SAP BTP

BUSINESS TECHNOLOGY PLATFORM

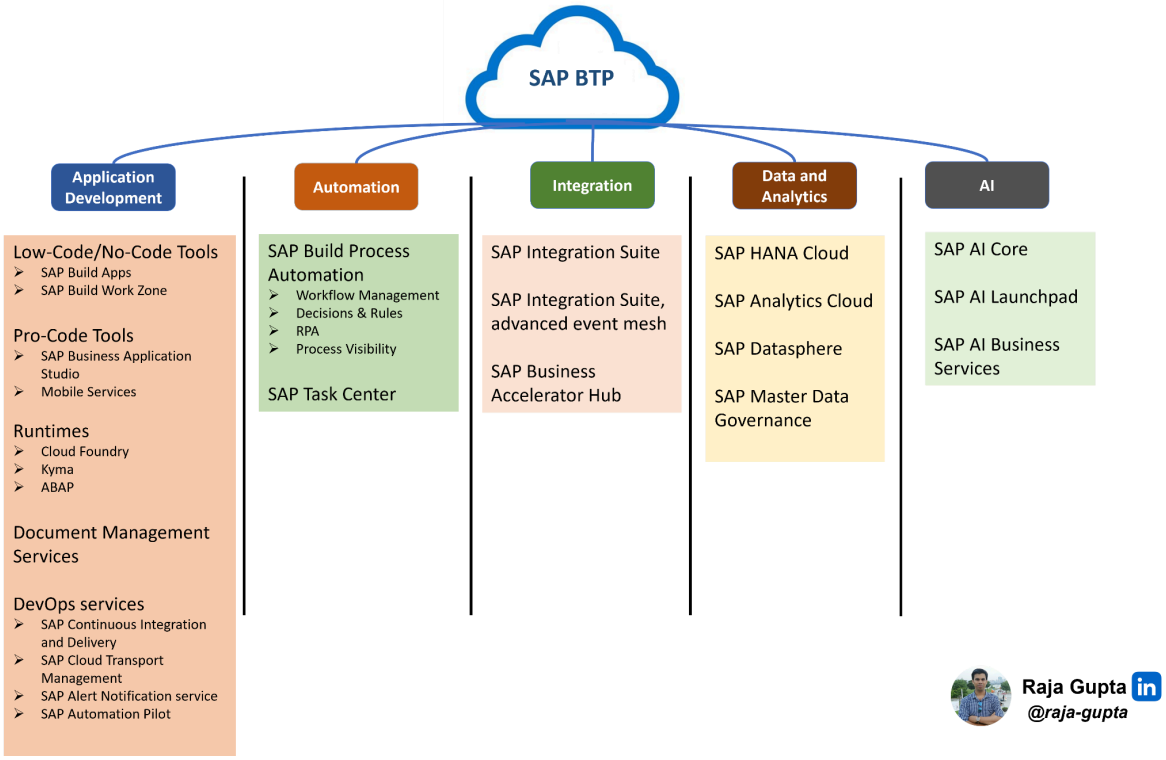
- SAP BTP is a portfolio of SAP solutions and services that are brought under one umbrella.
- These services, and solutions help organizations build a new cloud solution or extend SAP systems.
- In other words – SAP BTP is a bundle of many, many different services.
- SAP BTP provides all the necessary resources to create a cloud solution. It allows you to focus on business logic, while BTP takes care of the technical aspects behind the scenes.
- SAP BTP offers users the ability to turn data into business value, compose end-to-end business processes, and build and extend SAP applications quickly.
- SAP Business Technology Platform is built on a multi-cloud foundation, which lets you choose from different infrastructures and runtimes.
- The services and solutions of SAP BTP are available on multiple cloud infrastructure providers, and it supports different runtimes, such as Cloud Foundry, ABAP, and Kyma, as well as multiple different regions, and a broad choice of programming languages.

