Hosting All the Things with S3

Ryan Lewis
WEB ENGINEER
@ryanmurakami www.ryanhlewis.com

Summary

Putting the ’S’ in S3

Buckets of Objects

Pizza Luv-ing Storage

Cross Origin Pizza Sharing

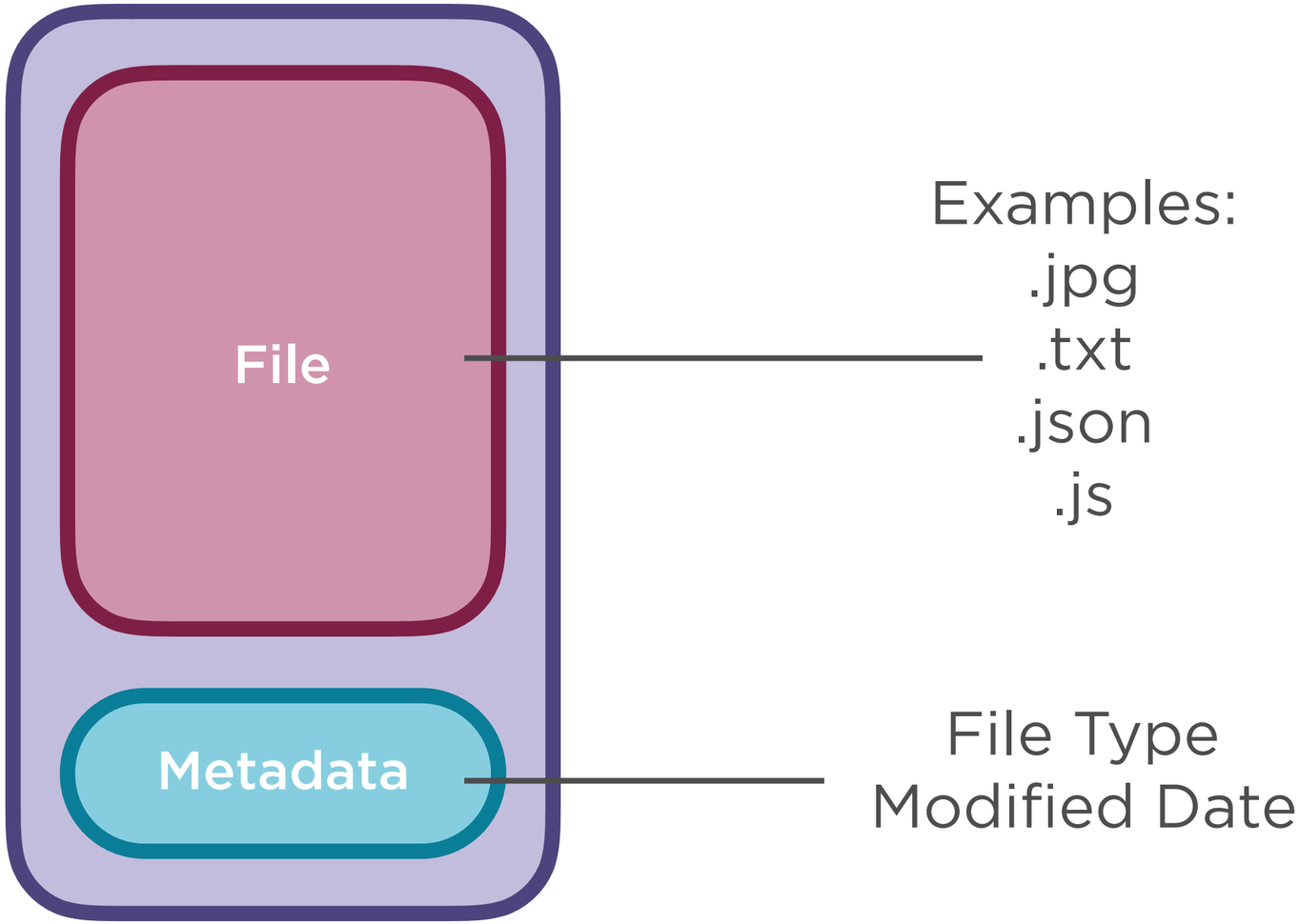
S3 Overview

Simple Storage Service

AWS service for storing files

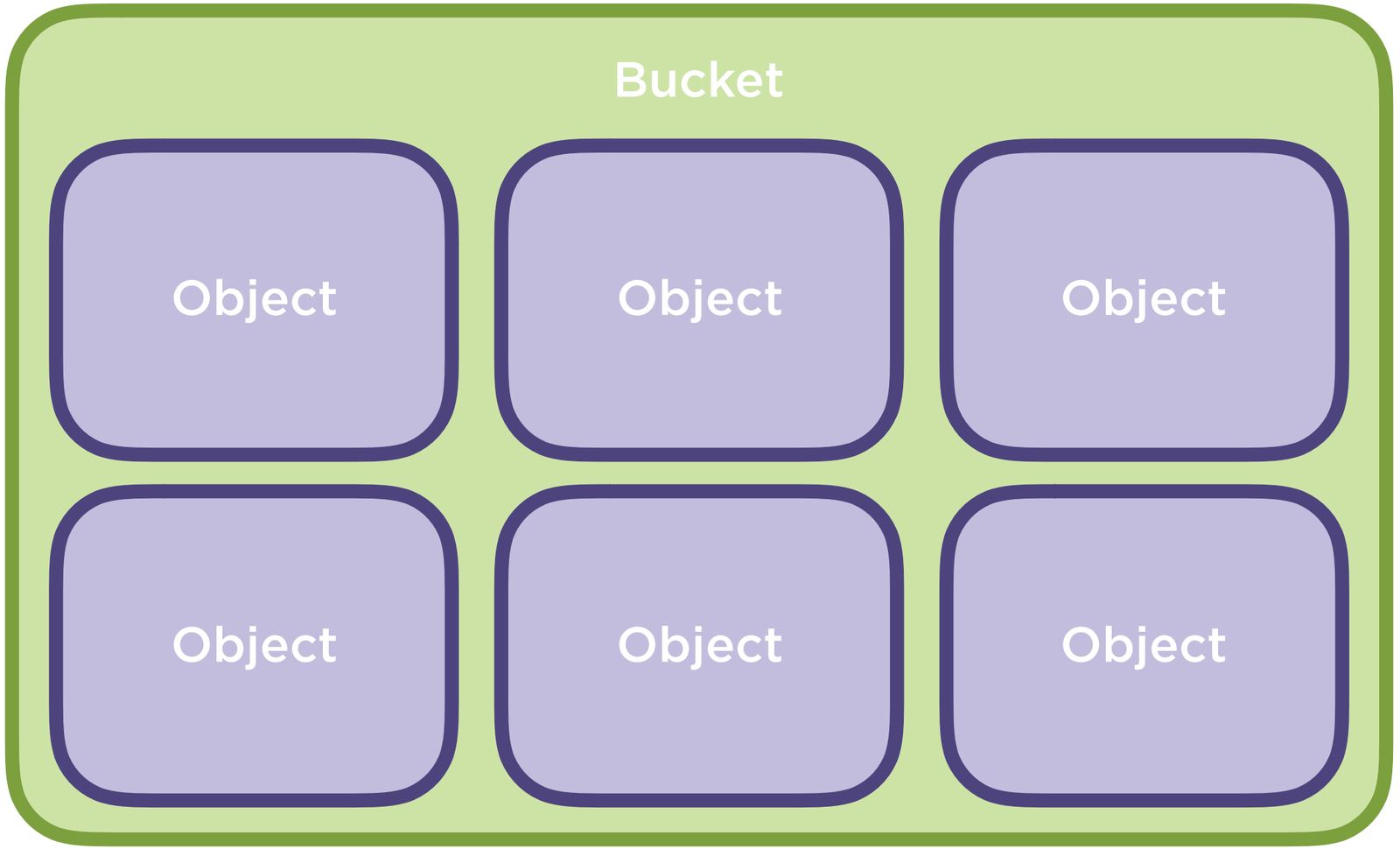
S3 stores Objects in the Region you specify

