



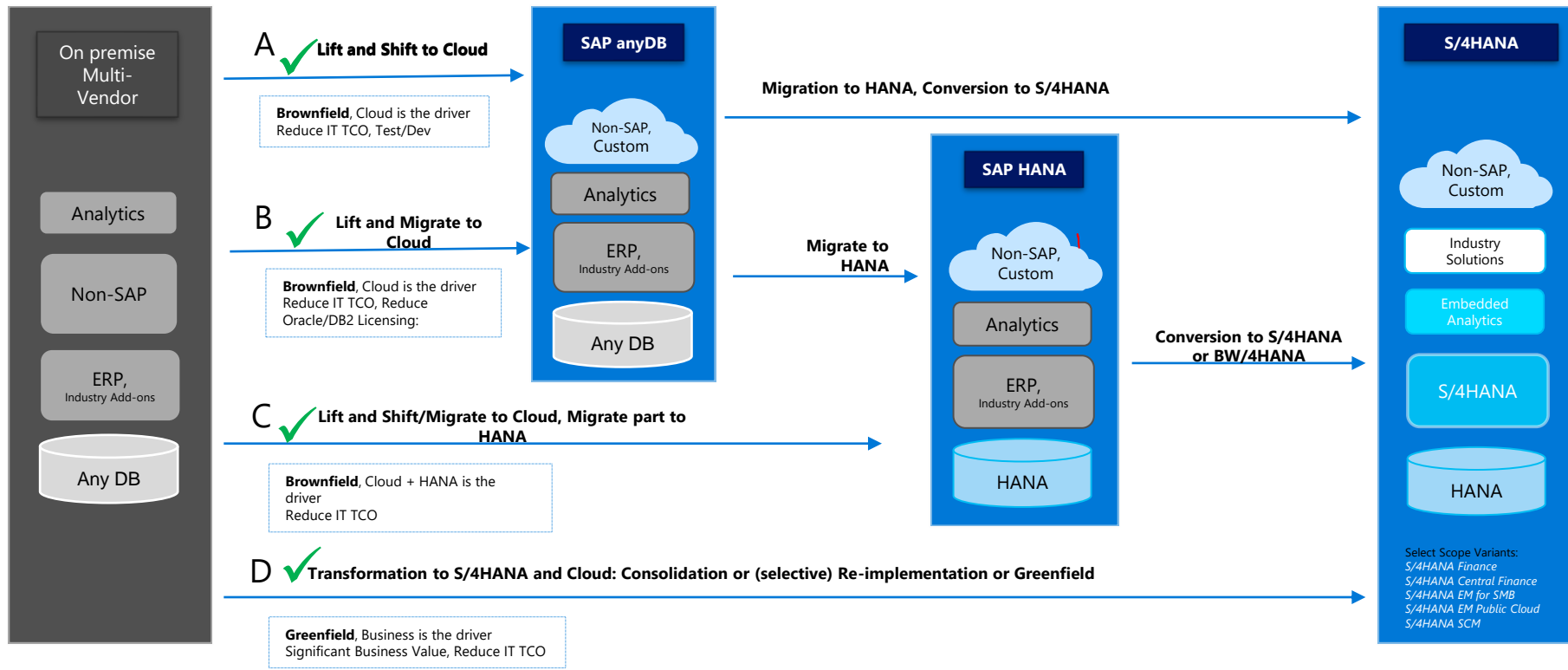
SAP on Azure with SUSE Enterprise Solution

SUSE Software & Managed Services – Epi-Use Labs & SUSE

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Where are you in your SAP journey?



Solution Summary



- Unified Approach - EPI-USE Labs, SUSE and Microsoft based on in depth understanding of customers requirements.
- Use proprietary SAP-related intellectual property and cloud migration know-how
 - Extensive experience in servicing the needs of multinational, medium size and smaller corporations
 - Solution for managing and migrating SAP Estate or a portion of it, e.g. Human Capital Management (HCM) system to the Microsoft Azure with SUSE's unique, co-developed, Azure-optimized solutions.
- All-inclusive managed cloud solution for customers starting or have completed their journey to the public cloud.



