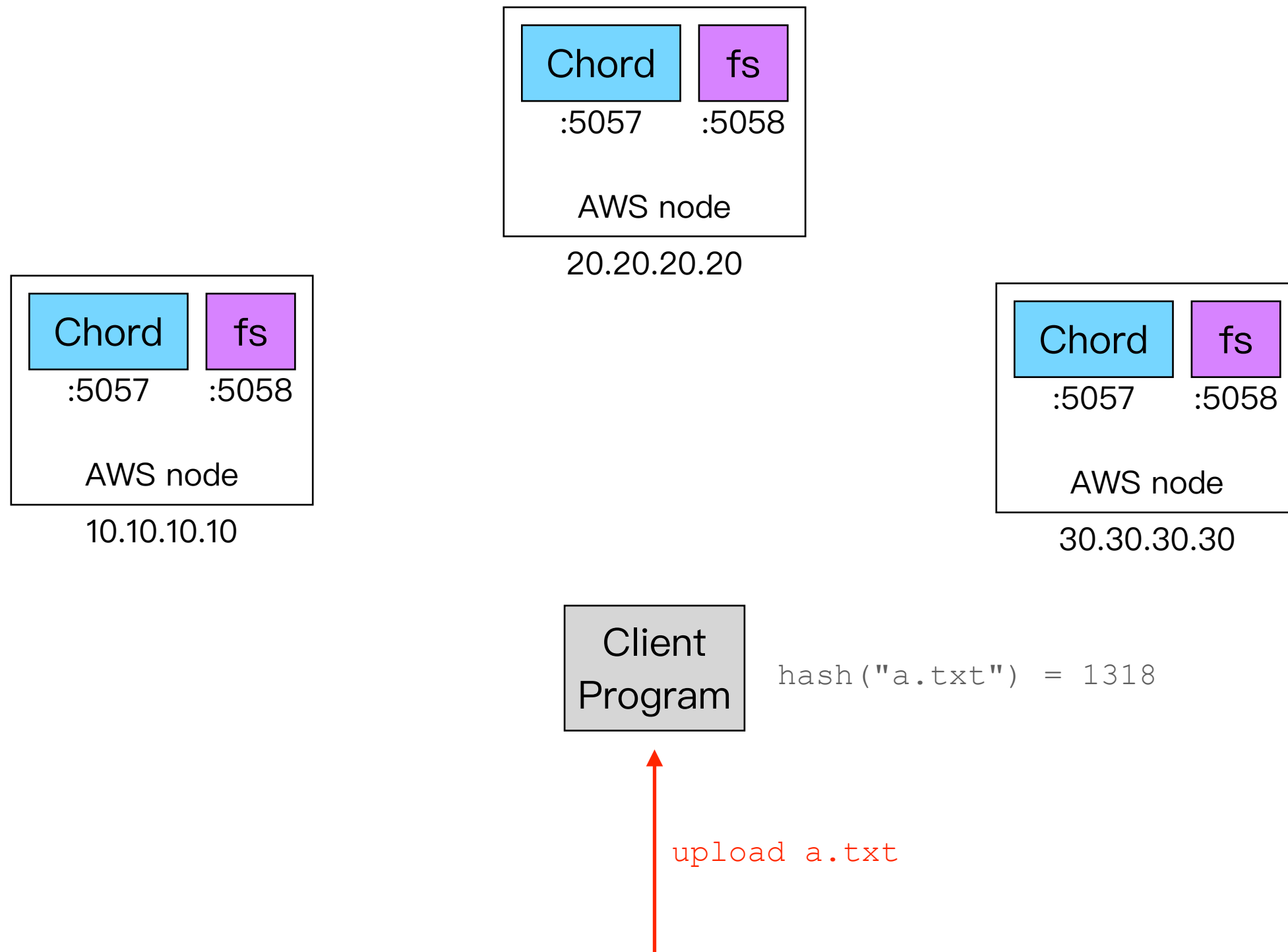


# Midterm Project – Chord

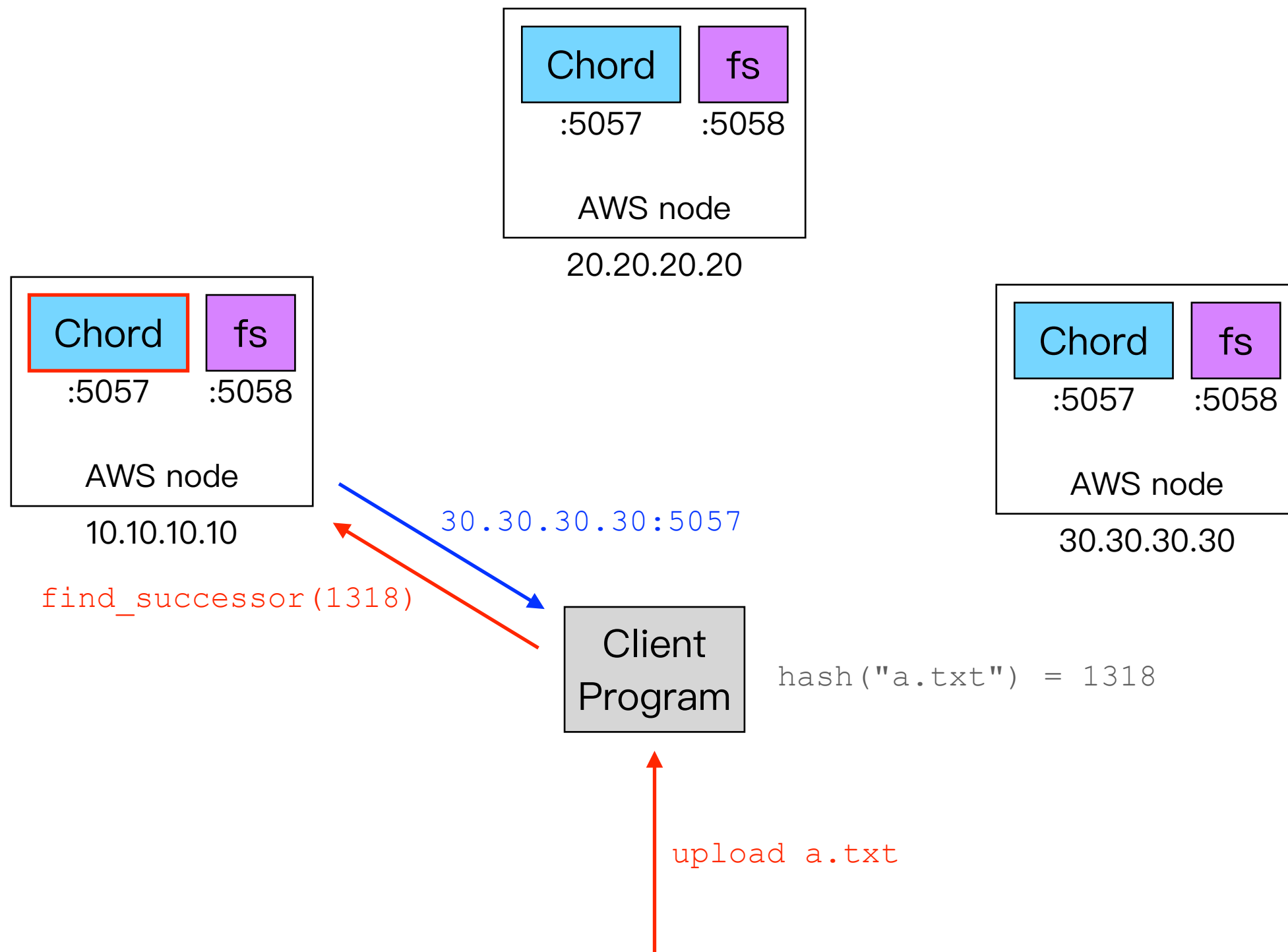
## Part 2: Auto scaling on AWS Cloud

Practices for Distributed Systems and Cloud Application  
