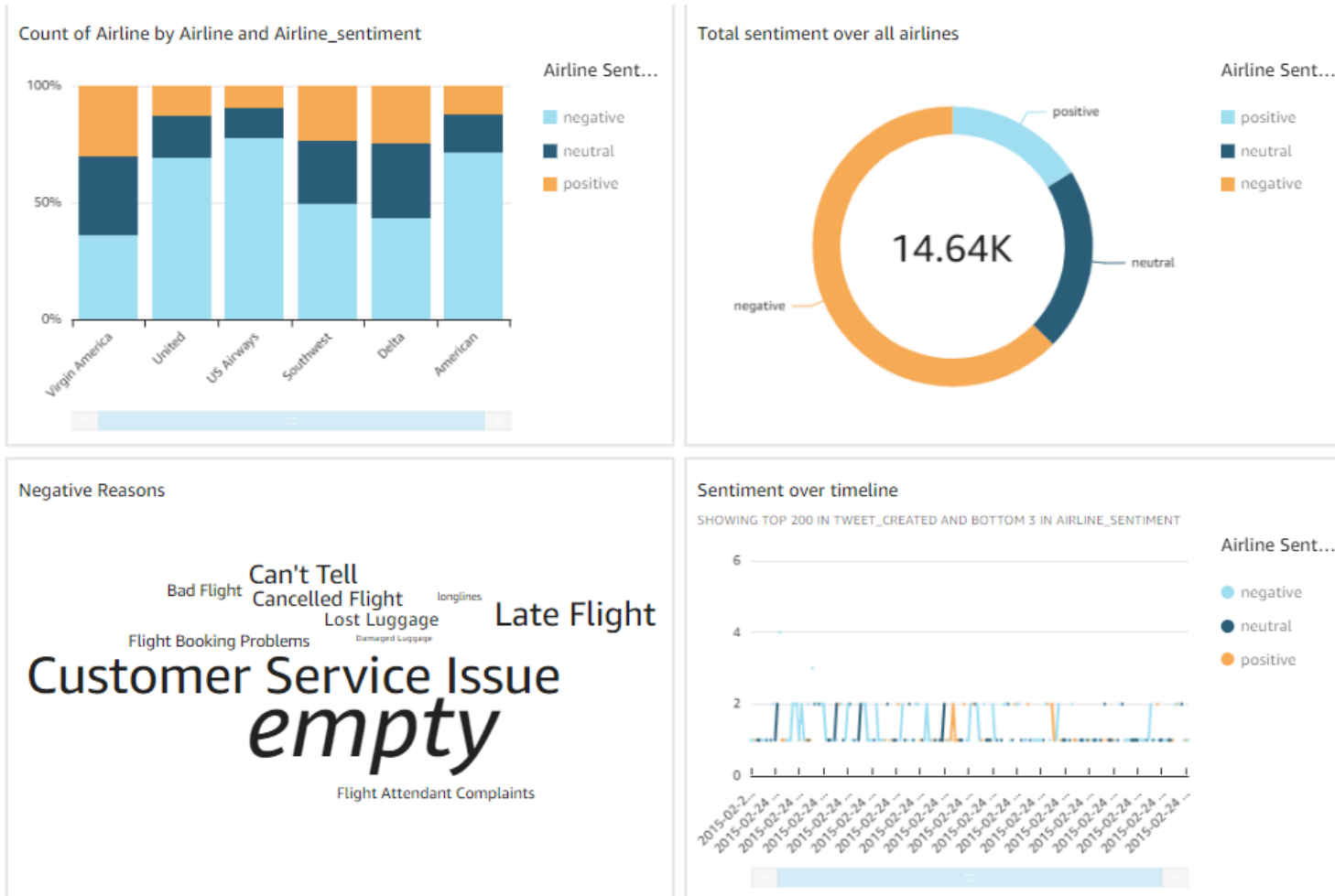


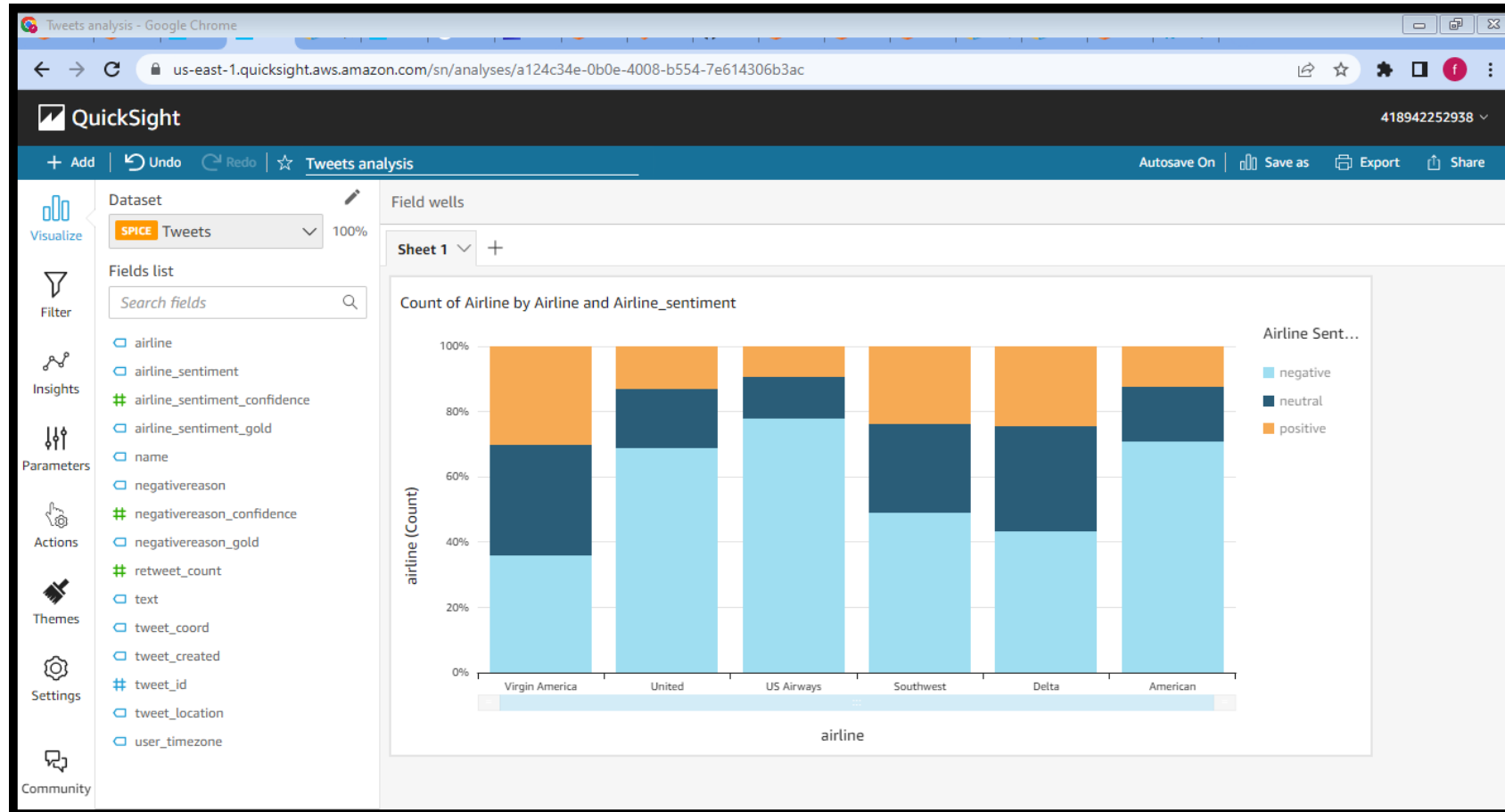
AI-Driven Social Media Dashboard

Mohamed Farid

Sentiment Analysis Dashboard



Sentiment Analysis Dashboard



Sentiment analysis processed data

The screenshot displays the Amazon QuickSight Data Prep interface in a Google Chrome browser. The URL bar shows the path: `us-east-1.quicksight.aws.amazon.com/sn/data-sets/fcc09592-e385-4f18-89e8-504b4096ca55/prepare`. The interface is titled "QuickSight" and shows the dataset name "Tweets".

Fields Panel:

