SAP provides FREE trial account for both Neo and Cloud Foundry. Refer to below articles to know more about it.

SAP Cloud Platform provides two different development environments: Cloud Foundry and Neo. The availability of different environments provides choices for technologies, runtimes, and services when using SAP Cloud Platform, thereby allowing for great flexibility in your development process.

**Cloud Foundry Environment**

SAP Cloud Platform Cloud Foundry environment contains the Cloud Foundry Application Runtime, which is based on the open-source application platform managed by the Cloud Foundry Foundation.

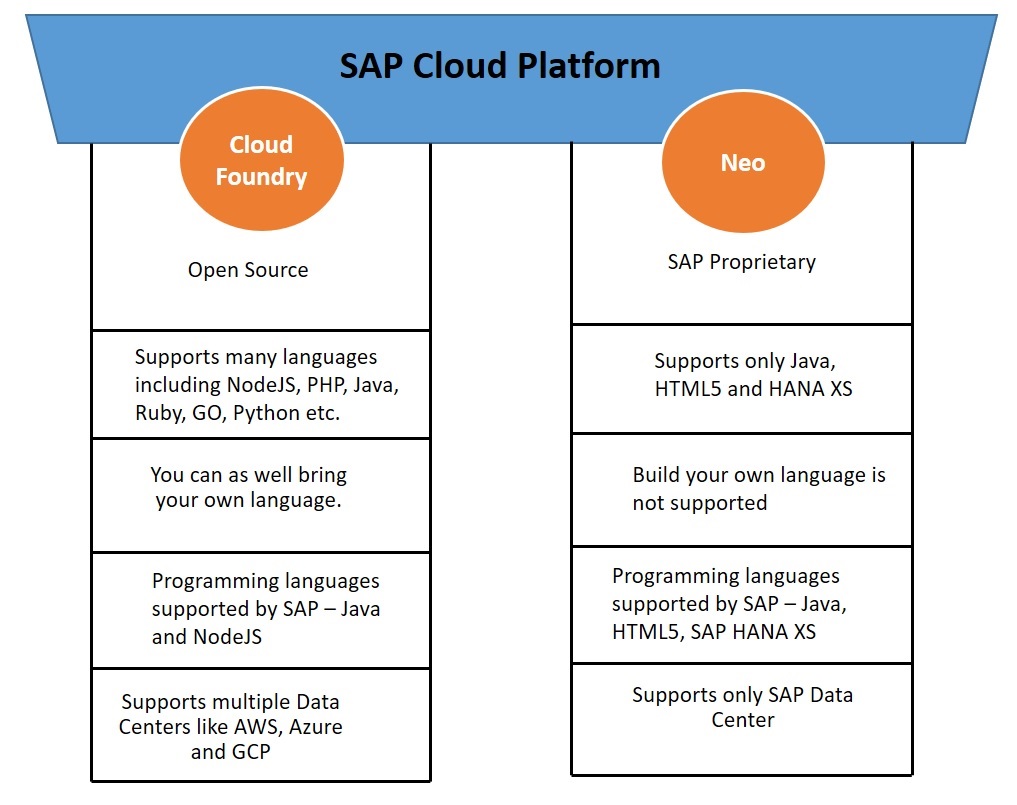
Application developers can use the Cloud Foundry environment to enhance SAP products and to integrate business applications, as well as to develop entirely new enterprise applications based on business APIs that are hosted on SAP Cloud Platform.

The Cloud Foundry environment allows you to use multiple programming languages such as Java, Node.js, and community/bring-your-own language options.

# ****Neo Environment****

SAP Cloud Platform Neo environment contains SAP propriety runtime. Neo is a feature-rich and easy-to-use development environment, allowing you to develop Java, SAP HANA XS, and HTML5 applications. You can also use SAPUI5 to develop rich user interfaces for modern web-based business applications.

The Neo environment also lets you use virtual machines, allowing you to install and maintain your own applications in scenarios that aren’t covered by the platform. A virtual machine is the virtualized hardware resource (CPU, RAM, disk space, installed OS) that blends the line between Platform-as-a-Service and Infrastructure-as-a-Service.



## **Use Cases for the Cloud Foundry Environment**

Application developers can use the Cloud Foundry environment to enhance SAP products and to integrate business applications, as well as to develop entirely new enterprise applications based on business APIs that are hosted on SAP Cloud Platform.

The Cloud Foundry environment allows you to use multiple programming languages such as Java, Node.js, and community/bring-your-own language options.

We can use Cloud Foundry environment for micro-services-based applications, for Internet of Things and machine learning scenarios, and for developing applications using SAP HANA extended application services, advanced model (SAP HANA XSA).

