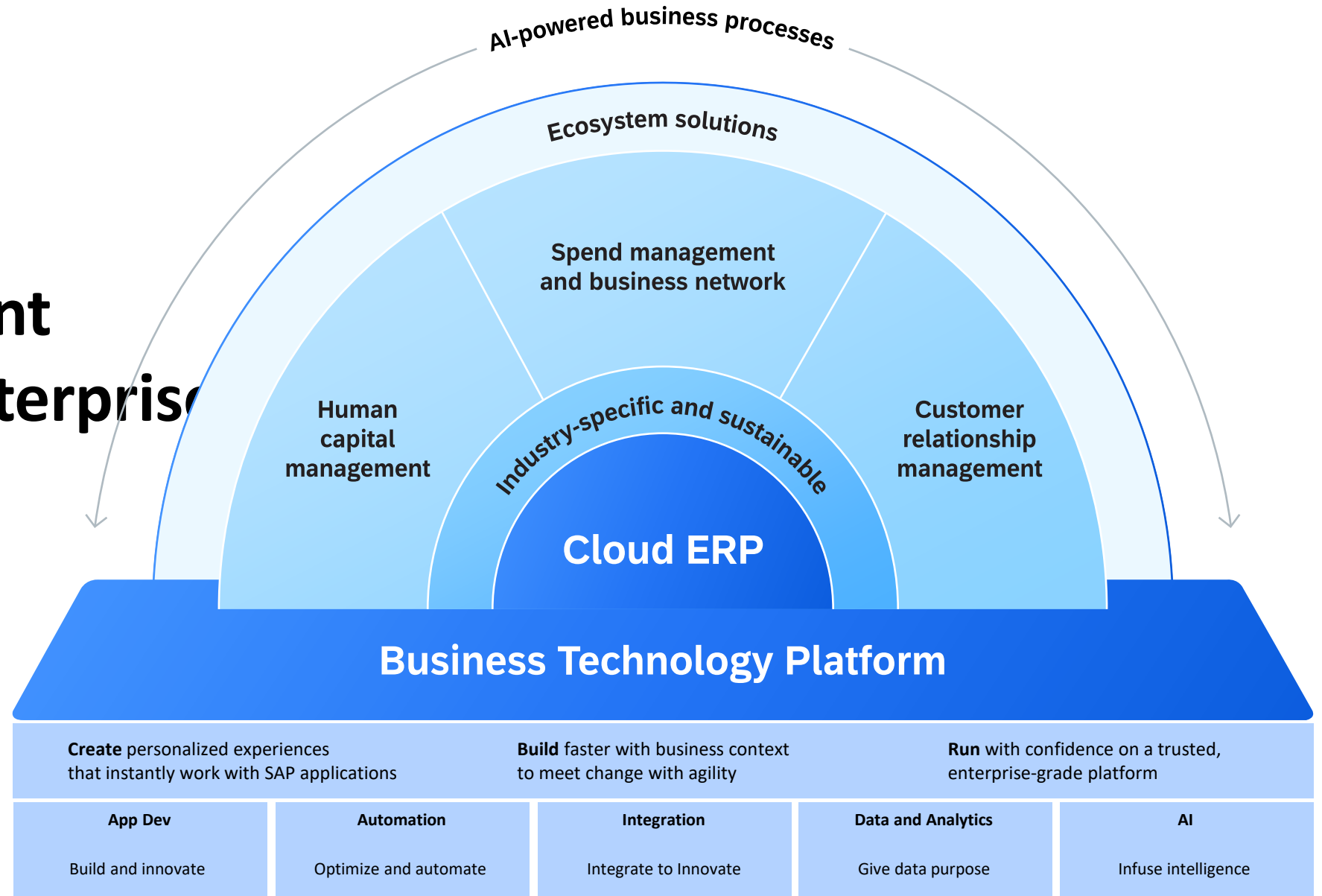


SAP HANA Cloud

Deep Dive

Public

SAP BTP is the foundation of the Intelligent Sustainable Enterprise



Modern Data Challenge

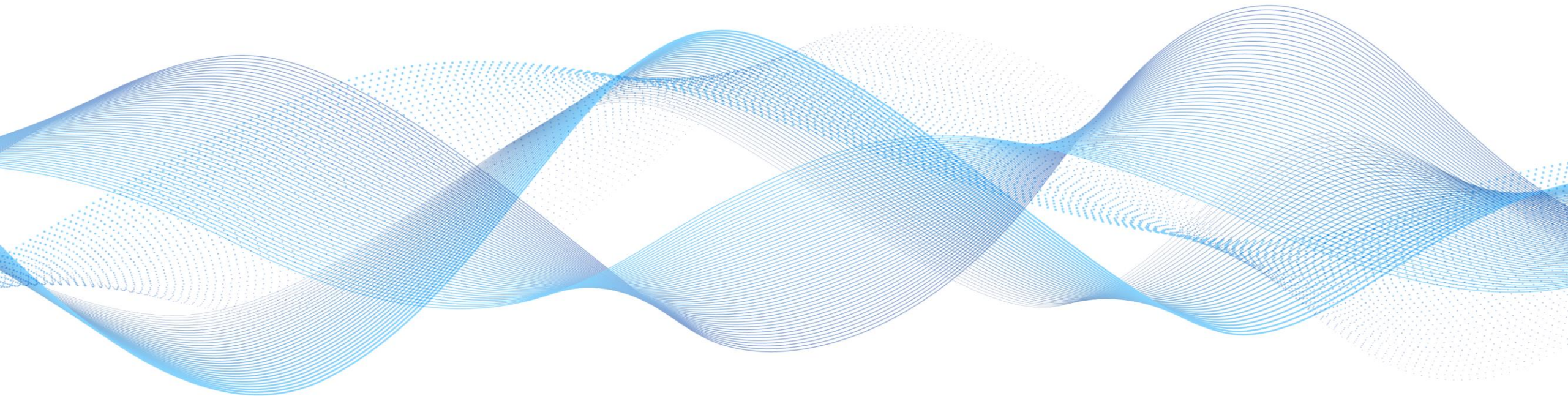
- Exponential growth of data and data types
- Hybrid landscapes remain & multi-cloud is norm
- Operationalize machine learning
- Optimize TCO for varying workloads



90%
of businesses want to
better leverage data
insights for decision
making

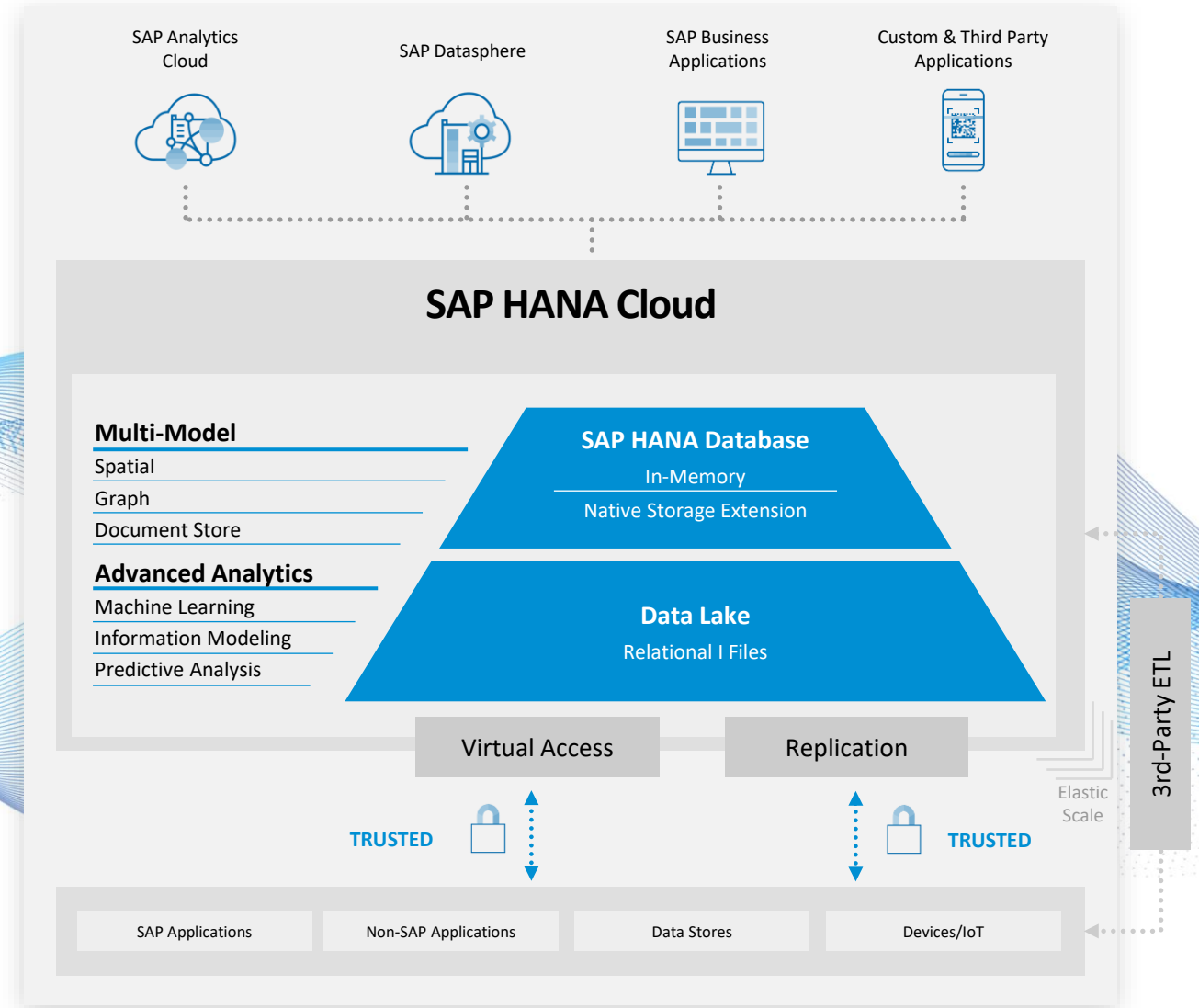
SAP HANA Cloud

Backbone of Intelligent Data Applications

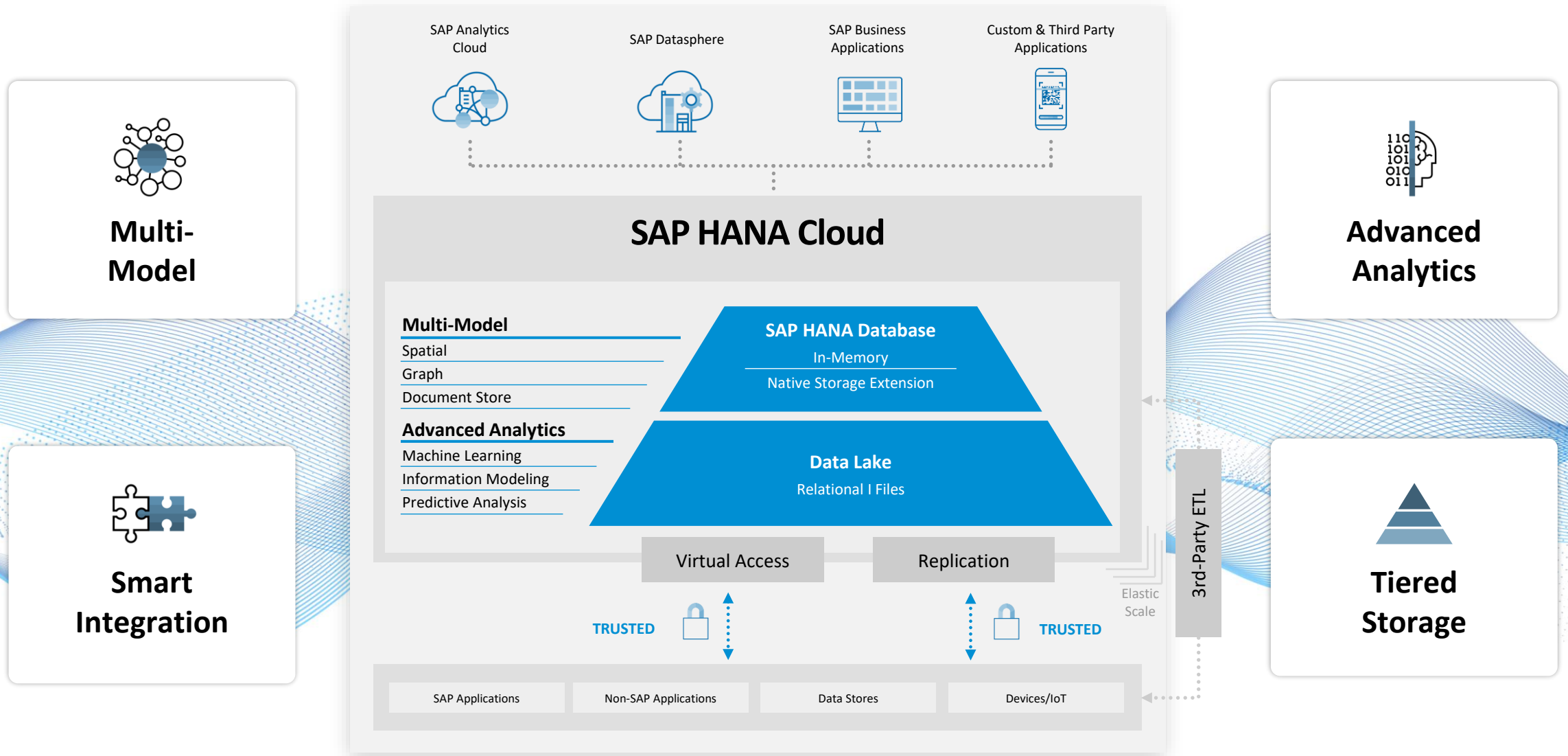


SAP HANA Cloud

Power **Intelligent Data Applications**
with SAP HANA Cloud



Power Intelligent Data Applications with SAP HANA Cloud



Meeting All Your Data Needs with SAP HANA Cloud



Power mission-critical applications and analytics in one solution

- Deliver transaction and analytics simultaneously, without data duplication
- Build and run high-performance transactional applications
- Perform real-time analytics at petabyte scale



Develop intelligent data applications with embedded machine learning

- Seamlessly blend multi-model data to enhance business processes
- Converge relational, graph, spatial, and document store data
- Manage data more efficiently with integrated multitier storage



Provide trusted in-memory performance for all data needs

- Process mission-critical data at proven in-memory speed
- Federate data across systems and clouds
- Analyze sensitive data while protecting privacy

SAP HANA Cloud Key Capabilities

Managed Cloud Multi-Tier Database



SUPPORT ALL DATA

Smart multi-model support to natively manage structured and unstructured data

RUN ALL WORKLOADS

In-memory-first architecture to combine advanced analytics on live transactional data

CONNECT ALL DATA

Memory-powered virtualization and integration for real-time performance on trusted data

DATA AT SCALE

Intelligent data tiering, elastic scalability and advanced compression for cost-effective and unlimited scale

DATABASE AS A SERVICE

Managed database services to streamline operational efforts and provide lowest total cost of ownership

RELIABILITY BUILT IN

Advanced HA/DR and enterprise-class data security and privacy

AGILITY · INNOVATION · EFFICIENCY

SAP HANA Cloud | The Database Services

Managed Multi-Service Database Solution



SAP HANA Cloud, SAP HANA database

A powerful **in-memory** database system combining **OLTP + OLAP** technologies, complemented with a **Multi-Model** engine for relational and document data



SAP HANA Cloud, data lake

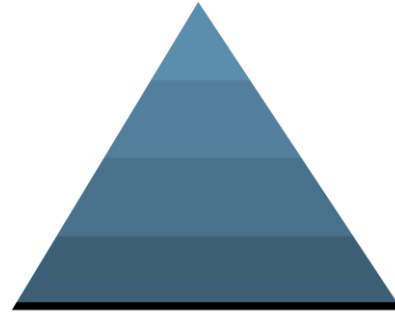
A market-leading analytics data platform, providing **high-performance, on-demand analytics**, supporting customers with timely, data-driven insight