Development

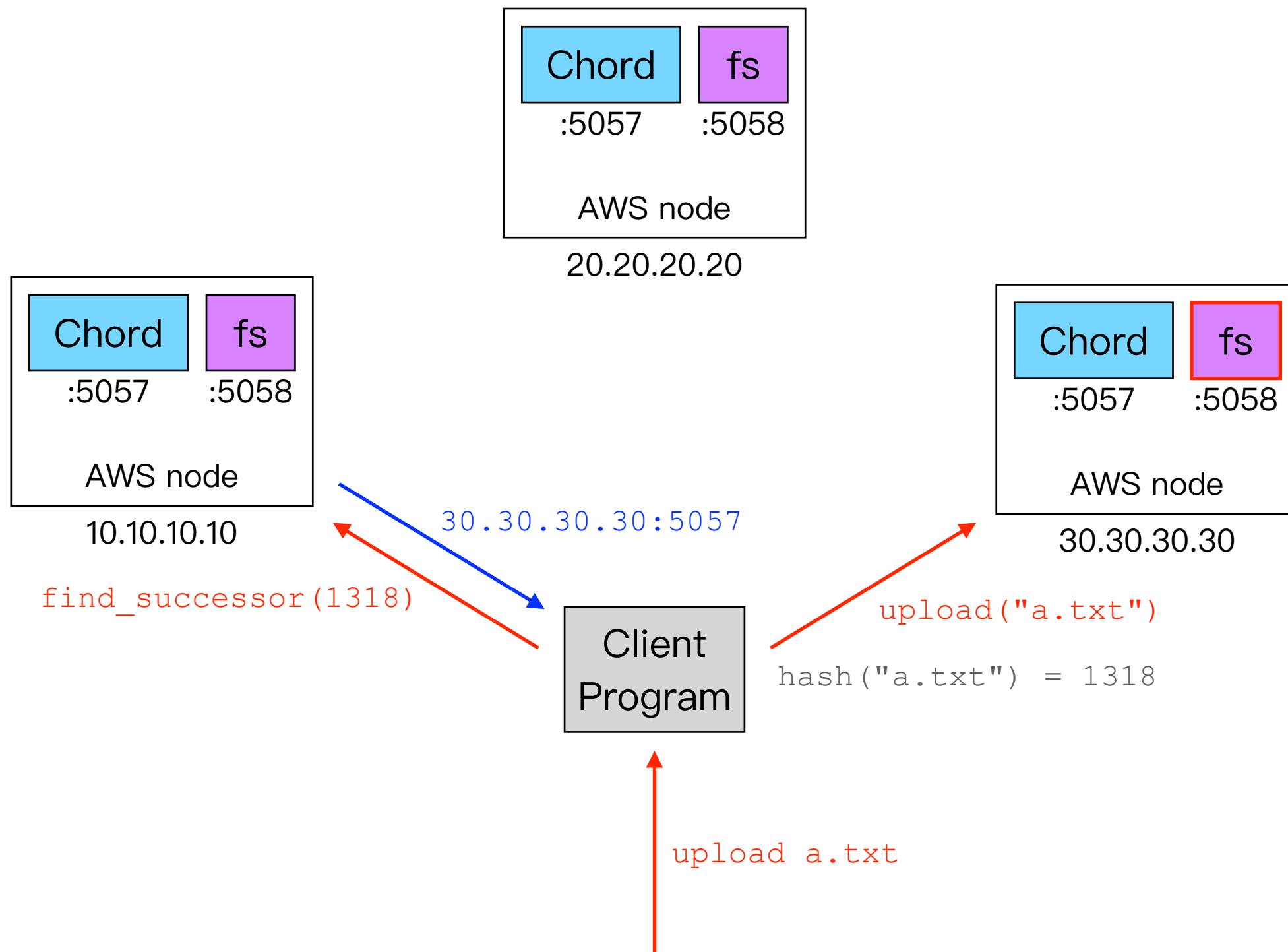
# Part 2: Automatic scaling on AWS Cloud



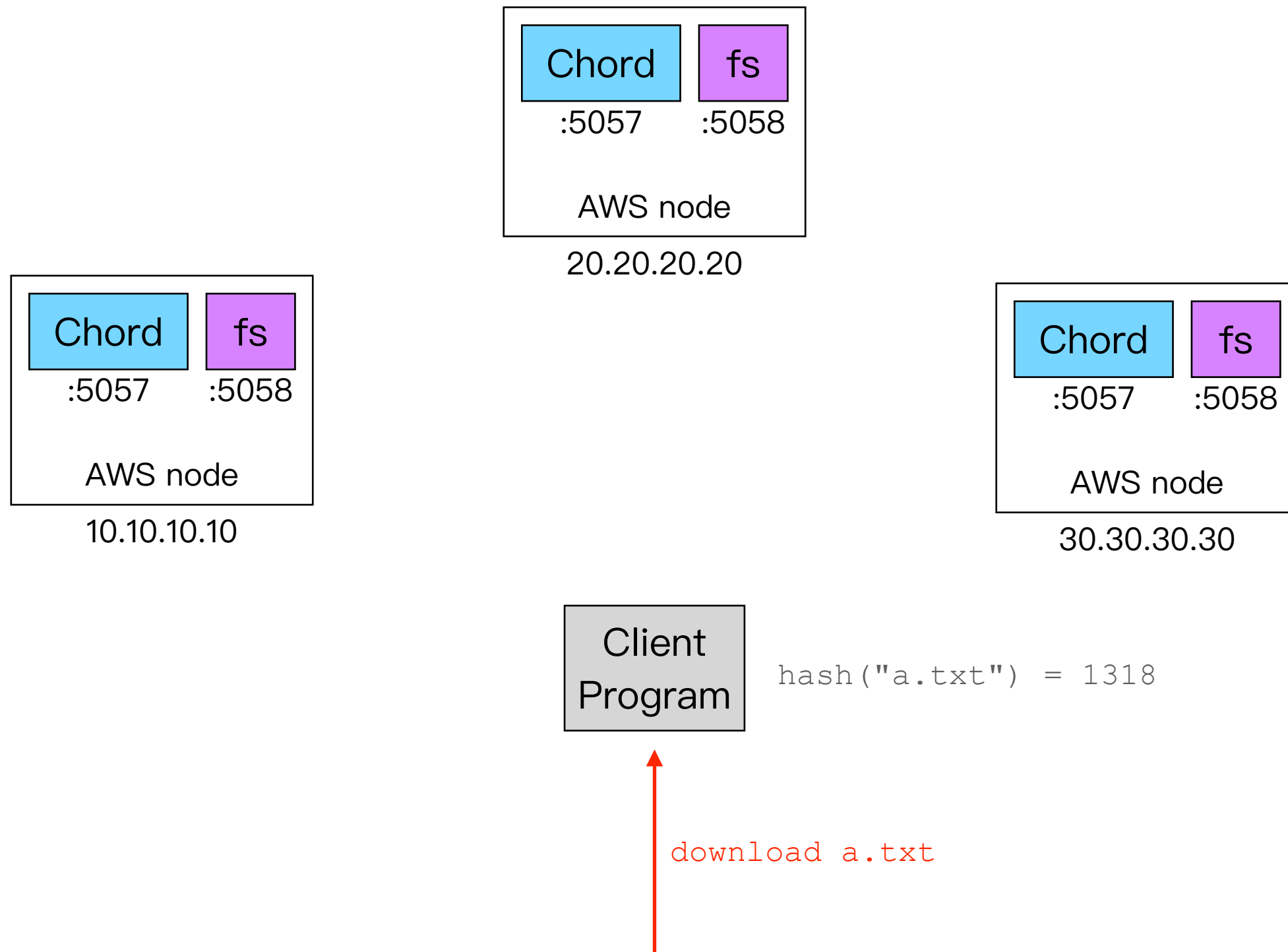
# Part 2: Automatic scaling on AWS Cloud