S3 Object


File
Metadata
Examples:
.jpg
.txt
.json
.js
File Type
Modified Date

The maximum object size in S3 is 5 terabytes

S3 Bucket



S3 Bucket Example

Region: Oregon

Bucket Name: pizza-luvrs

URL: s3-us-west-2.amazonaws.com/pizza-luvrs

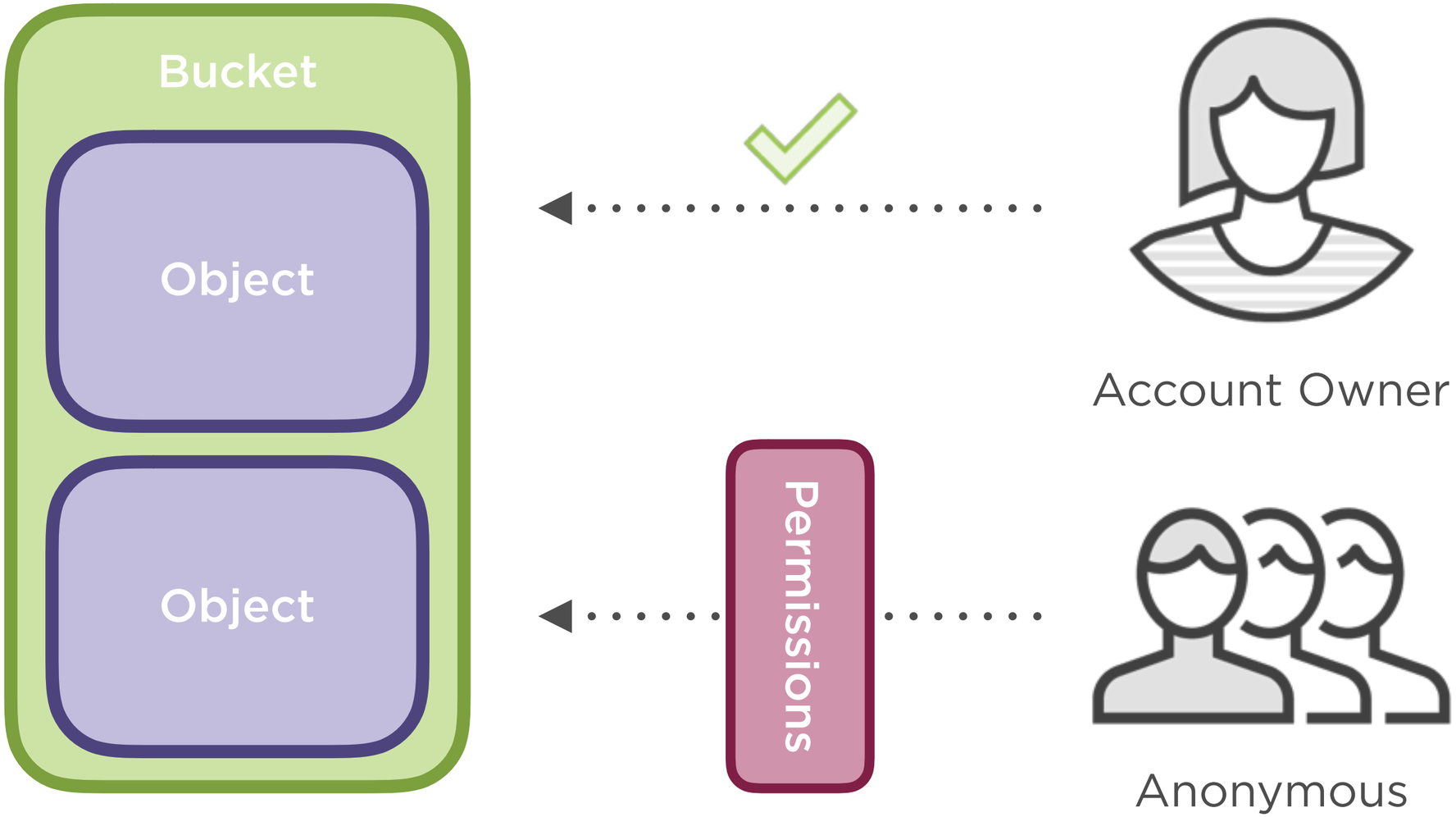
S3 Object Key Example

Filename: image.png

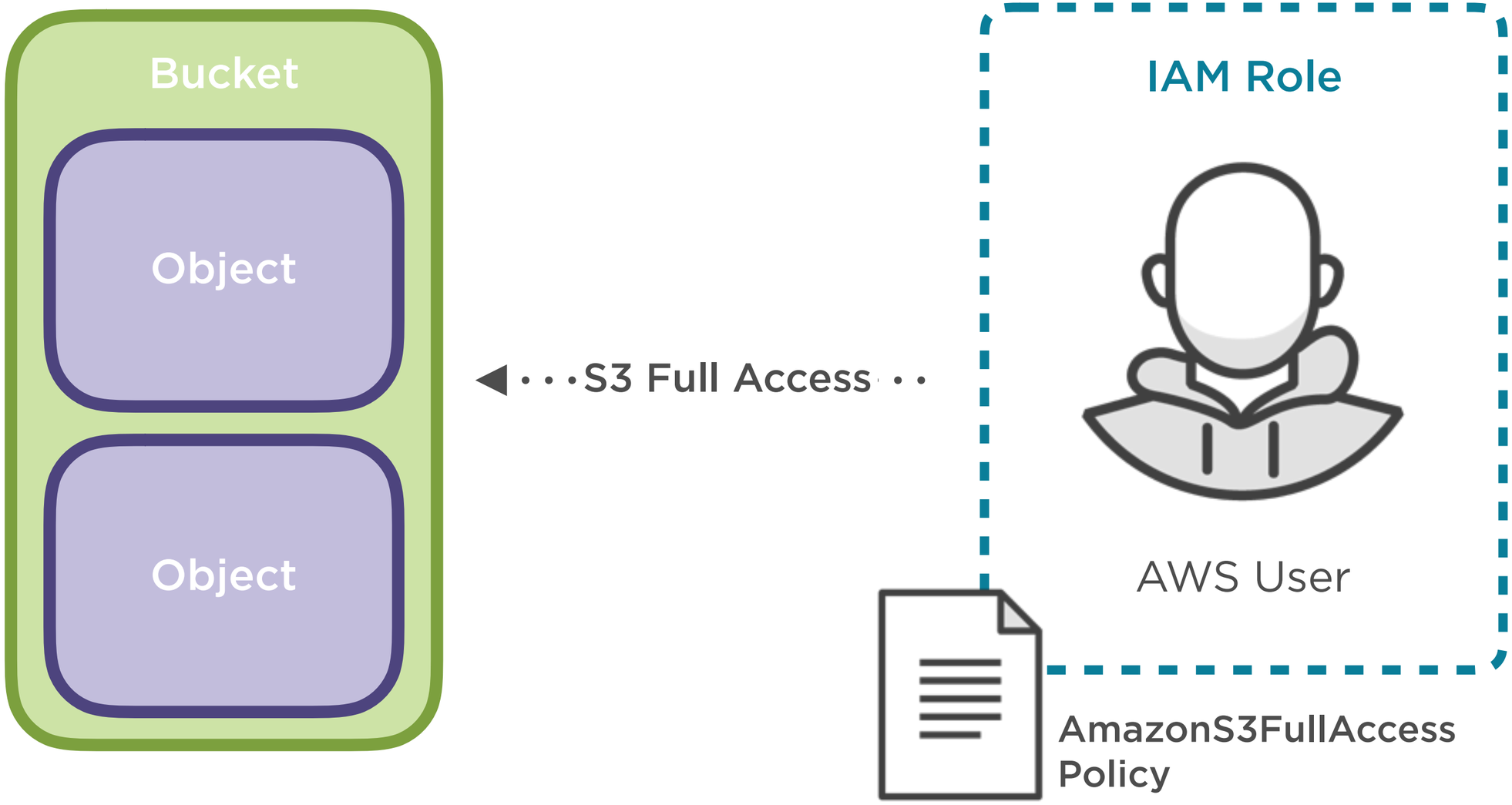
Folder Name: images