SAP HANA Cloud | Advantages over previous generations of SAP HANA



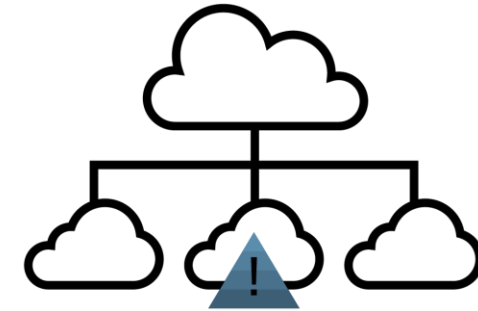
Integrated Data Lake

cost efficient large scale data storage and processing engine



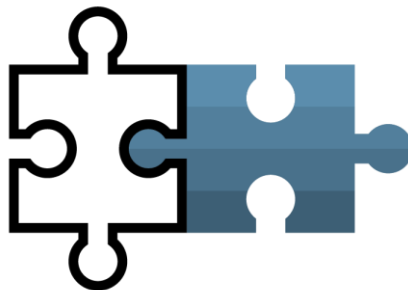
Data Tiering / Pyramid

multi-tiered architecture to provide best total cost of ownership



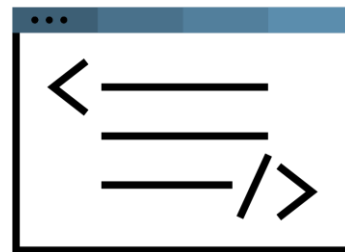
Built-In Resiliency

(a)synchronous replication out of the box, across zones/regions



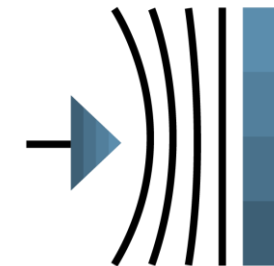
Integration into SAP BTP

functional and commercial integration (via CPEA; PAYG)



Developer Experience

cloud-native pro-code/low-code application development environment (via SAP BAS and CAP)

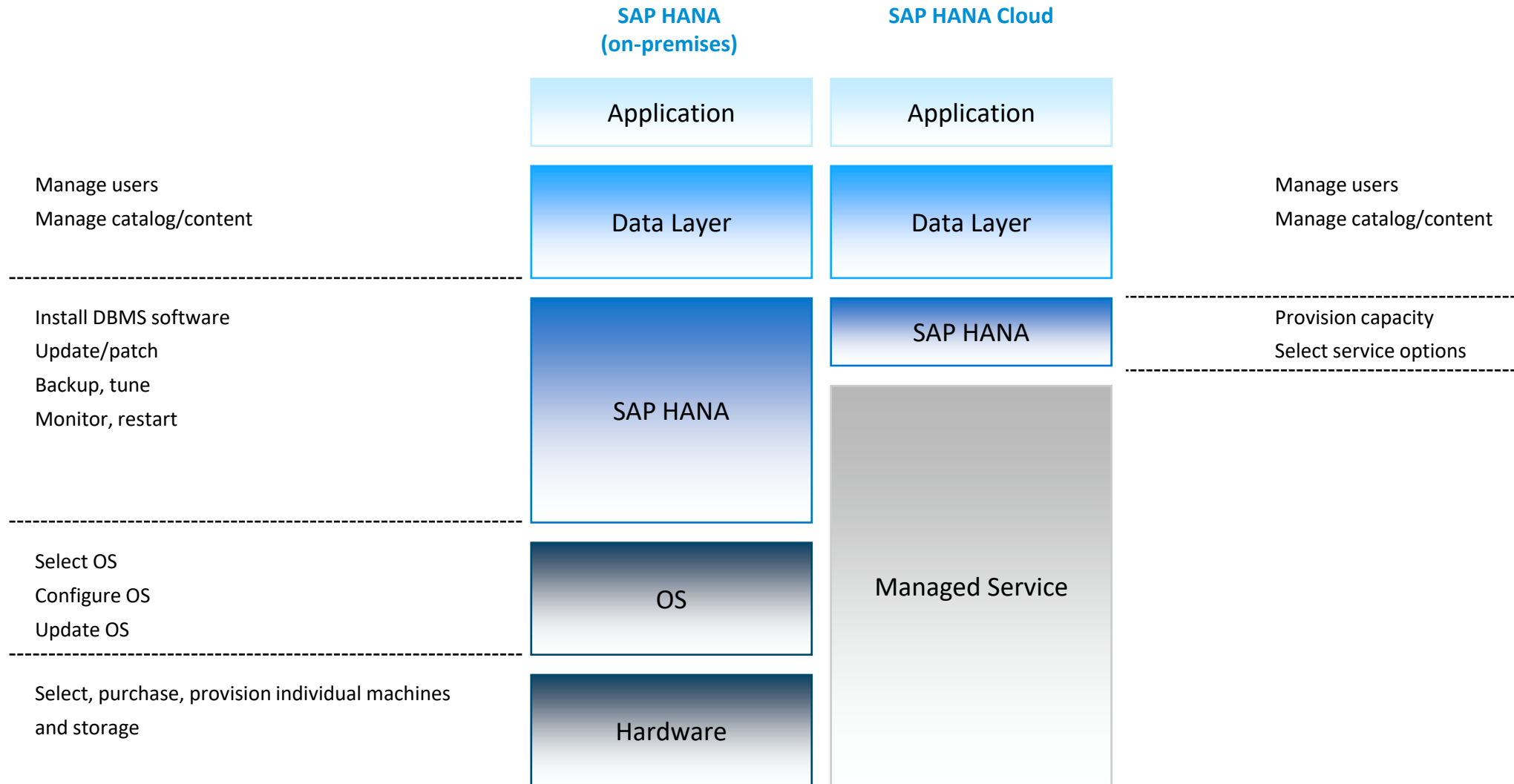


Elastic Cloud Service

dynamically scalable database platform to handle fluctuating load patterns

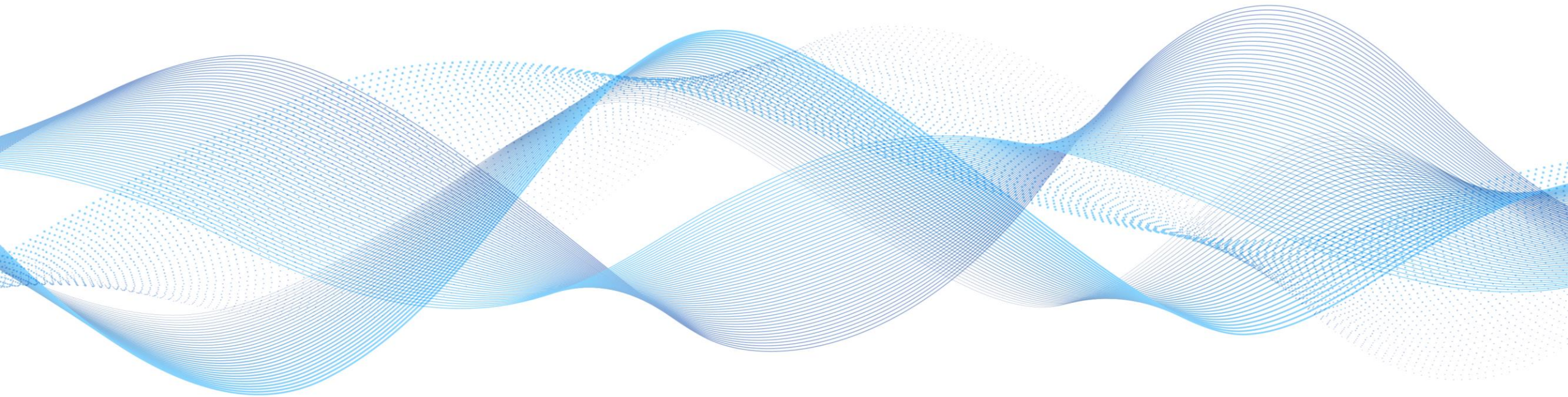
SAP HANA Cloud | SAP HANA vs. SAP HANA Cloud

Benefits of a Managed Cloud Database Solution



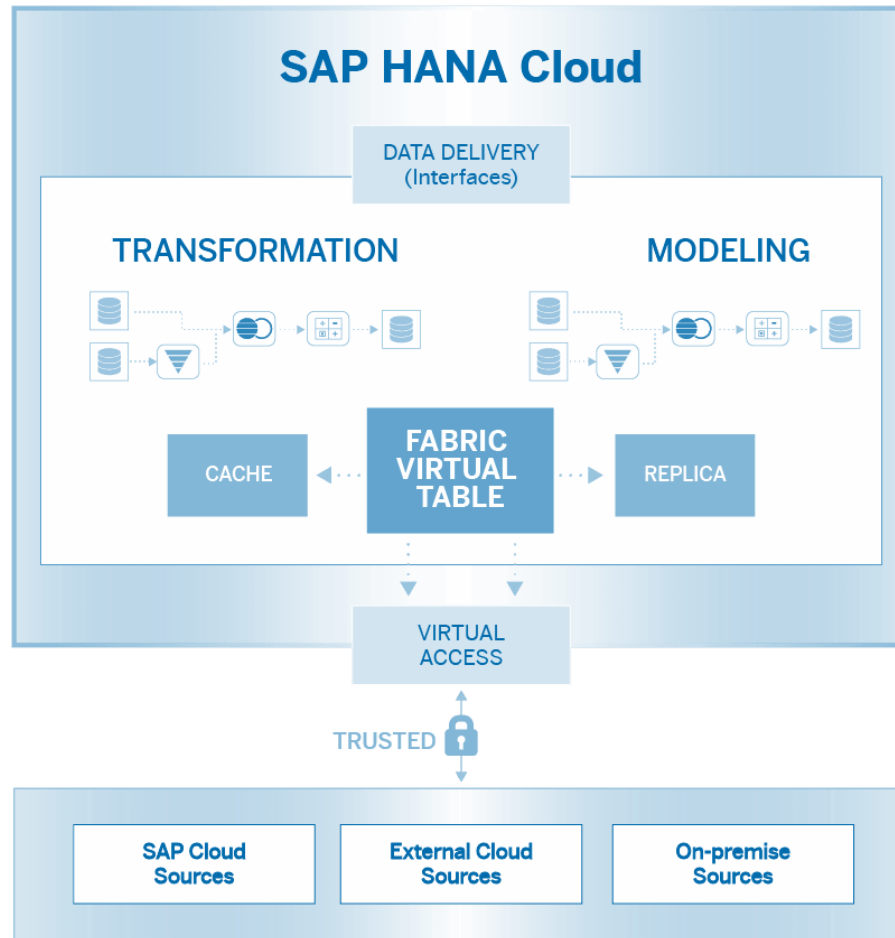
SAP HANA Cloud

Virtualization & Replication



SAP HANA Cloud | Real-Time Data Virtualization

Federate On-Premise and Cloud Data Sources



Applications / Data Delivery

- Cloud-based
- On-Premises

SAP HANA Cloud

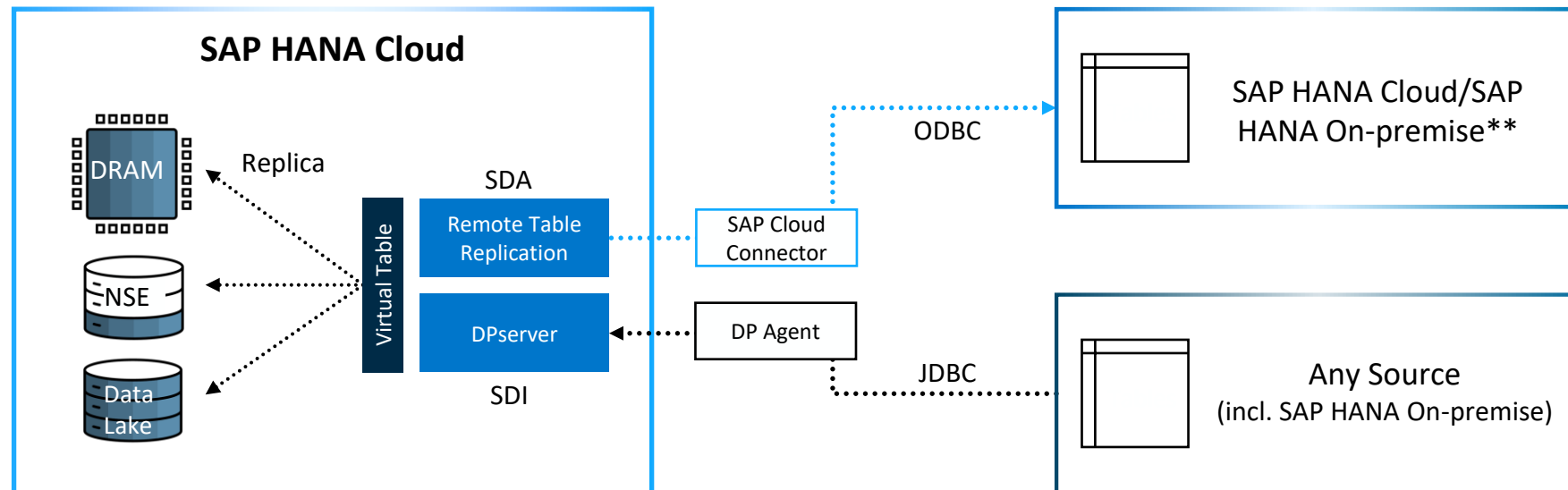
- Extension of SAP HANA SDA Virtual Table
- Enhanced Database SQL-Optimization
- Online switch federation/caching/replication
- Transparent to the consumers
- Start dumb, get smart!

Remote Sources

- Structured
- Semi-Structured
- Unstructured

SAP HANA Cloud | Hybrid Landscapes

Optimized and Enhanced Replication

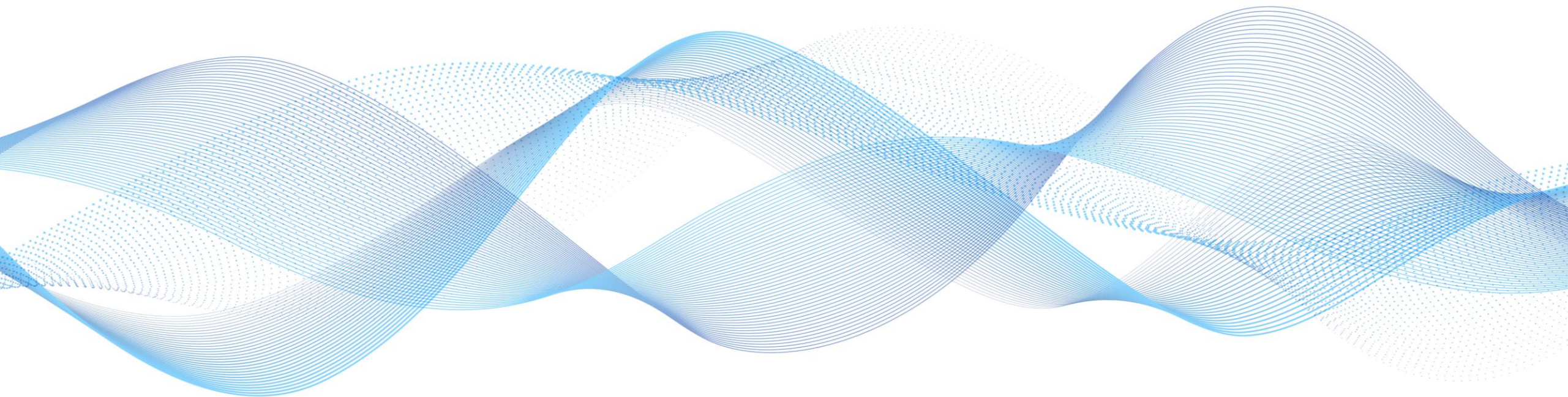


** SAP HANA SPS05+ with SAP Cloud Connector

- Common replication SQL-Interface combining SDA Remote Table Replication and standard SDI based Replication
- Optimized HANA to HANA replication with Remote Table Replication (Native HANA Engine Feature) using transaction layer logs
- Flexible connectivity options via standard SDI replication supporting any source
- Flexible storage options for table replicas in HANA Cloud (In-memory or Native Storage Extensions)
- Remote Table Replication supported between on-premise SAP HANA SPS05+ and SAP HANA Cloud (via SAP Cloud Connector)

