WHITEPAPER

The future of your SAP environment in SAP RISE?

The current situation challenges SAP managers: the S/4 HANA transformation, the expiring ECC support (end of 2027) and the new options for operating your future SAP environment requires short-term decisions. But how do you maintain an overview and composure in this situation?

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SAP RISE in a Nutshell

Whether SAP RISE (Private/Public), native in the cloud or on-prem: many IT decision makers are asking themselves which operating model is best suited for my organization in the future.

Decisive for the operating model decision are — in particular — considerations relating to the complexity of the company's own SAP system landscape or business cases, the adaptation of business processes, data quality and consistency, change management, resource scarcity and, last but not least, costs.

In this white paper we'll give you a brief overview of the possibilities of SAP RISE on AWS to help you to decide on a suitable operating model based on your own business case. Further possible operating models (e.g. AWS for SAP native) that can map your SAP landscape securely and efficiently in the future can be found on our service page.

RISE PRIVATE OR PUBLIC?

The decision to operate your future SAP S/4HANA landscape in a "Private" or "Public" environment depends in particular on your individual business case in terms of integration (organization, processes, technology), complexity (organization, processes & data) and individualization (customizing) of your existing SAP landscape.

The following diagram gives you a brief overview of the dimensions & characteristics that should be considered when deciding on the respective RISE operating model:

	RISE (PUBLIC) / GROW	RISE (PRIVATE)
BUSINESS CASE	New SAP implementation; greenfield; highly standardized processes; low process, system or data complexity	New SAP implementation; existing SAP system; greenfield or brownfield; selective data transition; standardized processes; medium process, system or data complexity; industry solution if applicable
OPERATING MODEL	SaaS solution (operational responsibility SAP); multitenant; no influence on updates	PaaS solution (operational responsibility SAP); single-tenant; influence on update cycle
BACKUP & RECOVERY	Responsibility SAP	SAP responsibility, system copies on request
FLEXIBILITY	Standardized; no or limited customizing; no possibilities to influence functionalities, etc.	Standardized; customizations possible to a certain extent
INFRASTRUCTURE	not selectable	freely selectable (e.g. AWS; Microsoft Azure, GCP)
LICENSING	Subscription-based	Subscription-based

Further information regarding SAP operating models can be find here.

THE BUSINESS CASE

SAP RISE as a SaaS (Public) or PaaS (Private) solution offers companies access to professional business software (e.g. ERP solution), especially without having to worry about operating the infrastructure.



RISE Public — The all-round carefree package.

RISE Public is particularly suitable for companies that are introducing SAP into their company for the first time without having previously operated an SAP system (greenfield).

The advantages are obvious: Less or no "overhead" when operating the environment.

Challenge: the "out-of-the-box" solution leaves practically no possibilities for mapping the system to the existing, mostly individual organization, processes & data — which contain the intelligence of value creation as the company's USP — in SAP.

In addition to the change — regarding the use of a new application (user interface) — existing processes, organization and data (models) may also have to be "rethought". A huge challenge alongside the daily IT business.

In technical terms, this is also applicable to non-standardized interfaces for e.g. previously implemented, highly specialized industry solutions.

RISE Private — More flexibility

RISE Private offers more flexibility here. If companies already using SAP on-prem and largely adhere to the standard, RISE Private is suitable as a conversion strategy for both a greenfield or a brownfield approach.

Thanks to this flexibility, companies can continue to use S/4HANA-compliant extensions with regards to their existing organization, processes and data mapped in the previous, (large) customized

SAP ECC and subsequent systems. A high degree of process diversity and flexibility in terms of expandability (e.g. customizing, connection of 3rd party industry solutions) is generally possible.

INFRASTRUCTURE & OPERATIONS

With both RISE Public and RISE Private, you also no longer have to worry about the underlying operations and support (including backup and recovery).

RISE Public - SAP Out-of-the-box

With regard to RISE Public, new updates or releases are provided automatically (mandatory) by SAP. The customer is informed before a corresponding release or update. Tools for the automation of any necessary tests are provided. The range of SAP-related functions is automatically expanded with new, innovative solutions.

Challenge: However, RISE Public is not suitable for customers with more extensive flexibility requirements. For example, it is not possible to have a separate, detached instance for testing/development purposes (e.g. as a system copy). Especially with such a deeply integrated solution as an ERP system - often at the heart of a company's organization, processes and data - this can be challenging. If not today, then maybe in the future.

