Ad-Flow SCTE-35 Automated Insertion

Deployment QuickStart Guide

This guide will help you quickly deploy Ad-Flow to test video ad-break detection using the AWS CloudFormation service. This will deploy the container with default options (input is RTP, at port 5004).

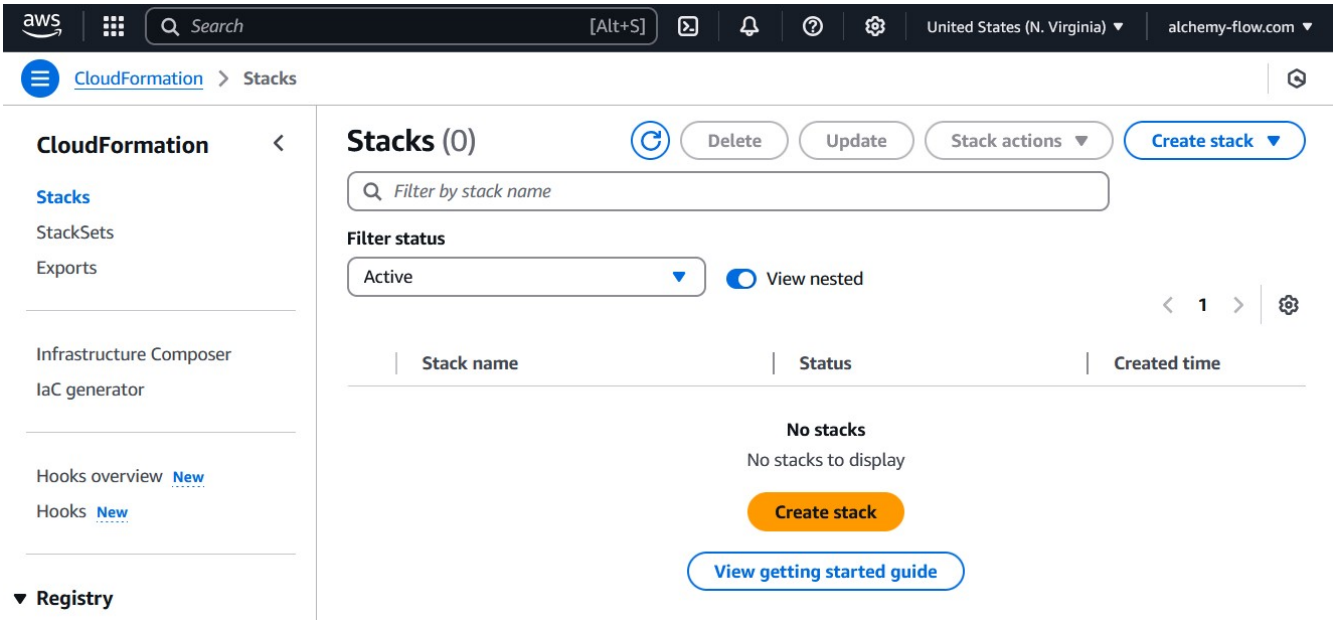
Prerequisites

- An AWS account with permissions to:
    - Create CloudFormation stacks
    - Create EC2 instances
    - Create ECS clusters
    - Create IAM roles
- A VPC with a public subnet
- An EC2 key pair (for SSH access if needed)
- Download the two CloudFormation templates for Ad-Flow:
  https://alcflow-config.s3.us-east-2.amazonaws.com/1.0/CloudFormation/ecsClusterTemplate-adFlow.json
  https://alcflow-config.s3.us-east-2.amazonaws.com/1.0/CloudFormation/ecsTaskTemplate-adFlow.json

