



November 2020

T-Systems on AWS

Smart migration on
AWS with T-Systems

AWS solution brief created in
collaboration with T-Systems



Meeting today's challenges

Staying competitive in the digital age

The conditions of the modern working world have placed increasing pressure on organizations to make the most of their IT. Be it migrating to the cloud with speed and agility, providing applications for employees worldwide, or establishing work spaces in new or unconventional environments —new challenges arise each and every day.

Migrating to the cloud allows many of these challenges to be met, but the stakes are higher than ever. Downtimes must be reduced to an absolute minimum, and security standards throughout migration must always be maintained.

For an effective migration that addresses these concerns, businesses need a well-managed and comprehensive approach to cloud computing that spans their entire organization, and is maintained throughout their IT lifecycle.

To this end, the AWS Cloud Adoption Framework (AWS CAF) has been developed to map, accelerate and optimize your cloud migration.

The AWS Cloud Adoption Framework

Designed to help organizations streamline their journey to the cloud, the guidance and best practices outlined in the AWS CAF allow you to implement your cloud solution with speed and security.

The AWS CAF covers six perspectives: business, people, governance, platform, security, and operations. Together they form the basis for a comprehensive transformation initiative that ensures the benefits of our cloud transformation are fully realized.

To learn more about the AWS Cloud Adoption Framework, [click here](#).

Realize measurable business success through cloud transformation

AWS Well-Architected

Designed to help organizations streamline their journey to the cloud, the guidance and best practices outlined in the AWS CAF allow you to implement your cloud solution with speed and security.

With the AWS Cloud Adoption Framework established as a core component of your cloud migration strategy and an AWS CAF Action Plan in place, your organization can begin implementing the expert guidance and best practices detailed in the AWS Well-Architected program.

Outlining the key concepts, design principles, and architectural best practices for designing and running workloads in the cloud, the Well-Architected Framework provides a consistent approach for customers and partners to evaluate architectures, and implement designs that can scale over time.

Learn more about the AWS Well-Architected Framework [here](#).

Learn, measure, and build using architectural best practices

The five pillars of Well-Architected



Implementing your migration

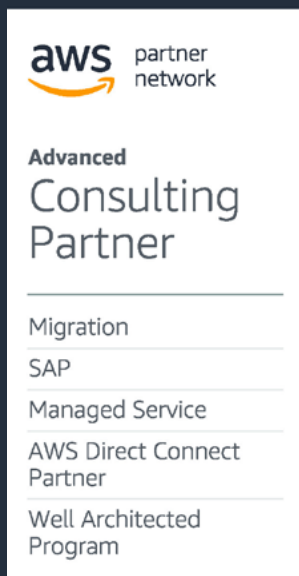
Leveraging trusted expertise for migration and more

Cloud migration is a complex journey, a journey on which you are likely to encounter many unforeseen and unpredicted obstacles. It is therefore important that you have the proper support and guidance when you need it.

AWS works with hundreds of AWS Partner Network (APN) partners to ensure that each and every one of our customers receives ample support where necessary, and that their cloud transformation is both seamless and secure.

Leveraging trusted expertise from a certified APN Partner can help you to pre-empt pitfalls, implement best-practice advice, and gain access to essential technical support as and when you need it.

To this end, AWS APN Managed Service Provider T-Systems are here to help.



T-Systems

A "Next Generation" Managed Service Provider

T-Systems are an AWS APN Managed Service Provider (MSP) who aim to support clients through their entire IT lifecycle. Offering end-to-end services that cover the entire cloud journey, they help customers to make the most of the AWS platform.


With a footprint in more than 20 countries, T-Systems offers a "one-stop shop" approach to migration. Their expertise extends from secure operation of legacy systems and classical ICT services to comprehensive cloud-based migrations and innovation projects.

T-Systems support customer demands end-to-end with a complete vision for migration. This includes support for the entire process of service provision, including supporting processes like HR planning, resource and finance management, and project implementation.

As part of the Deutsche Telekom Group, T-Systems have more than 1400 security experts and access to a broad network of capabilities across Germany and Europe.

T-Systems aim to provide end-to-end support. Their vision is delivered across 11 portfolio units, including security, cloud, IoT, SAP services, connectivity, networking and IT.