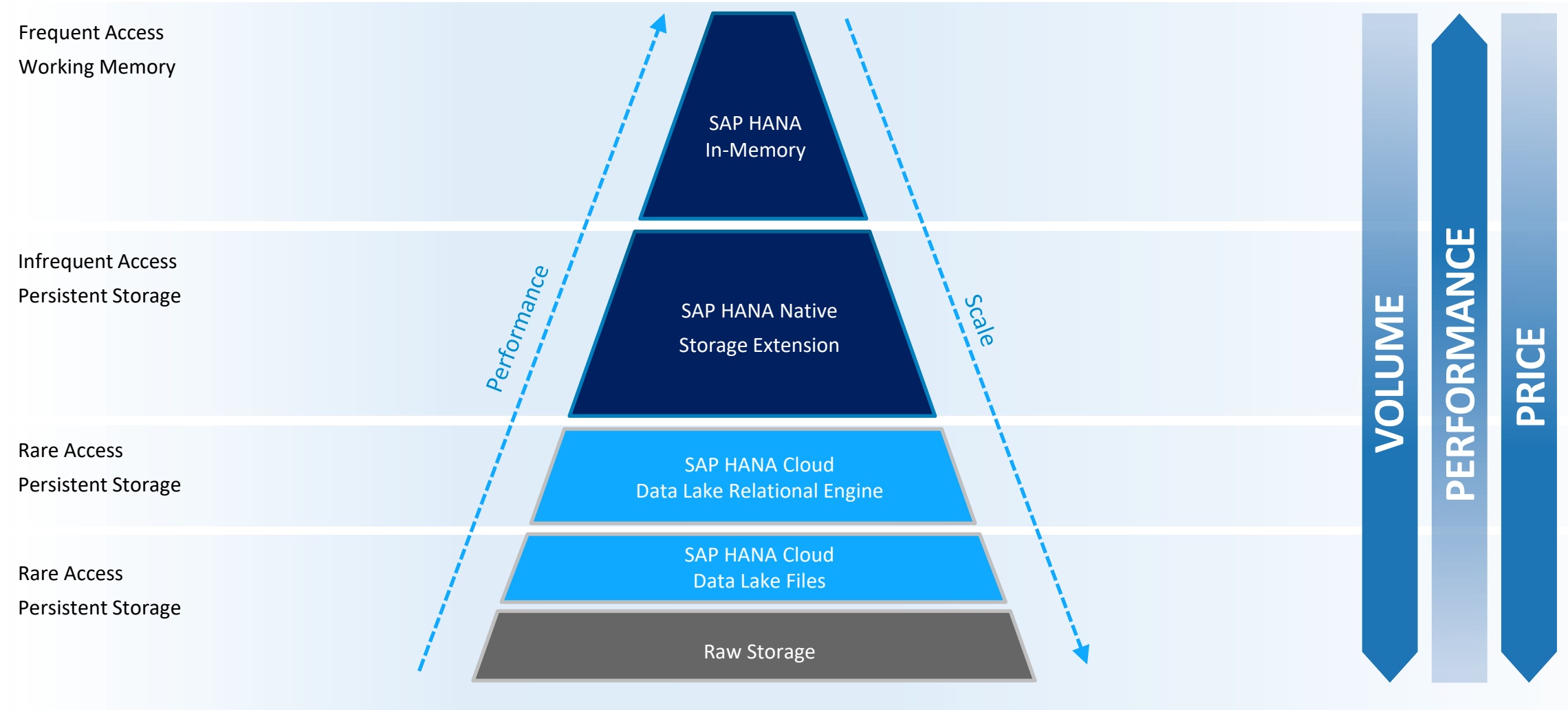
SAP HANA Cloud

Data Pyramid



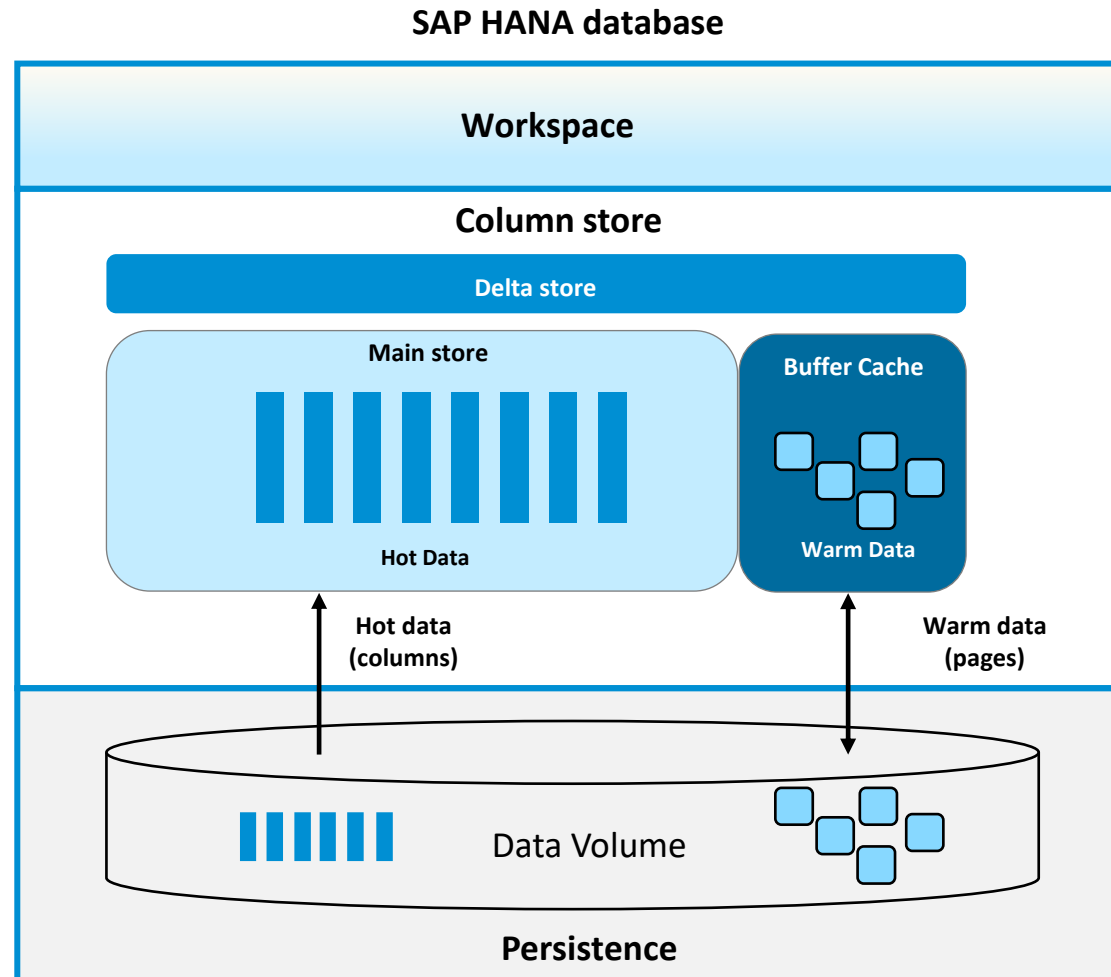
SAP HANA Cloud | Data Pyramid

Store Data Beyond the Scale of SAP HANA with Low Cost



SAP HANA Cloud | SAP HANA Native Storage Extension

Capabilities & Benefits



Elastic Buffer Cache

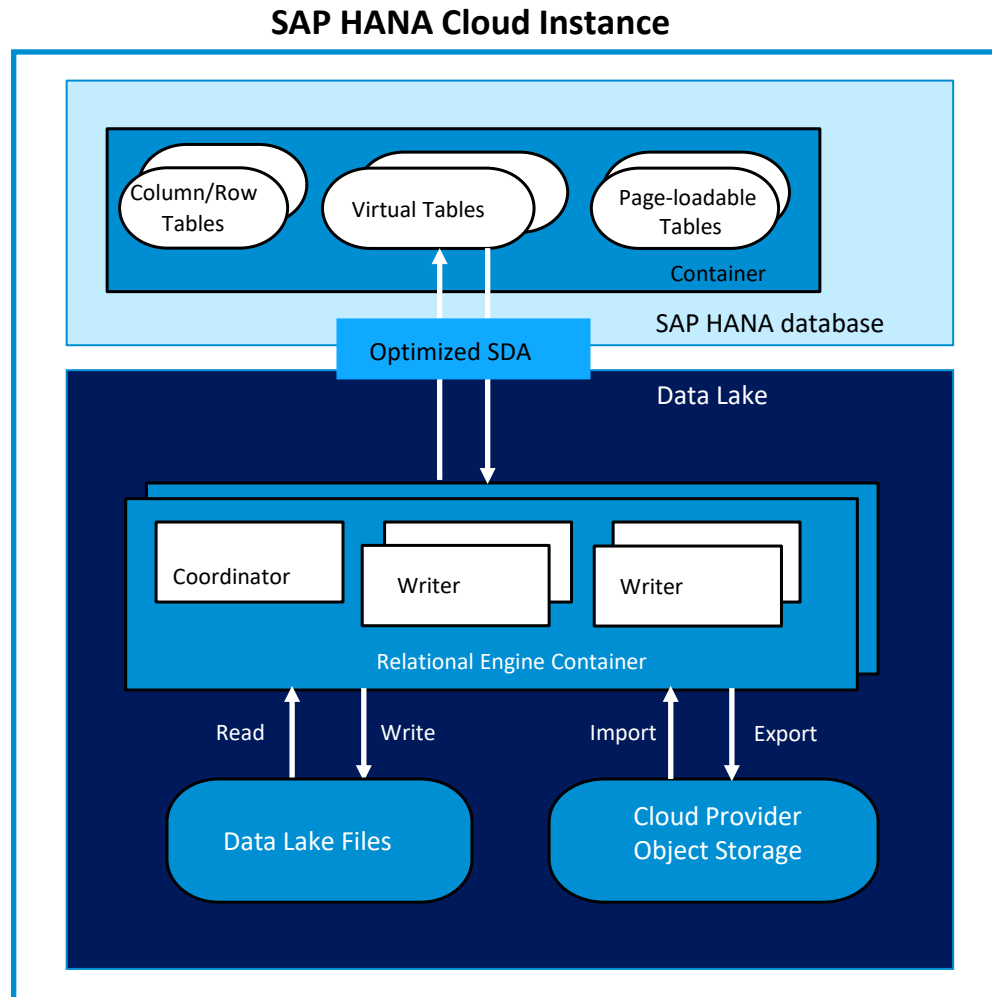
- Loads data **page-by-page** as required from persistence layer for query processing
- Buffer Cache is **enabled by default** in HANA Cloud
- Configurable maximum buffer cache size (default: 10% of SAP HANA Cloud memory)
- Cache size will **increase dynamically** (up to max cache size), when data are loaded
- When max cache size is reached, it **will eject pages to disk** based on user access patterns (Improved LRU)
- **Smart paging algorithm** for small NSE-enabled columns

Warm Data in NSE

- **Less frequently accessed** tables, partitions, columns or indexes may be defined as “page loadable”
- NSE will reduce memory footprint for “page loadable” data. **Data is partly in memory, and partly on disk**
- **Query performance on warm data may be somewhat reduced** compared to hot data.
- Data may be converted between “column loadable” and “page loadable” **supporting all types of HANA compression techniques**
- Data in **delta store is kept in-memory**

SAP HANA Cloud | Data Lake

Capabilities & Benefits



A **managed cloud service** for structured, unstructured and semi-structured data:

- Large data, 10s of TB to PB
- Efficient storage using Cloud Provider services

Large scale analysis of relational data, full SQL support

An integrated part of **SAP HANA Cloud**

- Provisioning, security mechanisms, tenancy models, and tools operating within the SAP HANA Cloud

Elastic and separate provisioning of **computing and storage**

Scalable to accommodate increases in data volume, in user count, and the complexity of workloads

SAP HANA Cloud | Data Lake

SQL-on-Files Service

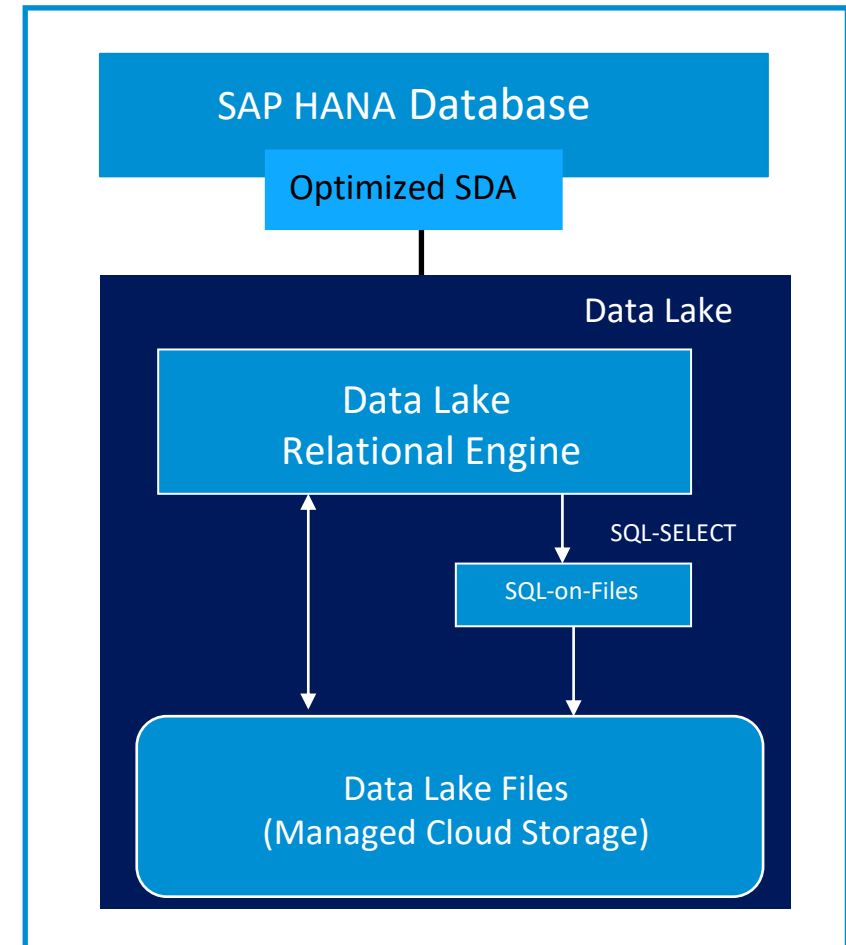
Benefits

- Provides a SQL access directly on structured files stored in data lake files
- Enables analysis of large data sets without loading into Data Lake Relational Engine, e.g. for data pre-exploration (result sets are materialized in Data Lake Files)
- Low TCO for infrequently accessed data

Features

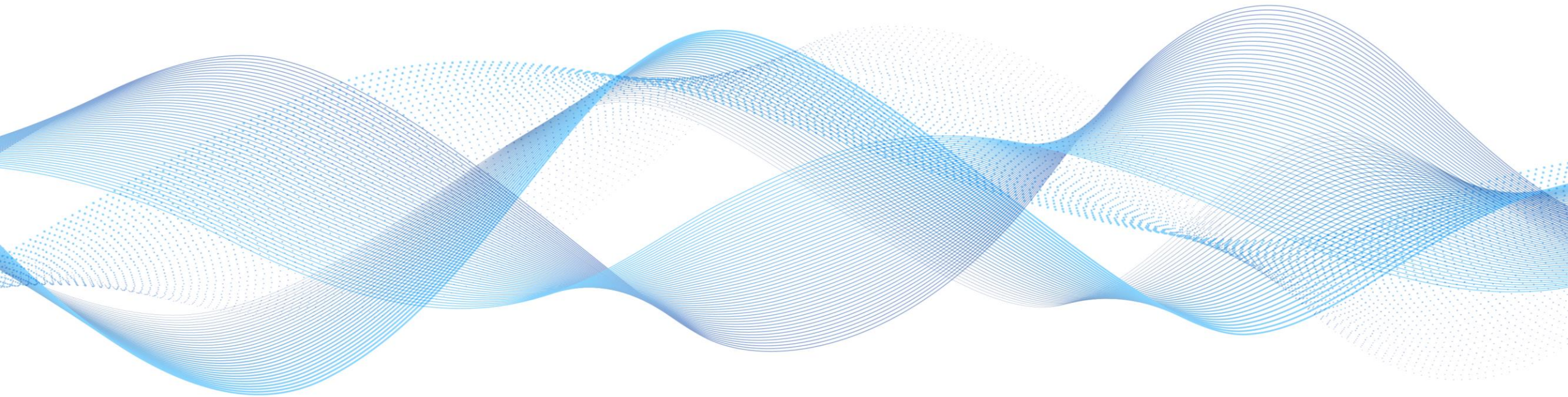
- Fully integrated with HANA data lake relational engine (data lake relational engine must be provisioned)
- Supports PARQUET, ORC and CSV file formats
- Full SQL syntax over relational engine tables and file tables (read only); join relational engine tables with one or more file tables
 - Filtering and aggregations performed natively
 - Complex query constructs performed in relational engine
- Elastic scaling, separate compute and storage (compute metric is based on amount of data scanned)

SAP HANA Cloud Instance



SAP HANA Cloud

Elasticity & Scalability



Scaling in the Cloud

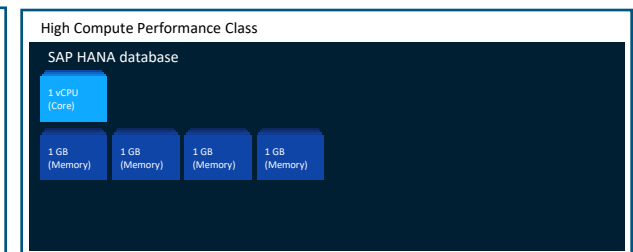
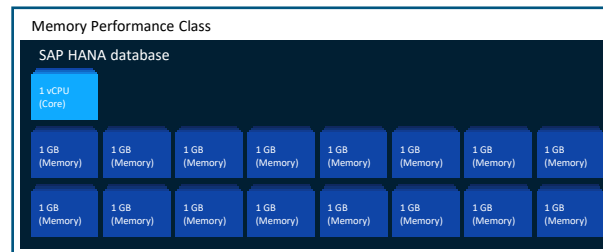
Performance Classes - Flexible Database Configurations

Challenges

- Variety of different scenarios running on SAP HANA Cloud can benefit from different system configurations
- Compute intensive workloads, for instance, cannot take advantage of the previously very memory intensive configurations
- Resources being provisioned were at risk not being utilized and running idle
- Excess capacity increases total cost of ownership (TCO) and negatively impacts sustainability of the product

Solution: Performance Classes

High Memory	Optimized to support the processing of large data sets that require a lot of memory
Memory (Default)	Default compute-memory ratio, which is suitable for most workloads
Compute	Optimized to support compute-intensive workloads
High Compute	Optimized to support compute-intensive workloads that require less memory resources



Scaling in the Cloud

Performance Classes - Flexible Database Configurations

The screenshot shows the '3. SAP HANA Database' configuration step in the SAP HANA Cloud wizard. The 'Performance Class' is set to 'Memory'. The configuration includes 2 vCPUs, 30 GB of memory, and 120 GB of storage. A warning message states: 'With the current version of SAP HANA Cloud, the storage size cannot be decreased after the instance has been created.' The 'Total Estimate' is 901 CU / month. A 'Details' table provides a breakdown of resources and their associated costs in Cloud Units (CU).