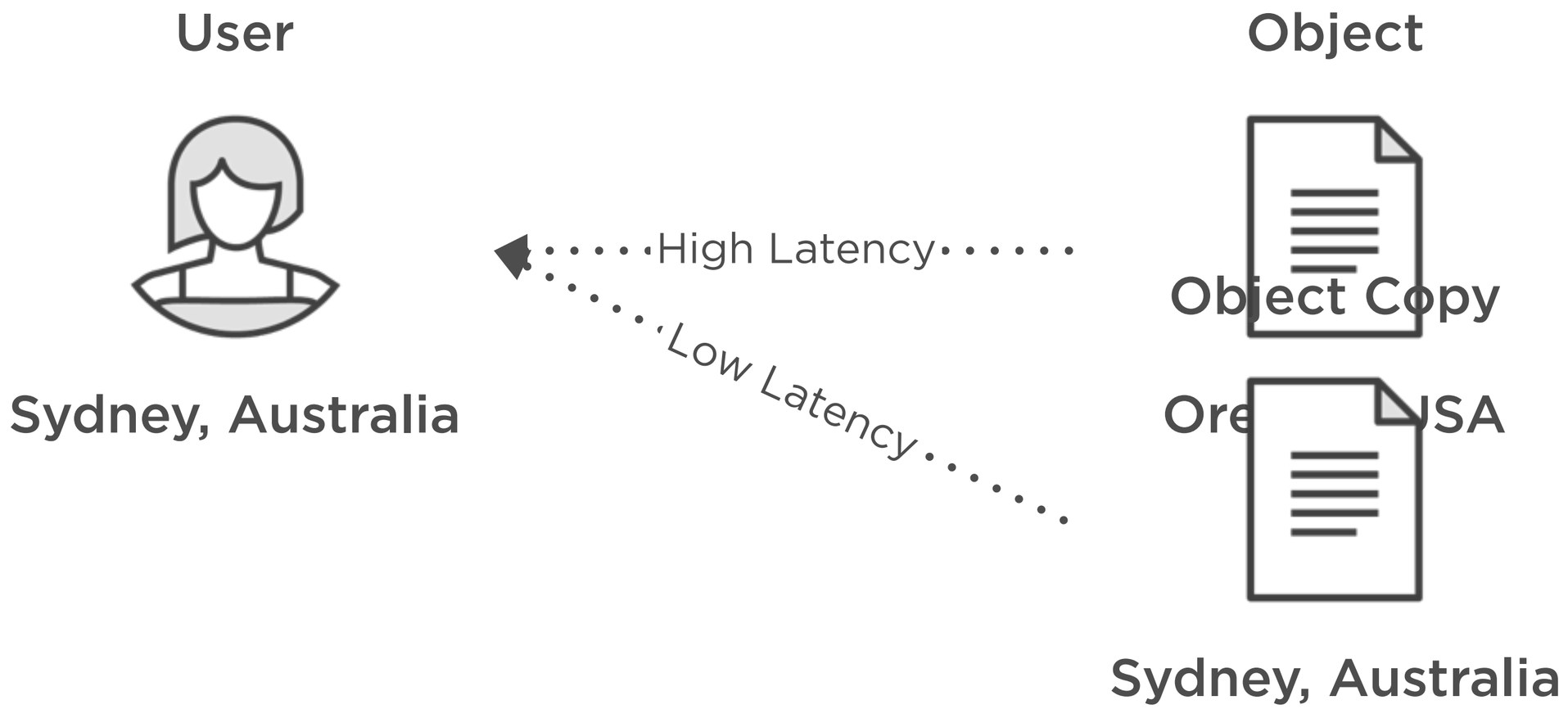
Object Key: images/image.png

S3 Access with Permissions



S3 Access with IAM Roles




User
Object
High Latency
Low Latency
Object Copy
Sydney, Australia
Sydney, Australia