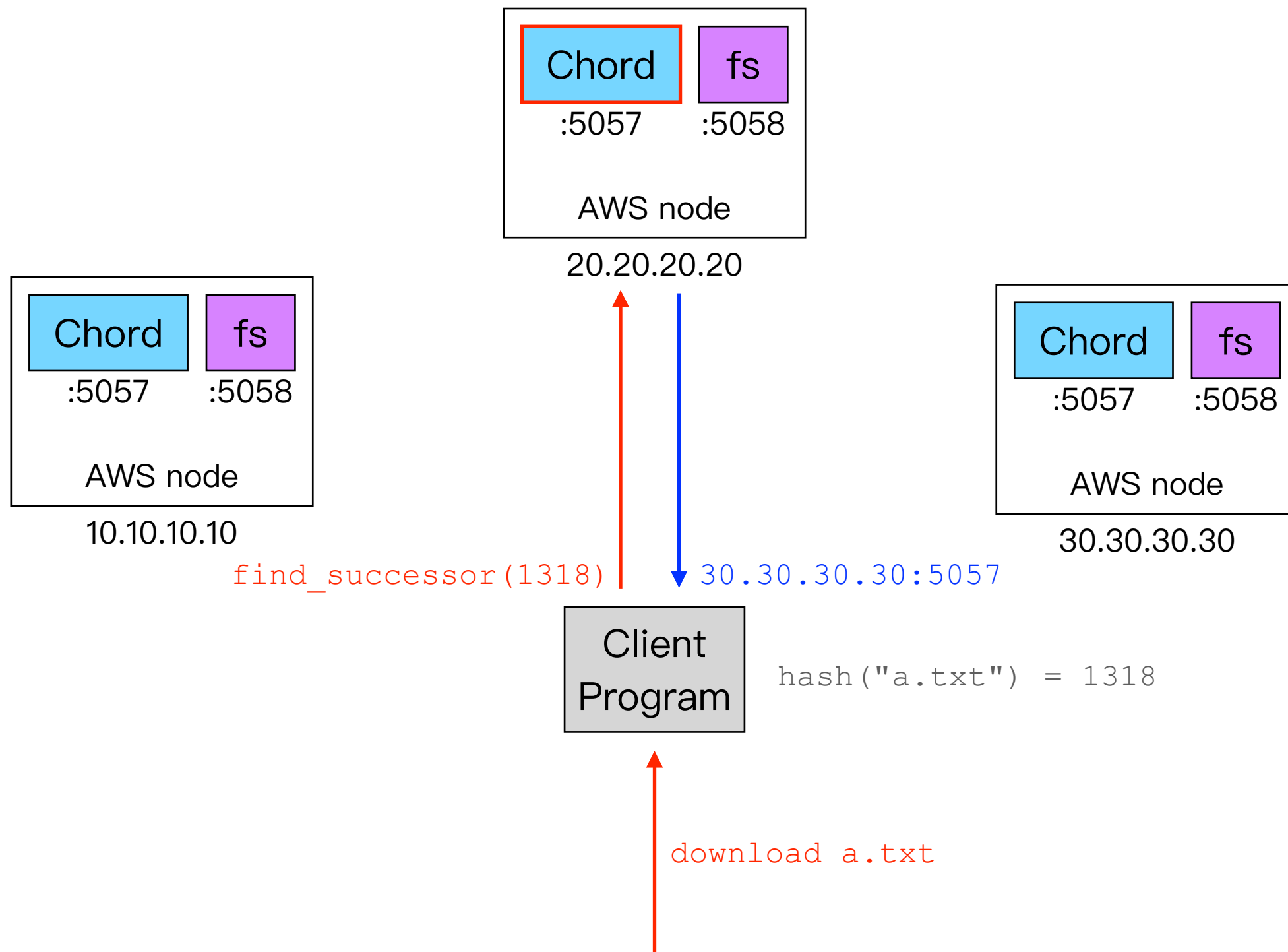
# Part 2: Automatic scaling on AWS Cloud



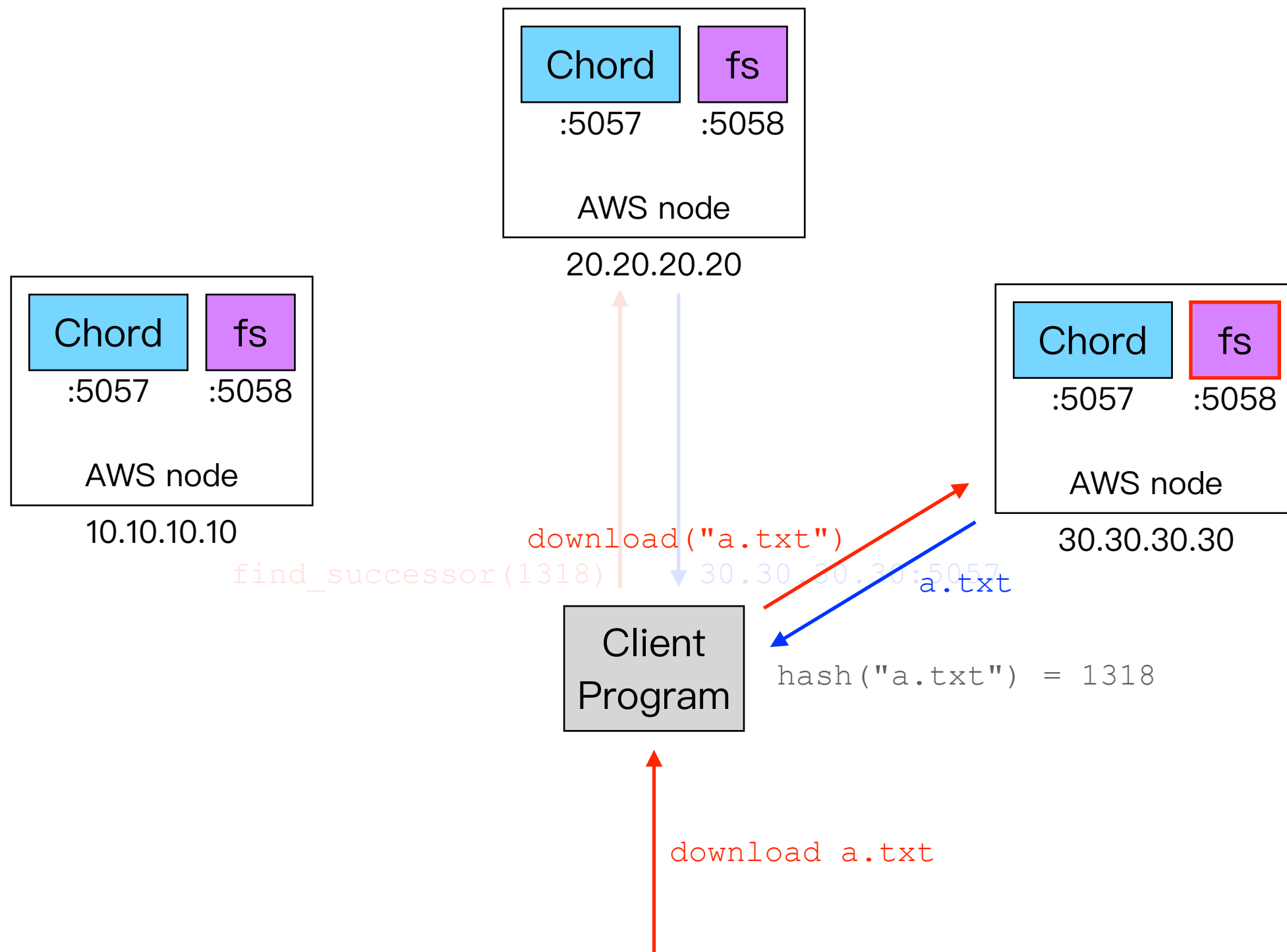
# Part 2: Automatic scaling on AWS Cloud



