Cloud Native Architecture

Glossary - Message Passing

Abstraction	Simplifying a system by only exposing parts that concern a user
API (Application Program Interface)	Defines how a user interacts with an application
Asynchronous	A non-blocking action that will continue while a process is still ongoing
Cacheability	Ability to store data for efficient retrieval to optimize performance
Client-Server	Relationship where a server provides data to a client that doesn't necessarily need to know the internals of the server's logic
Consumer	Receives messages from a message broker
Decoupled	Different systems that can be modified without affecting the other
Dependency Graph	A visual representation of how different components of a system interact with one another
Distributed System	Multiple nodes that communicate with one another as part of a system
DNS Cutover	Changing the IP address to which a DNS points to
Do Not Repeat Yourself (DRY)	A principle in software that encourages code reuse and applicable abstractions
Flask	A popular Python framework often used to build API's
GraphQL	API interface that allows data querying with structured data
gRPC	Programming-agnostic way of passing messages as protocol buffers to enforce a strict interface
grpcio	A Python library used to run gRPC client and gRPC server code
grpcio-tools	Python library of tools that help generate definition code used by gRPC

HTTP/2	More secure and performant way of making HTTP requests that is backwards compatible
Interface	Defined areas of interaction to a system
JSON	A format of human-readable messages that originates from JavaScript
Kafka	An open-source distributed message broker
Message Passing	Transferring data between services with a structured object
Message Queue	Storing messages to set up performance, improve reliability, and enable decoupling of our systems
Microservice	An application composed of applications that are deployed independently
Monolith	An application that is deployed as one unit
OpenAPI	Provides a uniform way to detail and query API resources. It includes a wide range of optional fields that enrich our documentation
Postman	An application that provides useful tools for testing APIs
Producer	Generates messages to a message broker
Protocol buffers	A way to serialize structured data optimizing simplicity and performance
RabbitMQ	An open-source message broker
REpresentational State Transfer (REST)	An architectural style used to describe how to create web services
Requests	A popular Python HTTP library
Rolling Updates	Releasing changes in a safe manner where old resources are removed once the new resources are verified to be healthy
SaaS (Software as a Service)	Software is hosted remotely by the vendor and its usage is licensed to users
SOAP	A message passing protocol that leverages HTTP and structured data represented with XML

Statelessness	Context is not tracked between requests
Strangler Pattern	A strategy for gradually refactoring pieces of a deployed application
Swagger	A tool used to render OpenAPI specifications into an interactive web page
SwaggerHub	A tool that provides utilities to write OpenAPI specifications more easily as well as live previews of the corresponding Swagger documentation
Synchronous	A blocking action that will wait for a process to finish before proceeding
Topic	Kafka's abstraction of messages stored internally as distributed partitions
Uniform Interface	Different parts of the interfaces should look familiar and be consistent
XML	A format of human-readable messages that uses very expressive tags similar to HTML
YAML	A format of human-readable messages that is minimalist and less verbose