SAP on AWS

Engineering Tomorrow's Enterprise

brillio

In an era where digital capability defines market leadership, modernizing SAP environments on AWS has become a cornerstone of enterprise transformation.

Why Migrate to AWS?

Amid accelerating market shifts, enterprises are under increasing pressure to modernize their IT infrastructure, streamline operations, and drive continuous innovation. For organizations running SAP environments on legacy on-premises systems, migrating to SAP on AWS is no longer just an option, but a strategic imperative.

Economic headwinds have sharpened the focus on cost efficiency and operational agility, making cloud adoption increasingly critical for organizations running legacy SAP environments. Market data reinforces this momentum – MarketsandMarkets projects cloud migration services will surge from $10.2 billion in 2023 to $29.2 billion by 2028, representing a 23.3% CAGR.

This shift aligns with SAP's strategic direction, particularly through initiatives like SAP RISE, which promotes a 'business transformation as a service' model that leverages the full potential of cloud platforms like AWS.

Key Drivers for SAP Migration

Cost Pressures and Infrastructure Optimization: Legacy infrastructure costs continue to climb, pushing enterprises toward more efficient cloud-based solutions.

Business Velocity and Scale: Traditional systems lack the responsiveness needed to capitalize on market opportunities and manage rapid growth.

Legacy System Risk: Aging SAP environments create mounting security vulnerabilities and compliance gaps while increasing operational risk.

Performance Imperative: Mission-critical operations demand speeds and reliability levels that legacy environments simply cannot deliver.

Digital Evolution: Maintaining competitive edge requires embracing cloud-native capabilities and innovation-driven architectures.

Enhanced Security Landscape: Modern cloud platforms offer robust protection against evolving cyber threats while ensuring regulatory compliance.

Workforce Mobility: Distributed teams and global partnerships demand secure, seamless system access across geographies.

Environmental Impact: Cloud infrastructure significantly reduces energy consumption and supports corporate sustainability objectives.

Critical Challenges in SAP to AWS Migration

The promise of enhanced performance and reduced costs drives AWS migration, yet organizations must navigate several complex challenges:

Operational Continuity: Migration demands precise orchestration to maintain business momentum. Even minor disruptions can cascade into significant revenue impacts and eroded customer trust.

Security and Regulatory Alignment: Highly regulated industries face particular complexity in protecting sensitive data throughout migration while maintaining strict compliance standards. Data integrity becomes paramount during this transition.

System Orchestration: Modern enterprises operate intricate hybrid environments. Seamless integration between SAP S/4HANA and existing systems remains crucial for maintaining operational efficiency.

Technical Capability Gap: The intersection of SAP and AWS demands specialized expertise.
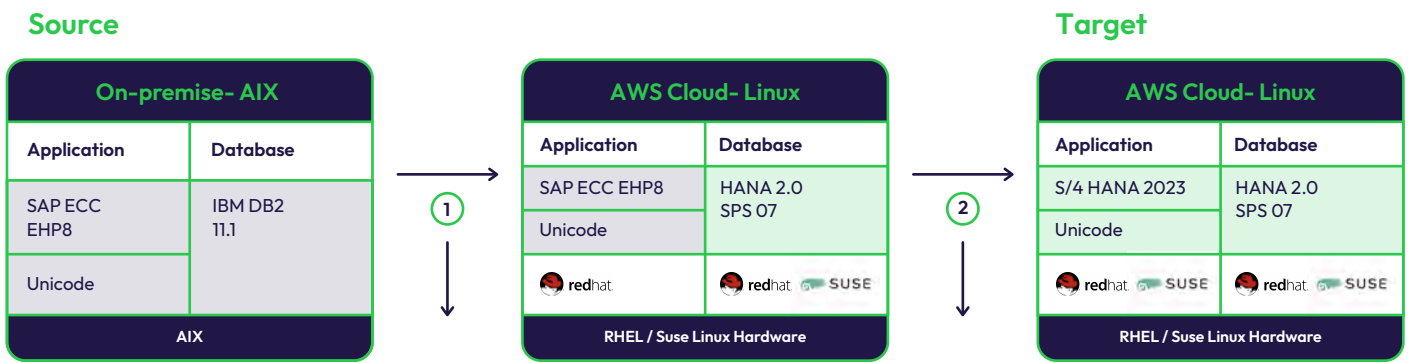
Organizations often face significant hurdles in developing or acquiring the necessary technical depth to execute complex migrations.

Why Brillio for SAP on AWS?

Proven track record of zero-downtime migrations across complex enterprise landscapes.

Advanced frameworks that reduce migration timelines by over 25%.

Industry-specific accelerators for highly regulated sectors.

Deep expertise across SAP, AWS, and industry verticals.

Strategic partnerships with both SAP and AWS.

Comprehensive post-migration optimization services

Brillio's Approach to SAP Migration

Drawing from extensive experience with complex SAP migrations, our methodology delivers minimal disruption, optimized costs, and enterprise-grade security. Our comprehensive approach spans from initial assessment through post-deployment support, systematically addressing each transformation challenge.

Source

On-premise- AIX	
Application	**Database**
SAP ECC EHP8	IBM DB2 11.1
Unicode	
AIX	

→ 1 ↓

AWS Cloud- Linux	
Application	**Database**
SAP ECC EHP8	HANA 2.0 SPS 07
Unicode	
redhat	redhat SUSE
RHEL / Suse Linux Hardware	

→ 2 ↓

Target

AWS Cloud- Linux	
Application	**Database**
S/4 HANA 2023	HANA 2.0 SPS 07
Unicode	
redhat SUSE	redhat SUSE
RHEL / Suse Linux Hardware	

Phase 1: Foundation and Infrastructure

Cloud Infrastructure: We begin with deep analysis of your SAP landscape before establishing AWS virtual machines. This includes architecting secure connectivity between on-premises and cloud environments to ensure reliable data flow.