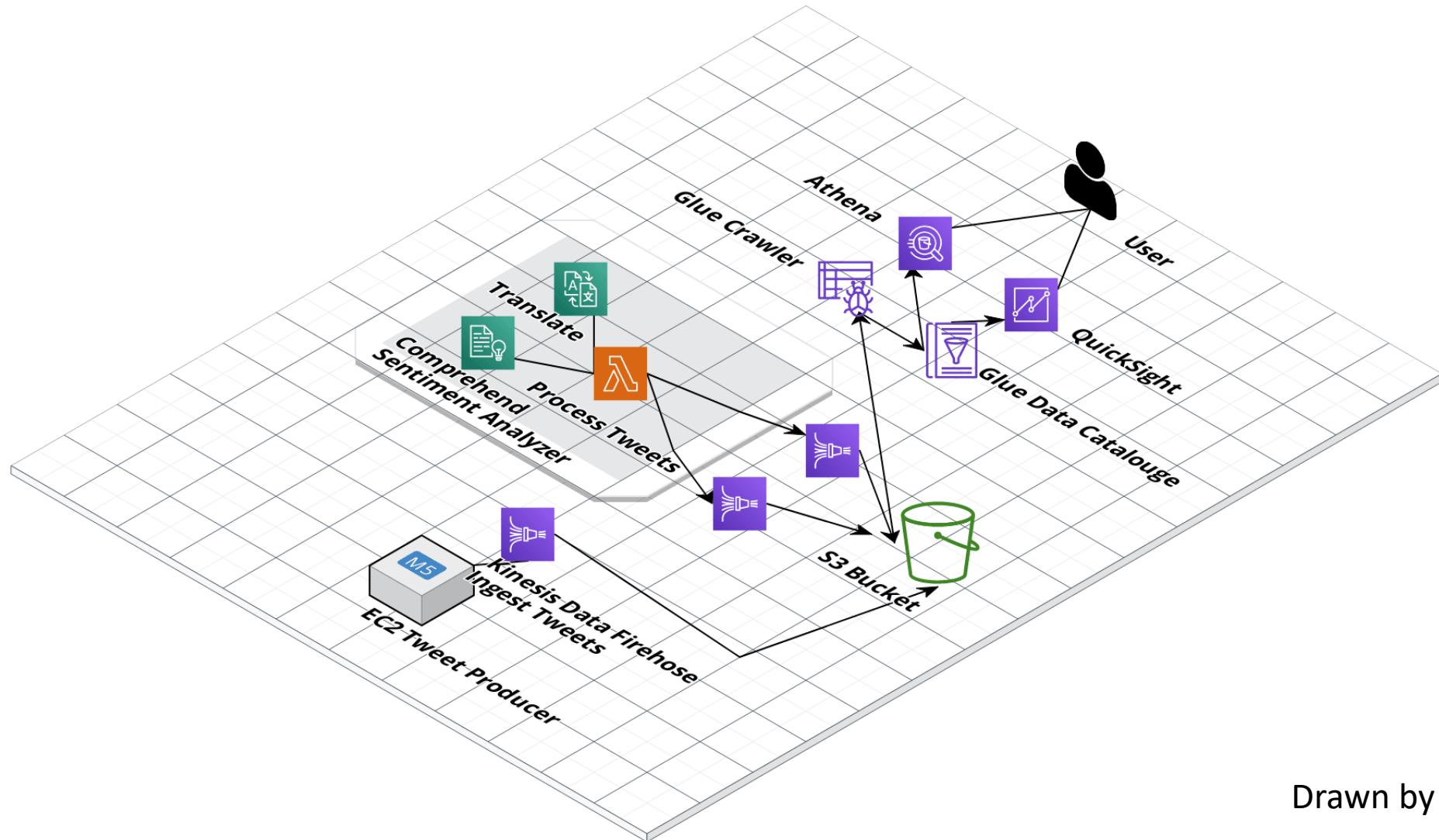
- Buttons: "Add calculated field", "Augment with SageMaker".
- Search field: "Search fields".
- Focus: "All fields".
- Select: "All" (selected), "None".
- Fields list:
 - # tweet_id
 - airline_sentiment
 - # airline_sentiment_confidence
 - negativereason
 - # negativereason_confidence
- Excluded fields: "No fields excluded".
- Filters: "No filters applied".
- Query mode: "SPIKE".
- Progress bar: "1009.5MB of remaining".

Data Panel:

