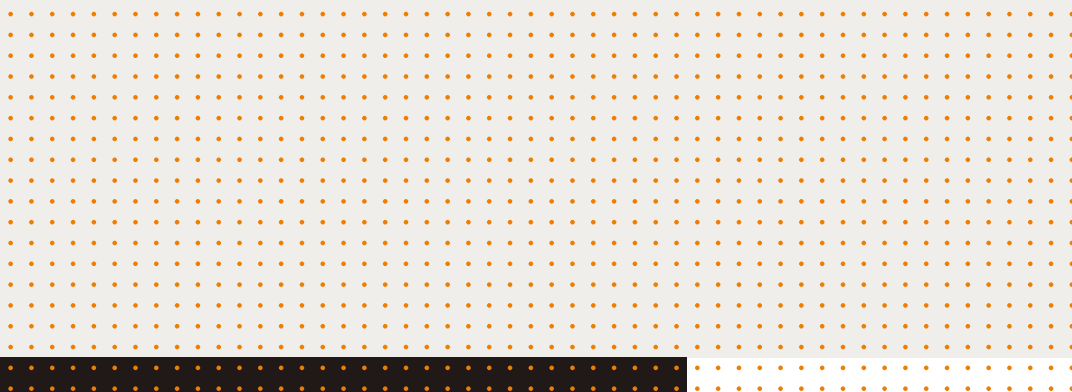


# Outsourcing Navigator in the SAP Cloud

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cbs Specialist Article



**Cloud computing is growing in importance. But which cloud solution is right for your company? Before user companies outsource IT platforms and services, they need to analyze their systems, processes, and requirements in detail.**

## All Clouded Over?

The cloud is omnipresent and considered the universal remedy for all IT architecture issues. However, it has yet to achieve global acceptance. It has polarized and split the community into two camps like no other IT paradigm ever before: On the one side, there are the “visionaries”, who can no longer imagine a future without the cloud in the context of the Internet of Things (IoT). And on the other side, there are the “concerned parties” and those who fully exclude cloud solutions from their IT planning against the backdrop of the NSA affair, the Safe Harbor Agreement declared invalid by the EU, its successor, “Privacy Shield”, and justified data protection concerns.

But thanks to the metamorphosis of software manufacturers, the cloud is continuing to gain in significance. The number of cloud services offered by SAP is evidence of the company’s conversion into a cloud company. The SAP cloud vendor’s shop has enhanced its existing business focused on on-premise solutions with enterprise software powered by the SAP HANA Cloud Platform (HCP), SAP HANA Cloud Integration (HCI), the SAP Jam collaboration platform, and solutions such as SAP Lumira and SAP Cloud4Customer right up to Ariba Marketplace.

SAP users in particular need to carefully consider aspects such as purpose, risks and opportunities, as well as the operation and organization of cloud solutions. The term cloud can be interpreted in very many ways, since the cloud can be used multi-functionally depending on both the manufacturer and product in question.

The following section categorizes the cloud solutions available today.

## The Cloud DNA

### Categories by Availability

If the solutions are categorized based on their availability to users, the following categories can be applied: public cloud and private cloud.

#### 1. Public Cloud

“Public cloud” is the expression used to refer to a solution that is essentially available to any authenticated user via the Internet. The “public cloud” almost always con-

sists of one central system that can be used by a number of companies simultaneously thanks to the concept of multitenancy. One special form of the “public cloud” is the “community cloud”, which restricts access to a defined group of selected companies or users.

#### The advantages cannot be disputed:

- Cost-efficiency arising from the shared operating costs
- Pay-per-use model (license purchase not required)
- Minimal maintenance effort
- Release and patch levels always up to date

#### The solution also poses a number of disadvantages, however:

- Potentially prominent target for attacks due to far-reaching presence
- Risk of unauthorized access to data/shortcomings of multitenancy capabilities
- Lack of transparency of operating parameters that can rarely be controlled (e.g. frequency of backups)
- Internal maintenance effort and maintenance schedules are dictated by external sources

## 2. Private Cloud

The “private cloud” is the expression used to refer to a customer-specific solution platform in a customer’s own data center or a leased data center. When a virtualization solution is introduced, this equates to the initial stages of a “private cloud” infrastructure that can be developed into a fully-fledged cloud platform.

