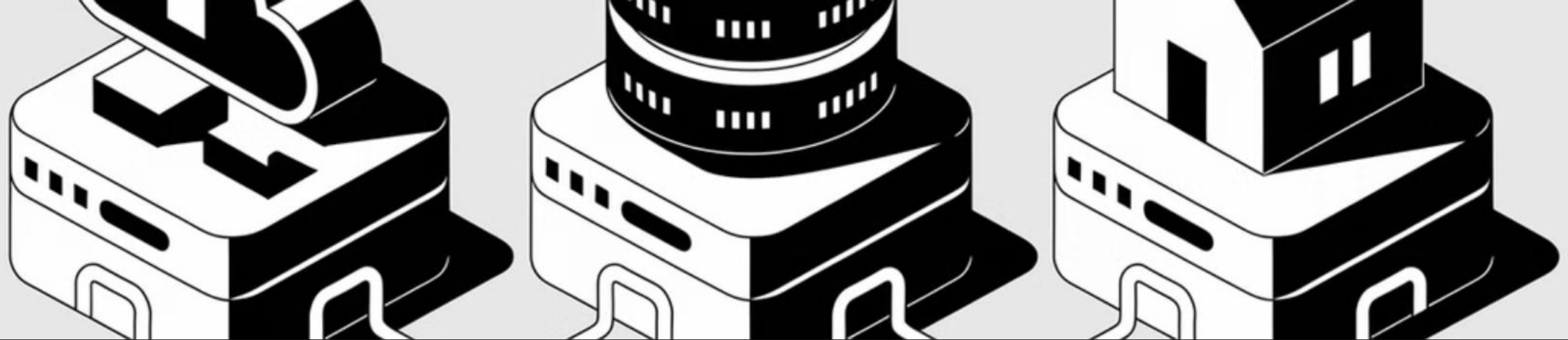


Runtimes: SAP BTP

Choosing the right runtime is a critical decision that will shape how your application functions, scales, and integrates with other systems. Let's explore the options available and what makes each one unique.



por **Mayko Silva**



What Are Runtimes?

A runtime is the environment where your code executes - that's where all the magic happens! SAP provides three distinct options to meet different business needs and technical requirements.



Cloud Foundry Runtime

An open-source cloud application platform managed by the Cloud Foundry Foundation, offering flexibility and developer focus.



Kyma Runtime

Built on Kubernetes, providing cloud-native services and making it easier to connect and maintain application components.