This is in particular true for highly specialized industries for which SAP only offers a limited portfolio of solutions on the market, meaning that any potential for optimization within the company's own organization cannot be realized or can only be realized with huge effort.



RISE Private — More possibilities for your organization

Here, RISE Private at least offers the option of requesting system copies for your own environment from SAP and using these for your own test/development scenarios with the associated optimization potential.

Backup & Recovery

SAP is responsible for operational tasks for both RISE Public and RISE Private. With both operating models, SAP ensures the availability of your SAP landscape.

SAP offers a 2, 3 or more staging concept for RISE Private (e.g. PROD; QA; DEV). In the case of PROD, a daily full backup is made for the database with a 10-minute log backup (depending on volume and age). The retention period is 30 days.

A disaster recovery service can be booked as an option, which — depending on the architecture and SLA — enables an RTO (recovery time objective) of 4 hours with an RPO (recovery point objective) of 0 minutes*.

FLEXIBILITY.

As already mentioned in the previous sections, RISE Private differs from Public particularly in terms of the depth of integration, migration and customizing options. With both RISE Private and Public, it is possible to integrate and use additional RISE services such as the following:



Business Process Intelligence (BPI):

Tools and services for analyzing and improving business processes. BPI helps companies to identify inefficiencies and optimize processes in order to achieve greater efficiency.



(BTP): Integration of data and business processes via the SAP Business Technology Platform, which makes it possible to extend, integrate and create

SAP Business Technology Platform

applications to meet specific business requirements.



Conversion Factory Services: Support for the migration of existing SAP ERP systems to SAP S/4HANA, including the conversion of customized code and the migration of data.



Embedded tools and services: Various tools and services embedded directly into SAP solutions to simplify implementation, migration and management.

RISE Private offers more flexibility than RISE Public when it comes to the transfer of existing data and the mapping or migration of existing organizational and process structures as well as extensive adjustments (customizations) and the connection of 3rd party solutions.

LICENSING.

In contrast to on-prem or cloud-native, both RISE operating models are based on a subscription-based model. Different contract types up to 5 years can be selected.

Which operating model is the right one for my company?

RISE is not reinventing the cloud and digital transformation and there is currently no exit scenario. Whatever the individual case may be - ONE thing is correct: the decision as to what extent "RISE with SAP" makes sense is a question of the individual business case (see also the section "The business case"), which at the end objectively demonstrates the right decision for decision-makers.

^{*}Source: SAP S/4HANA, and ERP Cloud Services Documentation

HYBRID & CLOUD-NATIVE OPERATING MODEL

It is also possible to operate SAP systems on-prem (or cloud-native, with all the advantages in terms of flexibility) with S/4HANA. Hybrid mixed operations are also possible.

This means that the core ERP system is operated in RISE, supplemented by on-prem/cloud native SAP applications or instances. This can be an interesting (if not necessary) approach, especially for companies within highly specialized industries solutions or deep integration/customizations as well as individual 3rd party interfaces.

ADVANTAGES OF A HYBRID & CLOUD-NATIVE OPERATING MODEL

In addition to an increase in flexibility when using a hybrid or cloud-native approach, there are other advantages to using this kind of approach: Please find below some examples/possibilities:

Archiving your SAP landscape before the transformation/migration to SAP RISE: Depending on your type of industry or organization, you're faced with the obligation, to meet, for example, regulatory or compliance policies, to keep e.g. your system status (data or processes) in a traceable manner for up to 10 years or more. By using cloud resources, companies have the option of archiving their data in the cloud in accordance with requirements.

Cloud providers offer a variety of services here, e.g. legally compliant archiving, access and backup concepts, monitoring and a variety of storage options or storage classes depending on access frequencies or speeds, which enables secure, cost-effective archiving.

Sandboxing & staging: With extended options regarding the provision and use of sandboxing and staging systems in your AWS tenant, you retain full control over your SAP instances. This creates more

agility and flexibility for your specialist departments and development teams.

Cloud-native with SAP BTP: With SAP BTP, companies have the opportunity to develop and operate cloud-native applications. This includes, for example, the use of state-of-the-art GenAl solutions with integration in SAP, containerization & orchestration possibilities to ease up your operational burdens and the use of CI/CD pipelines to support your development cycle. SAP BTP offers a variety of options & extensions for individual customer workloads and solutions with numerous interfaces between onprem, cloud-native and RISE as well as the possibility of automation to make the operations of the SAP landscape as efficient as possible.