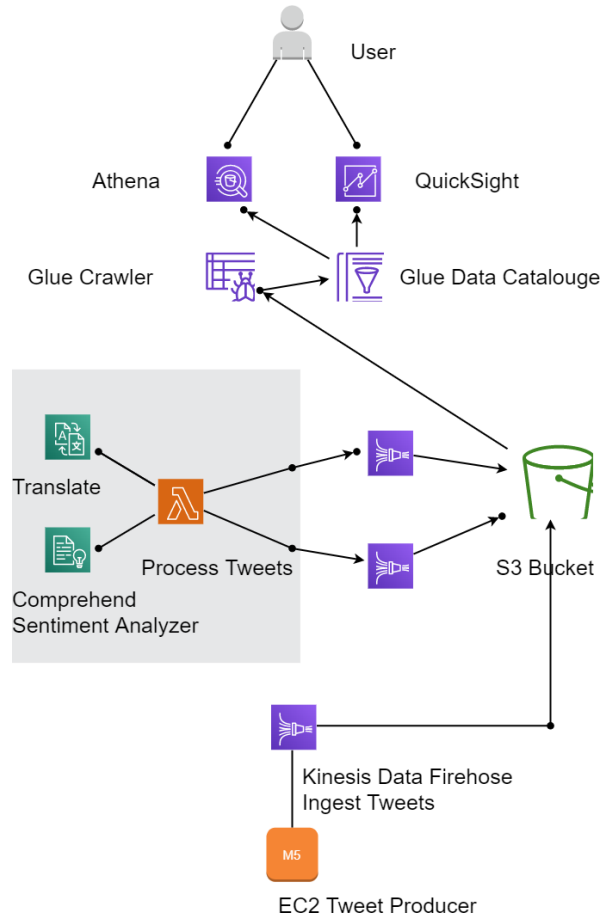
- Buttons: "Auto-preview", "Add data".
- Notification: "Saved and published successfully".
- Dataset: "Tweets.csv".
- Table view showing data rows:

tweet_id	airline_sentiment	airline_sen...	negativere...	negativereason_confid...	airline	airline_sen...	name	ne
# Integer	String	# Decimal	String	# Decimal	String	String	String	
570295459...	positive	1.0			Virgin America		YupitsTate	
570294189...	neutral	0.6769		0.0	Virgin America		idk_but_you...	
570289724...	positive	1.0			Virgin America		HyperCamiLax	
570289584...	positive	1.0			Virgin America		HyperCamiLax	
570287408...	positive	0.6451			Virain America		mollanderson	