# Part 2: Automatic scaling on AWS Cloud



# Part 2: Automatic scaling on AWS Cloud

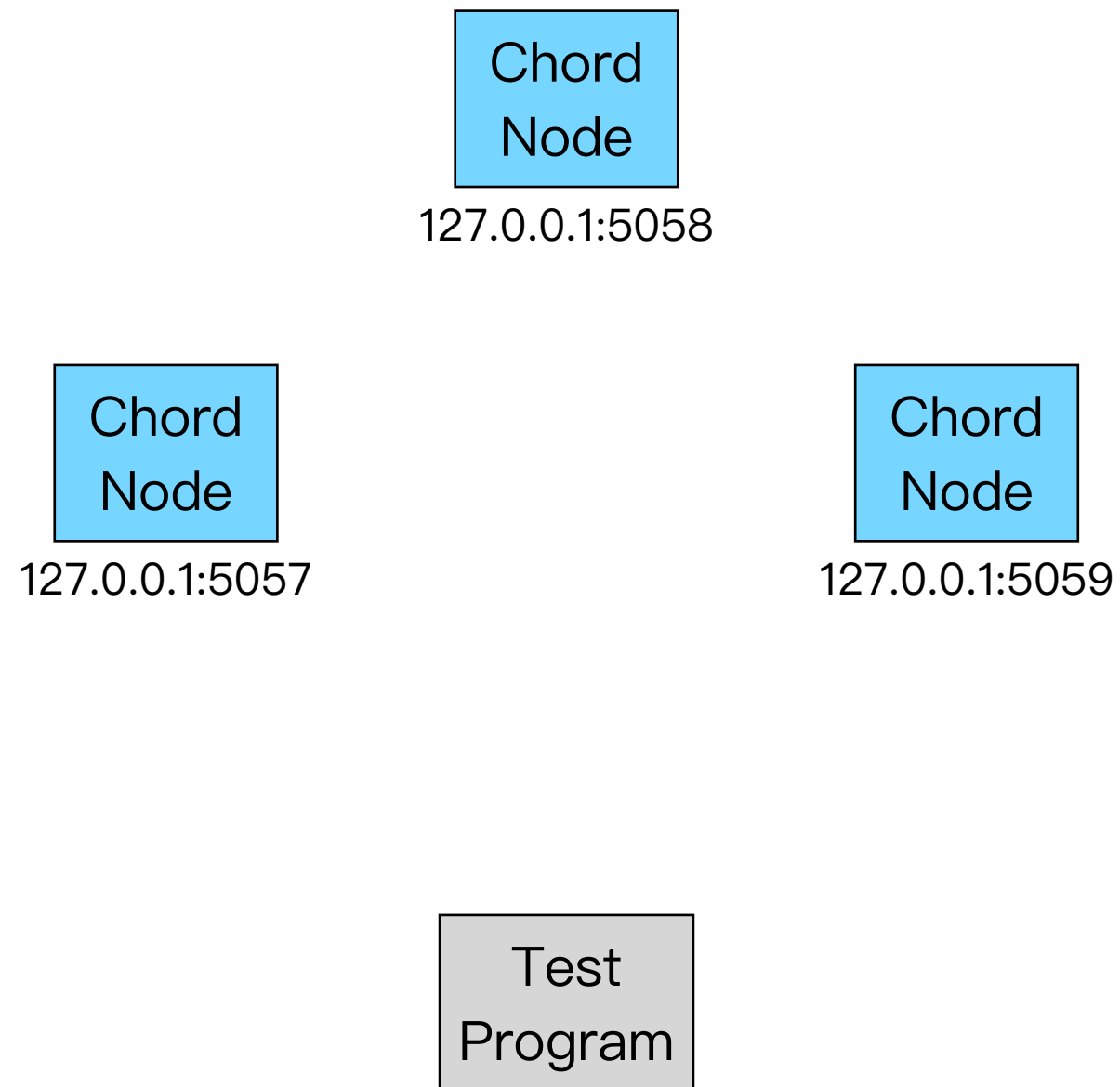


# Goal

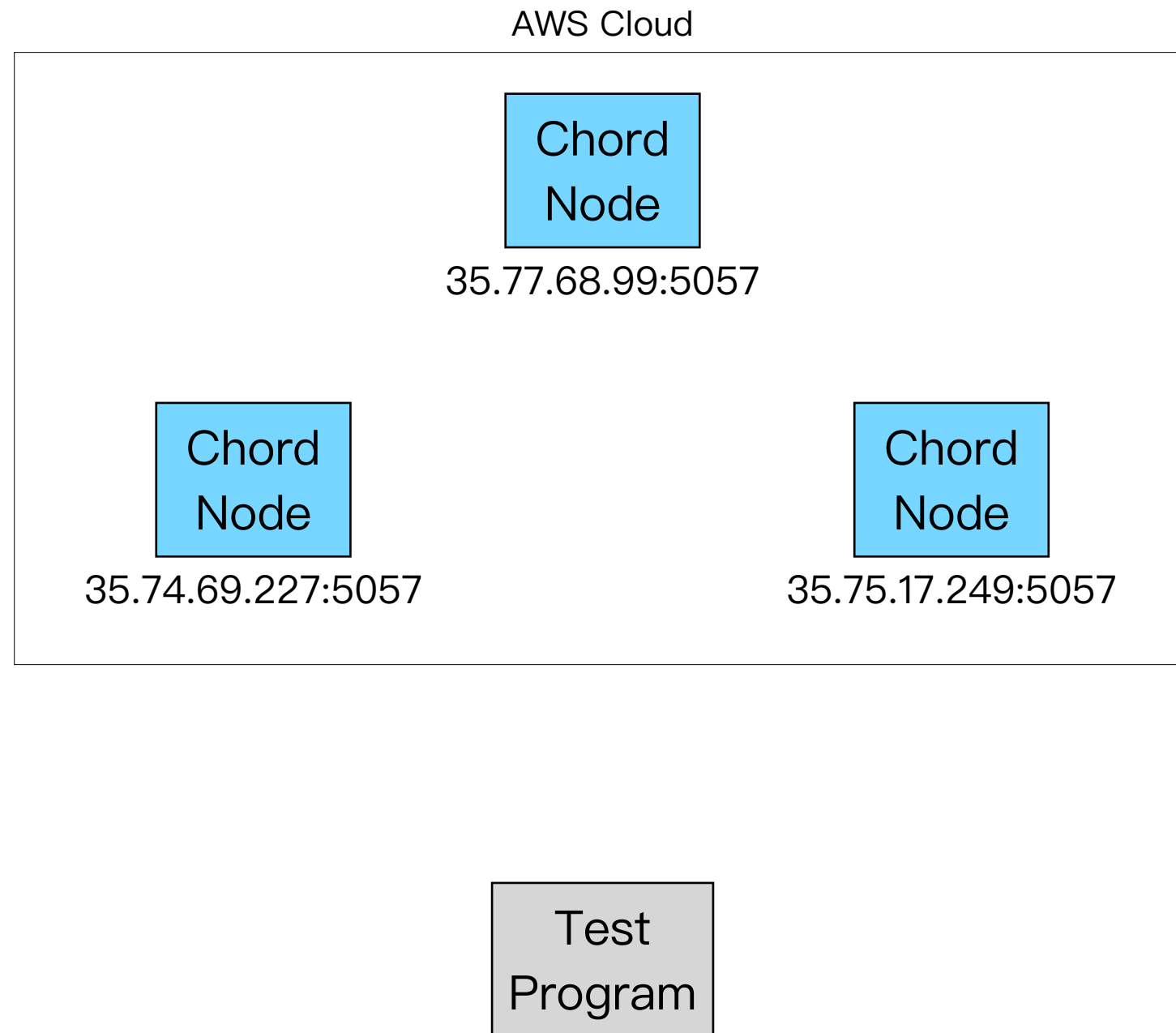
- Build a distributed file system that can automatically scale on the AWS cloud