#### Advantages of a separate cloud:

- Maximum flexibility with respect to maintenance and operation
- Maintenance can be harmonized with company IT project planning
- Data protection and data security can be assured

#### Disadvantages:

- Full operating costs (e. g. for license purchase)
- Restriction on architecture options
- Own technical personnel required

One special form of the “private cloud” is the “virtual private cloud”. This consists of a virtual cloud environment hosted by a service provider that can be accessed solely by the company (normally by means of a VPN). This combination facilitates the use of a protected “private cloud” solution without a need to purchase and operate the infrastructure required.

## Categories by Scope

A further distinction between cloud offerings is in relation to the scope of the services provided:

### 1. Infrastructure as a Service

This cloud offering is a classic sourcing model, which involves leasing computing capacity for a defined period of time. This is a particularly interesting option when the resources are charged based on actual consumption and according to a pay-per-use model.

### 2. Platform as a Service

This type of cloud solution not only provides simple resources (hardware, network, and storage) but also provides a comprehensive solution platform that includes licenses that enable a company to create its own applications. A well-known example of this would be the HCP, which provides a SAP HANA platform that allows companies to create their own analyses or tools.

### 3. Software as a Service

The next level up in the cloud evolution provides the infrastructure, the licenses, and the final application. Well-known examples of this include Microsoft Office 365, SAP Cloud4Customer, and Salesforce. The goal here is to provide an autonomous application, including maintenance and support, that allows users to concentrate fully on their business processes.

### 4. Process as a Service

This official but less common term describes an enhancement to pure provisioning and maintenance services that includes the execution and application support for a business process.

## The Cloud Dilemma or “Spoilt for Choice”

The wide range of options and offerings can make the decision more difficult. Which cloud offering is the right one for me? This is a rather complex question. Time and time again, cloud projects are driven by technology. This means that when classic on-premise solutions are purchased, the actual software required is sold with a maximum dis-

count and a cloud license is sold in addition. Caution should be exercised here, however, since only a fact-based evaluation of the architecture landscape prior to purchase allows requirements and features of offerings to be compared.

Some aspects can even become show-stoppers for cloud integration, such as the data protection. This applies in particular in the current legally unclear interim phase following the ECJ judgment on Safe Harbor and the start of its successor Privacy Shield. The maturity of an organization and performance aspects (arising from latencies, for example) also need to be taken into account.

Three typical application scenarios have proven to be effective uses of the cloud:

#### 1. Commodity

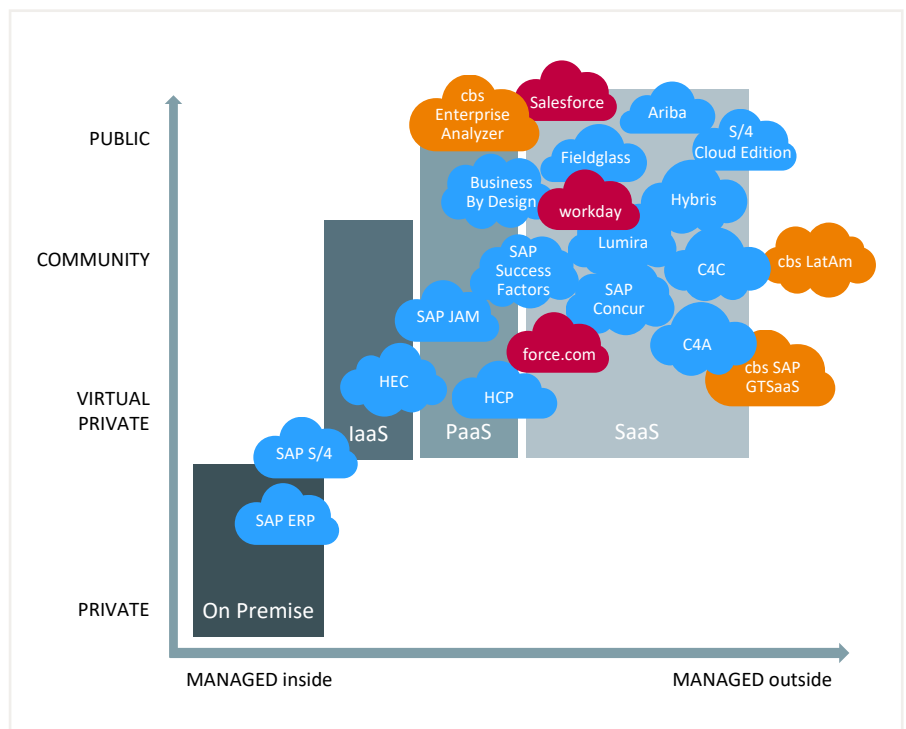
Provision of basic IT services (such as e-mail, messaging, etc.) for which there are no customer or industry specifics. A well-known example is Office 365.