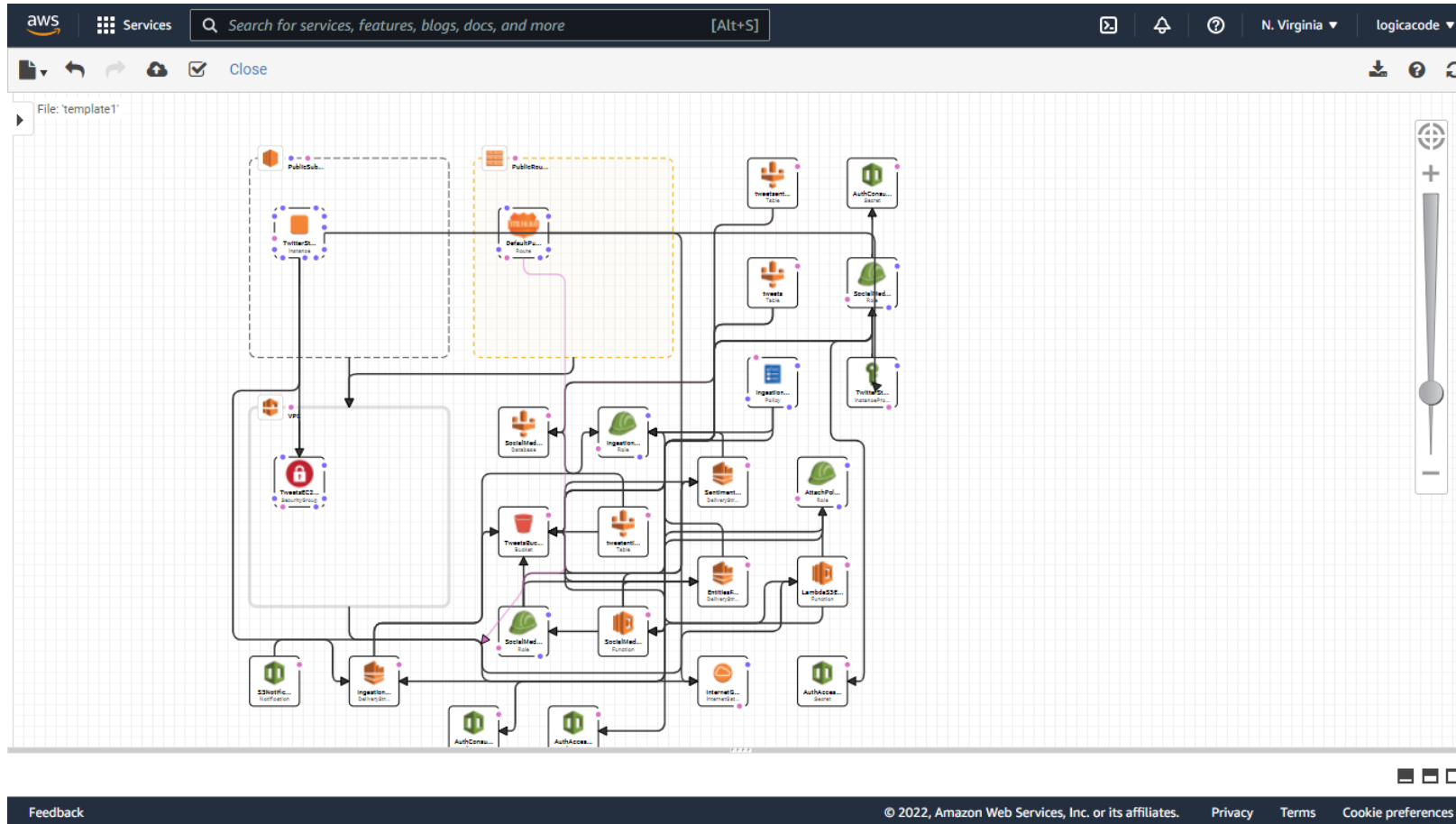
System architecture



System architecture



System architecture (detailed)