As an AWS Managed Service Provider, T-Systems drive business value for clients through proactive monitoring, automation, and management based on proven AWS expertise.



Working with T-Systems and AWS

T-Systems supports business partners by covering the entire cloud journey to AWS, including assessment, migration, and managed cloud services. They are also qualified to deliver Well Architected Reviews and AWS Cost Optimization.

As an AWS Direct Connect Partner, T-Systems not only provides a dedicated connection to the AWS platform, it also offers end-to-end managed networks — leveraging existing Telekom infrastructure to deliver fully-monitored and seamless solutions to customers.

Within the framework of managed cloud services for AWS, clients benefit from all the advantages of the AWS platform in combination with reliable network connections and the Telekom's strong security expertise.

Regardless of a customer's level of AWS usage, T-Systems offer business partners strategic and practical support in AWS resource management throughout the entire life cycle.

T-Systems Cloud Migration Framework for AWS

The offer begins with joint development of the right public cloud strategy, including a comprehensive security analysis. In addition to operational support and various billing and network services, T-Systems also offers support for central management of all public cloud services using the multi-cloud framework.

A holistic view of the company's situation makes it possible to develop a realistic migration plan in which all factors can be taken into account. In strategy workshops, T-Systems experts work with you to establish required functionalities — for example on topics like DevOps, SecOps, cloud migration or security. This allows a tailored architecture to be created for you based on the AWS Well-Architected Framework.

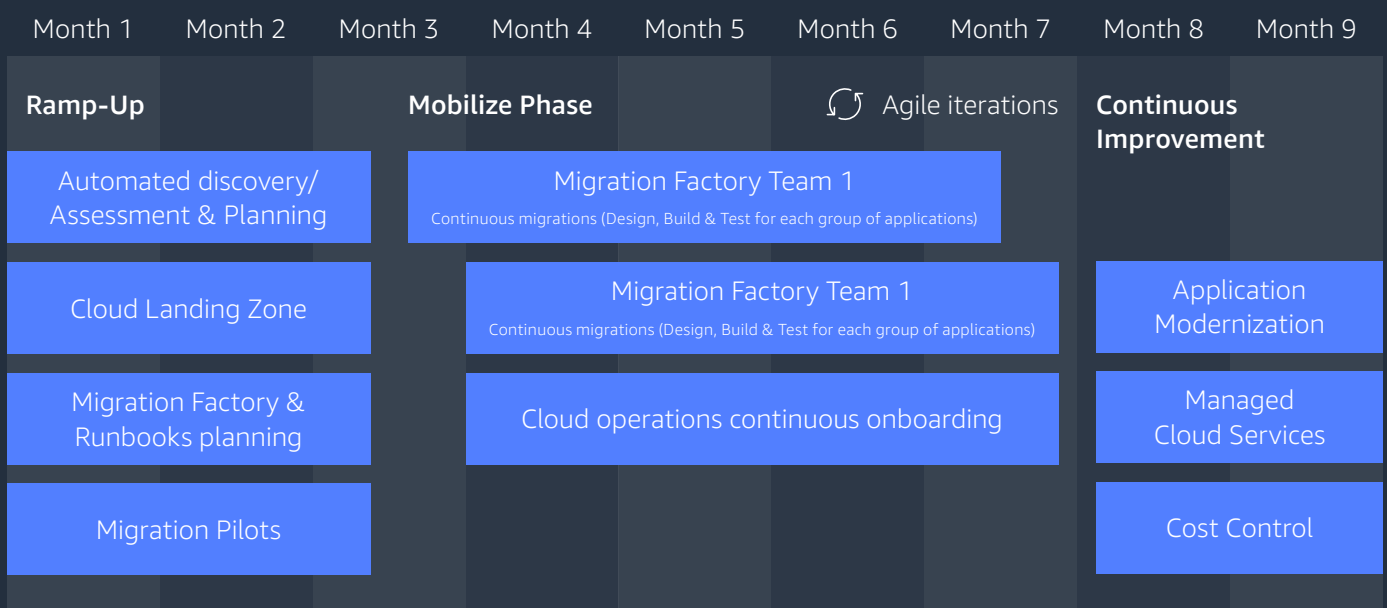
At the same time, companies receive support in setting up, operating, and managing the entire infrastructure. This spans from onboarding, identity & access management and data classification, to monitoring and incident management. With all security and compliance requirements met, T-Systems then provide a direct point of contact for potential incidents, and handles all coordination with the AWS Support Center.