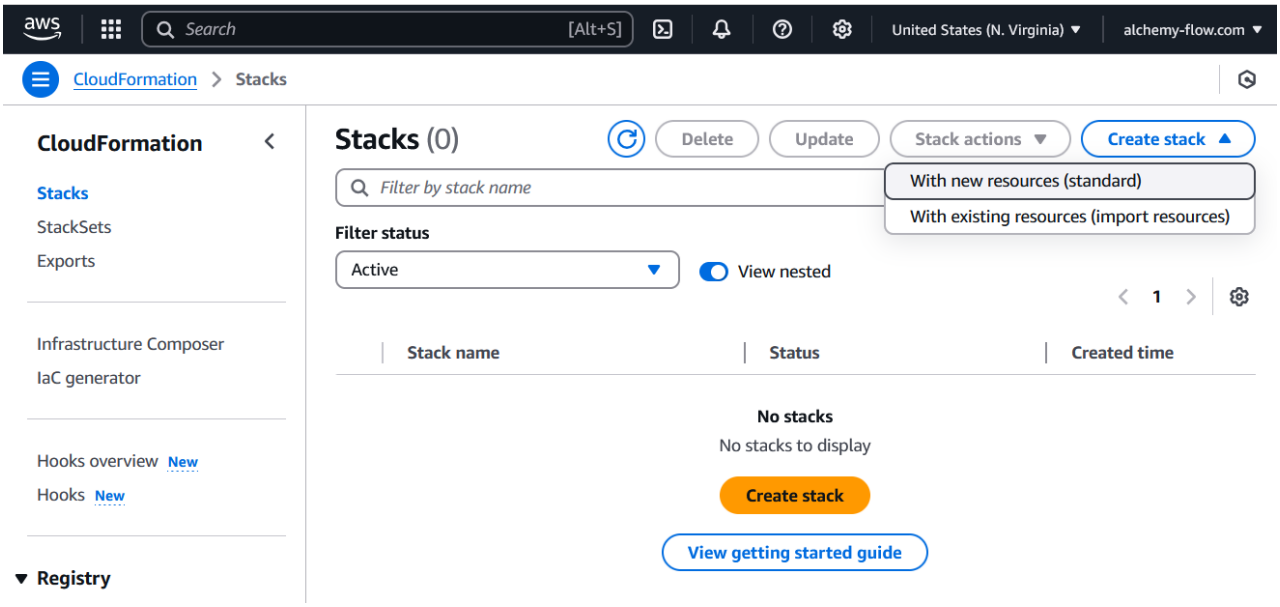
Deployment Steps

Step 1: Deploy the Cluster Template

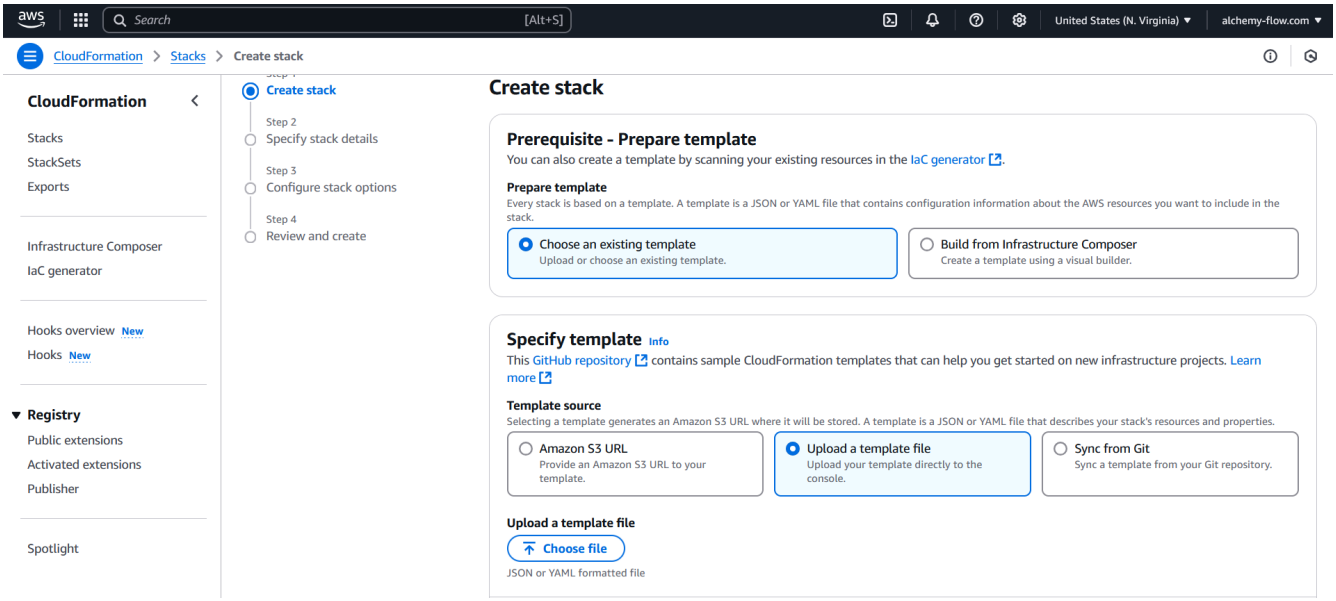
1. Log into the AWS Console and navigate to CloudFormation