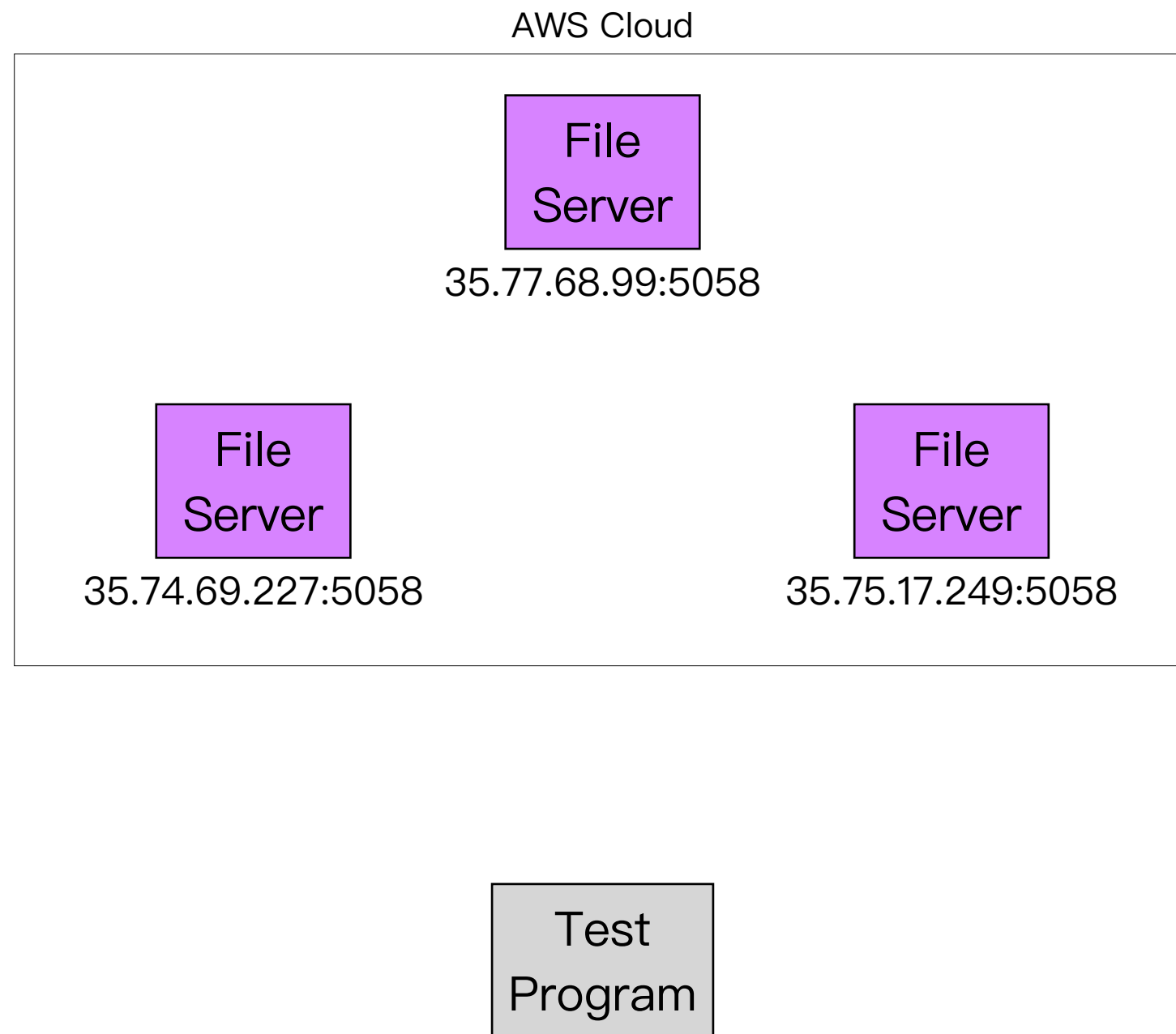
# Chord System



# Chord System



# Chord System



# AWS Services



**Ec2**



**AMI**



**CloudWatch**



**CloudWatch  
alarm**



**Launch  
Template**

# Chord System



Ec2



AMI



CloudWatch



CloudWatch  
alarm



Launch  
Template

Security Group

Compute Instance



# Chord System



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AMI



CloudWatch

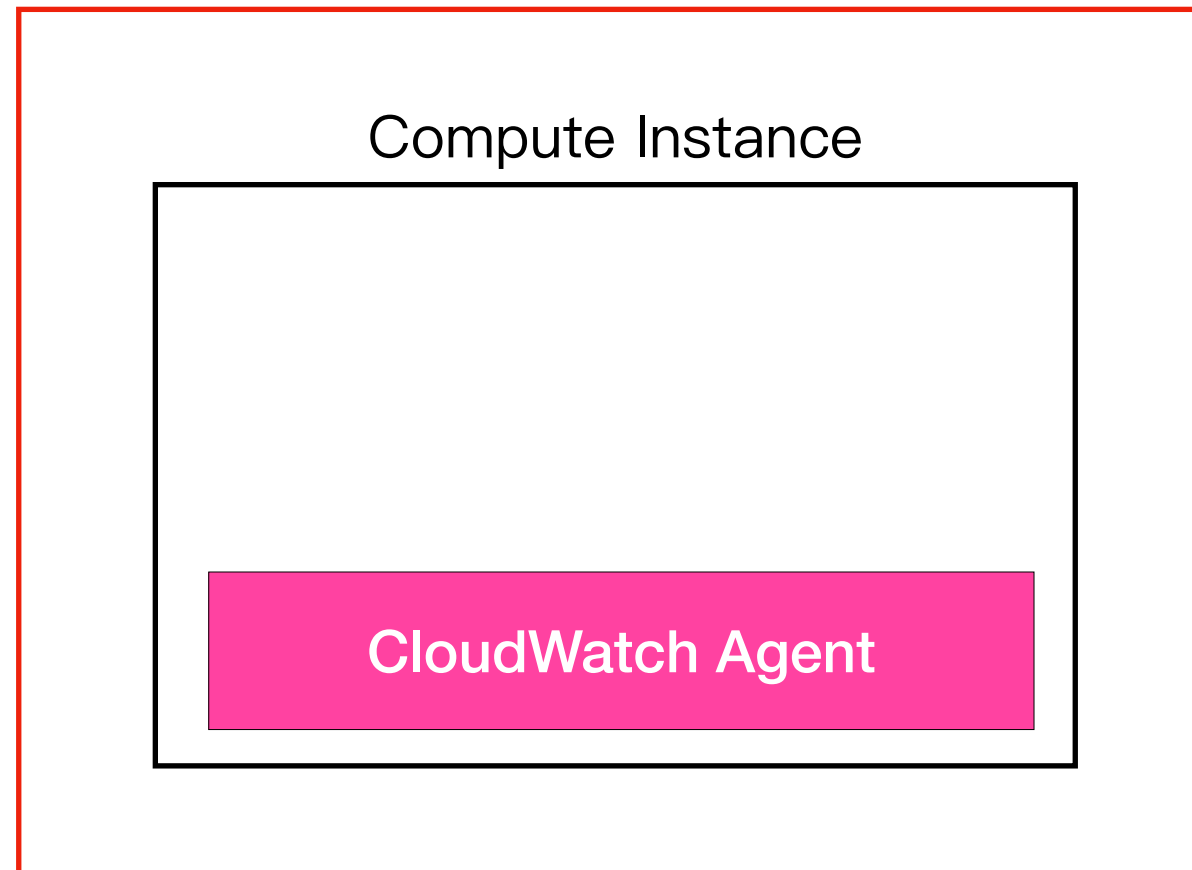


CloudWatch  
alarm



Launch  
Template

Security Group



# Chord System



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CloudWatch

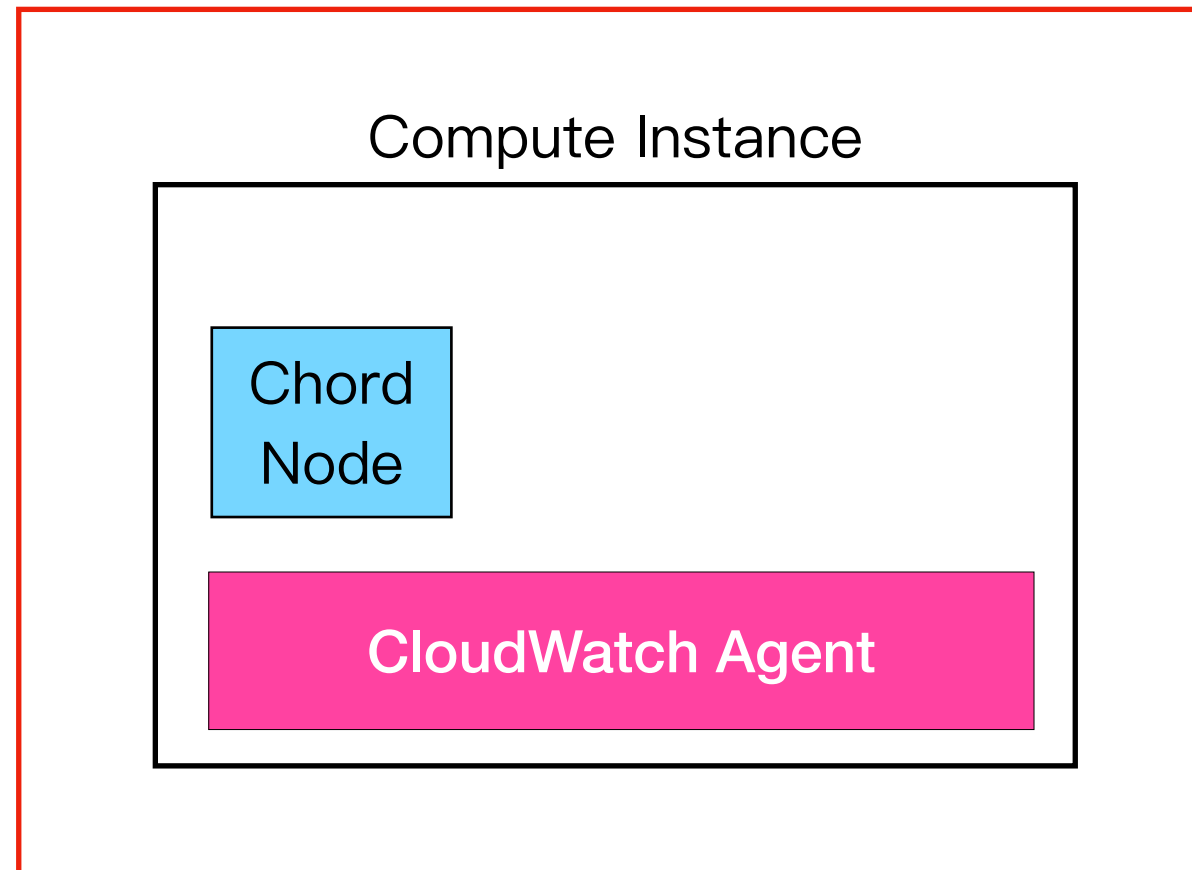


CloudWatch  
alarm



Launch  
Template

Security Group



# Chord System



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AMI



CloudWatch

