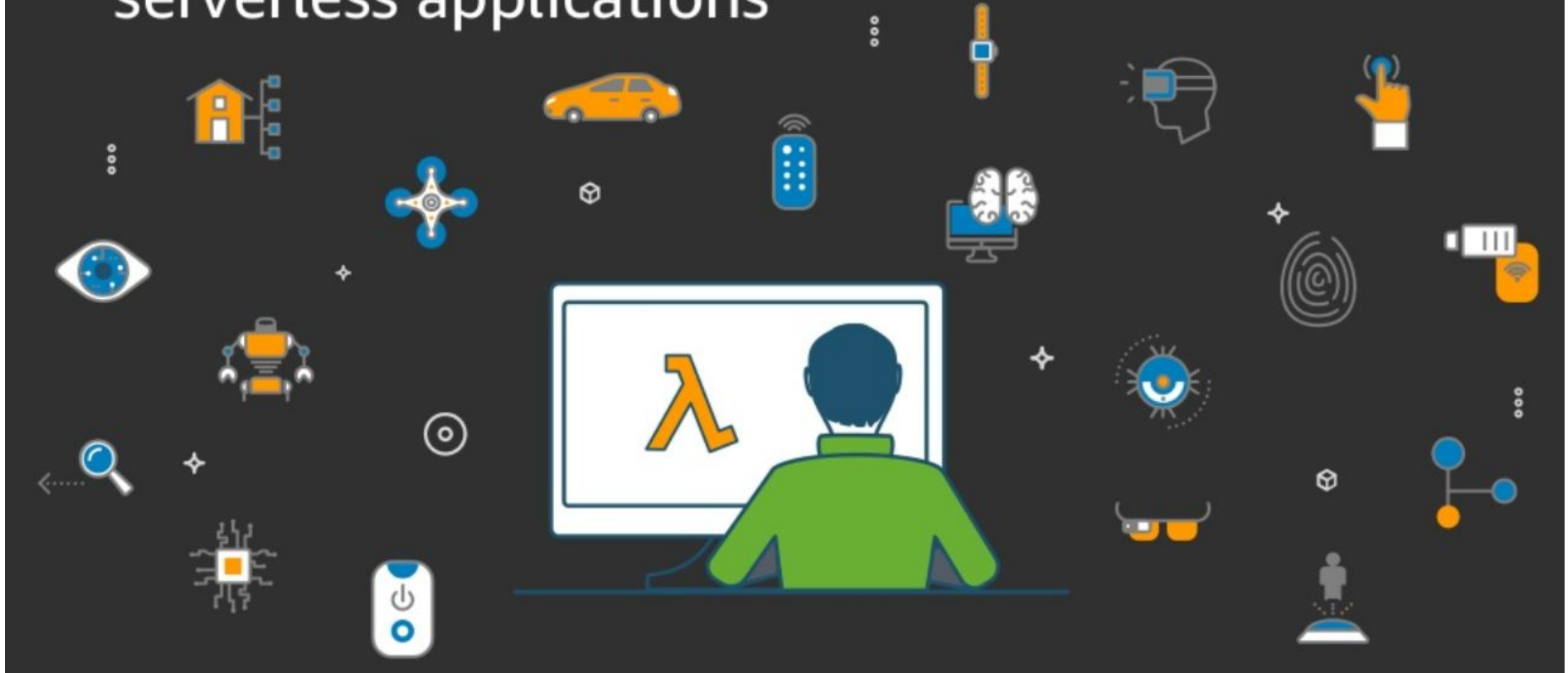


Looking over each other's screen does not scale well



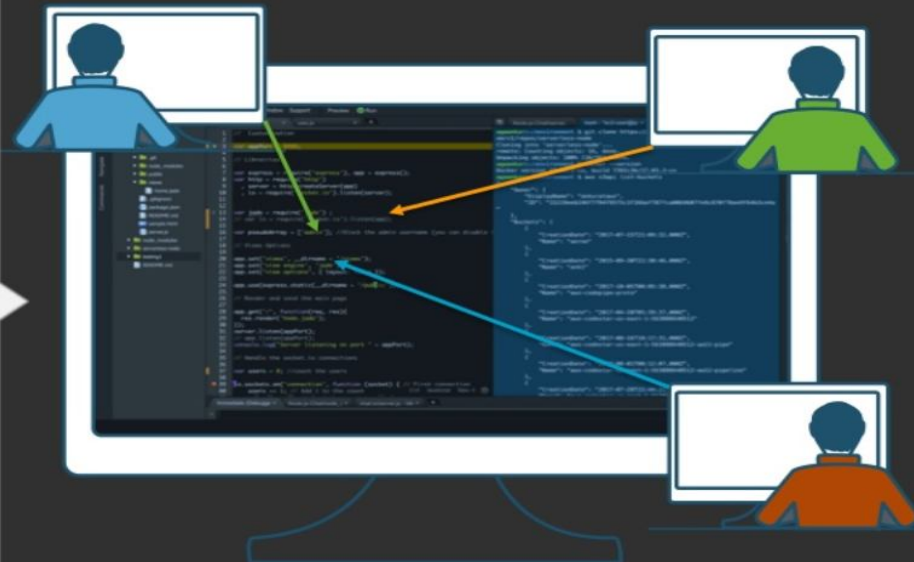
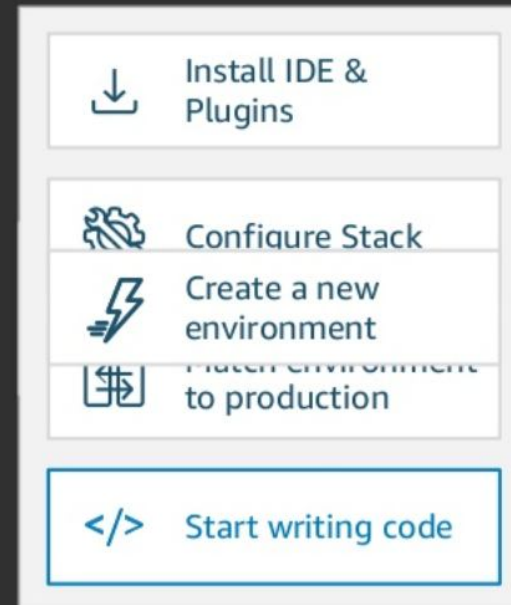
Screen sharing tools make us constantly switch contexts