Five Key Pillars of SAP BTP:

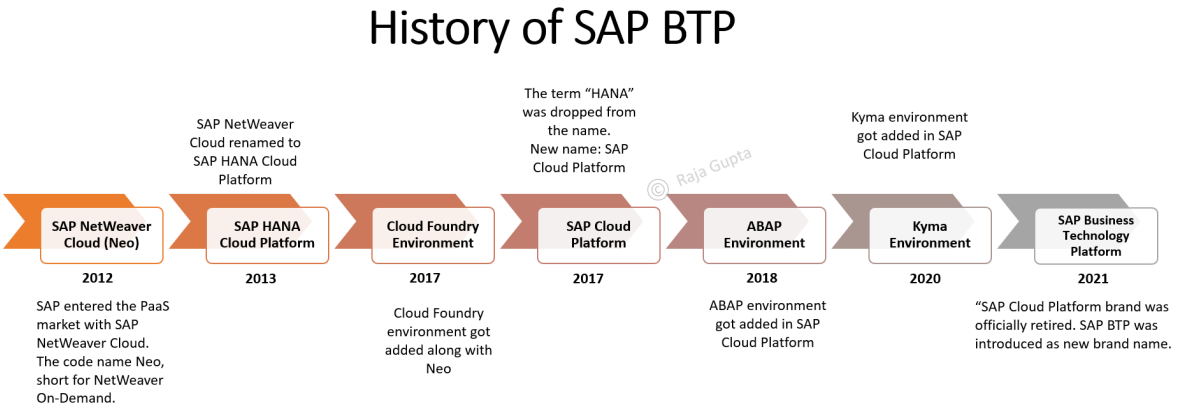
SAP BTP services and solutions can be broadly categorized in 5 pillars, which are:

- Application Development
- Automation
- Integration
- Data and Analytics
- AI

Each environment comes equipped with specific tools, technologies, and runtimes that you need to build applications.



History of SAP BTP



2012: SAP entered the PaaS market with "SAP NetWeaver Cloud". The code name Neo, short for NetWeaver On-Demand.

2013: SAP NetWeaver Cloud renamed to "SAP HANA Cloud Platform"

2017: Cloud Foundry environment got added along with Neo

2017: The term “HANA” was dropped from the name. New name: "SAP Cloud Platform". So far, it was a PaaS offering by SAP to create new applications or extend existing SAP applications in a secure cloud environment.

2018: ABAP environment got added in SAP Cloud Platform

2020: Kyma environment got added in SAP Cloud Platform

2021: SAP Cloud Platform brand was officially retired to support SAP’s One Platform Strategy. SAP BTP was introduced as a new brand name. SAP BTP provides extended functionality; however, the core is still equivalent to what is formerly known as SAP Cloud Platform.

Administrative Tasks

Global Account :

- Global accounts are region- and runtime-independent
- Usually, for each commercial model (license type), you get a separate global account. It is however possible to combine two commercial models in one global account.

Directory (optional, feature set B) :

- Directories are groups of sub accounts that you can manage, operate, and analyze together. They are only available with feature set B.
- Appoint at least one person as administrator. The administrator is responsible for adding new subaccounts, managing members, and managing entitlements.

Subaccount :

- Each sub account runs in exactly one region. Within a sub account, you can enable multiple, different runtime environments.
- Appoint at least one person as administrator. The administrator is responsible for adding new members to the sub account and assigning their business roles.

Capabilities and Services

- SAP BTP offers fast in-memory processing, sustainable, agile solutions and services to integrate data and extend applications, and fully embedded analytics and intelligent technologies.
- Services enable, facilitate, or accelerate the development of business applications and other platform services on SAP BTP.

- An **entitlement** is your right to provision and consume a resource. In other words, entitlements are the service plans that you're entitled to use.
- A **quota** represents the numeric quantity of a service plan that you're entitled to consume in your global account and its subaccounts.
- Entitlements are either managed at global account or directory level and are distributed from there to subaccounts.

User and Member Management

- Member management happens at all levels from global account to environment, while user management is done for business applications.
- User accounts enable users to log on to SAP BTP and access sub accounts and use services according to the permissions given to them. We distinguish between two types of users:
    - ***Platform users*** are usually developers, administrators or operators who deploy, administer, and troubleshoot applications and services on SAP BTP.

- ***Business users*** use the applications that are deployed to SAP BTP. For example, the end users of SaaS apps or services, such as SAP Work.