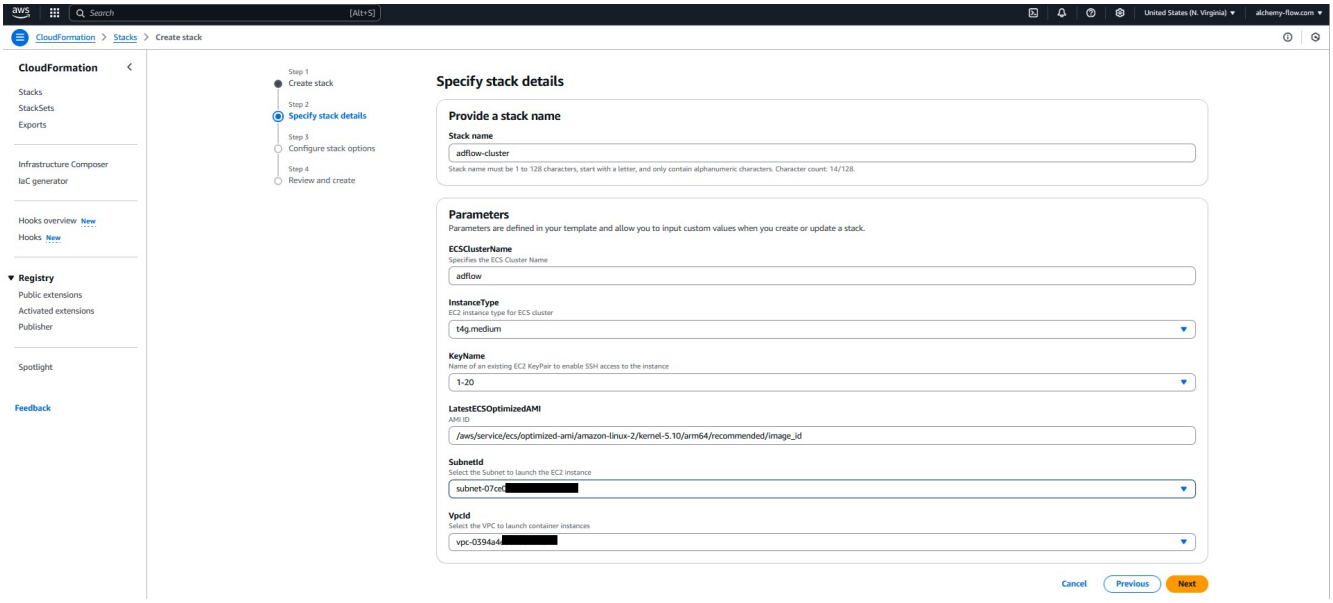
2. Click "Create stack" and select "With new resources (standard)"



3. On the "Create stack" page:
    - Select "Upload a template file"
    - Click "Choose file" and select the `ecsClusterTemplate-adFlow.json` file
    - Click "Next"



4. Enter stack details:
    - Stack name: `adflow-cluster` (or your preferred name)
    - Parameters:
        - KeyName: Select your EC2 key pair
        - ECSClusterName: Leave as default (`adflow`)
        - InstanceType: Leave as default (`t4g.medium`)
        - VpcId: Select your VPC
        - SubnetId: Select a public subnet
    - Click "Next"