## **Use Cases for the Neo Environment**

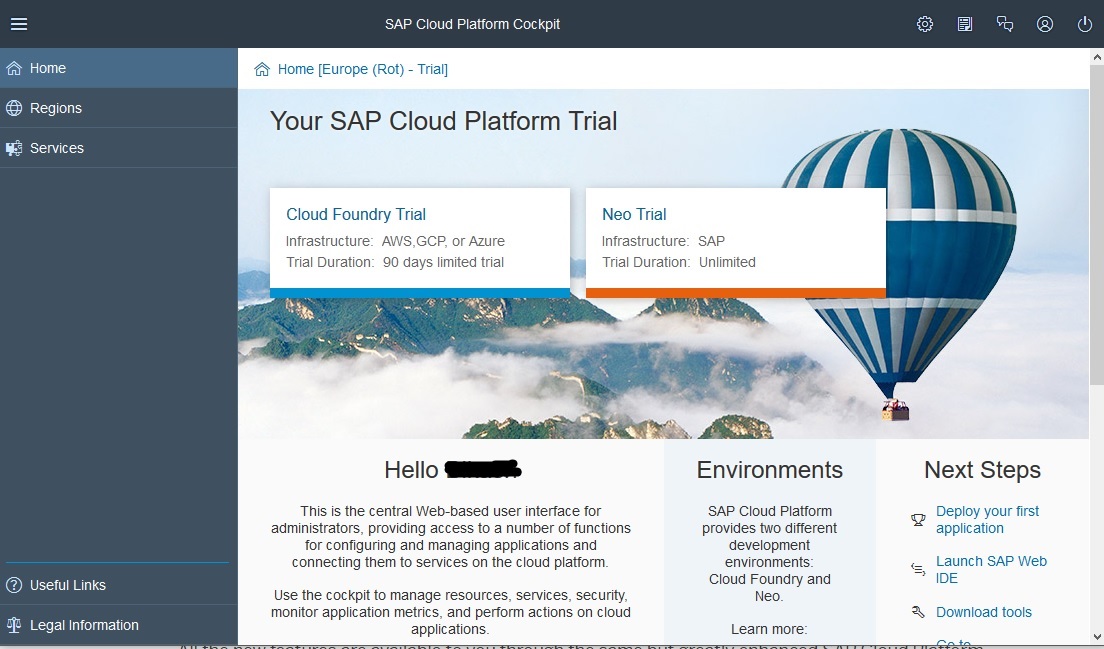
Neo is a feature-rich and easy-to-use development environment, allowing you to develop Java, SAP HANA XS, and HTML5 applications. We can use the Neo environment to develop HTML5 and complex Java applications and for complex integration and extension scenarios.

# ****Central Cockpit****

To be able to administrate the two environments in a unified way, SAP provides one central cockpit.

The central cockpit is a Web-based user interface for administrators, providing access to a number of functions for configuring and managing applications and connecting them to services on the cloud platform. It can be used to manage resources, services, security, monitor application metrics, and perform actions on cloud applications.

A typical Cloud Platform cockpit looks like below.



# SAP Cloud Platform ABAP Environment

Recently, there has been one more environment got added to the SAP Cloud Platform – ABAP Environment.

ABAP in SAP Cloud Platform is SAP’s new Platform as a Service (PaaS) offering for ABAP. Since many years, ABAP has been the foundation for SAP’s on-premise solutions. With ABAP in SAP Cloud Platform, ABAP developers can make use of their existing ABAP know-how to develop and run ABAP applications in the Cloud.

Customers and partners can build extensions for ABAP-based products like SAP S/4HANA Cloud as well as develop new cloud applications. ABAP in SAP Cloud Platform is also an option to transform existing ABAP-based custom code or extensions to the Cloud.

# Migrate Applications from Neo Environment to Cloud Foundry

When you migrate an application from the Neo to the Cloud Foundry environment following documents could be helpful.

[Migrate SAP Cloud SDK Based Applications from SAP Cloud Platform Neo Environment to Cloud Foundry](https://blogs.sap.com/2019/02/24/migrate-s4hana-sdk-based-applications-from-sap-cloud-platform-neo-environment-to-cloud-foundry/)

[Help document on CF Migration](https://help.sap.com/viewer/b017fc4f944e4eb5b31501b3d1b6a1f0/Cloud/en-US/01c03b42fe834e0da23adebf1077b0e7.html)

[Best Practices for Adapting SAP Cloud Platform Applications to the Cloud Foundry Environment](https://help.sap.com/doc/7fb15c0345694c45b439c0ed524c6414/Cloud/en-US/Best_Practices_for_Adapting_SAP_Cloud_Platform_Applications_to_the_Cloud_Foundry_Environment_en.pdf)

# Regions

# Each region represents the location of a data center, the physical location (for example, Europe, US East) where applications, data, or services are hosted.