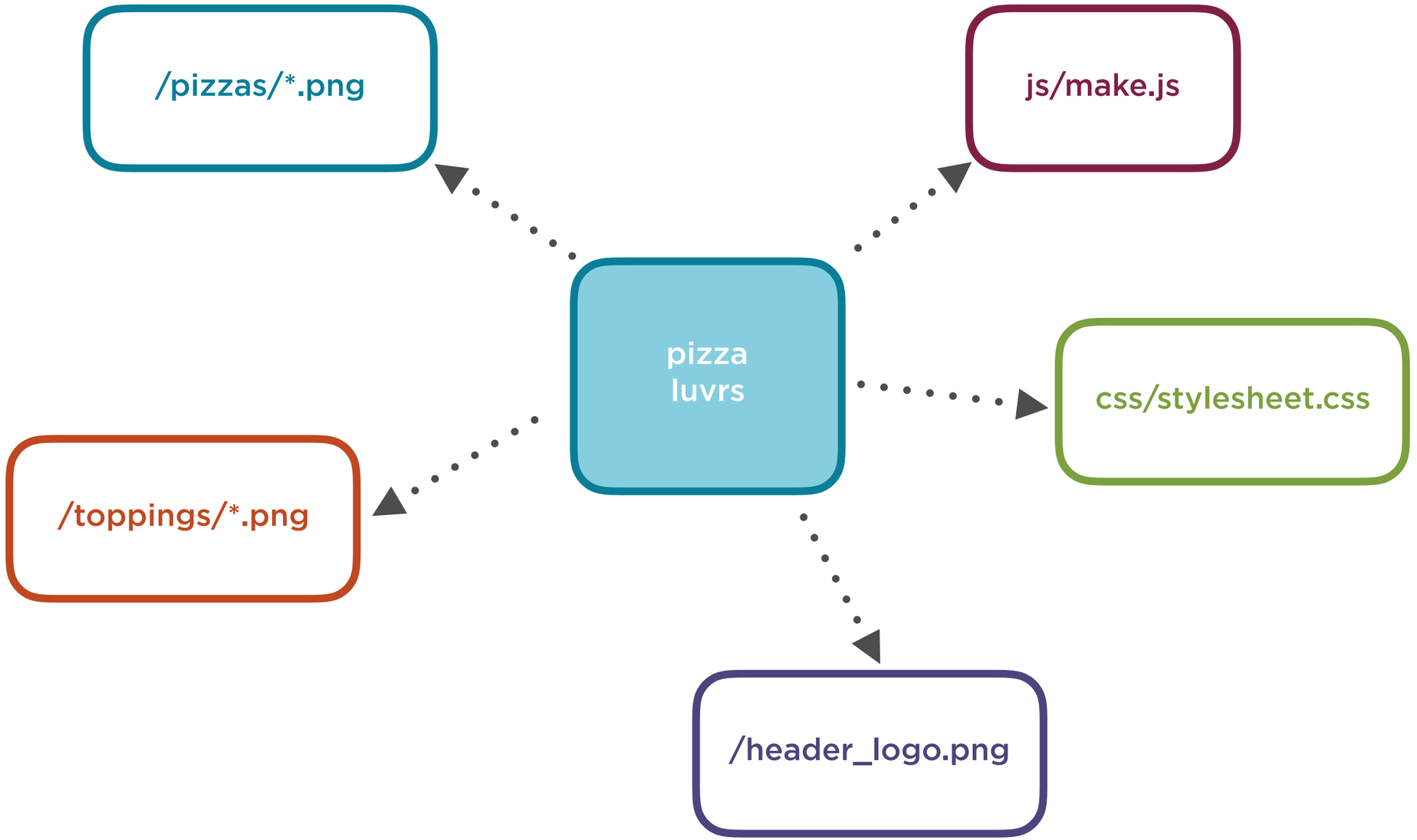
CloudFront is the best way
to solve geographic latency

Creating an S3 Bucket

AWS Policy Generator

https://awspolicygen.s3.amazonaws.com/policygen.html

Uploading Objects to S3


/pizzas/*.png
js/make.js
pizza
luvrs
css/stylesheet.css
/toppings/*.png
/header_logo.png