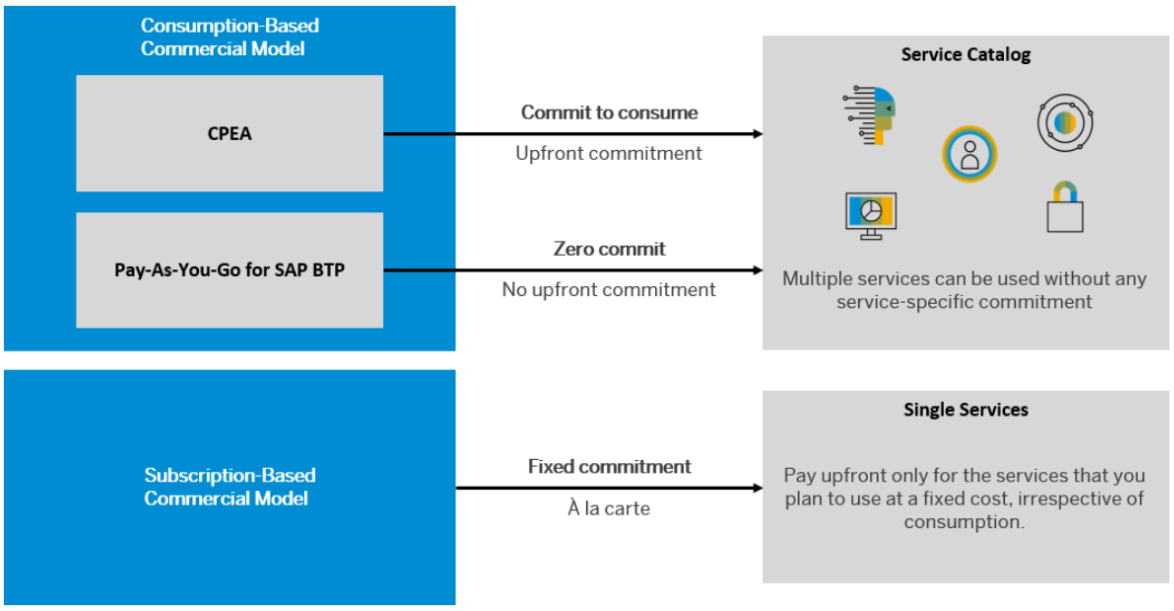
Commercial Models

SAP BTP offers two different commercial models for enterprise accounts.

Consumption-based commercial model: It provides access for all current and future services for a certain period of contract.

It is available in two types as follows, Cloud Platform Enterprise Agreement (CPEA) and Pay-As-You-Go for SAP BTP.

Subscription-based commercial model: It provides access for specific services only which is used for specific purposes for various processes.



Environments

Environments constitute the actual platform-as-a-service offering of SAP BTP that allows for the development and administration of business applications.
Environments are anchored in SAP BTP on sub account level.

SAP offers the following environments:

Cloud Foundry Environment - it enables one to develop business applications and services and provides multiple runtime and packages, programming languages and libraries.

