ESPRESSO TUTORIALS

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Decision-Maker's Guide to SAP® S/4HANA Cloud, essentials edition

- Basics of cloud computing in SAP and SAP Cloud strategy
- Analysis of SAP S/4HANA deployment models
- DNA of S/4HANA Cloud, essentials edition
- SAP S/4HANA Cloud assessment criteria and considerations

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2 SAP and the cloud

In the previous chapter, I introduced the concepts of cloud computing for those readers relatively new to this realm. For those of you that are already familiar with the key concepts, Chapter 1 provided you with an opportunity to refresh your memory. We are now ready to explore SAP's growing presence in the cloud.

For a company that was as intensely focused on providing enterprises worldwide with all their back-office computing needs primarily through its Enterprise Resource Planning (ERP), cloud computing was not really an area that SAP was thinking about for the first 30+ years of its existence. In fact, even with something as pervasive as the Internet, SAP was a little late to the market. In case you are wondering why I am discussing the Internet here, it would help to remember that one of the key enablers of cloud computing is the Internet. So, cloud computing has been around for about as long as the Internet has been.

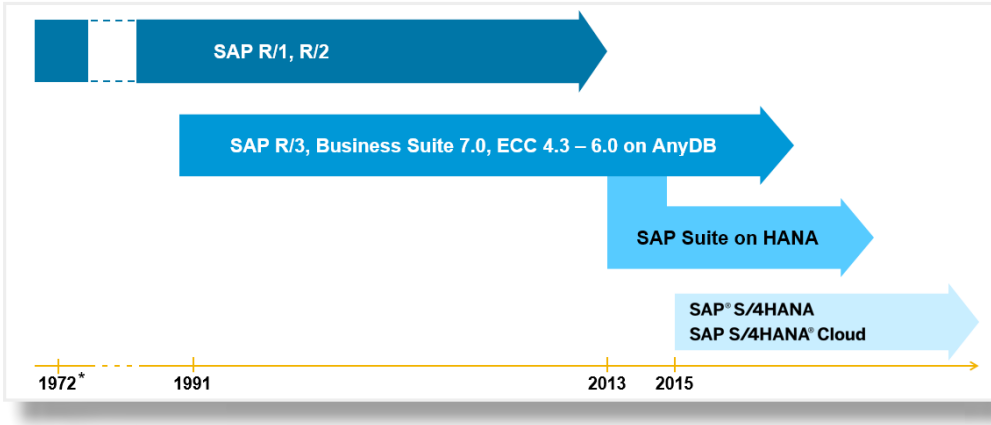

Figure 2.1: Evolution of the application suite of SAP

2.1 The SAP Cloud Platform

One of the pillars of SAP's cloud offering is the *SAP Cloud Platform (SCP)*. As mentioned briefly in Chapter 1, it is SAP's platform-as-a-service (PaaS) offering. It is a versatile platform built on SAP HANA that provides you with the necessary technical tools needed to rapidly extend existing application

capabilities, integrate with both on-premise and cloud SAP and other third-party systems and applications, and the tools for innovations (such as in cutting-edge areas like artificial intelligence, machine learning, Internet of Things, blockchain, etc.). SCP is the foundation of the concept of the *Intelligent Enterprise*. It allows enterprises to bring together all of their digital assets and unlock the intelligence in them so that the enterprise can run its business better, faster, and smarter. In other words, the enterprise becomes an Intelligent Enterprise.

Open standards

An important characteristic of SCP is that it is based on *open standards*. These include JavaScript, Node.js, and Cloud Foundry.

SCP was first introduced to the market in October 2012. At that time, it was called the *SAP NetWeaver Cloud*. In May 2013, it was rebranded as the *SAP HANA Cloud Platform*. And finally, in February 2017, it was renamed again as the *SAP Cloud Platform*—a name that has endured for more than two and a half years at the time of writing this book.

To get a good **big picture** sense of SCP, let us look at Figure 2.2.

