



# global AI bootcamp

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## Powering AI Capabilities with APIIM and OpenAI API



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# About me

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# Agenda

- **What's API Management and Gateway?**
- **About Apache APISIX API Gateway.**
- **The benefits of using Apache APISIX with OpenAI API.**
- **Apache APISIX plugins use-cases to enhance OpenAI API.**
- **Configuring primary edge functionalities for OpenAI API.**
- **Demo**

A scene from the movie Avatar. Two Na'vi characters are shown in a dark, bioluminescent environment filled with glowing blue and purple bioluminescent plants and floating energy spheres. One character is in the foreground, looking down, while another is in the background. The overall atmosphere is mysterious and futuristic.

**APIs**

**APIs are everywhere**



# Even ChatGPT uses APIs



Doest ChatGPT use REST API?



ChatGPT can be used through a REST API, which stands for Representational State Transfer API. This type of API allows for communication between different software systems over the internet, typically using the HTTP protocol. In the case of ChatGPT, this would involve sending a text prompt to the API, which would then return a response generated by the model. The API can be accessed by sending a HTTP request and receiving a HTTP response.





Performance

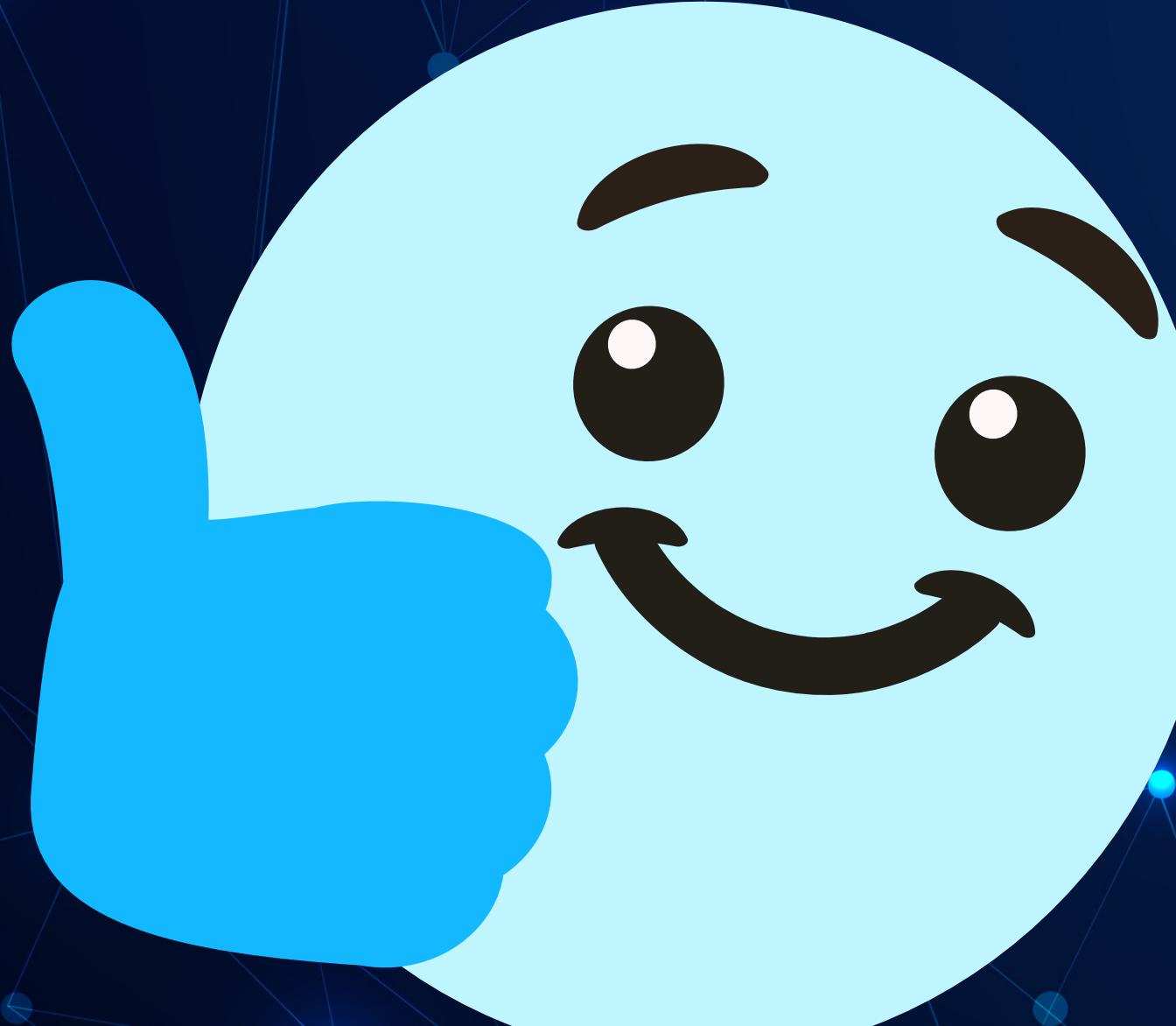
API

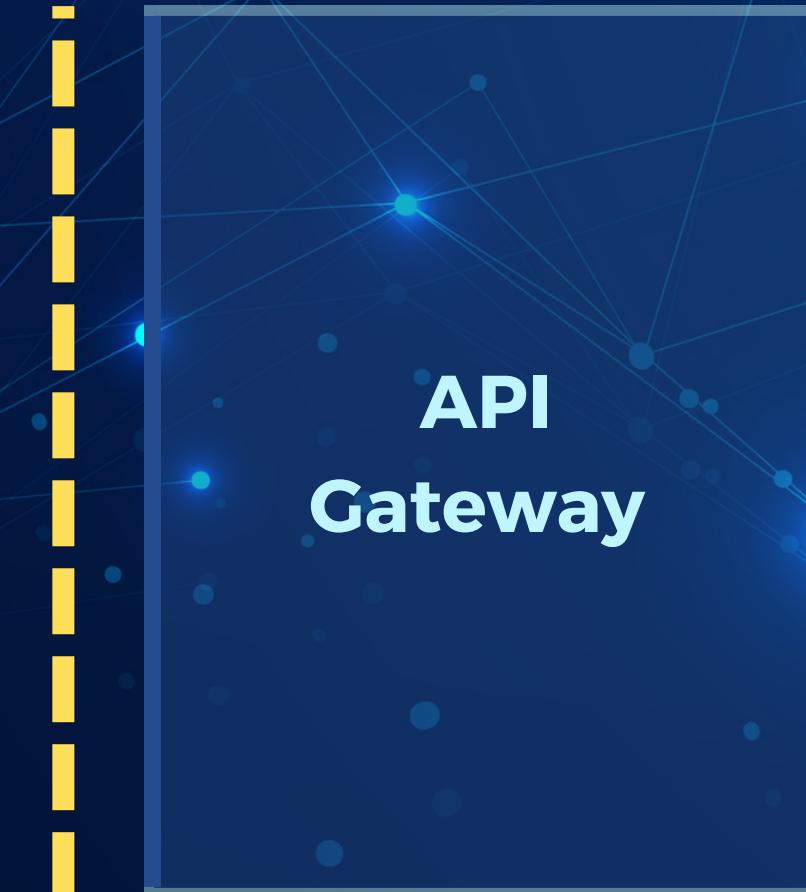
Availability

Integrity



# API Gateway





Single entry point  
client API

**API  
Gateway**

Backend APIs  
can change





# API Gateway Plugins

- Authentication
- Security
- Traffic Control
- Observability
- Serverless
- Transformation
- Other





# What is Apache APISIX?

- One of the fastest-growing top projects of the Apache Software Foundation in 2022.
- Cloud native API gateway.
- It has rich traffic management features.
- Many well-known organizations use APISIX in production.
- APISIX has a user-friendly dashboard.
- It supports plugin hot reloading.
- You can write custom plugins.





# Custom plugin development



# APISIX Dashboard

[Dashboard](#)[Route](#)[Upstream](#)[Service](#)[Consumer](#)[Plugin](#)[SSL](#)[System Info](#)

## Configure Route

✓ Define API Request

[Normal](#)[Orchestration](#)

✓ Define API Backend Server

+ Available Nodes

[ip](#)[I](#)

+ General

+ Security

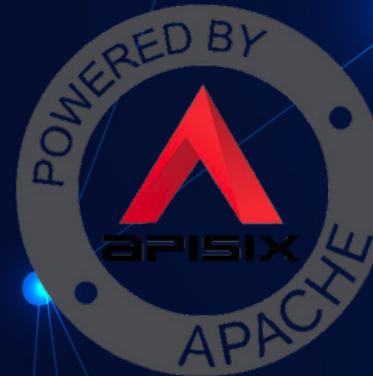
+ Observability

+ Other

3 Plugin Config

4 Preview

[Previous](#)[Next](#)