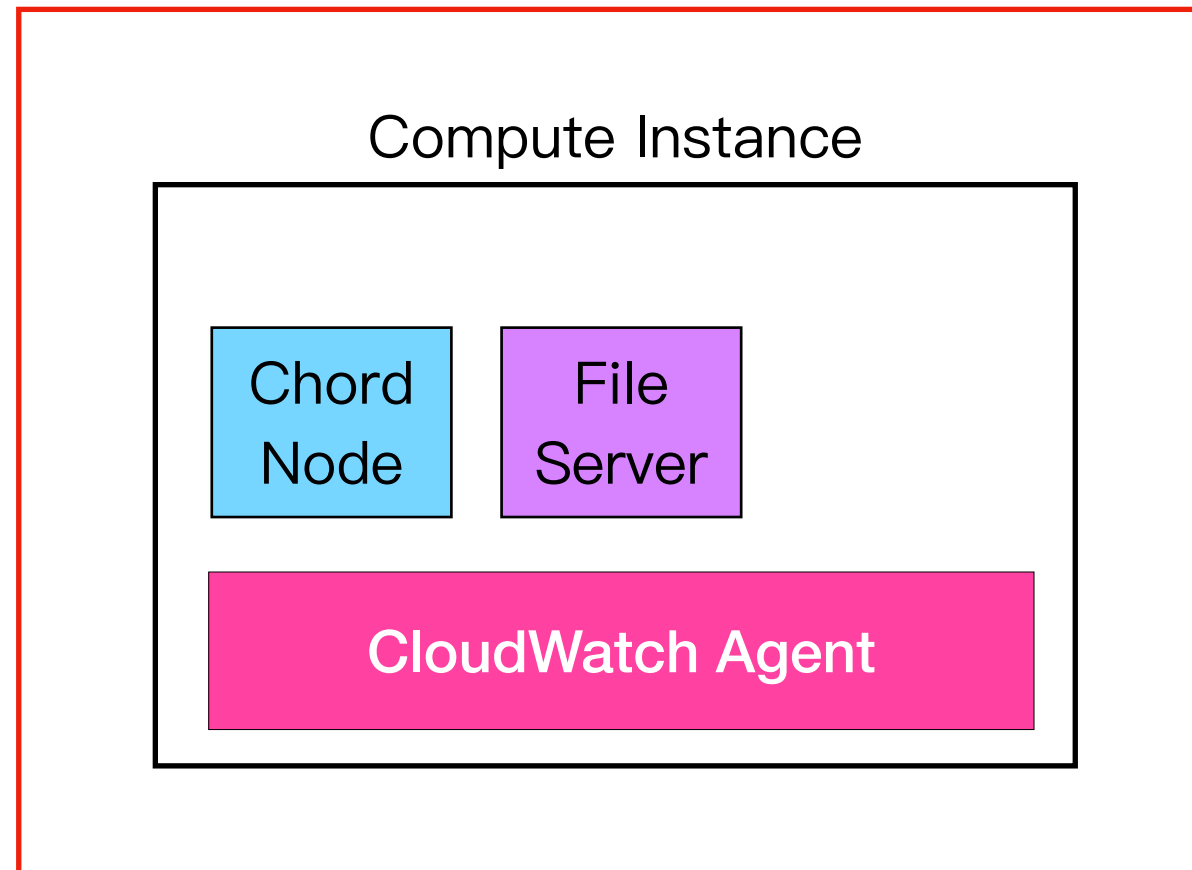


CloudWatch  
alarm



Launch  
Template

Security Group





# Chord System



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CloudWatch

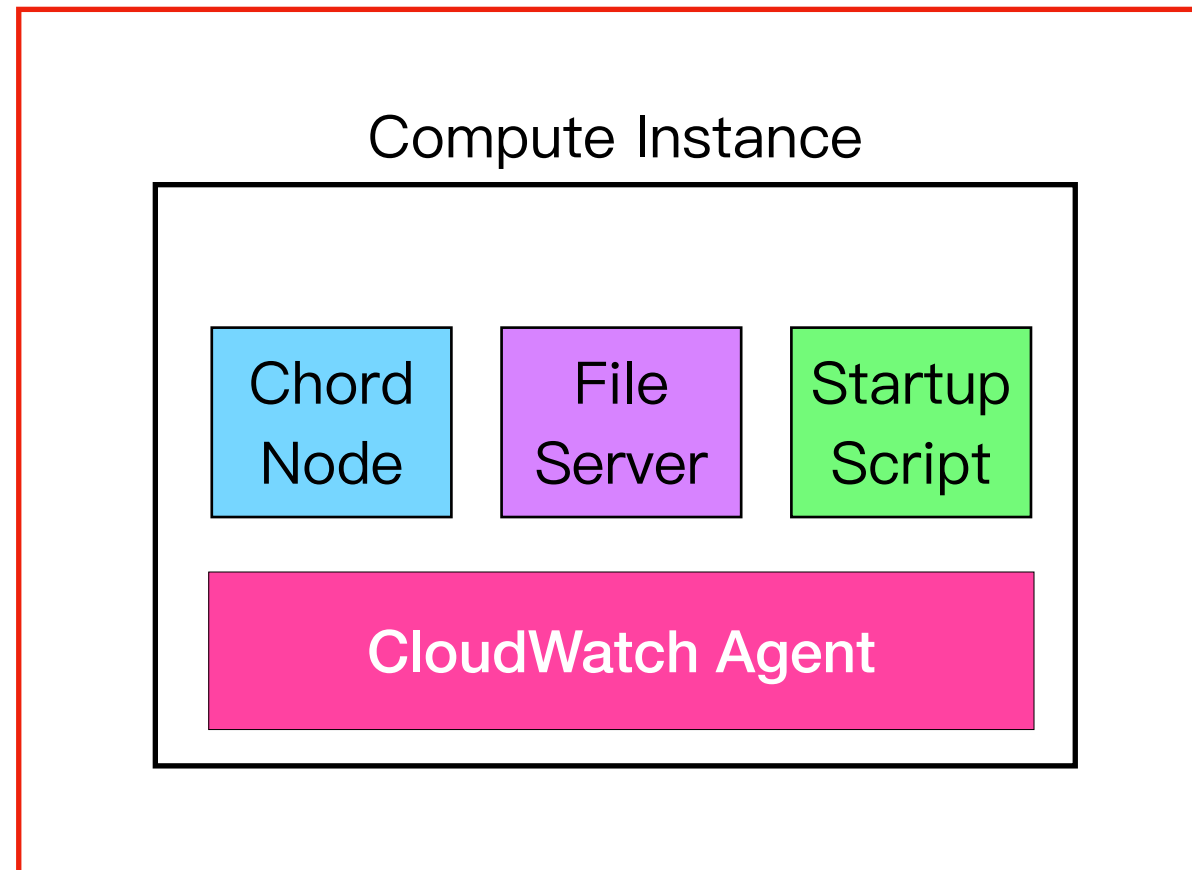


CloudWatch  
alarm



Launch  
Template

Security Group



# Chord System



Ec2



AMI



CloudWatch



CloudWatch  
alarm



Launch  
Template

Security Group

Compute Instance

Chord  
Node

File  
Server

Startup  
Script

CloudWatch Agent



AMI

# Chord System



Ec2



AMI



CloudWatch



CloudWatch  
alarm



Launch  
Template

Security Group

Compute Instance

Chord  
Node

File  
Server

Startup  
Script

CloudWatch Agent



CloudWatch

# Chord System



Ec2



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CloudWatch



CloudWatch  
alarm



Launch  