Application performance (response time, latency) can be optimized by selecting a region close to the users. When deploying applications, consider that a subaccount is associated with a particular region and that this is independent of your own location. You may be located in the United States, for example, but operate your subaccount in a region in Europe.

Regions for the Cloud Foundry environment are provided by third-party data center providers such as Amazon or Microsoft. These third-party data center providers operate the infrastructure layer of regions. By contrast, SAP operates the platform layer and Cloud Foundry.

To deploy an application in more than one region, execute the deployment separately for each host.

Neo is the original environment of SCP, and Cloud Foundry arrived in 2017. Cloud Foundry is an open source project, whereas Neo is SAP proprietary.

Another difference is that the Neo environment is available in SAP data centers, and the Cloud Foundry environment is available in partner data centers (AWS, Azure, Google Cloud Platform, Alibaba Cloud). That's part of SAP's so-called multi-cloud strategy.

As for the trial versions, at the moment the Neo trial is unlimited, whereas there is a time limit on the Cloud Foundry trial. They both give you access to a number (but not all) of the services provided by the two environments.

Signing up is super easy, and the trial versions are a great way to start learning about SAP Cloud Platform at no cost.

Cloud Foundry is in open source, multi-cloud application platform and is governed by the Cloud Foundry Foundation – [www.cloudfoundry.org](http://www.cloudfoundry.org/).  Cloud Foundry has a container-based architecture that runs applications in any program language.

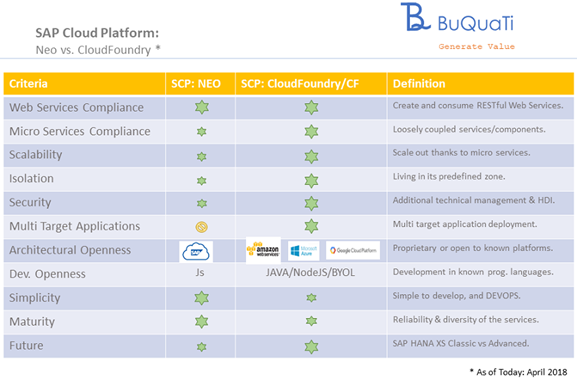
Cloud Foundry is an industry standard Platforms as a Service (PaaS) technology for developing and deploying cloud applications in both private and public cloud environments. It is designed to run on a variety of Infrastructure as a Service (IaaS), such as Amazon Web Services, OpenStack, Google Cloud Platform and Microsoft Azure. It enables developers to use different programming languages, runtimes and data / backing services. SAP is a founding Platinum level member of the Cloud Foundry Foundation, which oversees the development of Cloud Foundry Software and ecosystem.

The SAP Cloud NEO environment is a development environment that supports Java, SAP HANA XS and HTML5 applications.  Applications run in a modular and lightweight runtime container. Management of the HANA database is performed either in the SAP Cloud Platform using the Cockpit or WebIDE, or by using a local version of Eclipse configured with the SAP Hana Tools.

Application developers can use the Cloud Foundry environment to enhance SAP products and to integrate business applications, as well as to develop entirely new enterprise applications based on business APIs that are hosted on SAP Cloud Platform. The Cloud Foundry environment allows you to use multiple programming languages such as Java, Node.js, and community/bring-your-own language options. We recommend that you use the Cloud Foundry environment for 12-factor and/or micro-services-based applications, for Internet of Things and machine learning scenarios, and for developing applications using SAP HANA extended application services, advanced model (SAP HANA XSA).

#### **Use Cases for the Neo Environment**

Neo is a feature-rich and easy-to-use development environment, allowing you to develop Java, SAP HANA XS, and HTML5 applications. We recommend that you use the Neo environment to develop HTML5 and complex Java applications and for complex integration and extension scenarios.



* One of the primary qualities of SAP Cloud Foundry is **Micro Services Compliance**. Develop, deliver and administer isolated units of software.
* SAP Cloud Foundry offers **Multi-Target Applications**. Modules can be written in different technologies and deployed to different targets, but all serving a particular purpose.  The positive consequence of using Cloud Foundry is once written, the MTA can be deployed on any platform (AWS, GCP, Azure or SAP CF).
* SAP NEO is simpler to use and more mature on SAP Cloud Platform. SAP Cloud Foundry has a larger learning curve and requires a larger investment in application development and administration, however appears to be the future for cloud development.
* SAP Cloud Foundry uses Maven and Spring tools and supports internal tools such as GitHub and Jenkins.