Discover the
benefits of
migration
expertise

A smart
solution for
cloud migration

T-Systems cloud transformation framework for AWS

T-Systems support business partner across their entire migration journey to AWS. To achieve this, **T-Systems Migration Framework for AWS** has been designed to support customers using a multi-stage approach. The framework is as follows:



Aligned with AWS Cloud Adoption & Well Architected-Framework · Compatible with agile frameworks (e.g. LeSS, SAFe) · Close collaboration with hyperscalers and programs

During the **Ramp-Up Phase** T-Systems help business partners with standardized assessments to start their cloud journey. This might include building a cloud center of excellence (CCoE), defining a landing zone, creating a business base and migration plan, and integrating new standards for governance & security. This assessment allows workstreams to be defined with an actionable timeline for each task. (add copy – to be delivered)

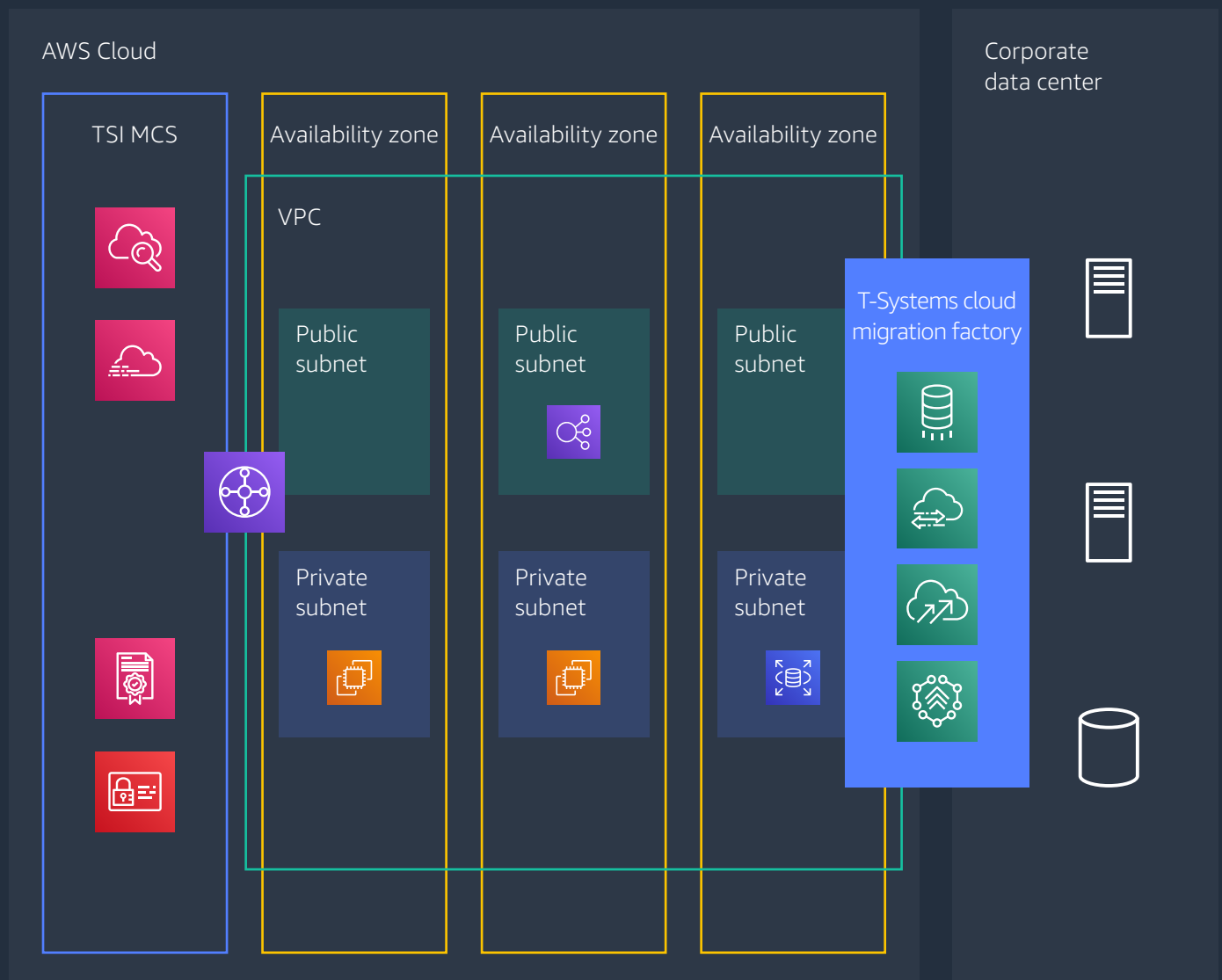
In the **Mobilize Phase** multiple cloud migration factory teams (CMF) work in scrum sprints to migrate the applications defined in the backlog. Based on migration patterns that are in scope of the CMF, a continuous onboarding to the operations team or managed service provider is part of the end-to-end migration factory.