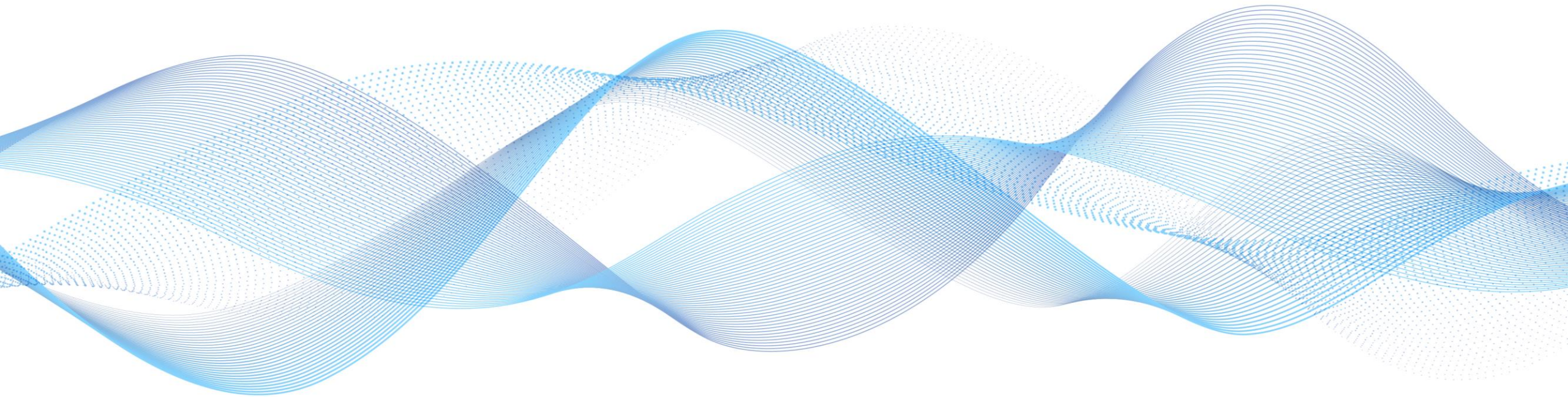
SAP HANA Database (DemoInstance)		
Total Estimate		900.66 CU
Memory	30 GB	503.7 CU
Compute	2 vCPUs	233.6 CU
Storage	120 GB	71.17 CU
Backup Storage	630 GB	79.05 CU
Replicas	0	0 CU
Connections	BTP IP addresses	
Cloud Connector	Disabled	0 CU
Network Transfer	30 GB	13.14 CU

Buttons at the bottom: Create Now, Previous, Next Step, Cancel.

- Available Performance Classes will vary by the cloud service providers
- Available memory range will vary by the performance class (e.g., the maximum memory of the High Compute and Compute will be smaller)

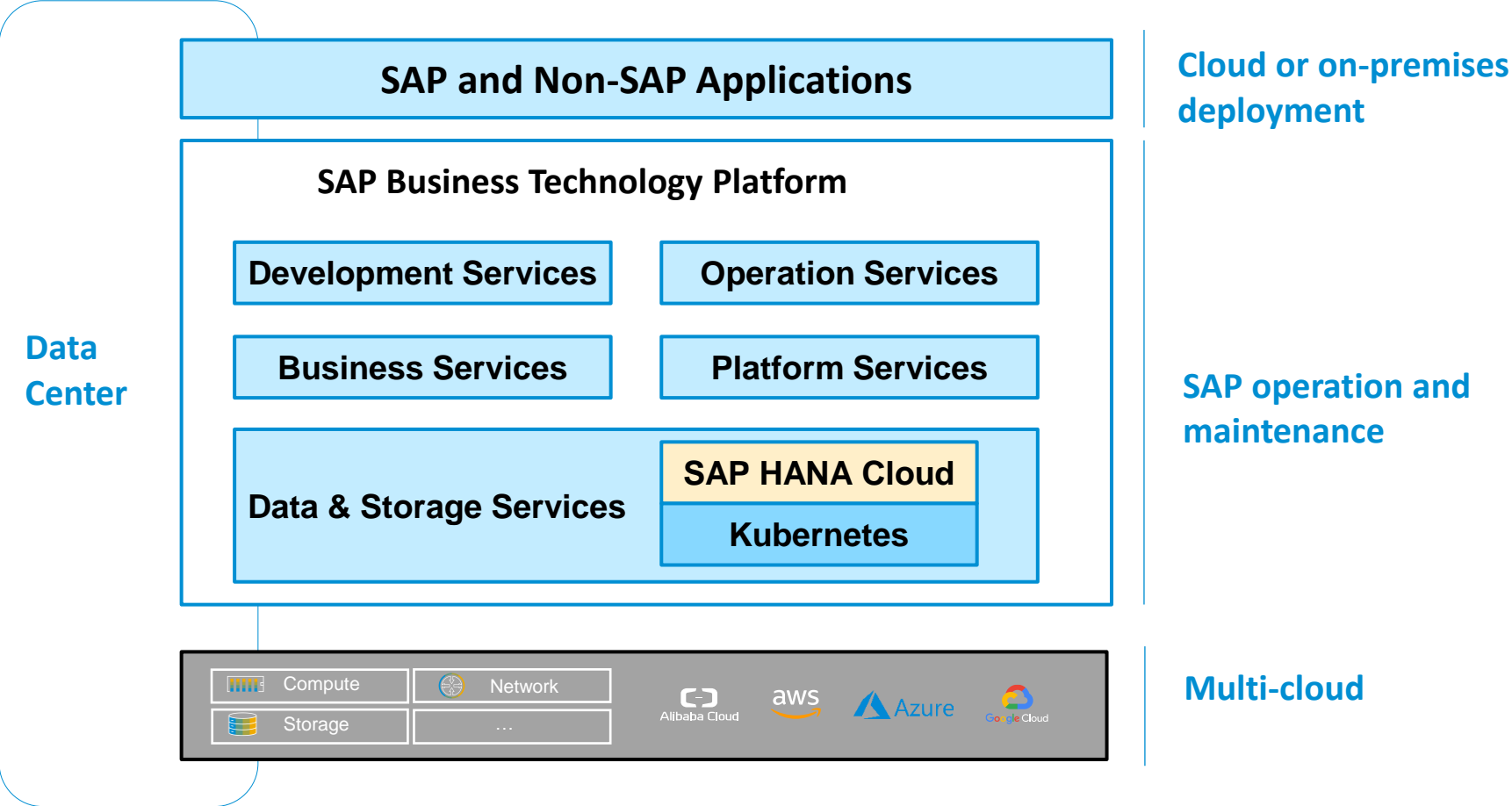
SAP HANA Cloud

Multi-Cloud Architecture



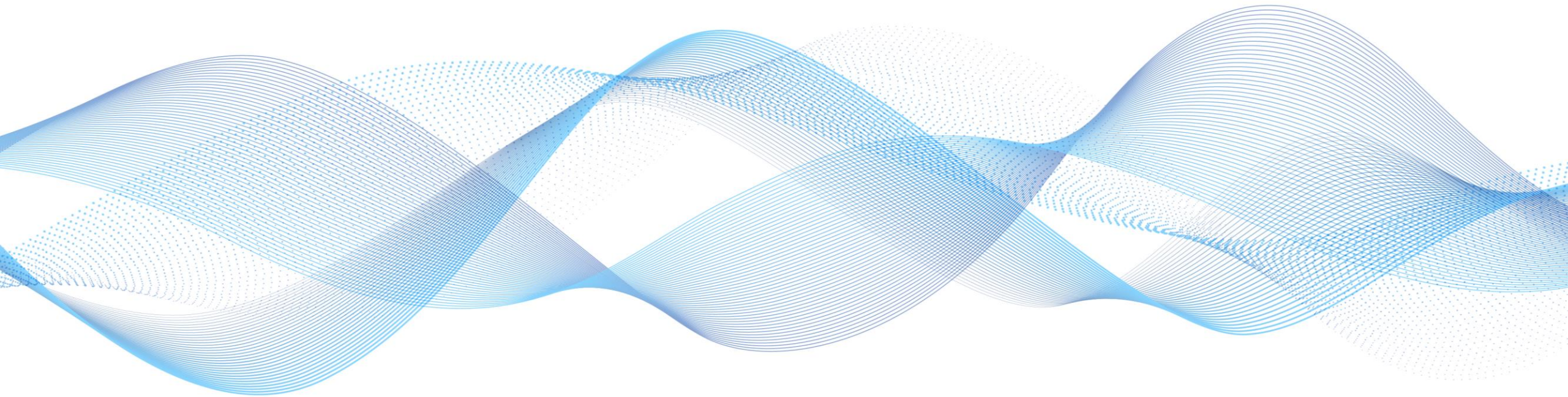
SAP HANA Cloud | Multi-Cloud Architecture

SAP HANA Cloud is vendor independent



SAP HANA Cloud

Backup & Recovery



SAP HANA Cloud | Backup & Recovery

Backup for SAP HANA Cloud via SLA*

Backup

- SAP HANA Cloud, **SAP HANA database**

- Full backups once per day, log backups every 15 minutes

- RPO usually 0, max. 15 minutes if redo-log disk broken
- At least 3 full backups reachable

- SAP HANA Cloud, **Data Lake**

- Relational engine (**HDL RE**)

- Full Backup once per day (snapshot-based), incremental backups (snapshot) every 3 hours
 - RPO of 3 hours
 - Backup can be disabled

- File storage (**HDL FS**)

- Maintains snapshots for all file data

- Retention period of backups can be up to 215 days

***SLA**: Service Level Agreement ([SLA Definition](#))

(about 7 months) for all engines

- SAP HANA database
- Data Lake Relational Engine
- Data Lake Files (7 month planned)

- Backups are encrypted and transferred into an object store via encrypted channels
- Co-ordinated backups of SAP HANA database and Data Lake are not supported

SAP HANA Cloud | Backup & Recovery

Recovery or SAP HANA Cloud via SLA*

SAP HANA Cloud, **SAP HANA database**

- Recover the database to a specified point in time within custom defined retention period between 1 and 215 days (about 7 months)
- Customers can initiate a recovery process via SAP HANA Cloud Central

SAP HANA Cloud, **Data Lake (HDL)**

- Recover Relational Engine (**HDL RE**) to the latest data backup performed after the specified restore time
 - Ticket-based restore
- Recover file storage (**HDL FS**) to any version in from 1 up to 215 days (about 7 months) using REST API
 - Self-service

Co-ordinated recoveries of both SAP HANA database and Data Lake are on a best effort basis

Recovery to timestamp nearest to recovery time in both cases

***SLA**: Service Level Agreement ([SLA Definition](#))

SAP HANA Cloud | Self-Service for Recovery Available via SAP HANA Cloud Central

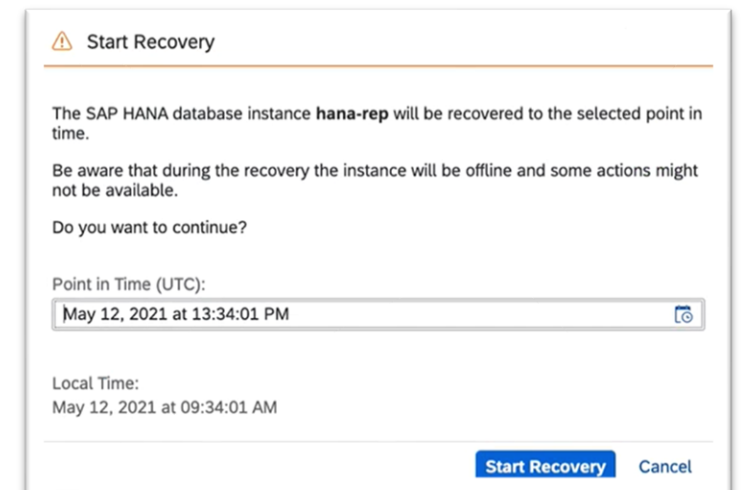
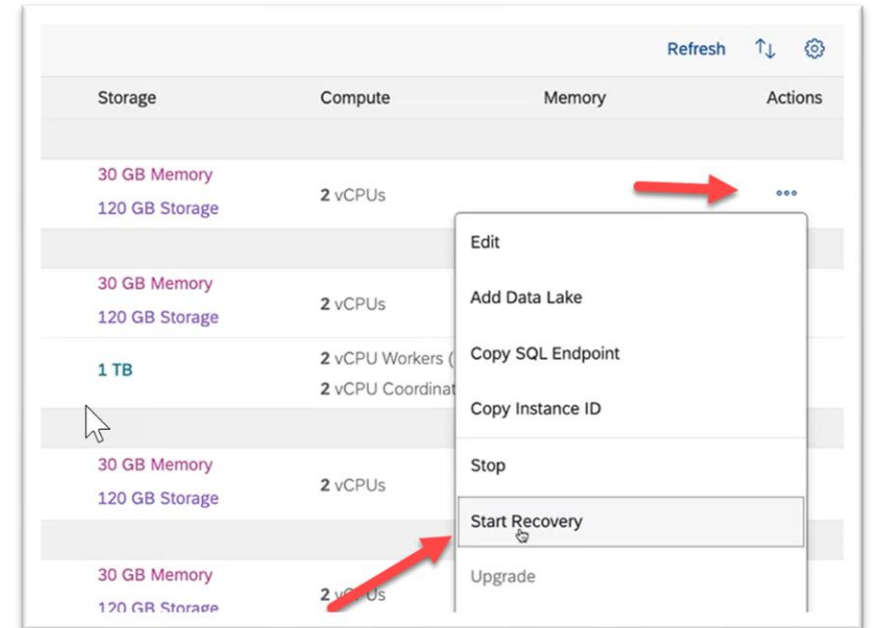
Speed up the recovery of your SAP HANA Cloud data platform through self-service instead of service requests through support tickets

Self-service recovery for SAP HANA database available via SAP HANA Cloud Central

A action item called “Start Recovery” is listed

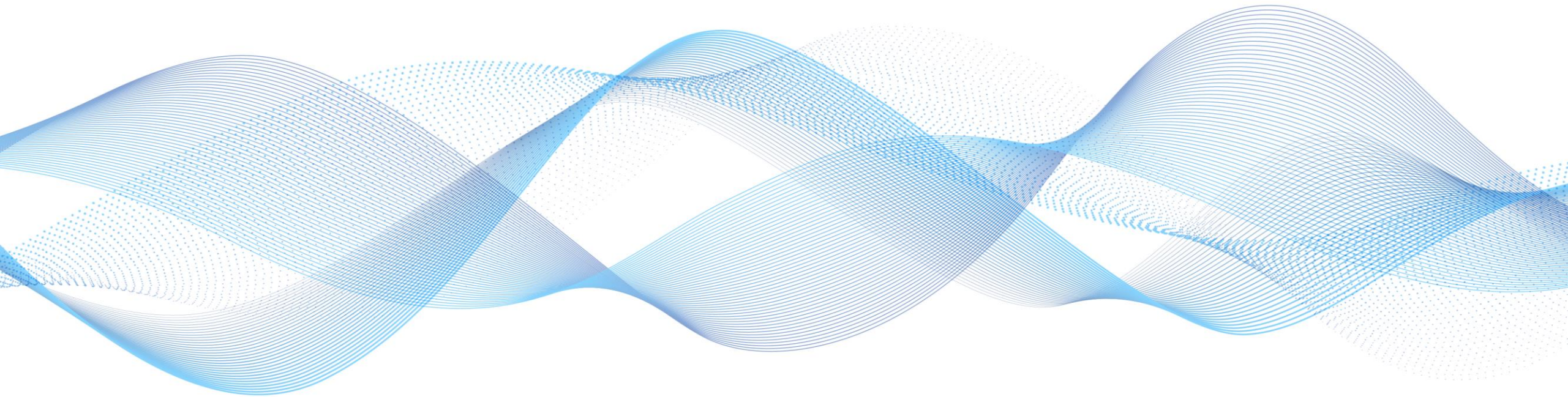
Select a Point in Time in the past via calendar