PCG RISE Service Management: PCG RISE Service Management supports your organization in orchestrating, automating and optimizing your SAP services throughout the entire service lifecycle. Regardless of whether you are on-prem, cloud native, hybrid or on RISE: from the creation of roles and rights concept, contract and license monitoring, service request fulfillment, upgrade lifecycle support to the optimization of your fin-ops PCG will be your trusted and experienced partner who will reliably support you - across the various architectures - and will minimize your workload of your SAP services operations for you and your team.

THE CHOICE OF HYPERSCALER

With RISE Public — as a fully managed SaaS solution — SAP does not offer customers the option of choosing a hyperscaler.

Customers who have the need to choose a specific hyperscaler — e.g. for reasons of company-wide cloud strategy or compliance — will have the option with RISE Private to choose between the most common hyperscalers today (including AWS, Microsoft Azure or Google GCP). As previously discussed in

earlier chapters, customers will have the option to receive system copies of their SAP instances from SAP for development purposes.

Why SAP RISE on AWS?

AWS has been working hand in hand with SAP for more than 6 years and therefore offers one of the most comprehensive ecosystems when it comes to the integration of SAP services in the cloud. This includes — especially when operating SAP on AWS—a high degree of automation and innovation possibilities.

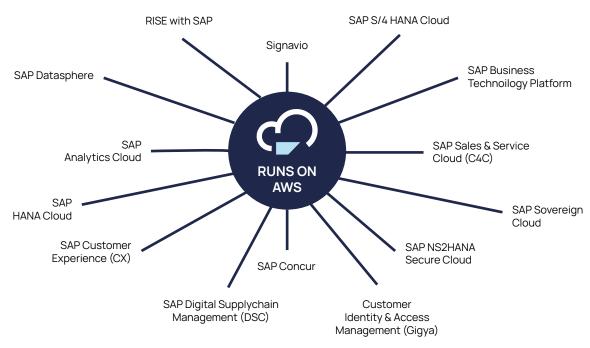
AVAILABILITY OF INNOVATIONS

When it comes to innovation, AWS is often at the forefront introducing new, innovative SAP services. In principle, all services provided by SAP are also available on AWS, often first, sometimes even exclusively. However, this does not mean that these services are not also available to customers who host their SAP environment with another hyperscaler. Customers can transparently access these services from their respective hyperscaler network.

Advantage for AWS customers: All data and services are located within the AWS network. It is not necessary to leave the AWS network or transfer data from one hyperscaler to another via the Internet. This is especially beneficial for security, cost efficiency, latency, and performance.

SAP's strategic decision to use AWS to operate some of its most important cloud services for customers is particularly evident in the SAP Business Technology Platform (BTP) segment:

- > 60 BTP services are implemented on AWS more than on any other cloud platform
- Geographical availability: all BTP services are active in 9 publicly accessible AWS regions, making AWS the leading provider in this category
- Exclusive: > 10 special BTP services run only on AWS, including offerings such as Document Information Extraction for document processing, SAP Analytics Cloud Embedded Edition for analytics and SAP AI Core for managing AI models
- All eight of BTP's AI/ML services are available exclusively via AWS



Source: AWS Partner Presentation "Why RISE with SAP on AWS"

In 2022, all newly launched BTP services were first provided on AWS, while the next CSP (Cloud Service Provider) only accounted for a third of these Leadership in the cloud

LEADERSHIP IN THE CLOUD

Both Gartner and ISG have seen AWS as the leading cloud provider for several years. According to Gartner, AWS has a leading position in the provision of strategic, cloud-based platform services. ISG also highlights AWS, particularly in the area of SAP HANA Infrastructure Services.

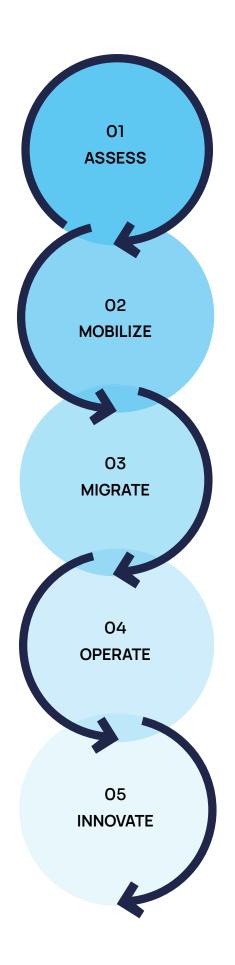
In addition, AWS is characterized by the high reliability of its infrastructure and services, which — alongside other leading hyperscalers — underlines its leading position. This aspect is a decisive criterion, especially for companies that rely on the continuous availability of their business-critical SAP applications and data.