#### 2. Pay-per-use

Short-term provision of resources limited temporally to compensate for bottlenecks, accelerate recurring routine tasks, and for training or project purposes.

#### 3. Availability

Optimization of access times due to lower latencies, for example, through the use of international cache servers for Web applications.



Cloud Compass – Relevant Solutions for SAP Users

## Example of Application - cbs SAP LatAm Cloud

One example that successfully demonstrates the benefits of hybrid cloud solutions is the cbs SAP LatAm Cloud.

Extensive legal and tax requirements are in place in Latin America. These range from declarations to the authorities and the legally stipulated “SAP Nota Fiscal Eletrônica” in Brazil, to taxes and duties, and frequent legislative amendments.

As an SAP consulting firm, cbs has already successfully supported more than 50 industrial companies in their SAP rollout in Central and South America. This know-how has been leveraged in the “LatAm Cloud” solution. This solution is a cloud solution based on SAP software that allows electronic communication with the authorities in countries such as Brazil (SAP GRC NFE), Argentina, Chile, Mexico, and Peru to be handled in a legally compliant manner. cbs provides the LatAm Cloud as a public cloud solution in the form of the SAP Partner Managed Cloud (SAP PMC) solution. This solution is hosted in the German data center of the IT full service provider Materna GmbH, the cbs parent company. This ensures that data protection is handled in accordance with German law. In addition to infrastructure operation in an ITIL-compliant data center that also has TÜV and ISO27001 certification, the cloud service includes managed services for basic operation, such as monitoring, alerting, and security and performance adjustments. Furthermore, the offering includes application support that provides assistance in configuring the ERP back-end system and, where desired, analyzes the return codes from the authorities and recommends corrective measures. The service is available 24 hours a day to 99.9 percent each year. Support is provided in German or English during the local time zone (e.g. of Brazil).

From a technical perspective, the user companies establish a connection between the LatAm Cloud and their SAP system landscape using standards such as a Remote Function Call (RFC). The cloud service handles the tasks involved in signing and encrypting data in communication with the authorities. The solution is a hybrid model that allows companies to connect their global SAP systems to the cloud solution of cbs. Data is transmitted via an encrypted VPN tunnel.

The cbs E-Invoice World Cloud is a perfect example of “Process as a service” in the form of a virtual community cloud since it provides all elements that are required for the processes involved in communicating electronically with the authorities. The support process and the implementation of legal requirements is fully out-

sourced – thereby offering maximum flexibility. In addition, the public cloud offers maximum synergy effects in operation and support – thereby offering cost savings.

## Summary

The cloud is unstoppable and is set to triumph as the new IT key technology in the SAP environment – in particular due to the endeavors of SAP AG in cloud technology. But not all cloud technology is the same. And the cloud is certainly not the universal remedy it might be proclaimed to be. Before solutions of this type are selected and implemented, it is advisable to structure the requirements from an organizational, process, and architectural perspective and to use this as a basis for devising an appropriate solution scenario.

### cbs Cloud Offerings

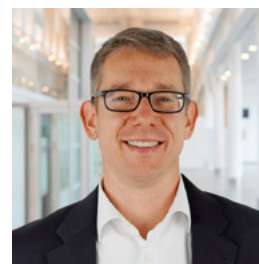
cbs Corporate Business Solutions Unternehmensberatung GmbH has been supporting global industrial companies in their SAP implementation/rollout and transformation projects for more than 21 years.

The company, which is also a cloud provider, provides architecture and strategy consulting services for the integration of cloud services in complex SAP system architectures.

With this sound process knowledge and technological expertise, we work with you and on the basis of your personal IT agenda 2020+ to devise the transformation steps you require to deploy hybrid cloud scenarios successfully in your SAP process and system landscape.

**For more information, please see:**

[www.cbs-consulting.com](http://www.cbs-consulting.com)



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