Template

Security Group

Compute Instance

Chord  
Node

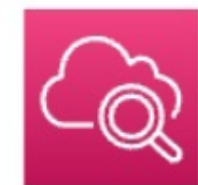
File  
Server

Startup  
Script

CloudWatch Agent



CloudWatch  
alarm



CloudWatch

# Chord System



Ec2



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CloudWatch



CloudWatch  
alarm



Launch  
Template



# Chord System



Ec2



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CloudWatch



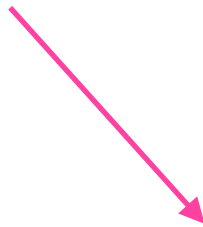
CloudWatch  
alarm



Launch  
Template



CloudWatch  
alarm



# Chord System



Ec2



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CloudWatch



CloudWatch  
alarm



Launch  
Template



Auto Scaling Group



# Chord System



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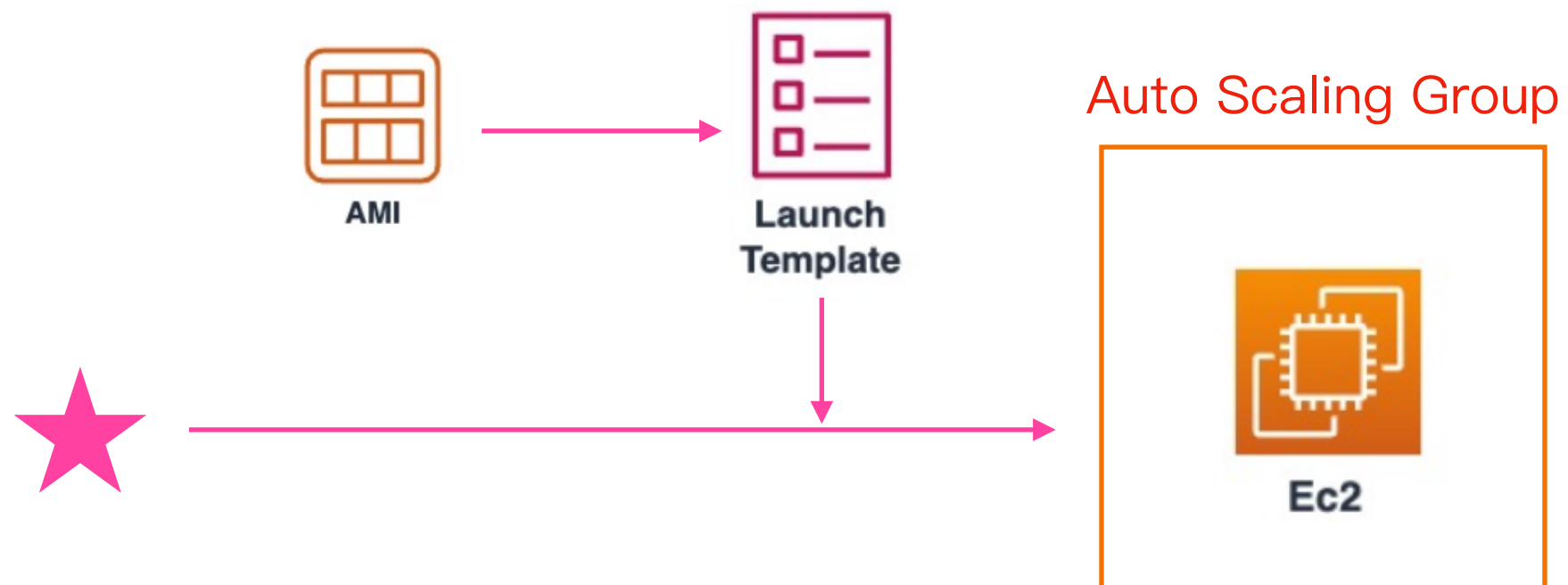
CloudWatch