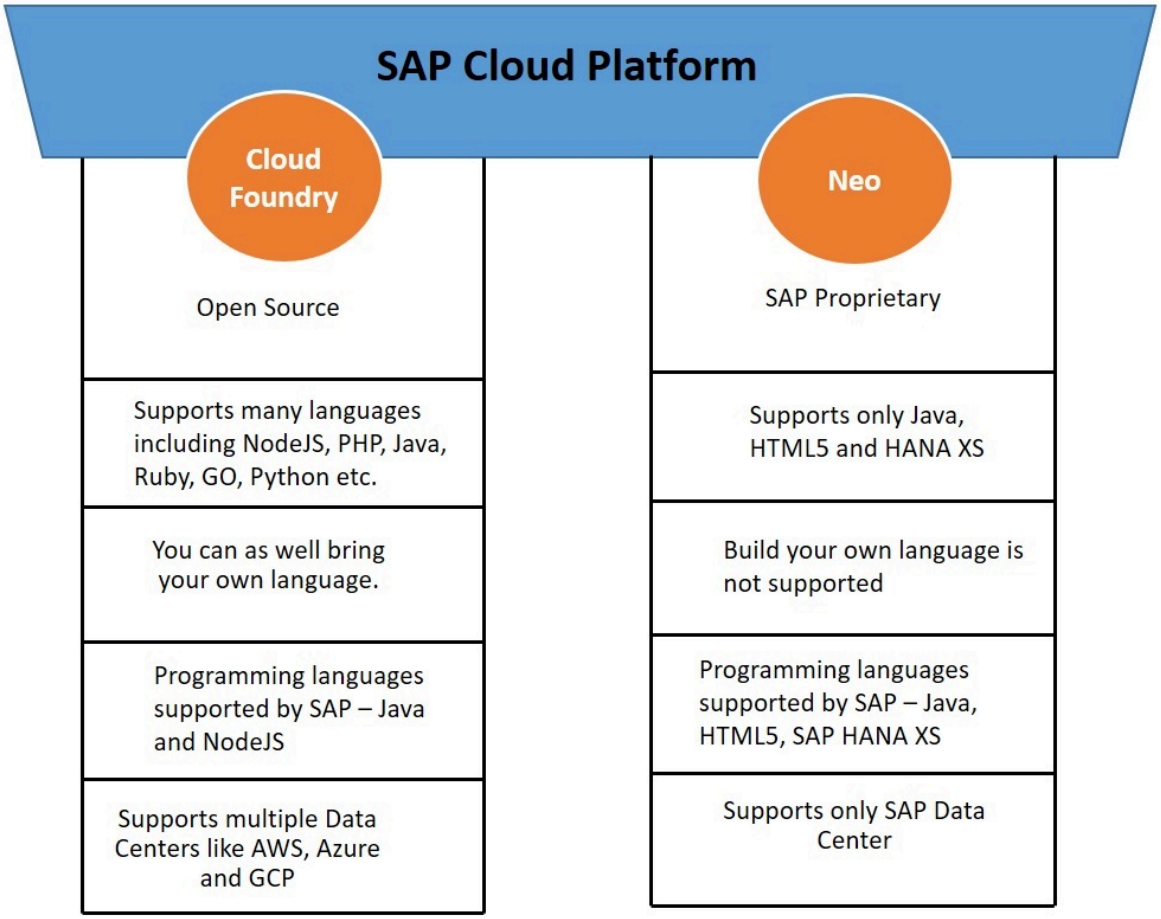
ABAP Environment - It comes under the Cloud Foundry Environment. One can create space for ABAP based applications like S4HANA cloud.

Kyma Environment - It is based on Kubernetes runtime which is open source and used for serverless functions to allow developers to extend SAP applications.

Neo Environment - The Neo environment lets you develop HTML5, Java, and SAP HANA extended application services (SAP HANA XS) applications. You can also use the UI Development Toolkit for HTML5 (SAPUI5) to develop rich user interfaces for modern web-based business applications.

The main difference is that the Cloud Foundry Environment consists of an open-source runtime and the Neo Environment consists of SAP proprietary runtime. Additionally, the Cloud Foundry Environment supports Bring Your On Language concept while the Neo Environment does not.

Another difference in the environments is that Cloud Foundry supports multiple Data Centers, such as AWS, Azure and GCP, while Neo supports only the SAP Data Center.



Environment Instances : To use the environments in BTP Cockpit we have to create Instances for enabling the environments.

Regions : Regions are the geographical location where the services were hosted from.

Sub Accounts for Staged Development

Development – for development purposes and for testing individual increments in the cloud.

Testing – for integration testing and testing in a production-like environment before making it publicly available, to ensure quality delivery. In highly DevOps-driven companies, this subaccount is also used for production applications, as testing occurs in the development subaccount.

Production – for production applications.

TENANT AND WORKER NODES

Worker Node :

It hosts the integration runtime engine.

It is responsible for message processes.

It exchanges the messages from the external systems with the data protection.

Tenant Node :

This is an environment allocated for a tenant which contains data and services for a specific tenant.

It works like a supervisor for all worker nodes.

It can upgrade the worker node. And monitor the worker nodes are up or not working.

It stores the integration processes and artifacts.

It takes the request from dialogue users like a IFlow deployed by a developer.

Cloud Connector :

In SAP Business Technology Platform (BTP), a cloud connector is a component that facilitates secure and seamless communication between on-premises systems and cloud applications and services. It acts as a bridge between applications running in private networks (on-premises systems) and the cloud platform. The cloud connector enables secure communication by establishing a secure tunnel between on-premises systems and the cloud platform, allowing these systems to securely interact with cloud-based services such as SAP Cloud Platform, SAP HANA, and other cloud-based applications.