Model Endpoint
Integration
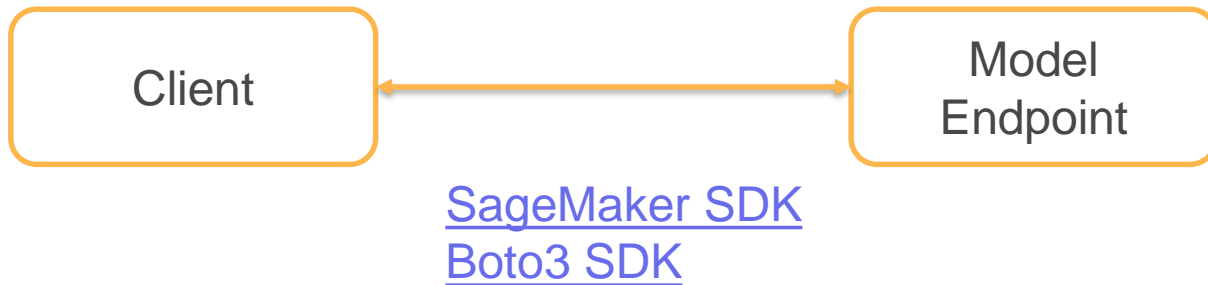
Client to Model Endpoint Integration
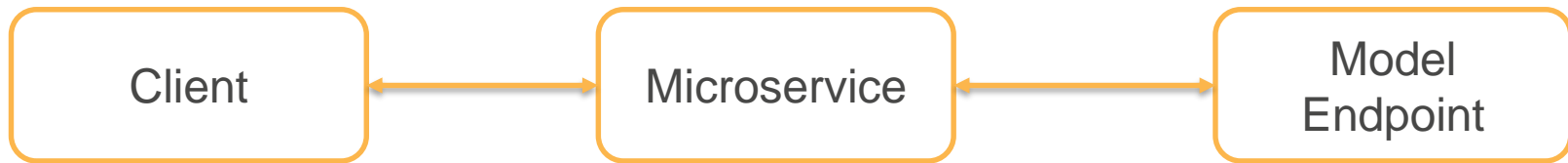
SageMaker SDK

Boto3 SDK

Microservice - Lambda

Microservice - API Gateway and Lambda

Client to Model Endpoint
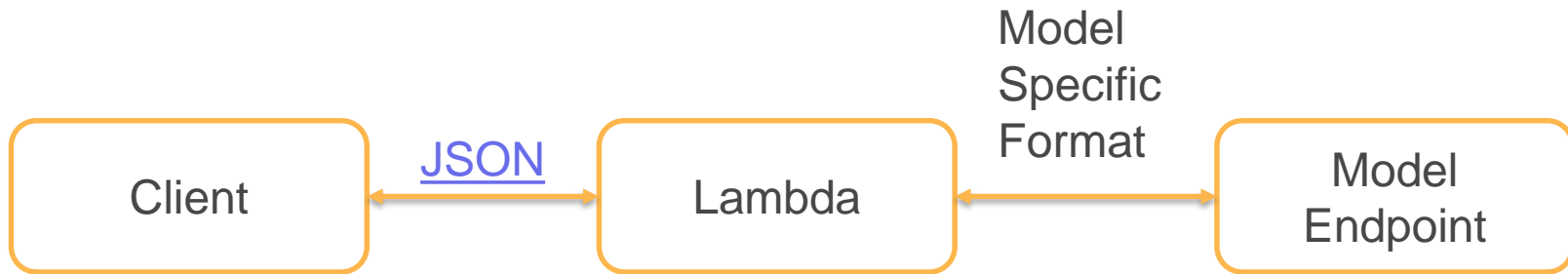
Microservice

Microservice – Lambda Function

Lambda Integration

Client ←→ **JSON** ←→ Lambda ←→ **Model Specific Format** ←→ Model Endpoint

Inference Formats
text/csv
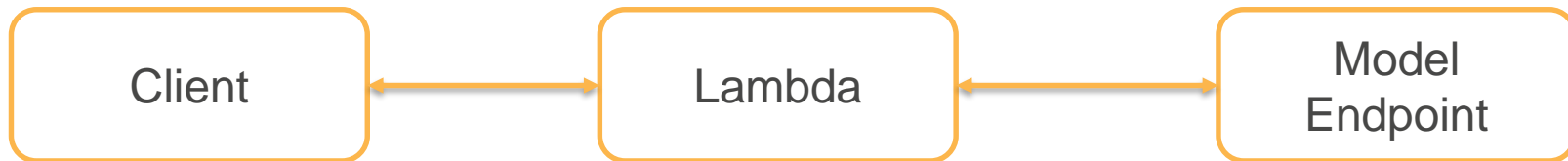application/json
application/x-recordio-protobuf

text/x-libsvm

Lambda Permissions

Who can call your function?

IAM Role

| Client | | Lambda | | Model Endpoint |

What service actions can your lambda function perform?

Microservice - API Gateway and Lambda

```
┌──────────┐      ┌──────────┐      ┌──────────┐      ┌──────────┐
│          │      │   API    │      │          │      │  Model   │
│  Client  │ ◄──► │ Gateway  │ ◄──► │  Lambda  │ ◄──► │ Endpoint │
│          │      │          │      │          │      │          │
└──────────┘      └──────────┘      └──────────┘      └──────────┘
```

amazon
web services
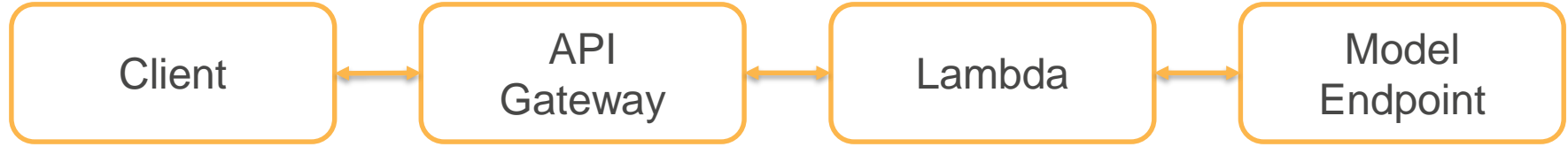
Summary

Architecture	Summary
Client – Model Endpoint	Client has too much knowledge about the model and feature transformation Not flexible from long term maintenance
Lambda Microservice	Lambda hides model related details Handles basic feature transformation and processing Numpy Support More complex feature transformation with SKLearn or Pandas is challenging in Lambda
API Gateway and Lambda	Recommended Approach – RESTful API is easy to integrate with variety of clients Same limitation of Lambda applies API Gateway as a gate keeper