Summary (continued)

Our solution is tailored around customers' general requirements, and ensuring that future innovation is made possible. Some of the following benefits are envisaged included in our public cloud solution:

Stability



- Platform stability and visibility across all SAP systems;
- On-demand infrastructure scalability;

Infrastructure Scalability



- Managed Services to ensure ongoing compliance across all systems;
- SAP HANA database conversion that will enable the SAP system upgradability to SAP's S/4HANA solution;
- Improved platform level automation capabilities through the combination of EPI-USE's proprietary software suite and porting the solution into Azure;

Managed Services



- Integration services covering best-of-breed middleware, services-orientated architecture and API management;

Modern Integration



- Performance measured against one Service Level Agreement.
- World leading compliance and security through the Fortinet public cloud framework

Why discuss SAP & SUSE?



SAP will end support for older solutions by 2027

Most SAP deployments will be cloud-based

SUSE the ONLY Linux endorsed by SAP

SUSE is the reference development platform for SAP

Minimize your risks of running SAP workloads

Maximize your sap uptime or investment

SUSE the ONLY Linux endorsed by SAP



Trusted by SAP

SAP is a partner and a customer

20+ years of collaboration
Reference development platform
Internal & customer systems

70%
of SAP
applications on
Linux

Preferred by SAP
customers

Run with the best

- Leading OS for SAP HANA
- Exclusive platform for SAP Business One version for HANA
- 300+ customer references

85%
of SAP HANA
installations

Preferred by SAP partners

Your choice of platforms

- Support on all SAP HANA appliances
- Broad choice of hyperscalers/IHV
- Leading choice for SAP HANA benchmarks

100%
of SAP Business
One version for
SAP HANA
deployments



Available on
SAP Store










Drive Open Innovation with SUSE and Azure

- 102% ROI by moving you SAP to Azure.
- First to market with innovation enabling competitive time to market
- Reliability and Efficiency for the Enterprise, taking availability up to 99.999%.
- Shorter and smoother deployments /migrations to Azure using SUSE automated ready templates.



Why SUSE for SAP HANA on Azure?

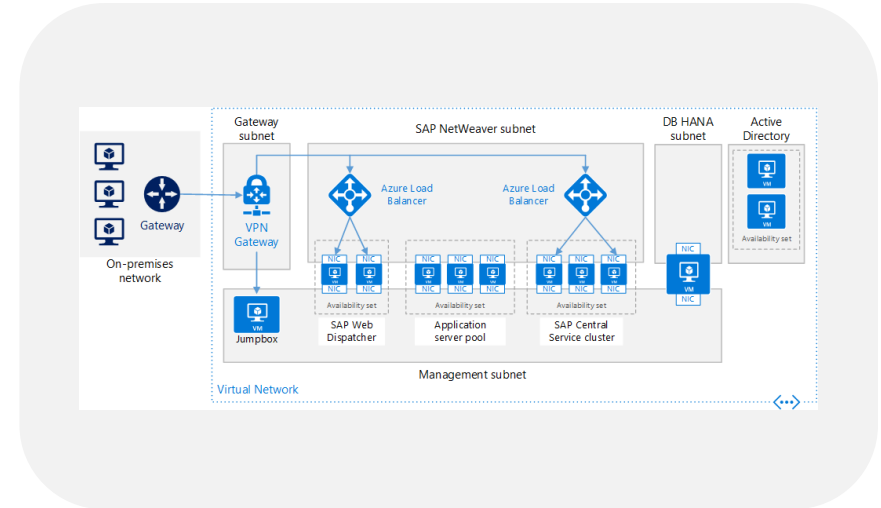
	<p>Deep Relationship with SAP</p> <p>20 years of engineering collaboration, SAP recommends SUSE as an OS for SAP HANA</p>	<p>SAP use SUSE Enterprise Linux in their own environment</p> <p>SAP certify on SLES first SUSE as the primary Linux development reference platforms</p>	<p>SAP + SUSE expanding footprint into containers</p> <p>SAP use SUSE CaaSP as a supported K8 orchestration tool with SAP Datahub</p>	<p>Day 1 and Day 2 innovation around Set up, HA, Monitoring, Security</p> <p>Continuous joint customer driven innovation at the SAP Linux labs in Walldorf, Germany</p>	<p>Trusted and Supported</p> <p>SUSE first to create benchmark and template for best in-class integrated L3 support</p>
	 <p>20+ year relationship and SAP certified IaaS</p>	 <p>Customers take advantage of features first with SUSE</p>	 <p>Customers have an accountable entity to support the requirements of Datahub</p>	 <p>SUSE leadership with SAP around constant stream of innovation to solve customer challenges</p>	 <p>On-site L3 SUSE engineers within the Walldorf SAP support centre to isolate source of issue and accelerate to resolution.</p>