How to Upload Objects to S3

Console

Adhoc or
Small Number
of File Uploading

CLI

Recursive
Directory
Uploading

SDK

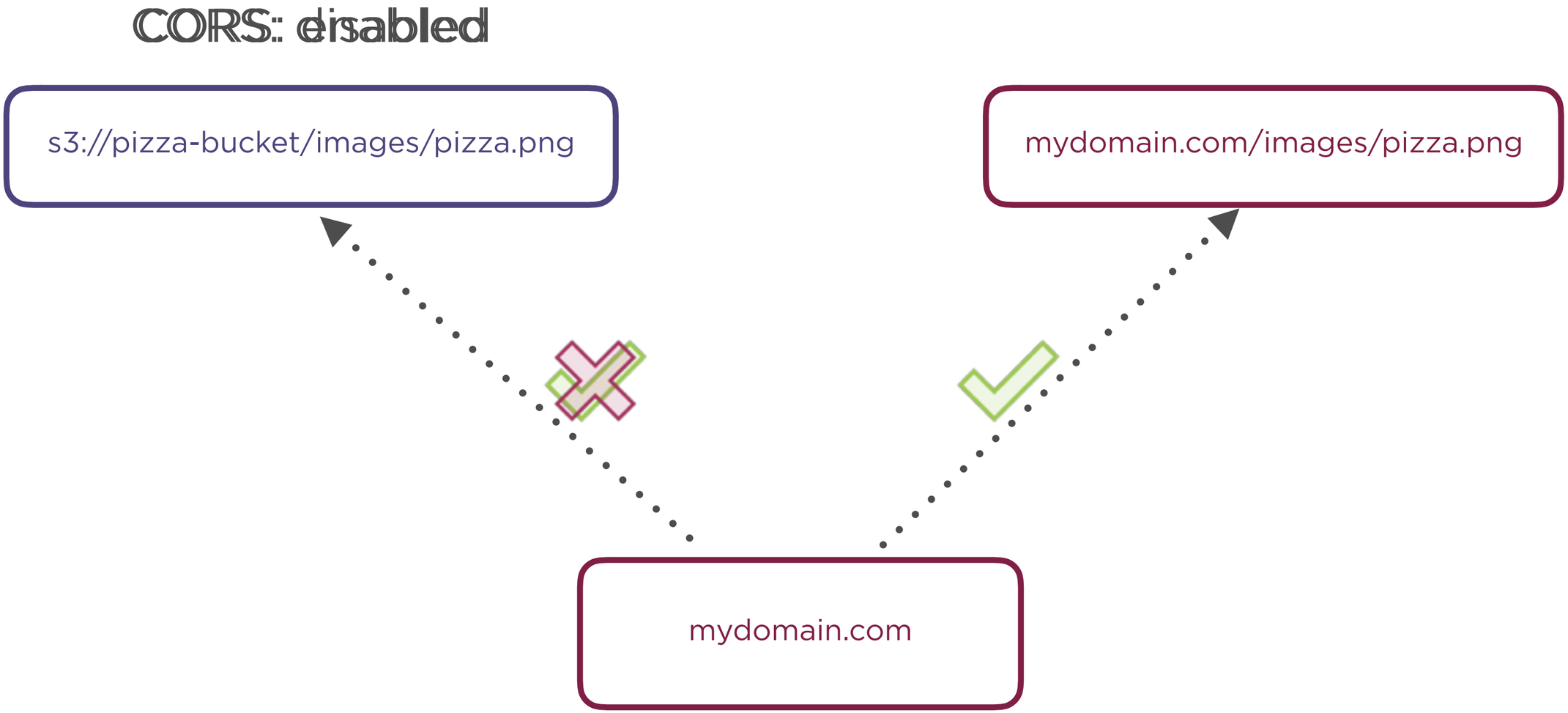
Dynamic
in Code
Uploading

The AWS CLI has the permissions given to the user whose key is configured on your system