Get the details about the Gartner report here.

What are the steps to successfully move to SAP RISE on AWS?

The first step involves analyzing and redesigning the business processes. SAP offers various tools for this purpose that enables you to optimize your processes and make them more efficient. These tools and methods allow companies to analyze their business processes more precisely and quickly, which in turn enables a swift transition to SAP S/4 HANA. In addition, SAP offers proven best practices that support faster implementation.

From an SAP basis or operating model perspective, the transformation or migration lifecycle runs through the following 5 phases:



ASSESS

In the assessment phase, various dimensions must be taken in consideration as decision criteria for or against RISE with regards to the individual business case. These includes:

- Review of your existing SAP landscape focussed on architecture, organization, processes and data according to best practice
- An individualized discovery kick-off workshop
- A SAP Readiness Check for SAP S/4 HANA to obtain an overview of the expected costs
- Identifying RISE-compatible and non-compatible systems
- Planning of subsequent phases (Mobilize & Migrate)

RISE WITH SAP

RISE

SAP Digital Discovery Assessment (DDA): Tool to select the appropriate IT solution, package, legal entities, scope and other requirements in RISE Public that reflect the digital goals, business requirements and strategy.



HYBRID/CLOUD-NATIVE

- Evaluation of the required AWS architecture, sizing & services
- Maintenance & Housekeeping (Backup & Recovery, Monitoring, System Provisioning & Copy, etc.)
- Smart Cloud Sizing: https://pcg.io/ sap/smart-cloud-sizing-sap/
- AWS Pricing



COST CONSIDERATION

The following topics must be considered with regards to the cost analysis:

Licenses & Maintenance

- Contract conversion target calculation based on the current contract
- Target calculation product conversion based on current license distribution
- Comparative calculation in the target RISE model based on full-use equivalents

Infrastructure & operating model

- Consideration of costs with regards to hyperscaler/cloud-native vs. on-prem vs. SAP RISE
- In-house vs. external operations of your future SAP environment by managed service/cloud partner
- Sizing and cost analysis laaS, operation and migration project

Basis for decision-making

The goal is to create a basis for decision-making in terms of the subsequent phases, consisting of:

- Consideration of the criteria based on your business case - for the future operating model
- Risk assessment of the selected operating model
- Cost comparison of the respective operating models (ensure comparability here!)
- Negotiation strategy with regards to the contracts (e.g. costs of licenses, maintenance, etc.)



MOBILIZE

In the Mobilize phase, you'll take your first steps in S/4 HANA. You will get to know the new system and have the opportunity to gain experience with your new SAP environment in preparation for the actual migration.



02

RISE

- Enablement: Know-how transfer & training by our SAP experts and the SAP Learning Hub
- Sandbox environments: SAP with RISE provides sandbox environments where users have the opportunity to gain hands-on experience with the new SAP system (SAP Cloud Platform)
- Best practice guides and templates: SAP with RISE provides best practice guides and templates with individual phases using SAP Activate Methodology



Hybrid/cloud-native

- Proof-of-concept: Setup and provision of an S/4 activated SAP appliance (sandbox) in AWS to evaluate the S/4HANA environment for your SAP teams (business departments, development, basic operations)
- · Planning of target architecture
- AWS setup / configuration initial environment
- Planning sizing and migration of SAP databases to HANA, e.g. from SQL, Oracle and DB2

S/4 Move Xperience: In cooperation with AWS and SAP, we provide methods, tools and services to ensure efficient and secure migration in a partner-exclusive initiative.