CloudWatch  
alarm



Launch  
Template





# Chord System



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AMI



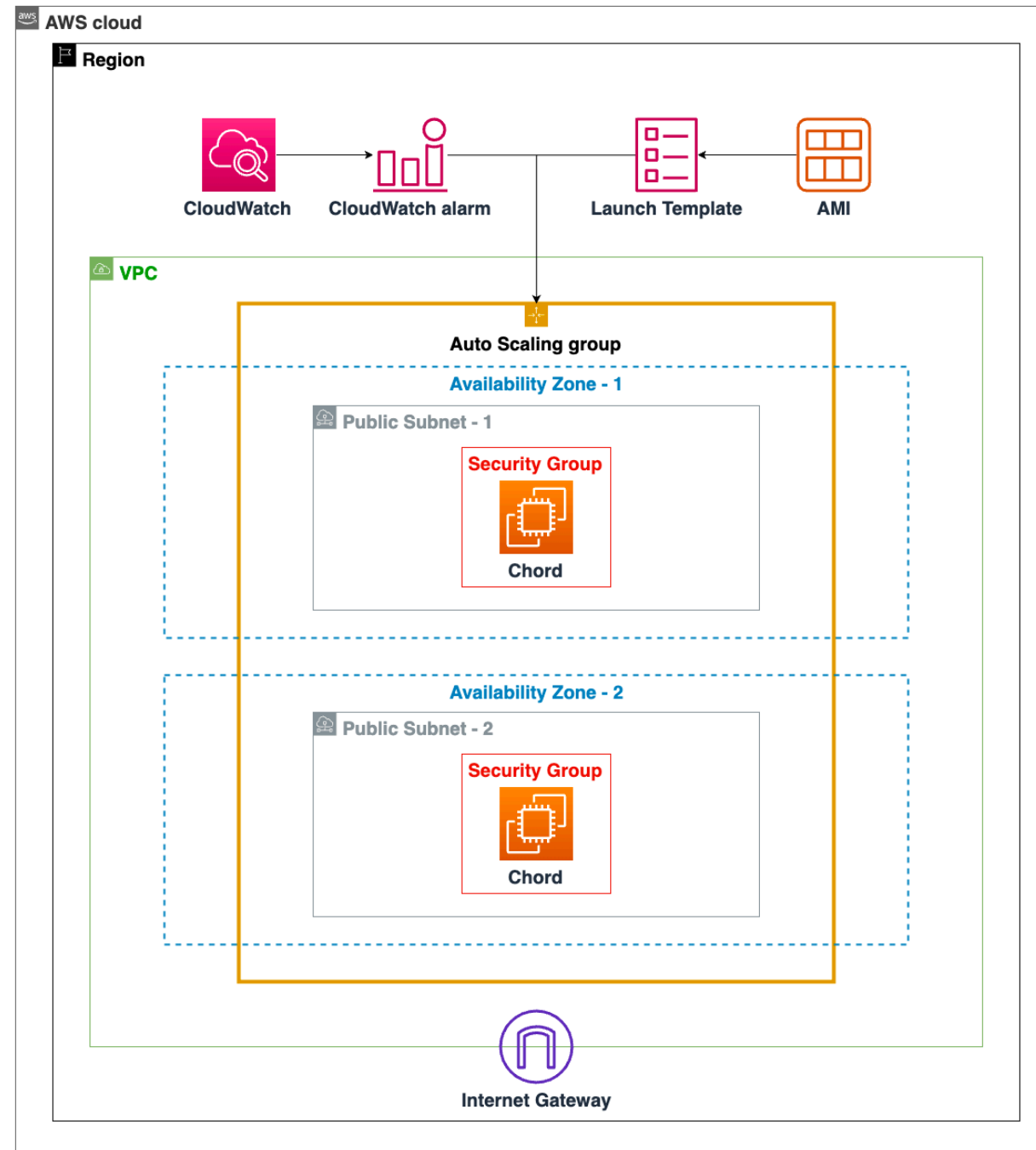
CloudWatch



CloudWatch  
alarm



Launch  
Template



# Chord System



Ec2



AMI



CloudWatch

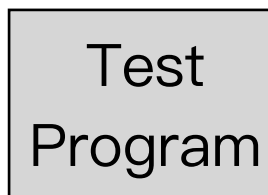
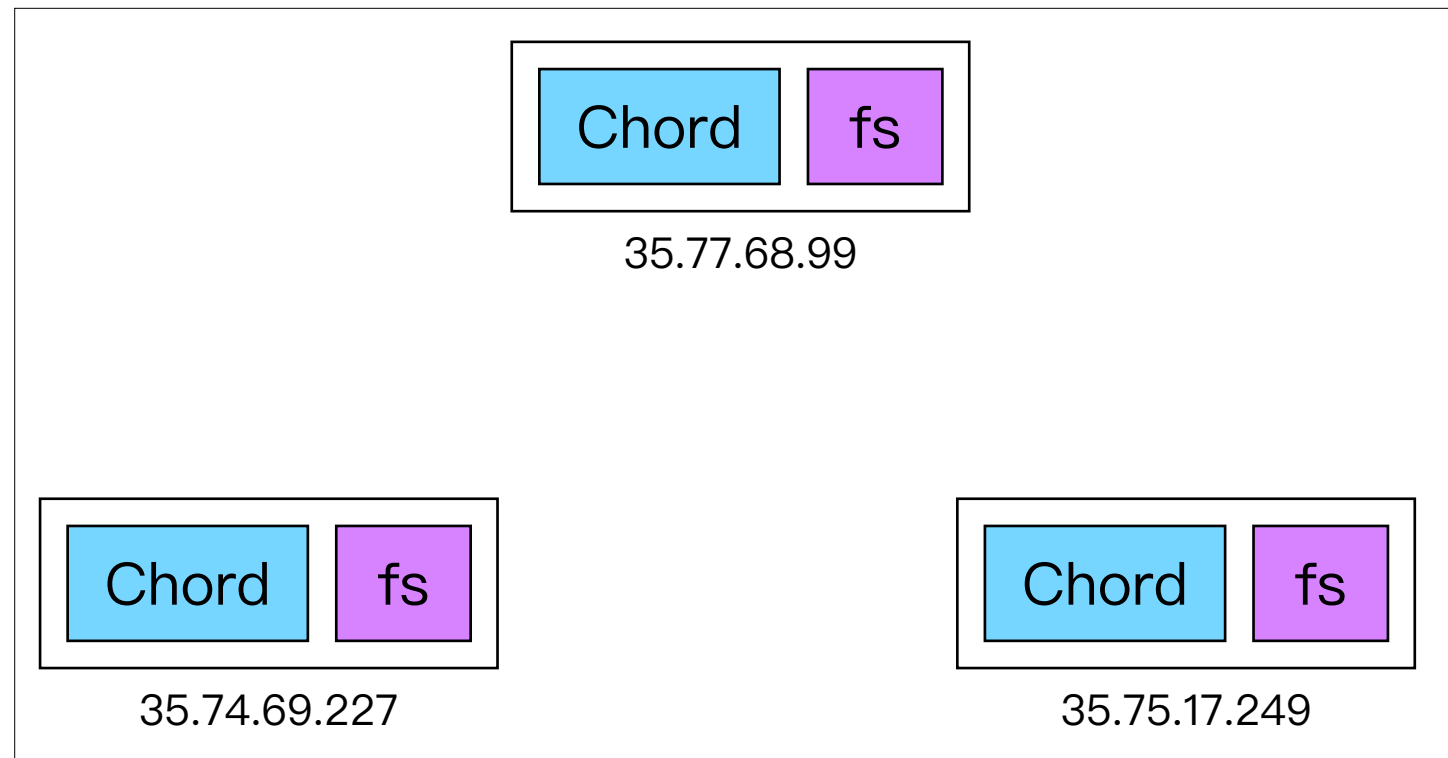


CloudWatch  
alarm



Launch  
Template

AWS Cloud



# Chord System

Test  
Program

```
|  
+-- chord  
|  
+-- download.py  
|  
+-- upload.py  
|  
+-- test_download.py  
|  
+-- test_upload.py
```

# Grading Policy

- Auto–Scaling: 50%
- Integrating Chord Nodes: 50%

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