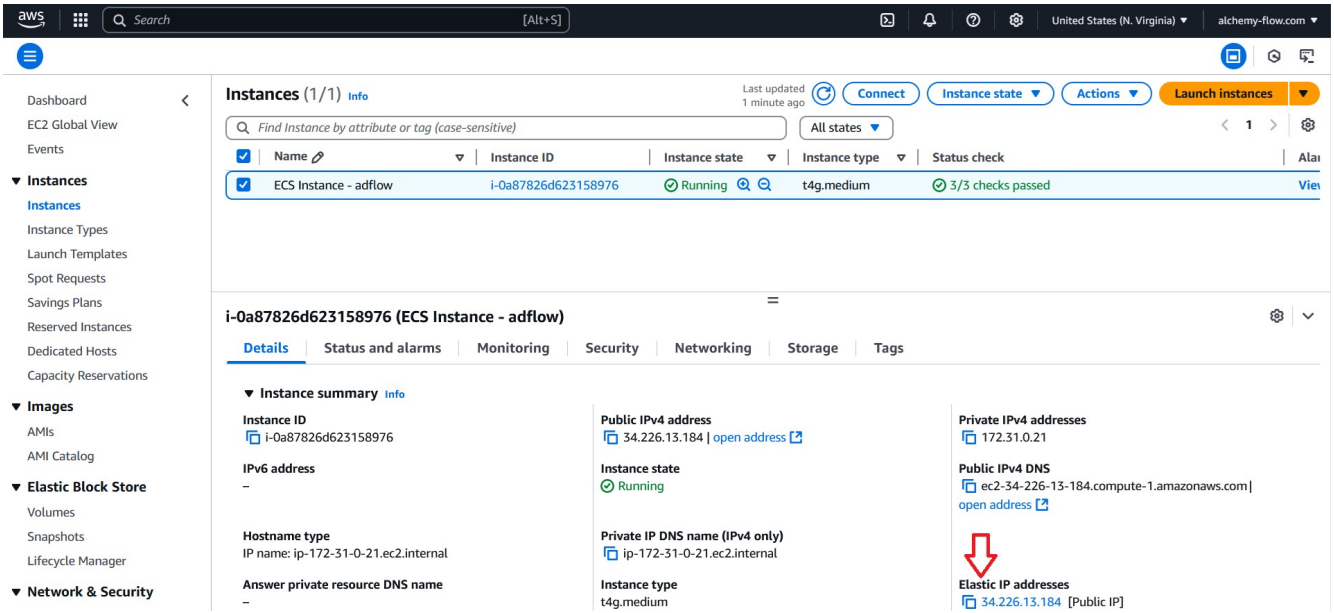
5. On the "Configure stack options" page:
    - Leave all settings at their defaults
    - Click "Next"
6. Review the configuration:
    - Check the acknowledgment for IAM resource creation
    - Click "Create stack"
7. Wait for the stack creation to complete (approximately 5 minutes)
    - The status will change to "CREATE_COMPLETE" when finished