In the **Continuous Improvement Phase** T-Systems aims to support business partners using a CCoE with right-sizing, effective cost management and operational improvements. This enables new possibilities for application optimization on AWS — including improvements to scalability and flexibility, while increasing the potential for continuous improvement as time goes on.

The T-Systems Migration Factory

The T-Systems Migration Factory is composed of highly specialized teams who work to guide customers through their migration, successfully implementing and iterating along the cloud journey. A high degree of automation and scaling leads to accelerated migration execution.

The following diagram shows a typical Migration Factory:



For T-Systems migration is just the beginning, as once the transition to AWS has been made operation must be guaranteed across the entire lifecycle of business workloads. As an AWS APN Advanced Consulting Partner and Managed Service Provider, T-Systems aim to develop relationships that provide customers with continuous support on their cloud journey.



Case Study

Seamless
migration for
25 hospitals
across
Indonesia

Project Scope

- Full proof of secured network design
- Proof of concept migration
- Final migration of business-critical applications (both SAP and non-SAP systems)

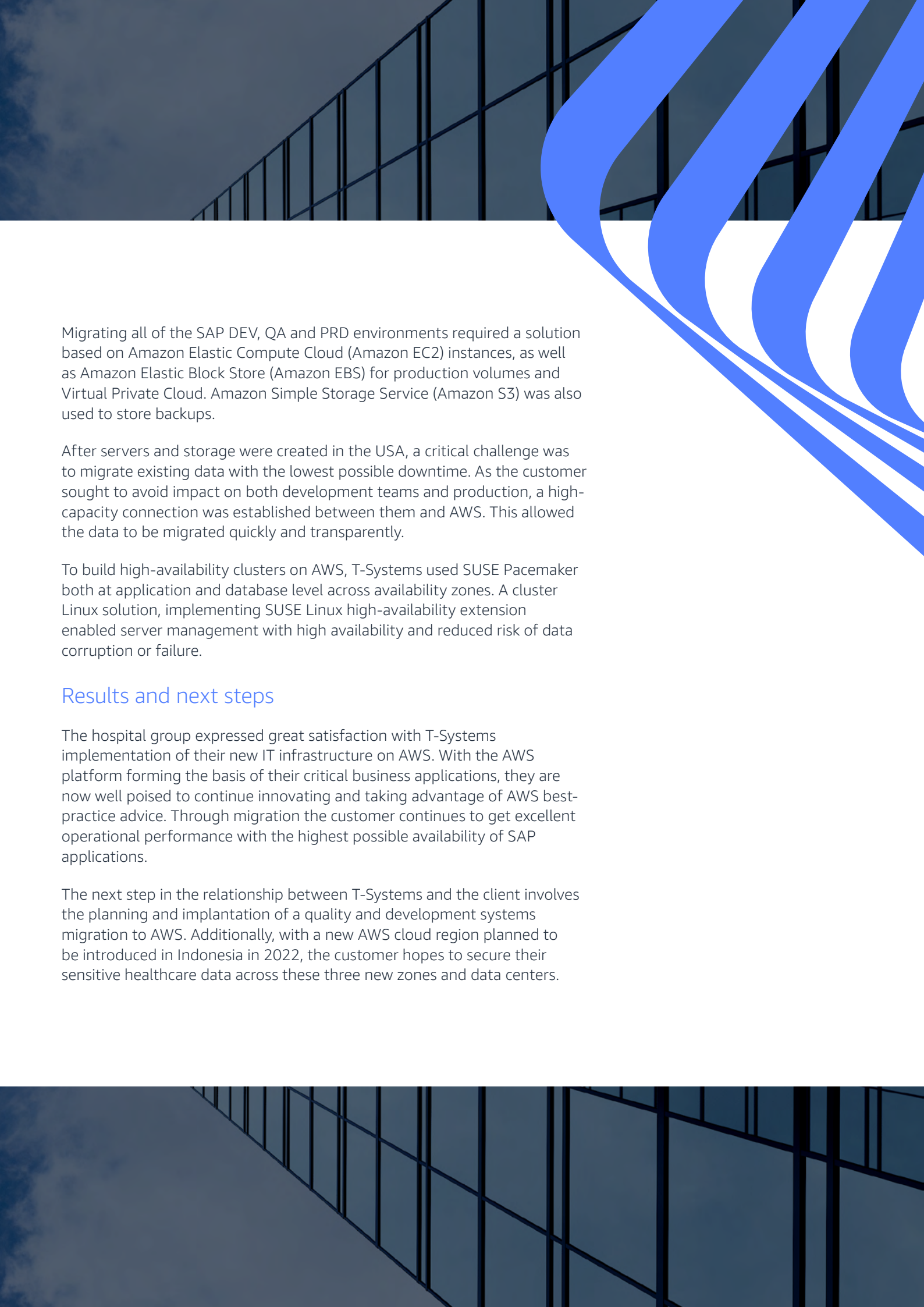
Objectives

Beginning their digital transformation in the first quarter of 2020, a hospital group wanted to address limitations in scalability, quality, and frequent downtime of the data center operated by a local service provider. With business-critical applications on the line and additional pressure from the ongoing global pandemic — a quick and careful migration was essential.

Facing a carve-out process and a segregation of the SAP landscape across the hospital group, T-Systems decided to implement a fully-cloud based solution to meet the urgent needs of the customer.

Solution