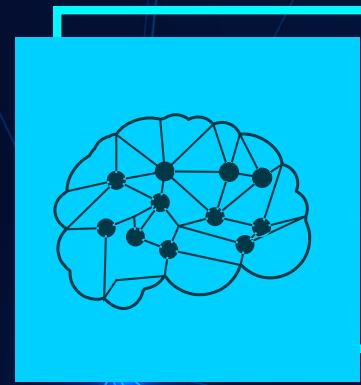


# What's OpenAI API?

**Makes available powerful AI models for  
developers through API.**

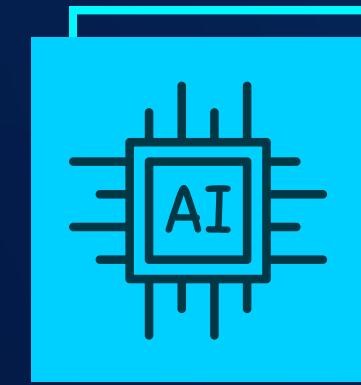


# What's OpenAI API?



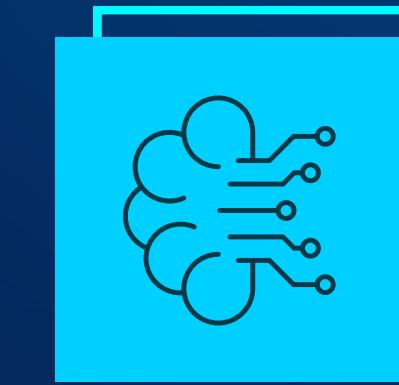
## TEXT COMPLETION

You input some text as a prompt. The model will return one or more predicted completions.



## CODE COMPLETION

Generates and manipulates code.



## IMAGE GENERATIONS

Given a prompt and/or an input image, the model will generate a new image.



# The benefits of using Apache APISIX with OpenAI API

## SCALABILITY

APISIX provides an easy way to manage and scale the OpenAI API, allowing you to handle increased traffic and usage demands.

## SECURITY

APISIX provides security features such as encryption and authentication, making it easy to secure access to the OpenAI API.

## PERFORMANCE

APISIX can help to improve the performance of OpenAI API requests by caching responses and reducing latency.

## OBSERVABILITY

APISIX provides detailed monitoring and analytics, allowing you to track and optimize the performance of your OpenAI API integration.





# APACHE APISIX PLUGINS TO ENHANCE THE OPENAI API



## RATE LIMITING

To limit the number of API requests and prevent overuse of the OpenAI API.



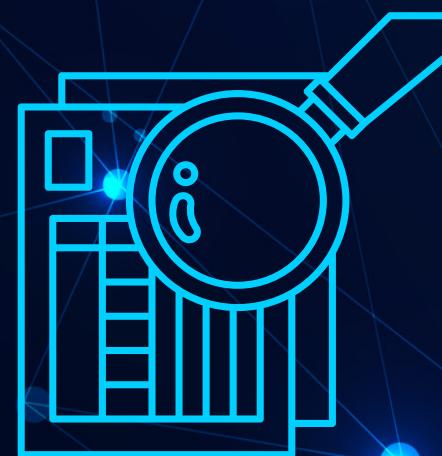
## AUTHENTICATION

To secure access to the OpenAI API by implementing authentication and authorization mechanisms.



## TRAFFIC CONTROL

To control the flow of API traffic and ensure consistent performance and stability of the OpenAI API.



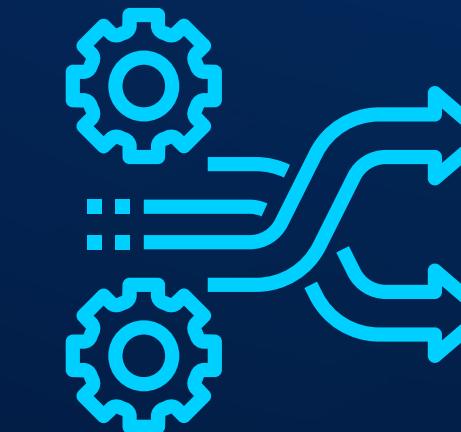
## OBSERVABILITY

To monitor and log API requests and responses, providing visibility into the usage and performance of the OpenAI API.



## CACHING

To cache API responses and reduce the number of API requests, improving performance and reducing the cost of using the OpenAI API.



## TRANSFORMATION

To modify API requests and responses, transforming data from one format to another, such as JSON to XML.



# Takeways

- Use APIAM to control OpenAI API traffic.
- Install plugins to enable from proxy caching to security features.
- Manage your API consumers from a single entry point.