MIGRATE

In the migration phase, you'll transform / migrate your existing SAP landscape to the new environment. This includes:

- Planning and preparation of the migration according to (RISE) specifications accelerated by PCG's automation platform ALPACA (https://pcg.io/sap/alpaca/)
- Ensuring migration not interrupting your business
- Adaptation of the operating model (move from CAPEX to OPEX)
- Provision of the target cloud environment via the ALPACA automation platform
- (Automated) migration of your non-RISE-compatible SAP landscape and non-SAP systems



RISE

- Migration of compatible, productive systems to SAP RISE in accordance with the RISE-specific migration methodology
- Cloud Application Services: Optimizing application operations, managing business operations and introducing innovations
- Technical migration: automated services to switch to modular and standardized architectures in the cloud
- Provision of migration environment: Use of VM with SLES during the migration/conversion of the SAP system
- Provision of the necessary tools (e.g. SWPM, SUM, etc.)
- Cleaning up the migration environment



Hybrid/cloud-native

- Provision of the target (production) AWS environment
- Migration of your productive SAP landscape (including SAP system preparations & DB installation; system copy / migration)

OPERATE

No matter what your future operating model looks like: Be it SAP RISE (Private/Public), native in the cloud or on-prem — or in any combination. Thanks to the many years of best practice experience of our experienced AWS & SAP expert teams, we can reliably support your future operations of your SAP environment. This includes, among other things:

- PCG Flexible Engineer: Enablement of your teams — consulting & on-the-job training on various cloud and SAP topics
- PCG Service Management for RISE: PCG is the service layer between the customer and SAP, regardless of whether the systems runs in RISE, cloud-native or on-prem before RISE migration
- PCG Elastic RISE: Automated provision of cloud-native test and training environments using PCG ALPACA
- PCG DataLegacySafe: Storage of old SAP systems for audit purposes, e.g. after the migration to RISE. Thanks to the high flexibility of the cloud, costs are only incurred if the systems are started via self-service
- Ensuring operations with customized SLAs and KPIs
- On-call services (24/7)
- Rolling provisioning system for rapid scaling of resources



RISE

Support of the new SAP environment with **PCG RISE Service Management**, including:

- Support your sales cycle with RISE (contract and license monitoring)
- Planning & implementing roles & responsibilities model in RISE
- Support Upgrade lifecycle RISE
- Monitoring (e.g. performance, DB Growth, EWA, Jobs)
- Maintaining the SAP transportation management system and configuring routes
- Service Request Fulfillment: Processing of service requests from customers to SAP
- Incident management: rectification of malfunctions within an SAP system
- Problem management: Root cause analysis and solving problems within an SAP system
- Event Management: Monitoring event types in SAP
- Fin-Ops optimization
- SLA & KPI verification
- Performance improvements
- German-speaking contact persons
- SAP Cloud Application Services (CAS)
- Access to the S/4 HANA system via a dedicated S2S VPN tunnel



Hybrid/cloud-native

- Support for AWS cloud service such as S3, EC2, network, backup & recovery, HA/DR
- OS support for Windows and Linux
- Orchestration
- Full Managed Service or Self-Sevice with automation platform ALPACA (https://pcg.io/sap/alpaca/)
- Monitoring



To enable you to access the full potential of your new SAP environment, we support you in "building the intelligent company". The basis for this is a cloud infrastructure (SAP host or hyperscaler approach) and the SAP S/4HANA Cloud — including Al solutions, RPA (robotic process automation) and state-of-the-art analytics.

On the operational side, we offer you, among other things:

- Further development of your cloud and SAP services (e.g. automation with ALPACA)
- Security (HA/DR, AWS Security Hub)
- FinOps economic efficiency through cost optimization
- Scalability (24/7)
- Troubleshooting your SAP systems using AL-PACA
- SAP BTP Services: From automated compliance checks to SAP Cloud Identity to native hyperscaler extensions - PCG offers various services to help our customers kickstart their BTP journey
- RISE Data & Analytics Accelerator: Connection of SAP systems with SAP Datasphere or cloud-native data services of hyperscalers, for the use of GenAI, etc.







RISE with SAP S/4HANA Cloud, private Edition





SAP Datasphere



Remnant SAP Application



Native Cloud Platform Services



Enterprise Cloud Data Lakes



Non-SAP Applications



Application
Cloud
Transformation



Customized

Database Apps



ALPACA - Next Level Platform

Next Level SAP Platform — Optimize your SAP operations and accelerate your innovation with ALPACA.

ALPACA — migrate & operate intelligently your SAP systems in the cloud. With our ALPACA framework, we optimize your entire SAP service lifecycle, whether on-premise, in the cloud or hybrid.

We accelerate your cloud projects significantly with our cloud-neutral platform ALPACA and take your SAP operations to the next level.

Optimize complex SAP and non-SAP landscapes with monitoring, control and automation. Experience high availability, efficient resource utilization and automation of tasks in the finalized operating concept. Thanks to the open framework, you can still adapt ALPACA individually to your cloud journey and your workflows.