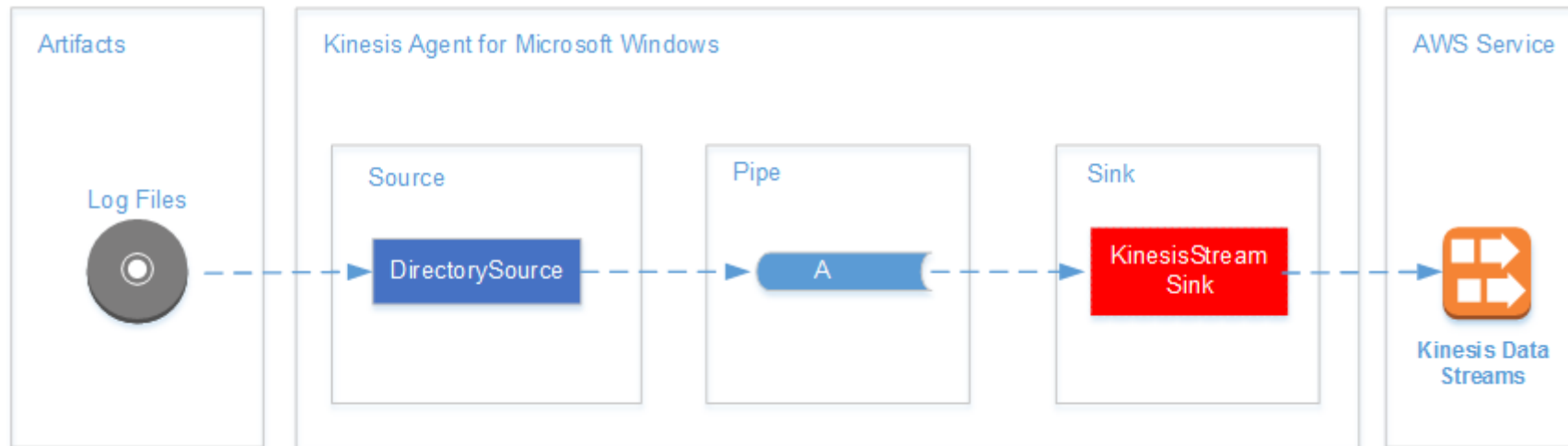


Sending data from the json file

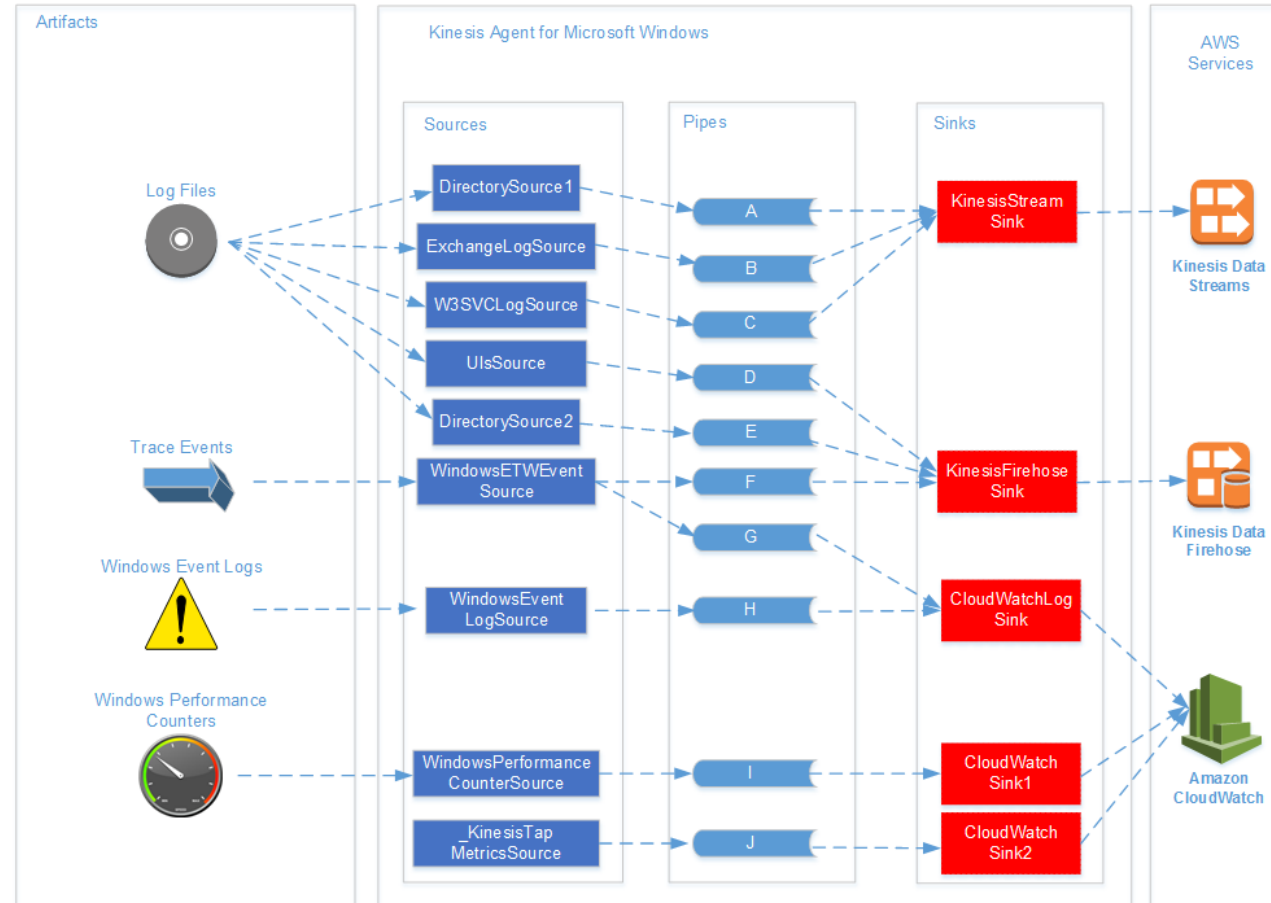
- Instead of writing another program to stream the content of the json file
- We decided to use AWS solution
- AWS kinesis agent for Windows
- Can run on local PC or AWS Cloud EC2 Windows
- Configure the agent to send the content to the AWS kinesis firehose
- Define in a json configuration file the source, sink and pipeline
- Run from PowerShell