Time will be displayed in UTC and Local Time



SAP HANA Cloud

High-Availability & Disaster Recovery



SAP HANA Cloud | Availability Offering

Standard Offering (One Availability Zone)

- [SLA](#)*: 99.9% uptime
- Automatic Service Restart, Automatic Container Restart, Near Zero Downtime Upgrade, Backup and Recovery

High Availability Offering (One Availability Zone)

- [SLA](#)*: 99.95% uptime
- SAP HANA based replication
 - Autonomous, automatic Failover and re-establishment of synchronous replication

Asynchronous Multi-Zone Replication Offering (Two Availability Zones)

- SAP HANA system based replication
 - Zone switch is manual, customer driven due to async (near-sync) character

[SAP HANA Cloud Supplement](#) in SAP's Trust-Center with SLA statements, now with **99.99%** for Multi-Zone High Availability

**SLA: Service Level Agreement* ([SLA Definition](#))

SAP HANA Cloud | Multi-Zone Replication

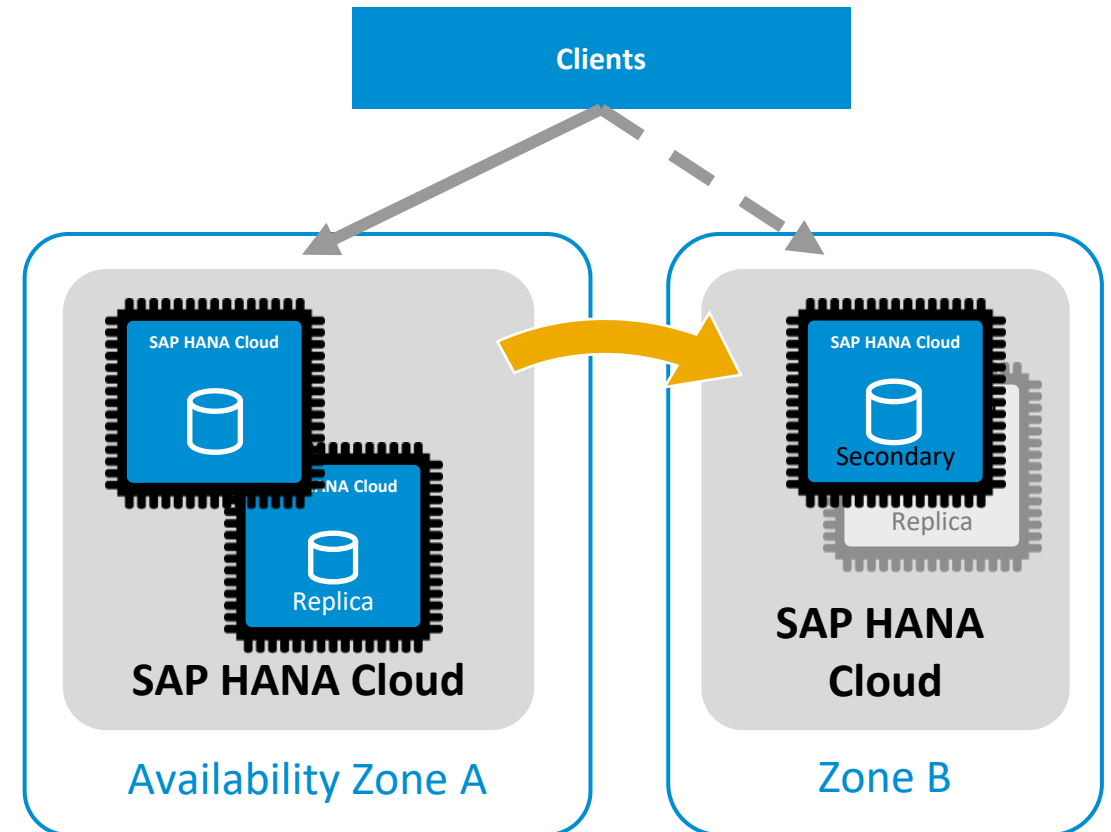
Two Availability Zones

Based on SAP HANA System Replication

- Replication of full system with all persistent data between two availability zones (AZ)
- Asynchronous replication to absorb increased latency due to distance
- Takeover
 - Manual switch via Cloud Central frontend due to asynchronous replication, initiated by customer
 - Pure switch time < 2 minutes
 - Connected SAP HANA clients wait during the switch time
 - Read transactions continue after switch
 - Write transactions roll back, corresponding running statements fail
 - Zone B replica is automatically created with takeover

Ordering Replicas in SAP HANA Cloud Central

- For Disaster Recovery purpose in **different** AZs
- Combinations with HA (**same** AZ) is possible



Replicas

Deploy additional replicas of your SAP HANA database instance to ensure its continuity.

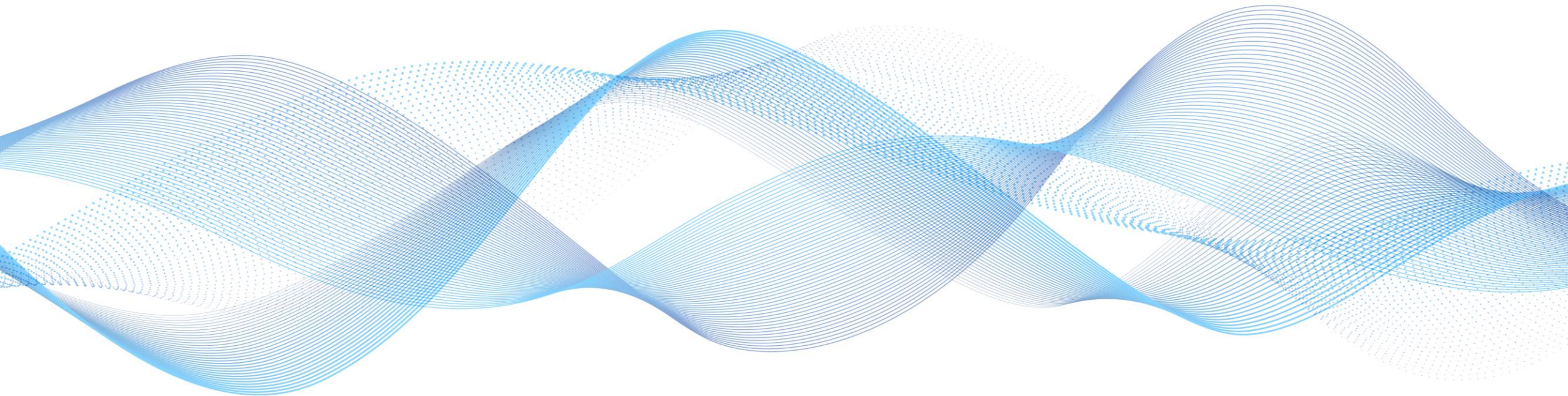
Number of Replicas: (Min 0, Max 2)

Choose how you will use your replicas.

Index	Replication Mode (i)	Availability Zone
1	Synchronous	Same zone
2	Asynchronous	Different zone

SAP HANA Cloud

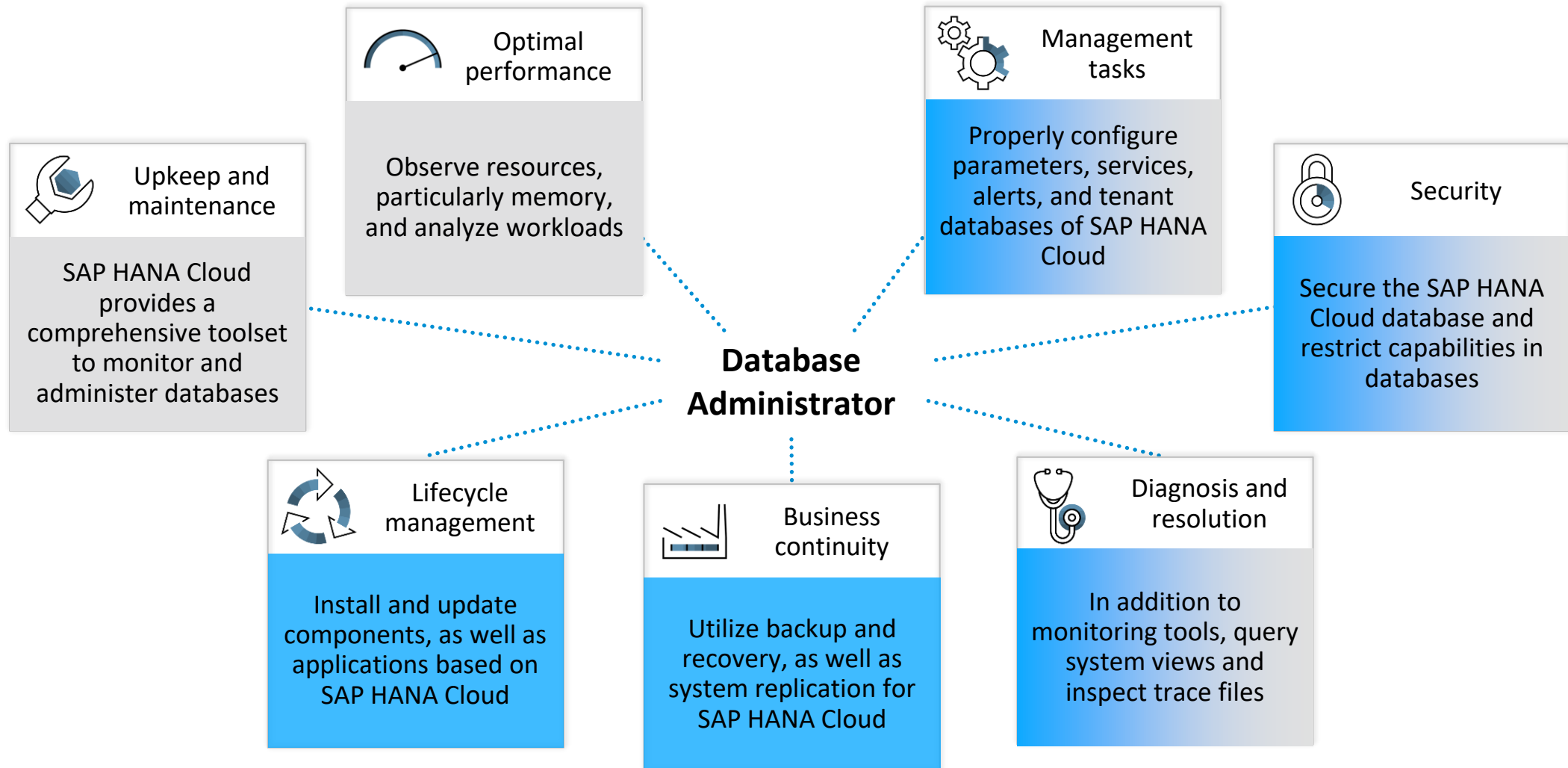
Administration & Monitoring



SAP HANA Cloud | Monitoring & Administration

Task of a Database Administrator

- Customer is responsible
- SAP is responsible



SAP HANA Cloud Central

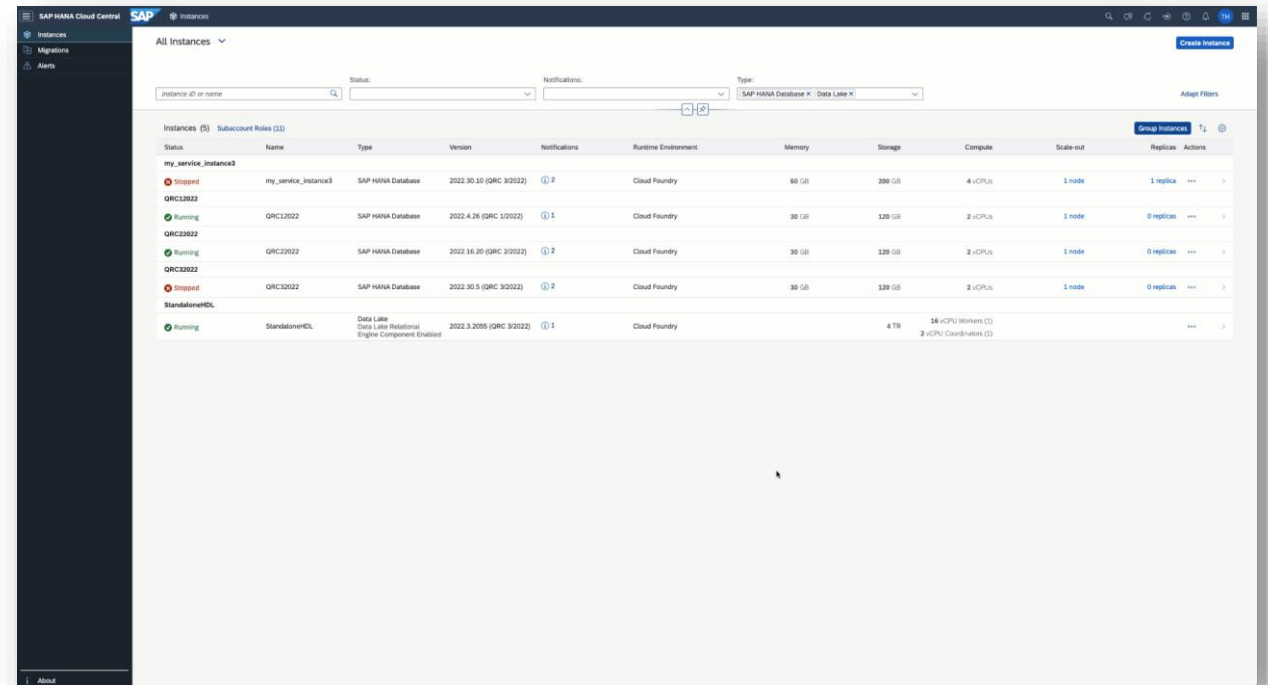
Unified tooling experience for SAP HANA Cloud

Challenges

- **Ease of Use:** Tool breaks interrupt common user flow and negatively impact productivity
- **Findability:** Feature-rich tools have grown over time and functionalities are sometimes difficult to find
- **Complexity:** Tooling consisting of multiple applications created confusion

Benefits

- **Simplicity:** One harmonized tooling experience based on SAP HANA Cloud Central
- **Improved User Experience:** A more intuitive approach for managing SAP HANA Cloud landscapes
- **Performance:** Increased speed for individual tasks resulting in greater productivity

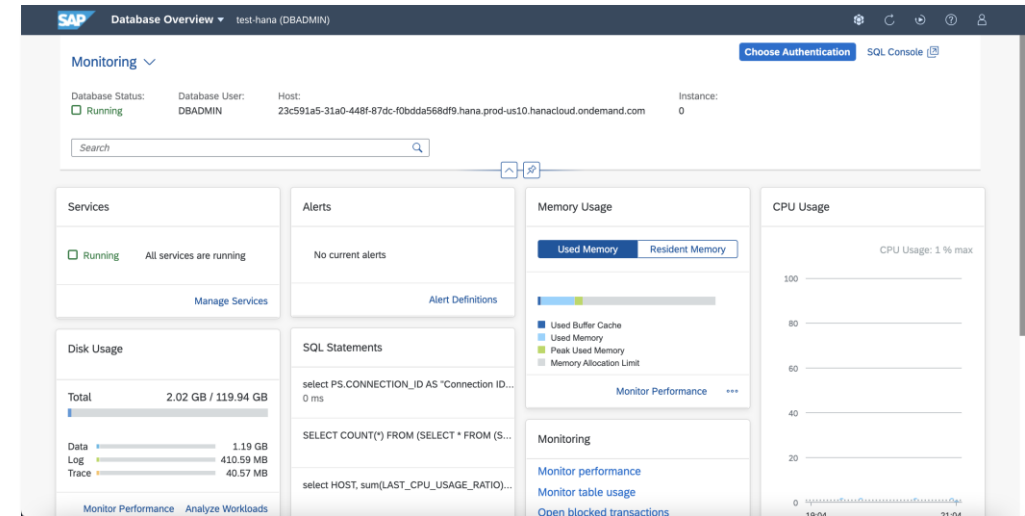
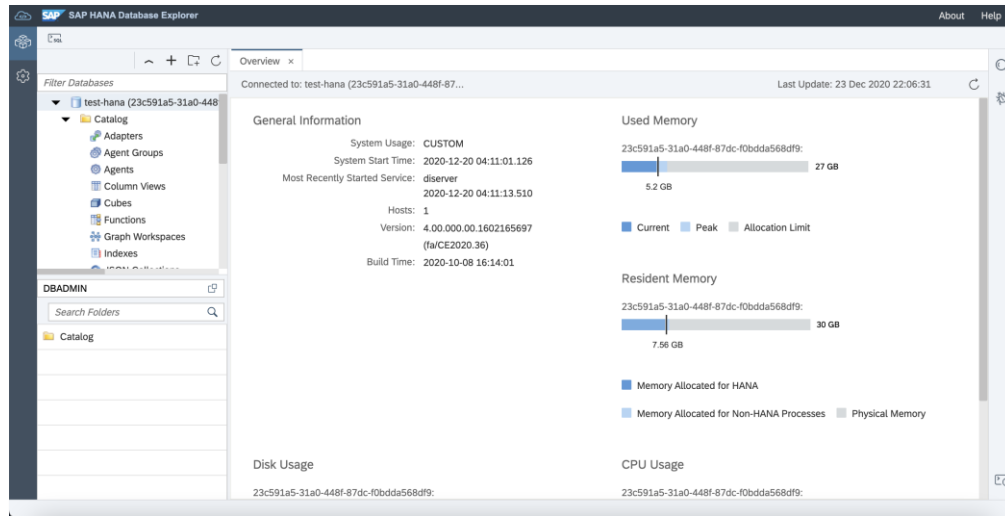