# Demo

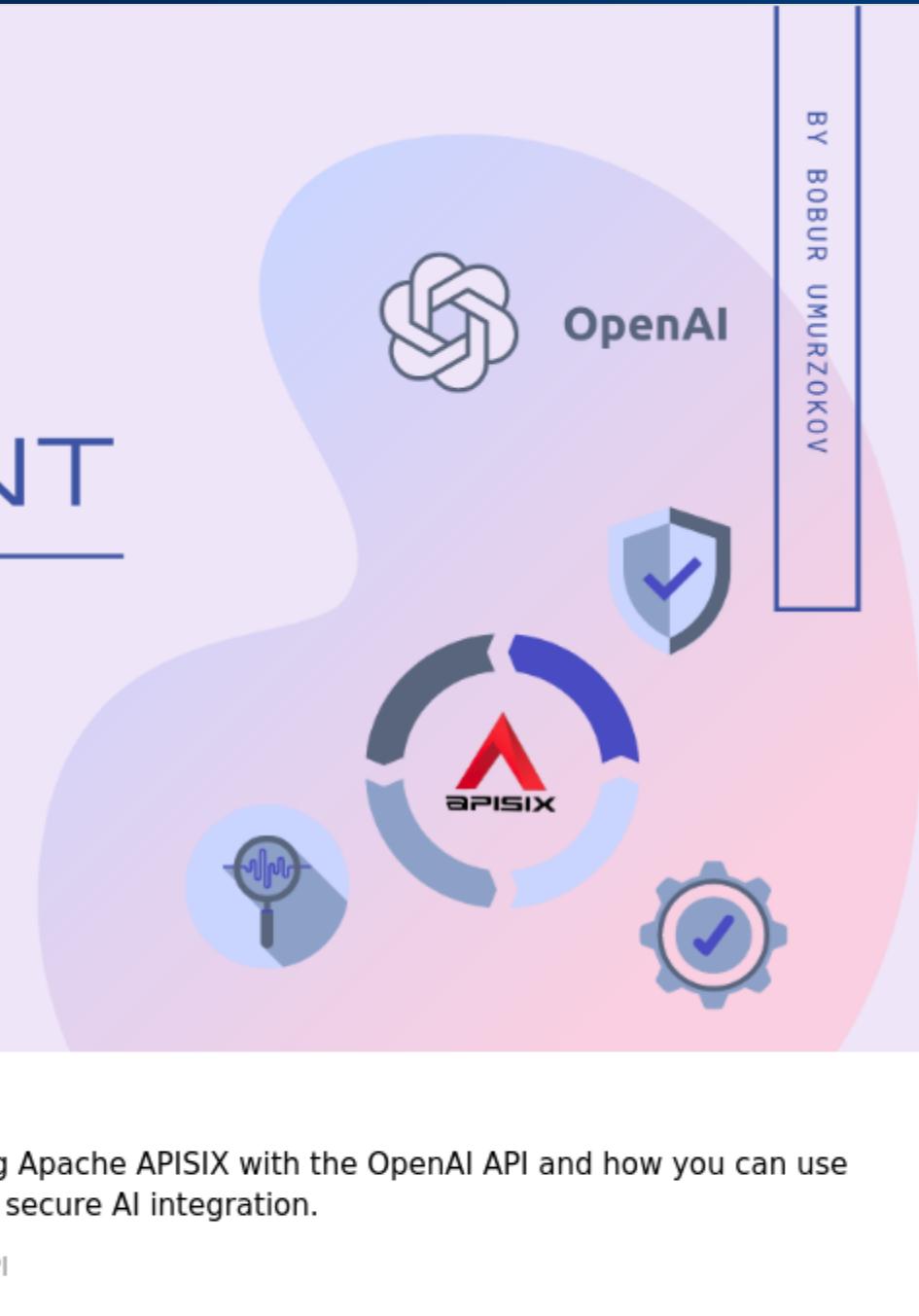
## POWER AI CAPABILITIES WITH API MANAGEMENT

Explore the benefits of integrating Apache APISIX and OpenAI API

### API7.ai

In this blog post, we will explore the benefits of integrating Apache APISIX with the OpenAI API and how you can use Apache APISIX to create a more scalable, performant, and secure AI integration.

⚡ Powering AI Capabilities with Apache APISIX and OpenAI API





# References

- [Apache APISIX official website](#)
- [Apache APISIX GitHub repo](#)
- Read [Getting Started](#) guide
- Watch Video Tutorial [Getting Started with Apache APISIX](#)
- [Download Apache APISIX](#)
- Read the full written [guide](#) on our docs
- View the complete [Apache APISIX documentation](#)
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- Mail to us with your questions: [dev@apisix.apache.org](mailto:dev@apisix.apache.org)

# Questions



# Thank You

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