T-Systems developed a migration plan that took into account the safest possible business strategy for the company. Based on an understanding of the group's existing infrastructure and T-Systems extensive knowledge of the AWS platform, the solution entailed migrating the SAP environment while maintaining on-premise requirements.



Migrating all of the SAP DEV, QA and PRD environments required a solution based on Amazon Elastic Compute Cloud (Amazon EC2) instances, as well as Amazon Elastic Block Store (Amazon EBS) for production volumes and Virtual Private Cloud. Amazon Simple Storage Service (Amazon S3) was also used to store backups.

After servers and storage were created in the USA, a critical challenge was to migrate existing data with the lowest possible downtime. As the customer sought to avoid impact on both development teams and production, a high-capacity connection was established between them and AWS. This allowed the data to be migrated quickly and transparently.

To build high-availability clusters on AWS, T-Systems used SUSE Pacemaker both at application and database level across availability zones. A cluster Linux solution, implementing SUSE Linux high-availability extension enabled server management with high availability and reduced risk of data corruption or failure.

Results and next steps

The hospital group expressed great satisfaction with T-Systems implementation of their new IT infrastructure on AWS. With the AWS platform forming the basis of their critical business applications, they are now well poised to continue innovating and taking advantage of AWS best-practice advice. Through migration the customer continues to get excellent operational performance with the highest possible availability of SAP applications.

The next step in the relationship between T-Systems and the client involves the planning and implantation of a quality and development systems migration to AWS. Additionally, with a new AWS cloud region planned to be introduced in Indonesia in 2022, the customer hopes to secure their sensitive healthcare data across these three new zones and data centers.



Get more information on
T-Systems' AWS competencies
and the "Get ready, start and go"
special on our website.

[Visit T-Systems](#)