New Features:

- Command palette
- Display compute metrics
- Display navigation paths
- Global alert overview
- Usage Monitor
- & many more

SAP HANA Cloud | Monitoring & Administration

SAP HANA Database Explorer and SAP HANA Cockpit



SAP HANA Database Explorer

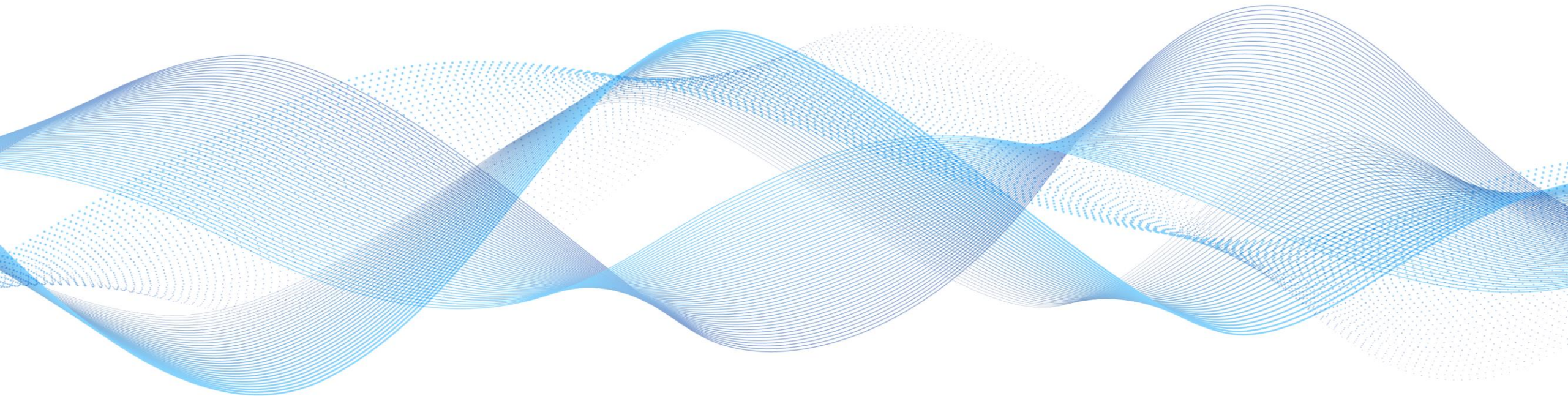
- Execute SQL statements
- Browse the database catalog
- Import and export data
- Examine trace log files

SAP HANA Cockpit

- Monitor services, admission control, sessions, threads, and memory, CPU, and disk usage
- Administer alerts, workload classes, backups, recommendations, SAP HANA smart data integration, and SAP HANA smart data access
- Manage users and roles, data encryption, auditing, and anonymization views

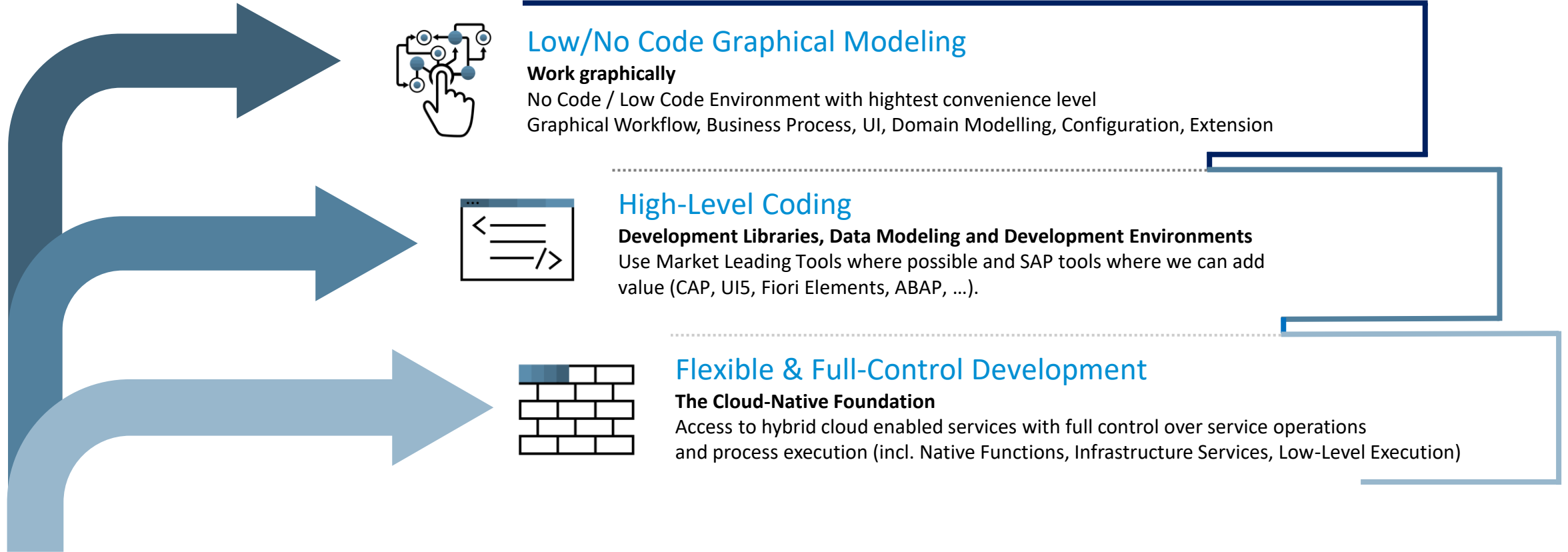
SAP HANA Cloud

Database & Application Development



SAP HANA Cloud Development Tooling

Focus on **developer centricity**



Through the Eyes of Developers
Different Tasks require Different Capabilities

Low Code / No Code Application Development

for SAP HANA Cloud via SAP Build and SAP Business Application Studio

Simplified view of the IDE

Powerful web-based IDE fitted to developer's needs, providing a **low barrier to entry** and allowing for a rapid start of development

Visual tools for E2E App development

Low-code development experience enables the creation of **enterprise ready applications**, from data modelling and service consumption, to user interface design and creation

No Code to Pro Code

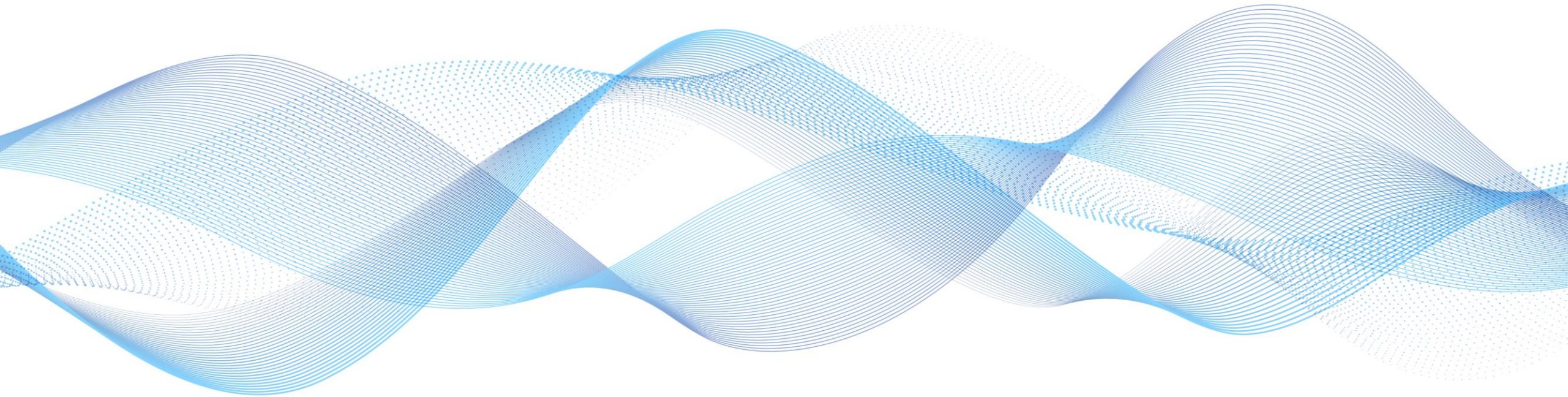
Benefit from the powerful SAP Business Application Studio and pivot from **no-code** to **pro-code** usage of the environment with growing expertise

The screenshot displays the 'Dev Spaces' management interface in SAP Business Application Studio. It features a table with four rows, each representing a development space. The table columns include the space name, description, status, creation time, ID, and disk usage. A 'Create Dev Space' button is visible in the top right corner.

Dev Space Name	Description	Status	Created On	ID	Disk Usage	Actions
DemoSpace	Full-Stack Application Using Productivity Tools	RUNNING	31/05/2023 13:05	ws-xpvpb	19.5 MB / 9.7 GB	Start, Stop, Delete, Refresh
SAPMobileApp	SAP Mobile Application	STOPPED	30/05/2023 14:20	ws-2cgnh	Currently unavailable	Start, Stop, Delete, Refresh
Fiori	SAP Fiori	STOPPED	30/05/2023 14:20	ws-4rrcw	Currently unavailable	Start, Stop, Delete, Refresh
FullStack	Full-Stack Application Using Productivity Tools	RUNNING	30/05/2023 14:19	ws-cfprq	323.5 MB / 9.7 GB	Start, Stop, Delete, Refresh

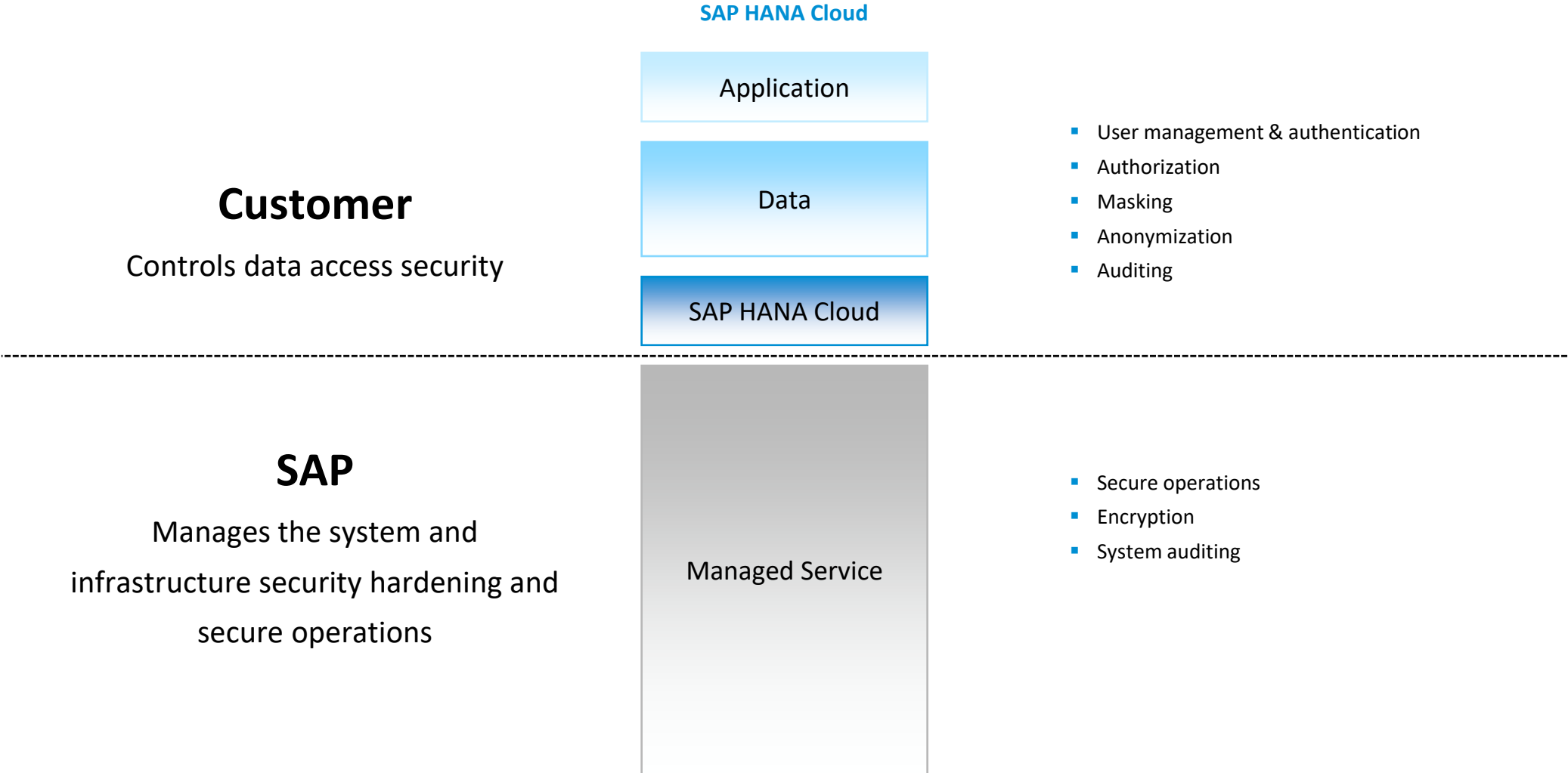
SAP HANA Cloud

Security



SAP HANA Cloud | Security Concept

Shared Responsibility to Maintain a Maximum of Security



SAP HANA Cloud | Security Framework

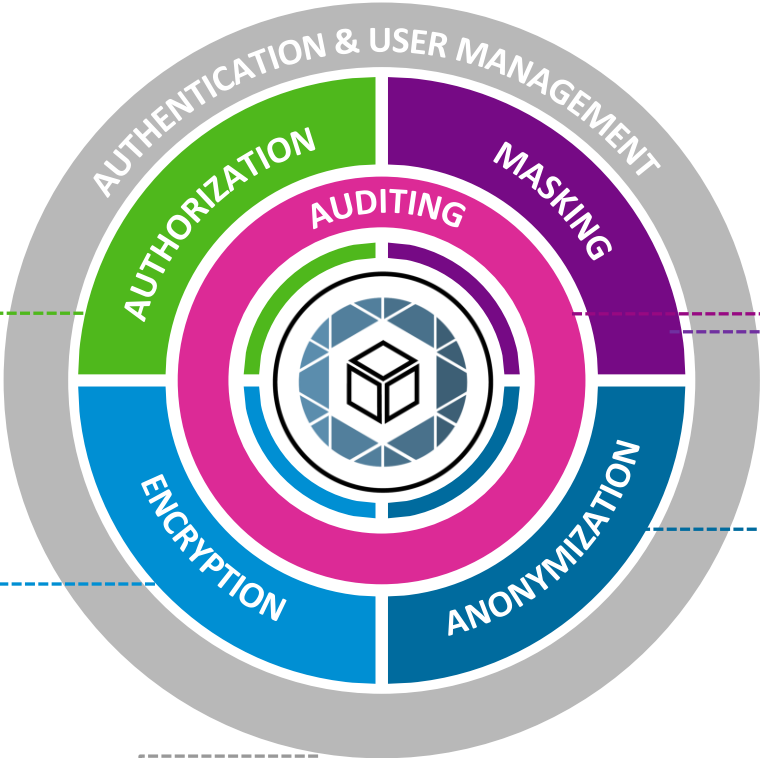
A Holistic Approach to Secure Data Management

Authorization

- Role management framework
- Best practice guide for role building
- Privileges for all user types
- Row-level access control
- Integrated application authorizations
- Authorization troubleshooting

Encryption

- At rest and in motion
- Backup encryption
- Application encryption
- Key management
- Column encryption
- FIPS-certified crypto library
- Best practice guide for TLS/SSL setup