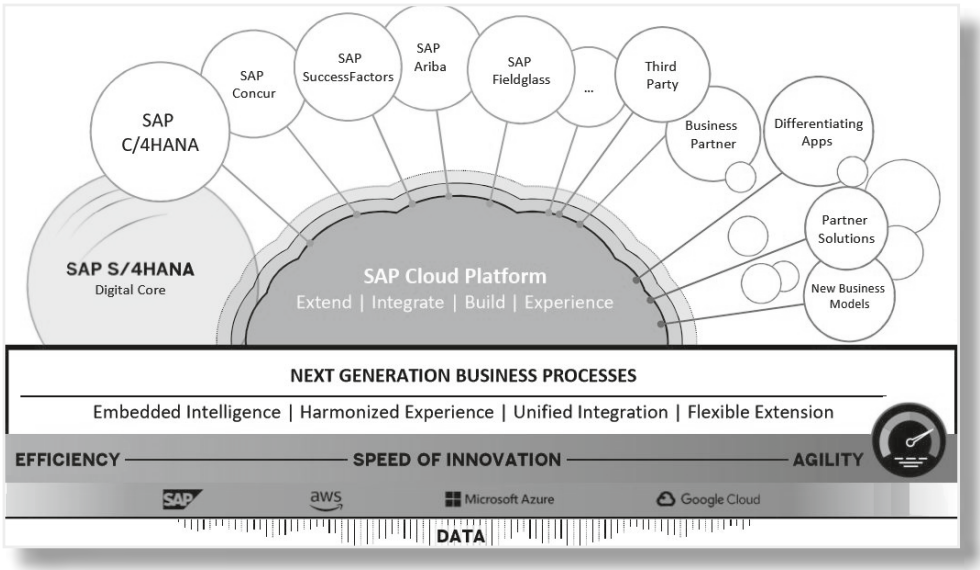

Figure 2.2: The central role of SCP

This picture should give you a good sense of how central SCP is to your overall IT landscape. It has a hub-and-spoke feel to it, with its connections to various on-premise and SaaS applications. It can also be viewed as a nucleus for all kinds of enhancement/extension, integration, and innovation activities.

SCP lies at the foundation of SAP's Digital Framework, which is the hub-and-spoke nature of the Intelligent Enterprise that envisions S/4HANA as the hub (or nucleus or digital core) and spokes that support various applications and capabilities via the cloud. Figure 2.3 shows this digital framework architecture.

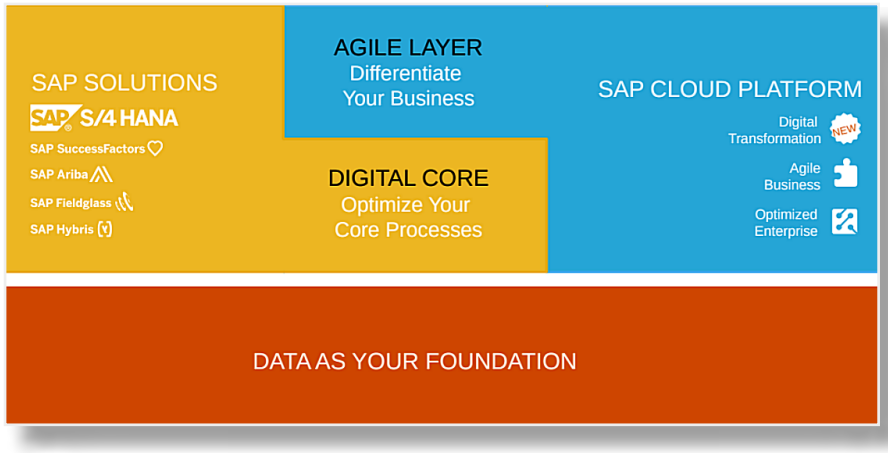

Figure 2.3: Digital framework architecture

As you can see, SCP plays a key role in your foundation for a digital enterprise.

2.1.1 SCP services

Capabilities in SCP are bundled as services and there is a dizzying array of these available. New services are added frequently. At the time of writing this book, there are 89 services available. Therefore, it does not make sense to list all of them but I will mention a few of the most popular ones: SAP Analytics Cloud (SAC), SAP RealSpend, Leonardo Machine Learning Foundation, SAP JAM, SAP HANA, SAP Web IDE, SAP Git service, gamification, application logging, monitoring, API Management, SAP Translation

Hub, API Business Hub, Internet of Things, Conversational AI, SAP Fiori Cloud, etc.

When you sign up for an SCP account and navigate to the services, you will see the services available to you, as shown in Figure 2.4 (partial screenshot).