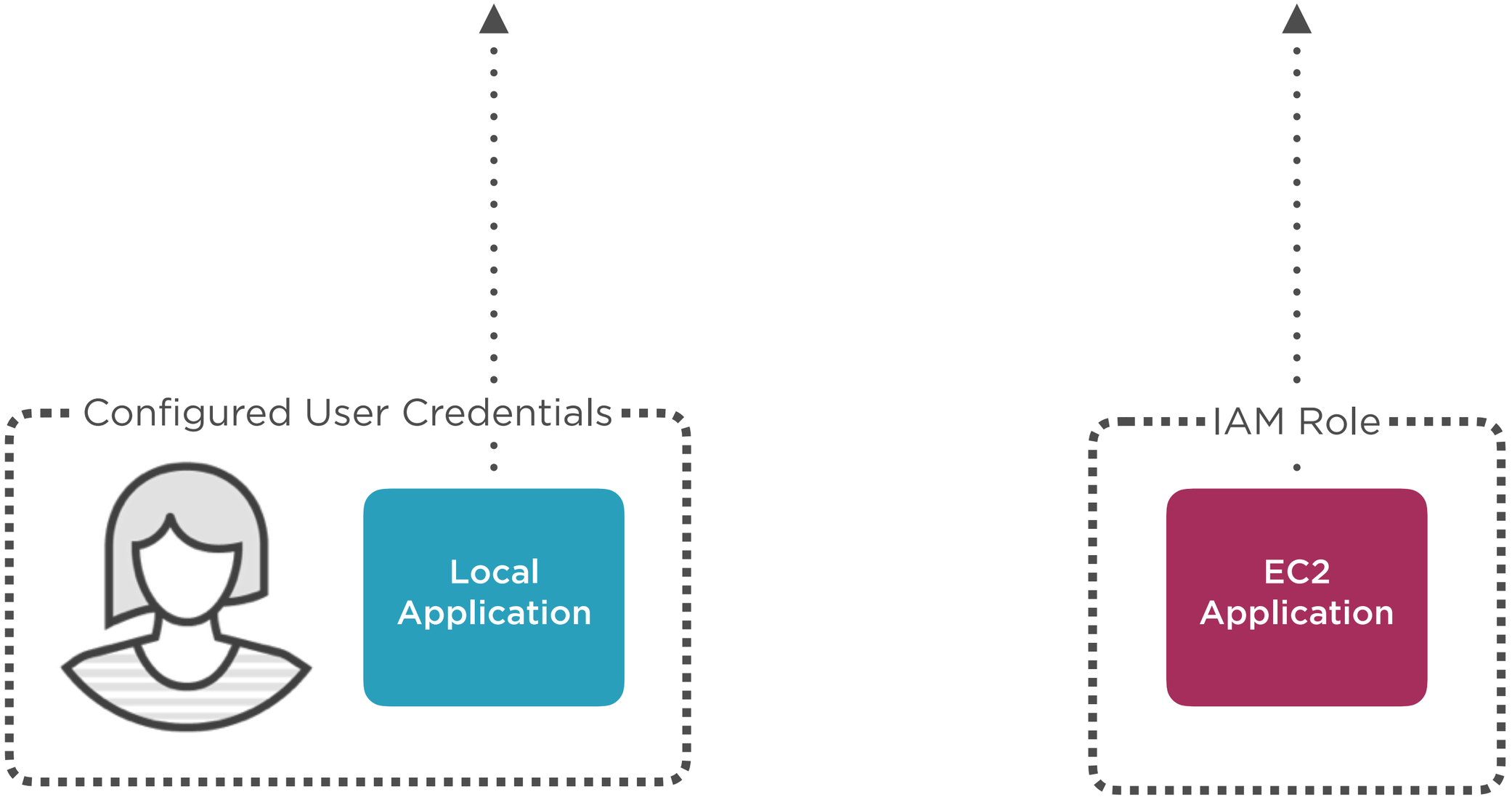
Connecting to S3 with Code

Working with CORS in S3

CORS Example



Accessing S3 with EC2


Configured User Credentials
Local Application
IAM Role
EC2 Application

Objective

Assign IAM Role to Newly Launched Instances

Launch Configuration User Data

```
#!/bin/bash
echo "starting pizza-luvrs"
cd /home/ec2-user/pizza-luvrs
npm start
```

Conclusion

Summary

S3 by the numbers

Bucket of pizza

Programmatic S3

S3, S3, let me in...

Up Next:

A Tale of Two Databases with DynamoDB and RDS

RDS & DynamoDB

Managed
Relational
Databases

Serverless
NoSQL