4. IDEs have not caught up to needs of serverless applications



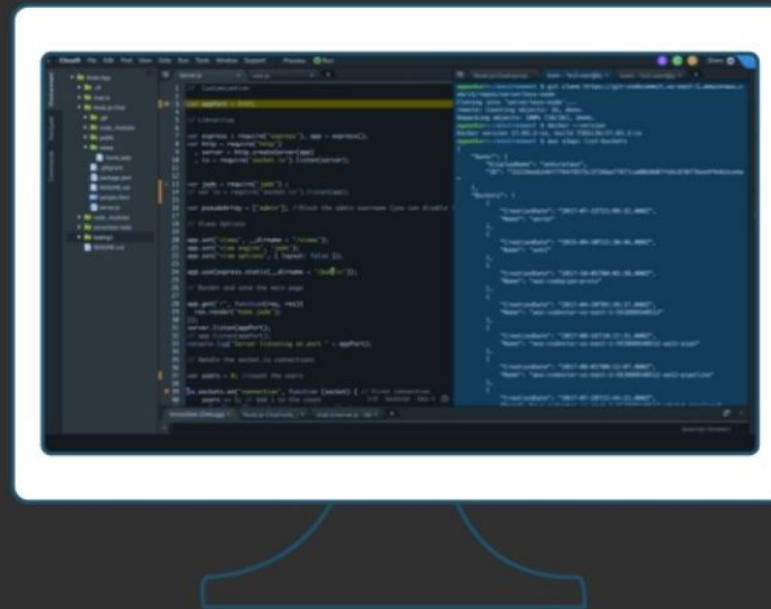
Start new
projects quickly

Code together
in real time



Build serverless applications with ease

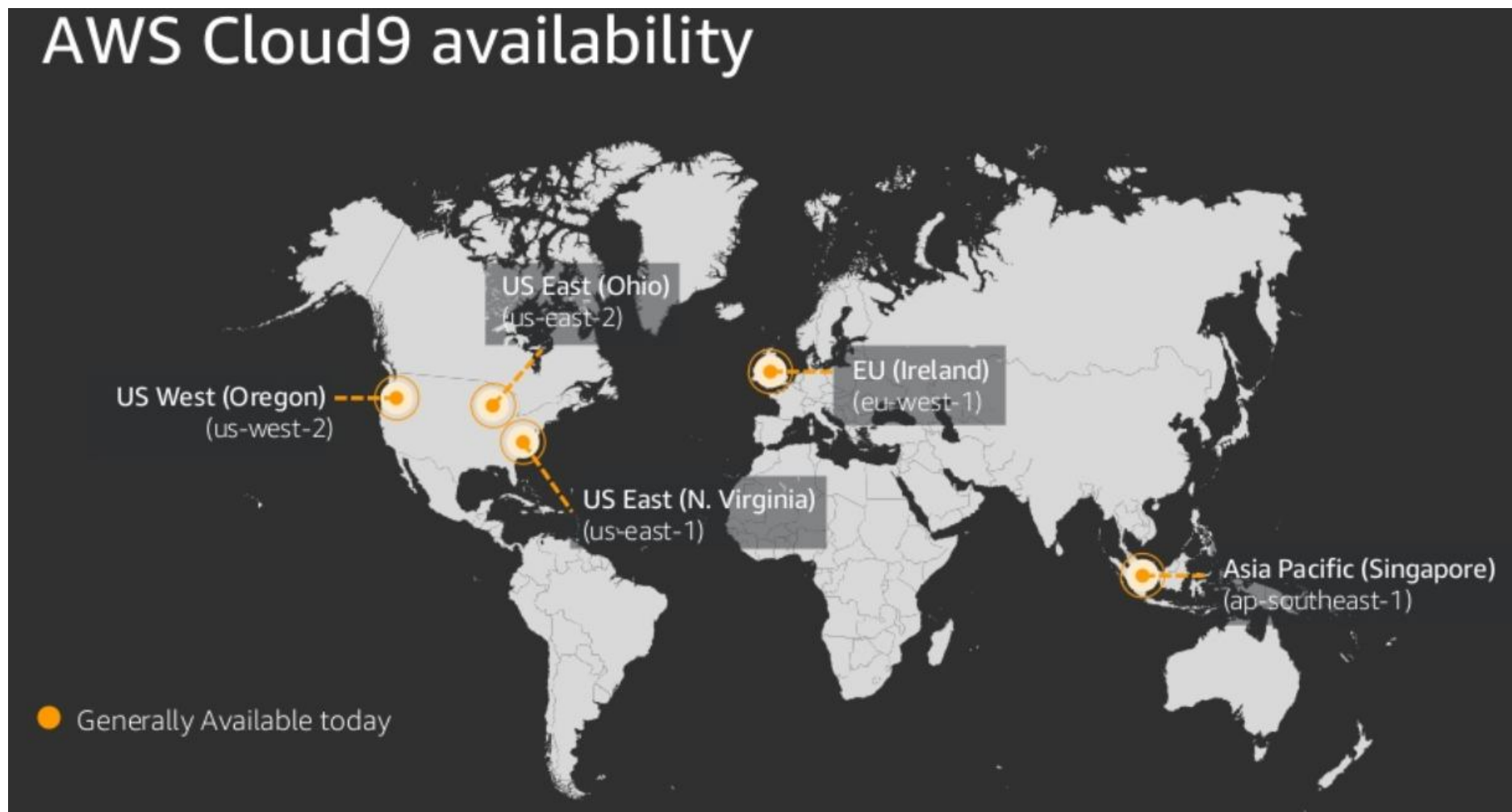
Direct terminal access to AWS services



AWS Cloud9 availability



AWS Cloud9 availability



Pricing

Managed EC2

No Charge for IDE

Standard compute and storage charges to run & store code (Amazon EC2, Amazon EBS)

Own Linux Server (SSH)

No Charge for IDE

Cloud9 Features

- IDE in the browser
- Start new projects easily
- Create a new environment
- Code together in real time
- Build serverless applications with ease
- Direct terminal access to aws services

Steps

- Go to cloud9 in devops
- Create a new environment
- Give name
- Select ec2 instance type, where the application to be deployed
- Wait for moment, here we go with cloud9 IDE
- Search for **CloudFormation** in **service** link(Top left corner)
- Go to terminal and type
 - Ubuntu commands: top
 - **Git clone**: visit index.html, demo.js, hello.rb, info.php
 - `console.log(bar.abc);`

- Click on AWS Resources [Right Side] ([static-demo](#) Project Link)
 - Lamda function
 - { "payload":"testing" }
 - callback(event);
- To [Share](#) the IDE with Team Mates [[Right Corner](#)]
 - Create [IAM](#) role
 - Create username and assign to a Group. Name the group
 - Add [Cloud9 Administrative](#) Permission
 - Add IAM User to your IDE
 - Provide the access link from [IAM URI](#)

Reading resources

- <https://www.youtube.com/watch?v=FvclLeg2vEQ>
- Code resource:
 - `git clone https://github.com/Atlas7/demo-project`
 - `git clone https://github.com/nonken/static-demo.git`
 - <https://docs.c9.io/docs/>