Step 2: Deploy the Task Template

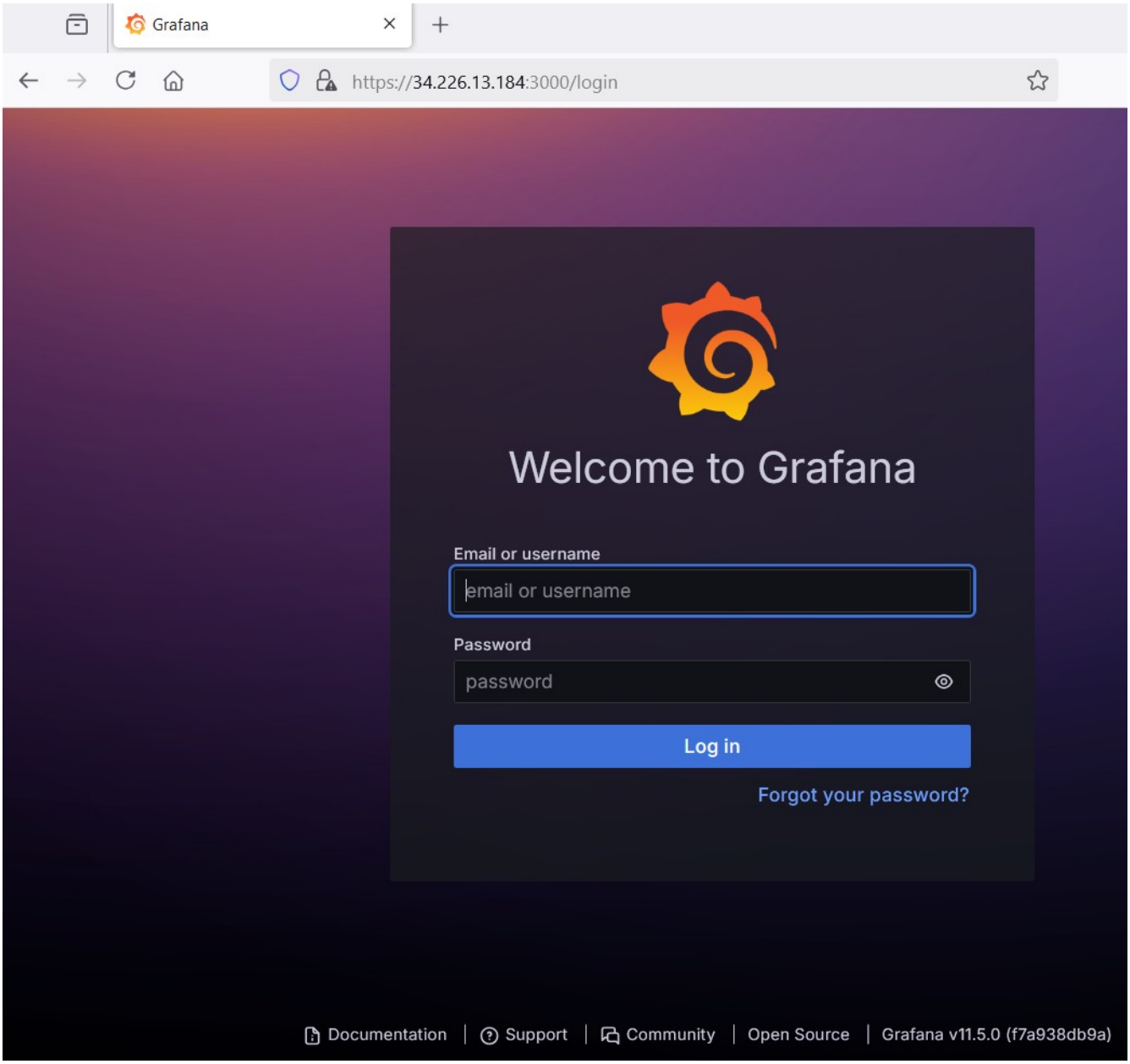
1. In CloudFormation, click "Create stack" again
2. On the "Create stack" page:
    - Select "Upload a template file"
    - Click "Choose file" and select the `ecsTaskTemplate-adFlow.json` file
    - Click "Next"
3. Enter stack details:
    - Stack name: `adflow-task` (or your preferred name)
    - Parameters:
        - ECSClusterName: Enter the same name used in Step 1 (`adflow`)
    - Click "Next"
4. On the "Configure stack options" page:
    - Leave all settings at their defaults
    - Click "Next"
5. Review and create:
    - Check the acknowledgment for IAM resource creation
    - Click "Create stack"
6. Wait for the stack creation to complete (approximately 5 minutes)