Auditing

- Security logging and analysis for all system events, with customizable policies
- Log read and write access to critical data
- Firefighter logging
- Audit retention policies, audit policy wizard*

Masking

- Dynamic data masking
- For tables and views
- Custom mask expressions

Anonymization

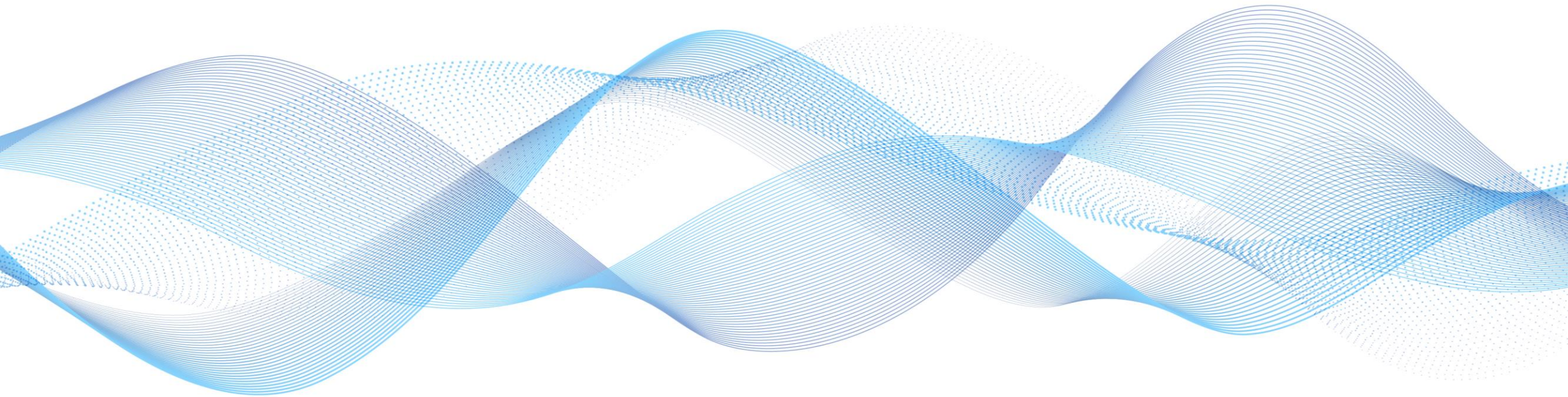
- Real-time data anonymization
- k-anonymity (incl. l diversity), differential privacy
- Custom definition of anonymization views (calculation and SQL views)
- Fully integrated with authorization framework
- Reporting
- Data anonymization KPIs

Authentication & User Management

- User and identity management
- GRC and IDM integration
- Single sign-on (Kerberos, SAML, ...)
- LDAP integration
- Password policies per user group

SAP HANA Cloud

Migration

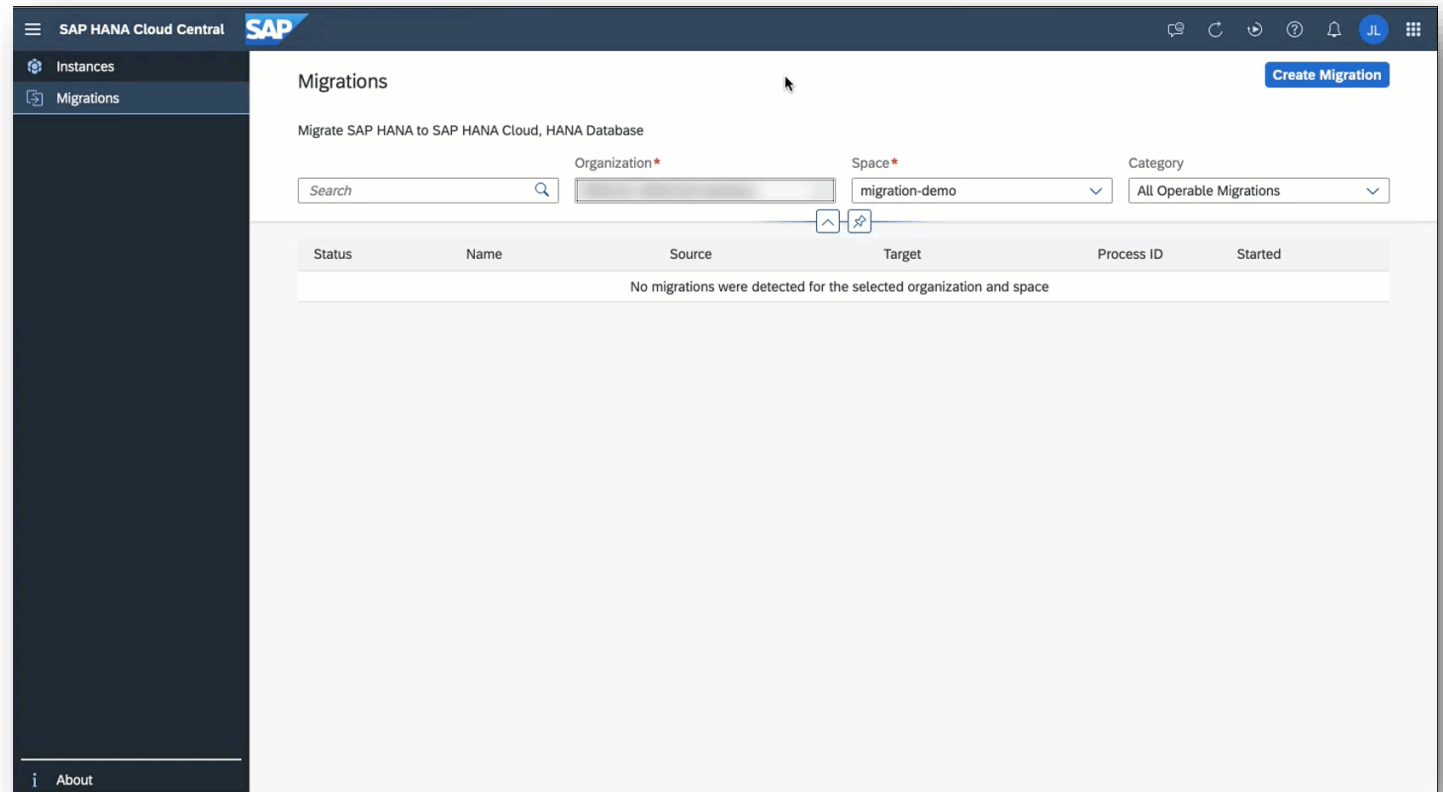


SAP HANA Cloud | Migration Self-Services

Move easily into the cloud

Migration Self-Service

- Guided experience from **planning** over **preparation** and **execution** to **validation**
- In-depth **Migration Pre-check** ensures maximum of compatibility
- Provides **Secure Connectivity** to on-premise SAP HANA systems via SAP Cloud Connector



Migration Pre-Check via SAP HANA Cloud Self-Service Migration Tool

SAP HANA Cloud Migration Self-Services

Move easily into the cloud



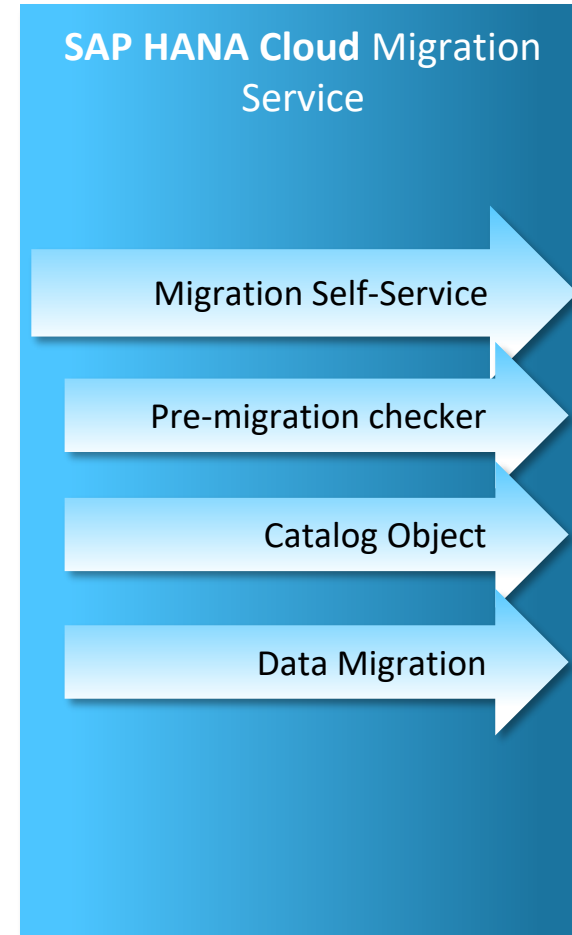
SAP Business Technology Platform, SAP HANA Service on Cloud Foundry (AWS, Azure, Alibaba Cloud)



SAP Business Technology Platform, SAP HANA Service on Neo



SAP HANA 2.0 Platform
Support for data migration

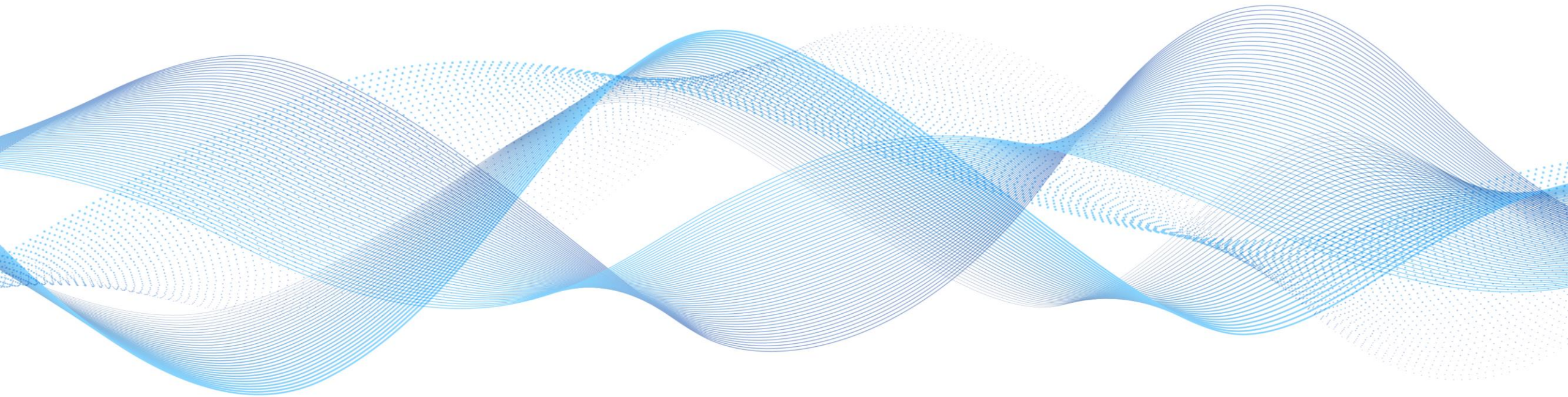


SAP HANA Cloud

[SAP Help documentation: SAP HANA Cloud migration guide](#)

SAP HANA Cloud

Scenarios & Use Cases



SAP HANA Cloud | Scenarios



Accelerate to the cloud

VIA HYBRID DEPLOYMENT

Extend on premise SAP HANA landscape to the cloud with **expanded capacity** to begin your cloud journey.



Centrally store and manage data

VIA DATA LAKE

Manage all your data in a single solution that combines in-memory performance with a large scale **queryable data lake**.



Simple access layer to all your data

VIA VIRTUALIZATION

Advanced virtualization capabilities combined with flexible data storage and process options provide you with **a single gateway** to all enterprise data.



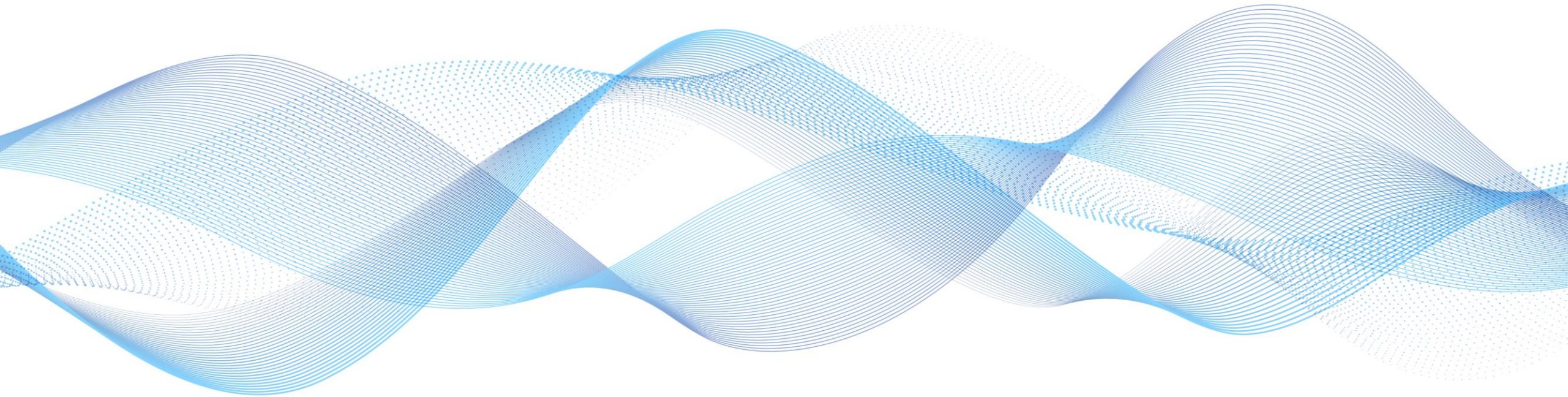
General-purpose DB

VIA TRANSACTIONS AND ANALYTICS DATABASE

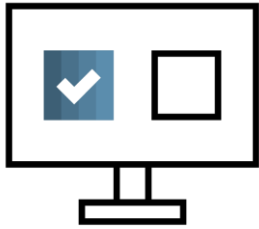
Streamline application development with a DBaaS that combines both **OLTP** and **OLAP** capabilities.

SAP HANA Cloud

Roadmap and Strategy



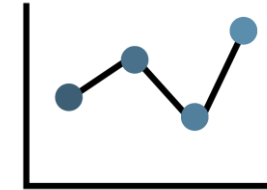
SAP HANA Cloud Strategic Pillars and Direction



Power SAP, Custom & Partner Applications



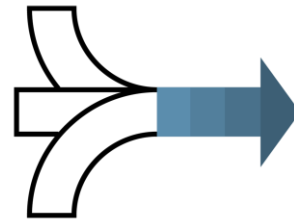
Price-Performance and TCO Optimizations



Multi-Dimensional Elastic Scalability



Automation



Seamless Migrations



Hybrid / Cloud Deployment Flexibility

EMBED

EXTEND

SCALE

SAP HANA Cloud Strategic Investment Areas

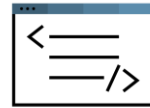


Price / Performance

Performance Classes

Cost Governance and Prediction

ARM-based processor support



Application Development

No Code / Low Code

Guided Experience

Enhanced Tooling



Multi-Model Data Processing

Integration of External Object Storage

Graph Processing on JSON Documents

Spatial Functions in Graph Script

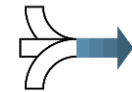


Advanced Analytics

AutoML Capabilities

Knowledge Graph

Multi-Dimensional Accelerator



Seamless Migration

Self-Service Tooling

Guided Migration

Hybrid Scenario

Cost Governance and Prediction

Cost Monitor for SAP HANA Cloud

Monitoring & Controlling

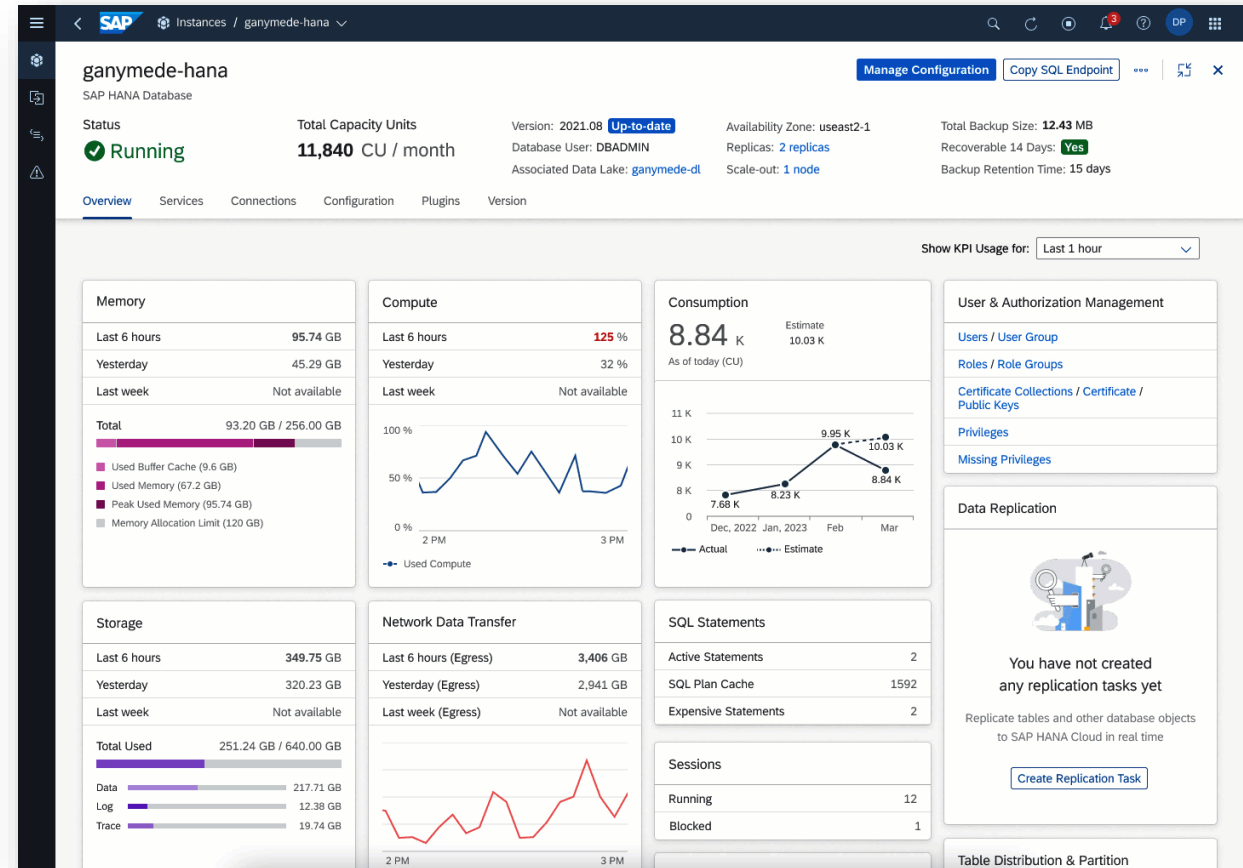
Observe and steer spending based on resource consumption, via real-time usage information