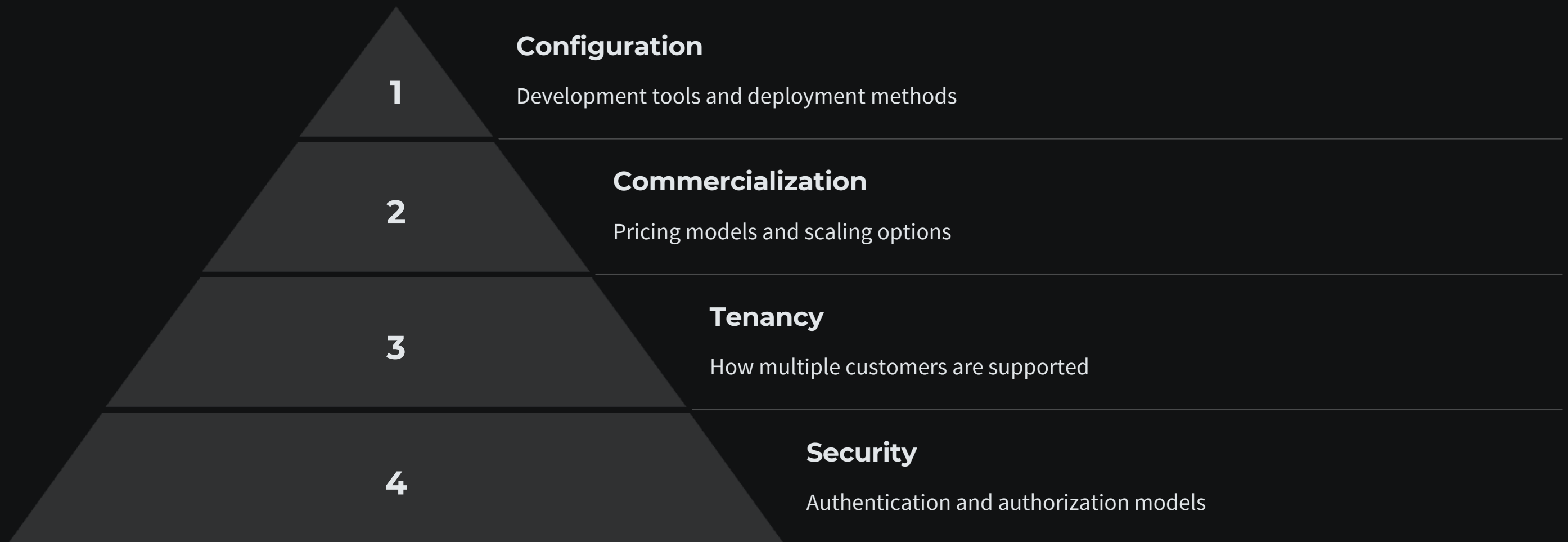


ABAP Environment

A cloud-ready version of ABAP (also called ABAP Steampunk) that makes transitioning existing custom code to the cloud easier.

Why Your Runtime Choice Matters

Switching between runtimes is extremely difficult because it changes how your application works at a fundamental level. Your choice has far-reaching implications that will shape your development approach and application capabilities.



Once you choose a runtime, you're committing to a specific set of services and approaches to building your application, so it's crucial to select the one that best aligns with your requirements.

SAP BTP, Cloud Foundry Runtime

Cloud Foundry is an open-source cloud application platform that's very developer-focused. You can concentrate on your business logic while the framework handles deployment, scaling, and routing for you.

1 Multi-Language Support

Supports Node.js, Java, Python, PHP, Ruby, and Go, giving developers flexibility to use their preferred programming languages.

2 No Vendor Lock-in

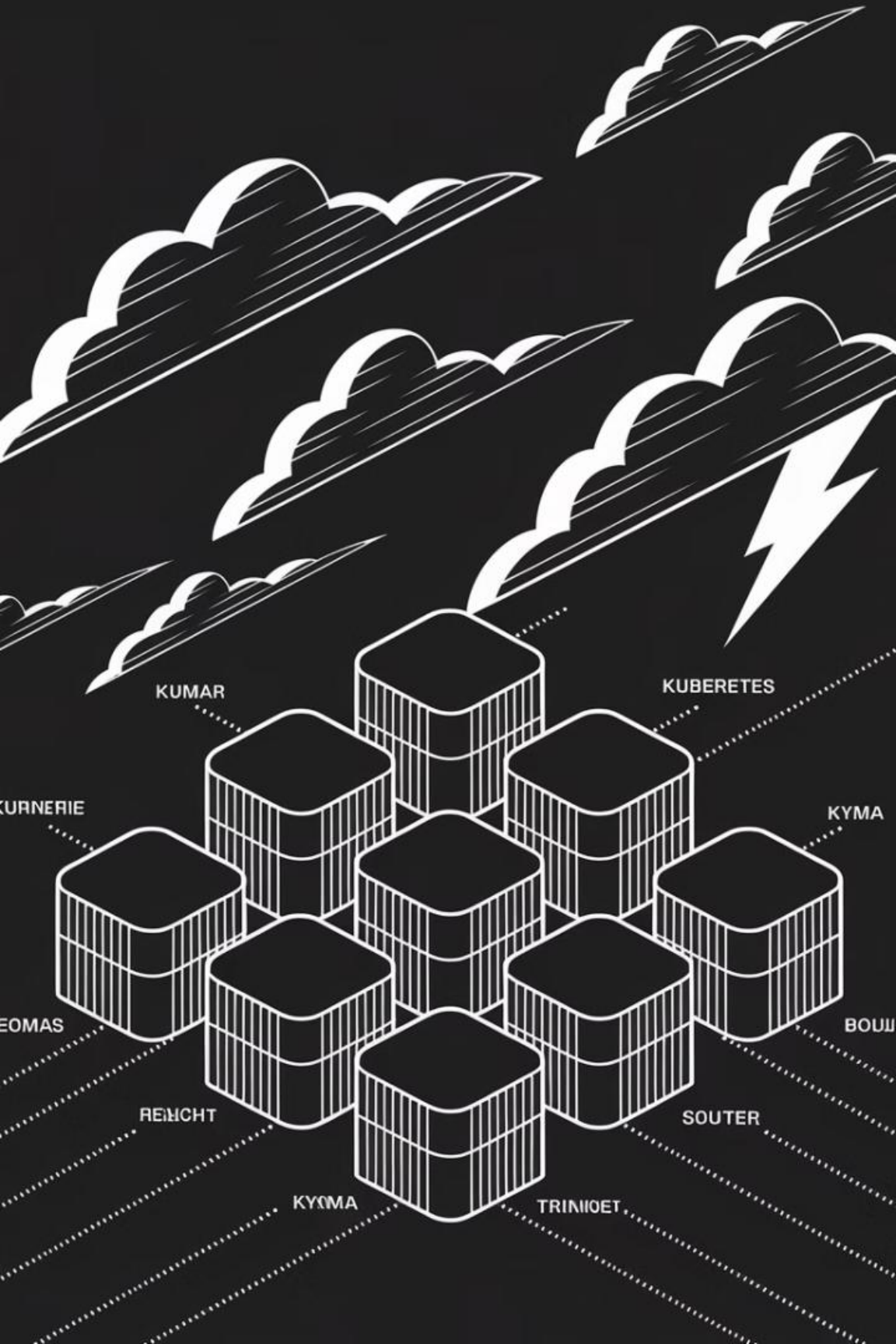
Switch between service providers like Google, Amazon, Microsoft, and Alibaba in SAP BTP without major code changes.