For further information please refer to:

ALPACA — SAP AUTOMATION FOR ANY CLOUD

Your SAP S/4HANA Cloud Journey with PCG.

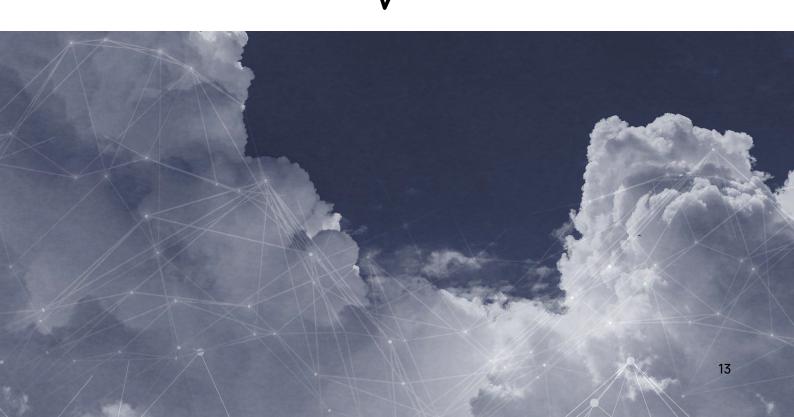
CONCLUSION

Companies that are about to switch to S/4 HANA will have to take a close look at the different operating models. It is recommended that companies weigh up all the pros and cons based on their own digitalization strategies and include the results in their IT roadmap/strategy.

Ideally, a trustworthy partner with extensive transformation & cloud experience who can correctly classify the pros and cons for your company and derive the consequences will support you. After all, the decision for or against one of the operating models should be made with the utmost care, as this can have far-reaching consequences in some cases operating & innovating your SAP landscape over the next few years.

START YOUR SAP CLOUD JOURNEY NOW!





THE FUTURE OF YOUR SAP ENVIRONMENT IN SAP RISE?

Why SAPonAWS with PCG?

- 1. Trusted Advisor: Our team of certified AWS and SAP technology consultants provides you with expert support along the entire lifecycle
- 2. Numerous successful projects: Monthly AWS Cloud Consumption of 500,000 euros by PCG customers
- **3.** In-depth expertise: PCG has been awarded the AWS SAP Service Competency and is an AWS Managed Service Provider
- 4. Attractive funding: As part of the SAP Move Xperience, AWS exclusively offers attractive funding for customers of certified partners focused primarily on migrating SAP landscapes to the AWS Cloud as part of the Migration Acceleration Program (MAP)

SAP Certified in Hosting Operations

SAP Certified in SAP HANA Operations

SAP Certified in Cloud and Infrastructure Operations

Our SAP partnership:







Our SAP Partner status is confirmed by numerous successful implementations and satisfied customers. We are a software and consulting partner specializing in SAP and infrastructure consulting and automation. As an SAP Partner and one of the largest AWS partners for SAP on AWS in Europe with more than 4,000 successfully migrated SAP systems, we are the trusted advisor for a customer's SAP on AWS journey.

Our AWS partnership:

- 4 AWS competencies
- 6 Partner programs
- 250+ Individual AWS Certifications
- 300+ Successful AWS customer projects

As a leading AWS Premier and AWS SAP Competency Partner, we combine extensive expertise, many years of experience and a high level of credibility to support your cloud projects. These partnership levels, awarded by AWS, underlines our strong commitment to developing, migrating and operating customized solutions across the entire AWS ecosystem. Our proven service delivery processes and multiple certifications ensure your success in the AWS Cloud. Thanks to our in-depth knowledge and long-standing partnership with AWS, we have helped numerous organizations on their cloud journey to drive growth and achieve business goals using the AWS Cloud.







About PCG

Public Cloud Group (PCG) supports companies in their digital transformation through the use of public cloud solutions.

With a product portfolio designed to accompany organisations of all sizes in their cloud journey and competence that is a synonym for highly qualified staff that clients and partners like to work with, PCG is positioned as a reliable and trustworthy partner for the hyperscalers, relevant and with repeatedly validated competence and credibility.

We have the highest partnership status with the three relevant hyperscalers (Amazon Web Services, Google Cloud und Microsoft Cloud) As experienced providers, we advise our customers independently with cloud implementation, application development, and managed services.

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