Spend Prediction

Accurately estimate DBMS resources spending based on historical data collected and current usage actuals

Governance & Optimization

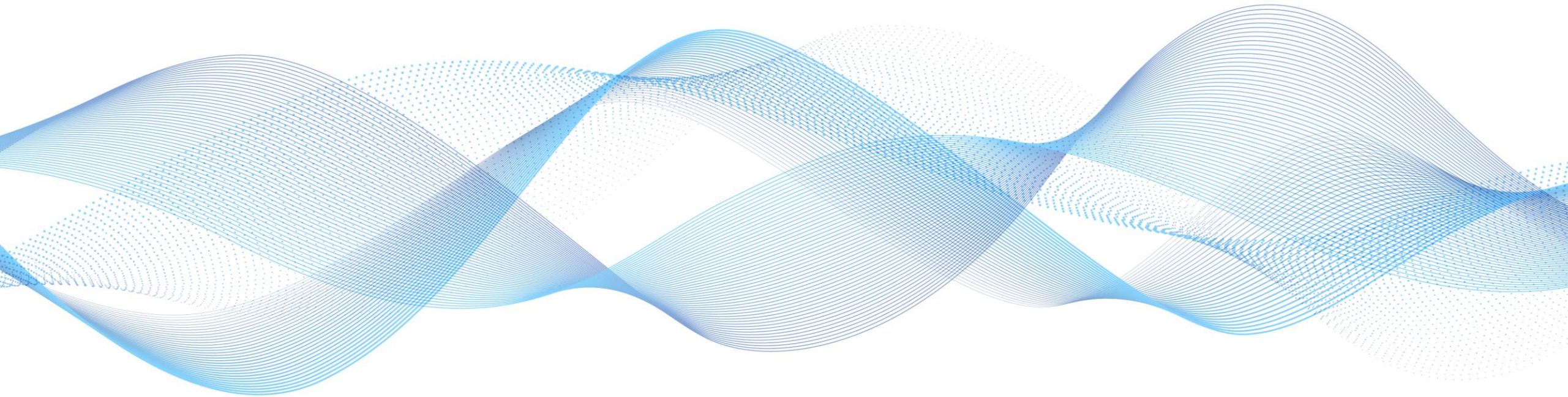
Simplified cost allocation and optimization supported by a fine granular representation and system-generated recommendations



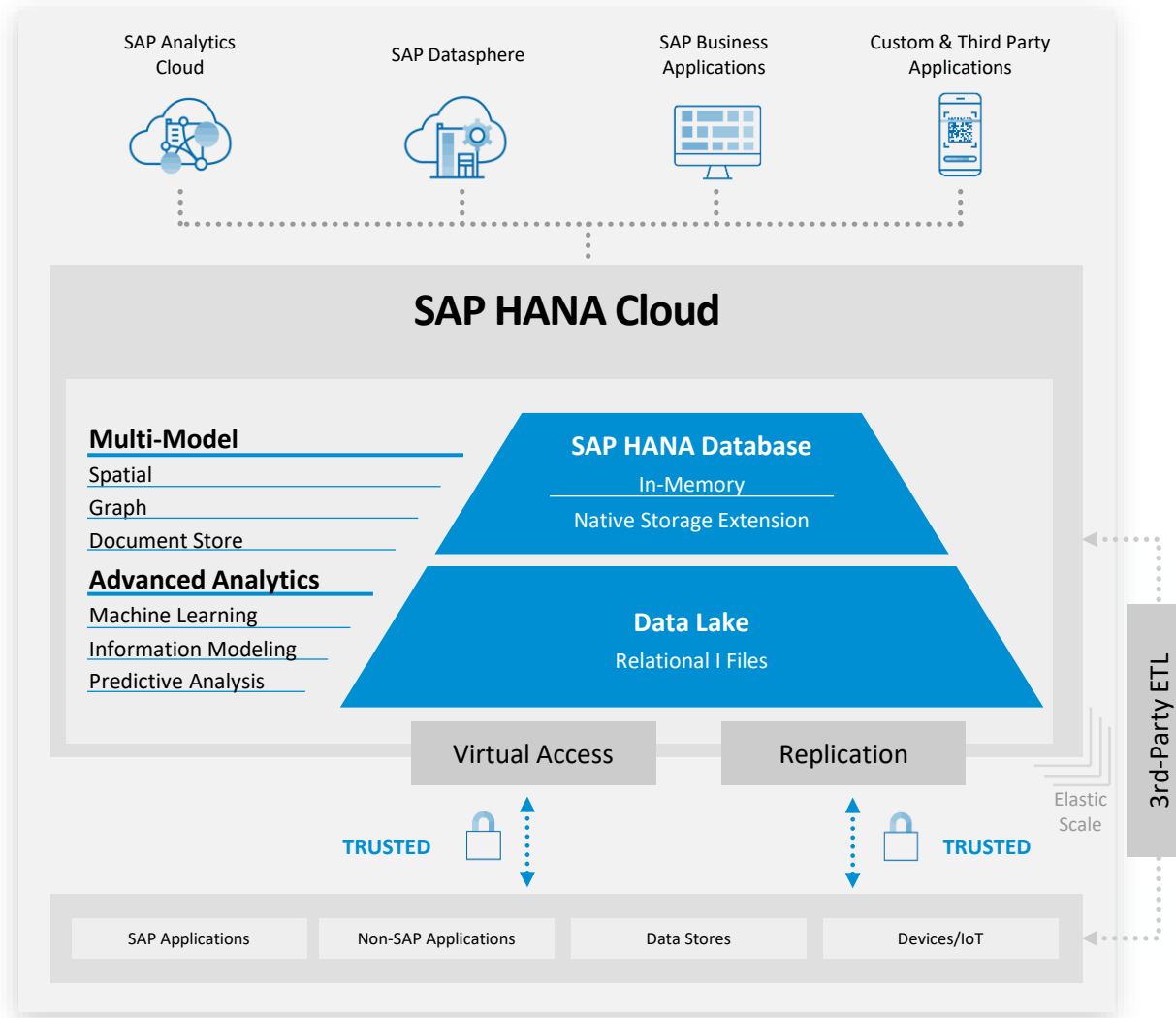
Cost Monitor for SAP HANA Cloud Central

SAP HANA Cloud

Summary



SAP HANA Cloud | Overview



The foundation for the SAP Business Technology Platform

- **SAP HANA Cloud** brings the simplicity, power, and performance of SAP HANA to the cloud
- **Open to all applications** – SAP Analytics Cloud, SAP Data Warehouse Cloud, custom, and third-party ISV solutions

Simple and Complete Data Management in the Cloud

- **Cloud Experience** – A fully-managed, multi-cloud, scalable, flexible, and consumption-based cloud experience
- **Scalable** – Different storage tiers such as in-memory, disk, and relational data lake options to store large amounts of data
- **Reduce Data Duplication** – Virtual interactive access layer across different data sources, regardless of whether they are on-premise or in the cloud
- **Reduce Complexity** – High-performing and scalable OLAP & OLTP capabilities with multi-model support on any datastore

Accelerate the Journey to the Cloud

- **Move or extend existing on-premise workloads** into the cloud, providing support with cloud-based database tooling
- **End-to-End View** – Visualize your entire data landscape, whether on-premise or in the cloud by connecting to the ever-growing number of source systems

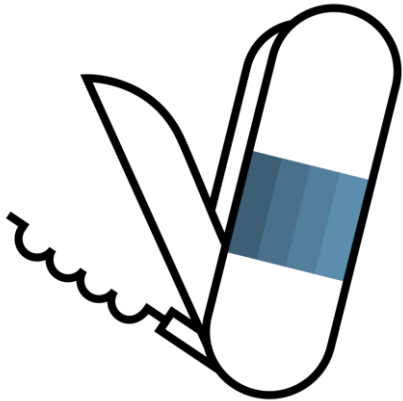
SAP HANA Cloud | Summary

Database service of the future

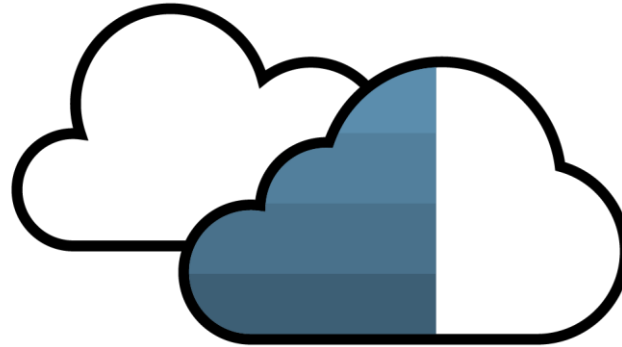
- ... is a new cloud-native database-as-a-service product managed by SAP.
- ... is designed for using cloud qualities like low TCO, elasticity, serverless principles, high availability, resilience and autonomous behavior.
- ... is a public multi-cloud offering provided by the SAP Business Technology Platform in various regions and data centers.
- ... offers multiple database services including the well-known HANA in-memory database as well as a data lake (relational & files)
- ... provides a unified SQL access with unique federation and replication capabilities to any data source.
- ... is able to use seamlessly different built-in storage options for cost-efficiency.
- ... adds power and storage on demand to your existing on-premises systems.

SAP HANA Cloud | Benefits

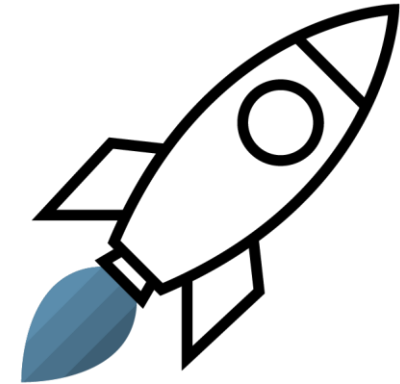
Individual, Flexible, Future Proof



DBaaS Solution tailored to serve your individual scenarios via **multiple storage** and **federation options**



Flexible managed cloud service reduces operations, security, maintenance efforts and ultimately **optimizes TCO**



Future proof database product providing cloud-native qualities and functionalities incl. **scalability and connectivity**

SAP HANA Cloud | Solution Capabilities

Capability	SAP HANA Cloud
Instance Sizes	30 GB – 5.6 TB (in-memory) 1 TB – PB scale (data lake)
Cloud Service Providers	Amazon Web Services, Microsoft Azure, Alibaba Cloud, Google Cloud Platform
Query Interface/Languages	SQL / SQL Script
System Design / Problem Domain	OLTP, OLAP
Data Tiering / Data Stores	SAP HANA In-Memory Store, Native Storage Extension (NSE), Data Lake Relational Engine, Data Lake Files, Cloud Object stores (via Data Lake)
Administration & Monitoring	SAP HANA Cloud Central, SAP HANA Cockpit, SAP HANA Database Explorer
High Availability	99,9% standard availability; 99,99% high-availability option (via synchronous multi-zone replication)
Disaster Recovery	via asynchronous multi-zone replication
Multi Tenancy	HDI schema separation; instance-based tenant separation
Smart Multi-Model Engine	Predictive/ML, Spatial, Graph, Text Search, JSON Document Store
Unstructured Data Processing	JSON Document Store; Data lake file storage
Predictive Capabilities	HANA Predictive Analytics Library (PAL), HANA Automated Predictive Library (APL), HANA Python Client API for Machine Learning
Data Integration	SAP SLT/DS, SDI, SDA, SDQ/DQM
Data Privacy Features	Data Anonymization, SAP Data Custodian
Application Development	SAP Business Application Studio, SAP Cloud Application Programming (CAP)
Application Runtime Environment	SAP Business Technology Platform - Cloud Foundry, Kyma

last update: 17th August 2023

For more current information, please refer

[SAP HANA Cloud Roadmap](#)

(*): currently under development

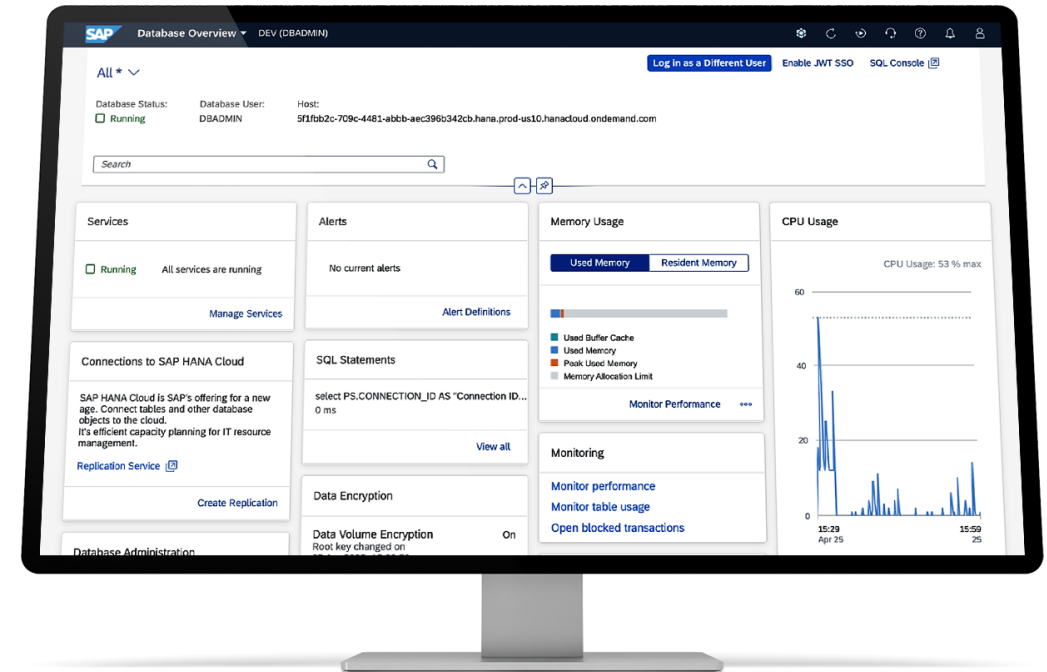
Start now with a free tier or trial!

SAP HANA Cloud is available for [free tier or trial](#).

1 Get a first impression via our free 30-day [Guided Experience](#)

2 Jump start into SAP HANA Cloud via our [tutorial mission](#)

3 Stay up-to-date with our [SAP HANA Cloud Events](#)



Find out more about SAP HANA Cloud

Learn about SAP HANA Cloud

Check out the sap.com/hanacloud website, which has valuable resources for fast-tracking your knowledge of SAP HANA and a rich support section designed to help you get the highest quality answers quickly and easily from SAP experts



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community.sap.com



Get started for Free
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Roadmap
roadmaps.sap.com

Get involved in the discussion

Engage with community experts on the SAP Community program to accelerate the development of SAP HANA Cloud powered solutions



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Spread the word
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SAP is here to help.

Contact your local SAP representative

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