Step 3: Access Grafana Dashboard

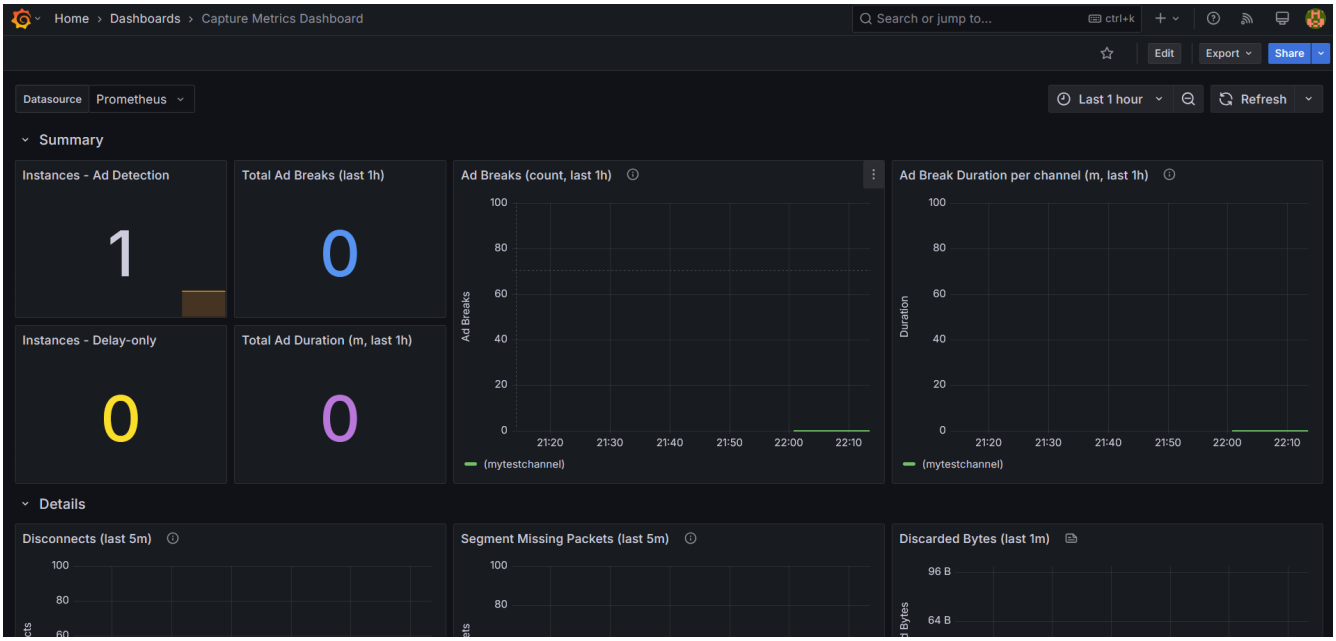
1. Find your instance's public address (Elastic IP):
    - Go to EC2 service in AWS Console
    - Select the instance named "ECS Instance - adflow"
    - Copy the "Elastic IP addresses [public IP]" value


aws
Search
[Alt+S]
United States (N. Virginia)
alchemy-flow.com
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Instances (1/1) Info
Last updated 1 minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
1
Name
Instance ID
Instance state
Instance type
Status check
ECS Instance - adflow
i-0a87826d623158976
Running
t4g.medium
3/3 checks passed
i-0a87826d623158976 (ECS Instance - adflow)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-0a87826d623158976
IPv6 address
–
Hostname type
IP name: ip-172-31-0-21.ec2.internal
Answer private resource DNS name
–
Public IPv4 address
34.226.13.184 | open address
Instance state
Running
Private IP DNS name (IPv4 only)
ip-172-31-0-21.ec2.internal
Instance type
t4g.medium
Private IPv4 addresses
172.31.0.21
Public IPv4 DNS
ec2-34-226-13-184.compute-1.amazonaws.com | open address
Elastic IP addresses
34.226.13.184 [Public IP]

2. Access Grafana:
    - Open your browser
    - Navigate to `https://[Public IPv4 DNS]:3000`
    - Accept the security warning about the self-signed certificate
    - Log in with:
        - Username: `admin`
        - Password: `admin`
    - Change the password when prompted



3. View the Ad-Flow dashboard:
    - Click on "Dashboards" in the left menu
    - Select "Capture Metrics Dashboard"



Testing Your Deployment

Option 1: Using the Test Stream AMI

1. Deploy the "RTP/SRT Streamer for Ad-Flow" AMI:
    - Search for "RTP/SRT Streamer for Ad-Flow" in AWS Marketplace
    - Follow the AMI's documentation for setup
    - Configure it to stream to your Ad-Flow instance's IP address on port 5004

Option 2: Using Your Own RTP Source

Configure your RTP source to stream to:

- Destination: Your Ad-Flow instance's Elastic IP
- Port: 5004
- Protocol: UDP/RTP

Verifying Operation

1. In the Grafana dashboard, check:
    - Input transfer rate (should show data flowing)
    - Ad break detection count
    - Stream health metrics
2. Common issues:
    - No data in dashboard: Check security group allows UDP port 5004
    - Can't access Grafana: Verify port 3000 is allowed in security group
    - Certificate warning: Expected with self-signed certificate

Next Steps

Once you've verified ad break detection is working:

1. Review the full documentation for production deployment options
2. Configure output streaming to your video encoder

Support

For issues or questions:

- Check CloudWatch logs for errors
- Review the full documentation
- Contact AWS Marketplace support, or Alchemy-Flow support