3 Deployment Process

When you deploy using the CF CLI command, your app gets staged as a "droplet." The runtime binding to services happens through a .yml file.

4 Best Practices

Comes with the SAP Cloud Application Programming Model as a recommended approach for efficient development.



SAP BTP, Kyma Runtime

Kyma is built on Kubernetes, which has become the industry standard due to its recent innovations. This runtime provides a modern approach to application development and integration.

Preconfigured Components

Includes open-source and cloud-native services like NATS for eventing and Prometheus for monitoring, reducing setup time.

Application Connectivity

Features an application connector that makes it easier to connect and maintain all your application components in a unified environment.

Serverless Architecture

Supports serverless functions, allowing for event-driven development and efficient resource utilization.

Independent Extensions

Extensions are separate from your core system, enabling fast deployment and independent scaling without affecting the main application.

SAP BTP, ABAP Environment

ABAP has been a cornerstone of SAP development for decades, but moving to the cloud presented challenges. SAP BTP, ABAP Environment (also called ABAP Steampunk) addresses these challenges with a cloud-ready version of the language.

Modern ABAP for Cloud

A cloud-optimized version of the ABAP language that maintains compatibility with existing skills while embracing cloud principles.

Easy Transition

Your existing custom code can be moved to the cloud without major disruption, preserving your investment in ABAP development.

Development Tools

Uses ABAP Development Tools (ADT) for creating ABAP artifacts, providing a familiar environment for ABAP developers.

Modern Source Control

Unlike traditional on-premise systems, it uses Git for code management, enabling better collaboration and version control.

Comparative Review of SAP BTP Runtimes

Each runtime offers distinct advantages that make it suitable for different scenarios. Your choice should align with your project requirements, team skills, and long-term strategy.

Runtime	Available Since	Languages	Best For
Cloud Foundry	2017	Node.js, Java, Python, Docker, Go, PHP, Ruby	Cloud-native web applications, simplified developer experience
Kyma	2020	BYOL (Bring Your Own Language)	Highly scalable, microservice-based applications
ABAP Environment	2019	ABAP only	Side-by-side extensions of SAP ERP or SAP S/4HANA

Your runtime choice depends on what you're building and your team's skills. Cloud Foundry offers simplicity, Kyma provides cutting-edge architecture, and ABAP Environment enables continuity for ABAP-based solutions.

FAST
& RELIABLE





PLATFORM
& FLEXIBLE

FAST
& RELIABLE





PLATOABE
& SCAABLE

FAST
& FLEXIBLE





3. SECURE
& FLEXIBLE