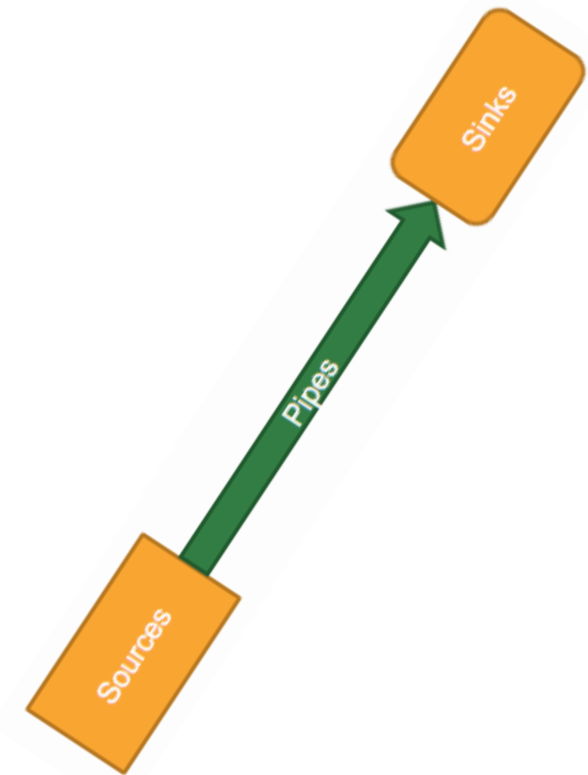
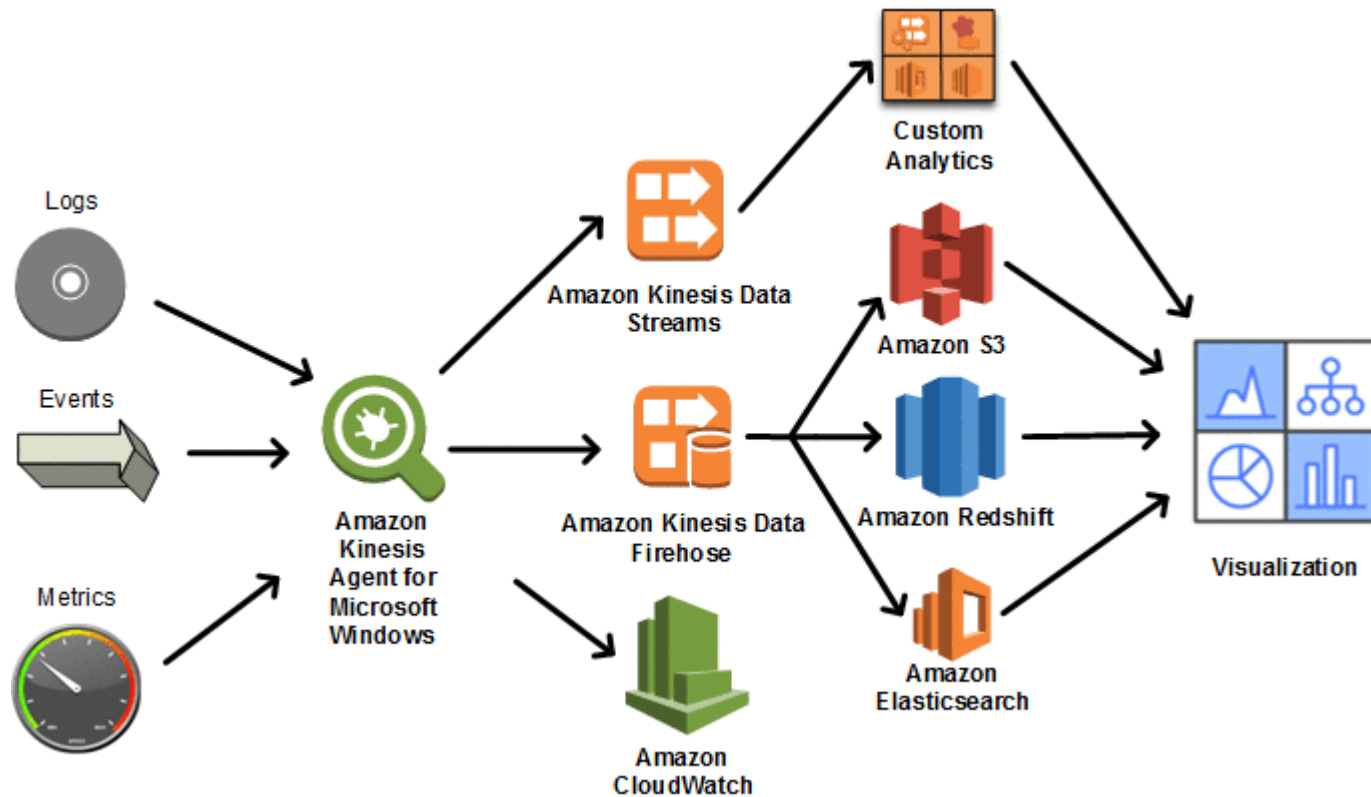
Amazon Kinesis Agent for Microsoft Windows