Sandbox Migration: Following infrastructure deployment, we construct the sandbox environment on AWS and implement HANA on cloud database instances. Our team executes data migration from existing systems and conducts thorough performance validation.

Development Environment: We architect the development instance on AWS, deploy HANA, and migrate essential data. Rigorous testing optimizes the environment for development workflows while minimizing downstream risks.

Quality Assurance: Critical system validation occurs through dedicated QA infrastructure deployment and HANA implementation. A two-week User Acceptance Testing cycle ensures production readiness.

Production Deployment: The final stage encompasses production environment setup, migration execution, and comprehensive testing. We provide enhanced post-migration support to optimize SAP performance.

Phase 2: S/4 HANA Transformation

Strategic Planning: We initiate with sandbox environment refresh, systematic readiness assessment, and granular custom code analysis to identify and mitigate potential challenges early.

Sandbox Conversion: The transformation begins with sandbox migration to S/4 HANA, including SPDD & SPAU optimization and Fiori implementation for enhanced user experience.

Conversion Validation: Comprehensive readiness verification and code review precede final conversion. SPDD & SPAU refinements and Fiori configuration align with S/4 HANA requirements.

Development Migration: Quality assurance refresh precedes development environment conversion, followed by SPDD & SPAU implementation and Fiori configuration. User Acceptance Testing validates the environment.

Quality Assurance Migration: Final pre-production validation includes complete readiness assessment, code verification, and S/4 HANA conversion, culminating in extensive user acceptance testing.

Production Implementation: The final phase encompasses production conversion, SPDD & SPAU deployment, and comprehensive testing. A dedicated hypercare period ensures smooth transition through user training and enhanced support.

Strategic Benefits of SAP on AWS

Moving SAP workloads to AWS transforms traditional infrastructure limitations into competitive advantages:

Dynamic Scalability: Instantly align computing resources with business demands, optimizing performance while controlling costs during peak and quiet periods.

Financial Optimization: Eliminate the capital expenditure of maintaining on-premises hardware, leveraging a pay-as-you-go model that reduces total cost of ownership and maximizes ROI.

Enterprise-Grade Performance & Reliability: Gain faster response times, minimal downtime, and global availability with built-in disaster recovery capabilities through AWS's robust infrastructure.

Accelerated Innovation: Unlock new revenue streams through seamless integration with AWS's advanced analytics, AI, and machine learning capabilities, enabling data-driven decision making.

Fortified Security: Strengthen your SAP environment with enterprise-grade encryption, granular access controls, and built-in compliance frameworks that protect mission-critical data.

Market Responsiveness: Deploy and update SAP systems faster through AWS automation, enabling rapid adaptation to market shifts and emerging opportunities.

Future-Ready Architecture: Ensure your SAP systems stay modern, scalable, and aligned with evolving technological and business demands.

Global Market Access: Deploy SAP workloads in multiple regions instantly, enabling rapid market entry and enhanced service delivery to customers worldwide.

Ecosystem Integration: Seamlessly connect SAP systems with third-party solutions and cloud-native services, creating new operational capabilities and business models.

Cost Visibility: Gain granular insights into resource utilization and spending patterns, enabling data-driven decisions about capacity planning and optimization.

Real World Success Stories

Empowering an American Publishing Firm with SAP Migration to AWS

An American publishing firm sought to modernize its operations by transitioning from an expensive SAP HEC private cloud to AWS. With over 10 TB of data, 65+ servers, and a complex SAP environment, they needed a cost-effective migration with robust disaster recovery (DR) mechanisms.

Solution Highlights: Brillio conducted a comprehensive cloud readiness assessment, established a robust cloud foundation, and executed a phased migration approach. Key milestones included sandbox, development, and production migrations with high availability (HA) and DR testing. White-glove managed services ensured complete transparency and strict SLAs.

Business Outcomes:
- 60% reduction in data center footprint
- 25% faster migration with Brillio's accelerators
- $400,000 annual savings through optimized operations

Modernizing a Tire Manufacturer's SAP Landscape on AWS

A multinational tire manufacturer migrated from a CapEx-heavy on-premises SAP environment to a scalable OpEx model on AWS, aiming to optimize costs, enhance scalability, and maintain top-tier performance.

Solution Highlights: Brillio utilized a 4-phased migration approach to transition SAP systems to SAP Rise and AWS Cloud. Critical systems like ECC, SCM, and BW were migrated using parallel export/import, HSR, and Lift & Shift methods. Infrastructure was modernized, and enhanced security measures were implemented with FortiGate firewalls and high availability setups.

Business Outcomes:

- 99.7% uptime for production and 99% for non-production systems.
- All 300+ interfaces operational from Day 1.
- Enhanced security & scalability and reduced vulnerabilities.

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ABOUT BRILLIO

At Brillio, our customers are at the heart of everything we do. We were founded on the philosophy that to be great at something, you need to be unreasonably focused. That's why we are relentless about delivering the technology-enabled solutions our customers need to thrive in today's digital economy. Simply put, we help our customers accelerate what matters to their business by leveraging our expertise in agile engineering to bring human-centric products to market at warp speed. Born in the digital age, we embrace the four superpowers of technology, enabling our customers to not only improve their current performance but to rethink their business in entirely new ways. Headquartered in Silicon Valley, Brillio has exceptional employees worldwide and is trusted by hundreds of Fortune 2000 organizations across the globe.

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