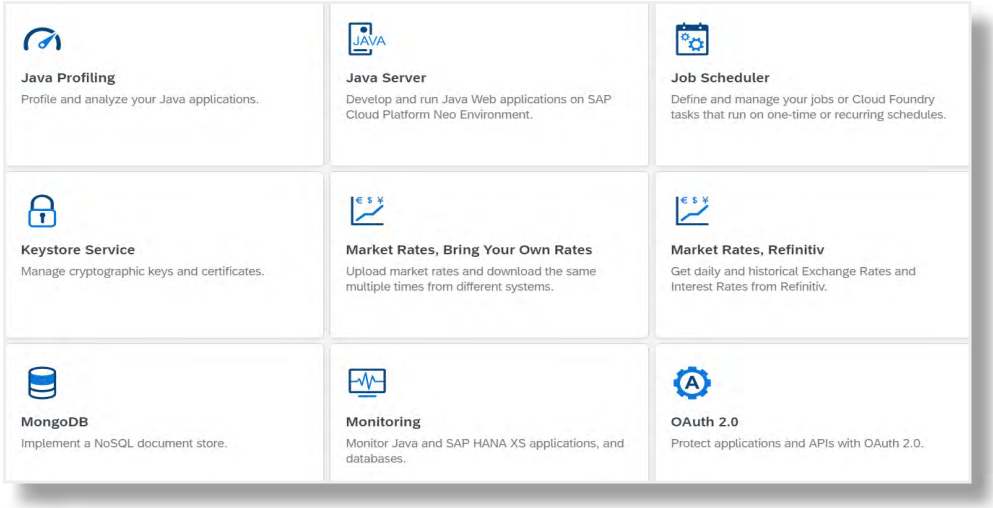

Figure 2.4: Partial screenshot of SCP services

2.1.2 Integration with SCP

SCP functions as the control center for connected applications in your system landscape. These include both SAP on-premise and cloud applications (such as Concur, SuccessFactors, Ariba, etc.) and non-SAP applications. SCP thus acts as a hub for all these applications and in order to ensure smooth coordination, it provides the following services:

- API Management—SAP and its partners have already delivered more than a thousand APIs
- Out-of-the-box integrations—there are currently more than eleven hundred prepackaged integrations
- Integration Advisor
- API Business Hub

- Workflows and business rules
- Enterprise messaging and functions
- Open connectors for hub-based integrations
- Integration Automation

Let us now take a close look at Figure 2.5 and try to grasp how SCP facilitates all of this.

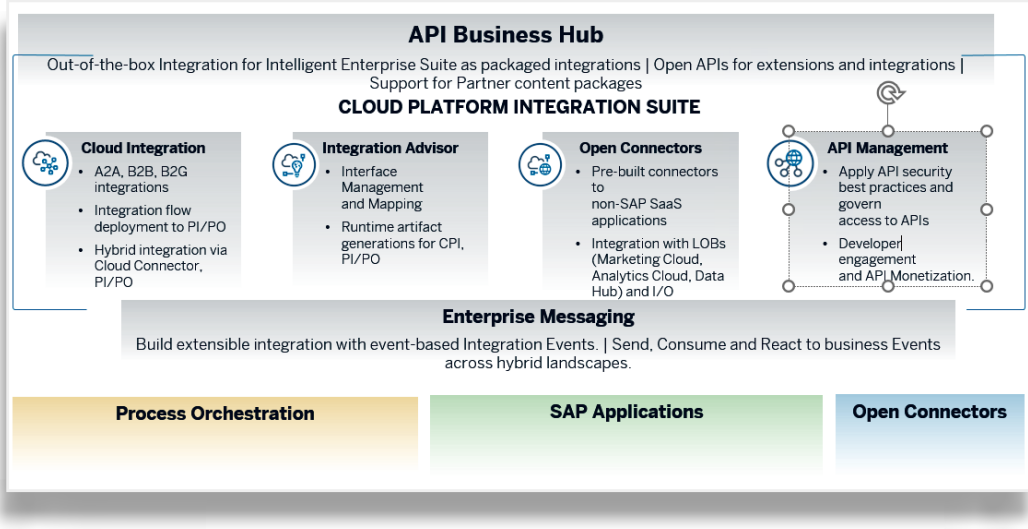

Figure 2.5: API Business Hub

The API Business Hub is the uppermost layer of the SCP integration suite and is a library of APIs that support your needs to extend standard S/4HANA Cloud functionality. The next layer consists of five key functions that I mentioned earlier. Collectively, they help you manage your integration needs. API Management is worthy of special mention. The key thing to note on this topic is that there are special applications that exclusively provide API management capabilities. With SCP, API management is included in the platform. You do not need to incur additional costs to use it.

The Enterprise Messaging hub brings up the rear. It is the glue between SCP and the applications. This hub takes care of the handshaking between SCP and each connected system and ensures that SCP is synchronized with the applications.

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