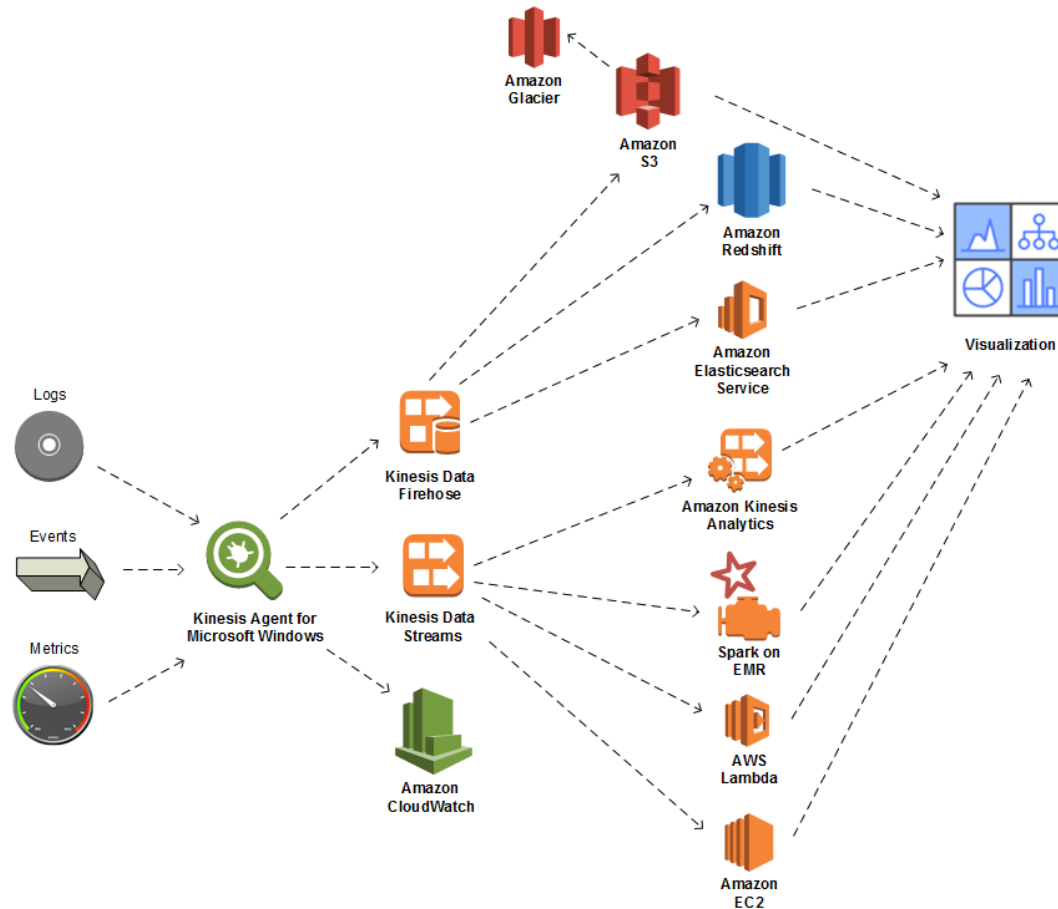
Amazon Kinesis Agent for Microsoft Windows



Amazon Kinesis Agent for Microsoft Windows



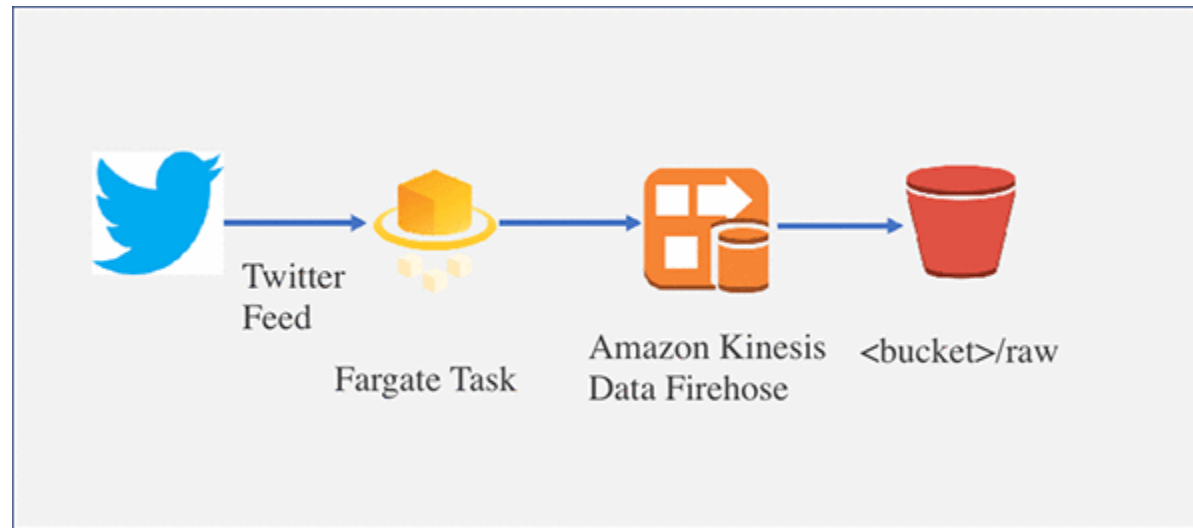
Amazon Kinesis Agent for Microsoft Windows



More advanced Architecture

- AWS Fargate is a technology for Amazon Elastic Container Service (ECS) that allows you to run containers without having to manage servers or clusters.
- With AWS Fargate, you no longer have to provision, configure, and scale clusters of virtual machines to run containers. This removes the need to choose server types, decide when to scale your clusters, or optimize cluster packing.

Build a serverless Twitter reader using AWS Fargate



Build a serverless Twitter reader using AWS Fargate