Jointly Engineered Solution Templates



For SAP Landscapes on Azure Built on Microsoft's Best Practice Architecture

- Designed to simplify and automate the creation of the required infrastructure for deploying SAP NetWeaver and SAP HANA on
- SUSE Linux Enterprise Server for SAP Applications premium images in Azure



Speed deployment on
Azure Marketplace

Rapidly deliver purpose-built SAP HANA systems on Microsoft Azure



Delivering flexibility for small and very large SAP deployments

Choice of deployment options

- VMs for SAP HANA up to 16 TB
- Custom TDI SAP HANA up to 60 TB

Office 365 and Microsoft Power BI

- Combine with SAP HANA data
- Deliver business insights and visualization

Azure Active Directory

- Web-based single sign-on
- Support SAP, Office 365 and other solutions



Epi-Use Labs Managed Services – AMS, Azure Managed Services Catalogue [24 / 7 global support (SLA)]



Service Management (AMS)

Incidents
New business request
Problem management
Service level agreement
Configuration management
Maintain global template design principles
Provide supporting documentation
Health checks, audit, governance and compliance
Client Central ticket management, trends and root cause analysis
Product related escalations to SAP other 3rd parties
Continuous maintenance & housekeeping

Monitoring Services Scope (Cloud & Hosting)

Azure Monitor access (read-only)
Monitoring IaaS (24/7)
Monitoring OS (24/7)
Automated email alert for daily usage overrun
Automated email alert for Azure service issue

Core Services Scope (Cloud & Hosting)

Azure Subscription creation
Azure Subscription Administrator access (Limited)
Automated daily email on Azure best practices
Automated weekly email showing usage
Automated monthly email showing usage and billing
Automated monthly invoice for Azure subscription usage
Automated monthly invoice for Azure Managed Service
Monthly recommendations on Azure subscription optimisation

Patching Services Scope (Cloud & Hosting)

Windows patching with standard maintenance window
Linux patching with standard maintenance window
Windows patching with custom maintenance window
Linux patching with custom maintenance window

Networking (Cloud & Hosting)

Azure-side ExpressRoute configuration
VPN (Site to Site) configuration
VPN (Point to Site) configuration

Anti-Virus Services (Cloud & Hosting)

Anti-virus and malware scanning for Windows
Anti-virus and malware scanning for Linux
Standard scan schedule and policies
Custom scan schedule and policies
VM/File level restores as a result of a virus outbreak (Azure Backup)

Managed Azure Backup (Cloud & Hosting)

Backup service with standard daily schedule
Backup retention with standard 30-day policy
Backup service with custom schedule
Backup retention with custom policy
Request recovery for VM and files
Modify backup configuration
Resolution time for backup settings change (12 Hours)
Ticket response for VM and files restoration (12 Hours)



(continued): Managed Services – Basis Catalogue



Daily Checks and Housekeeping

- Monitor process overview (SM50)
- Monitor overall system process overview (SM66)
- Monitor application server's status (SM51)
- Monitor for any pending locks (SM12)
- Monitor for Dumps in the system (ST22)
- Monitor System log for any errors (SM21)
- Monitor for excessive swapping (ST02)
- Monitor for critical job status e.g. backup, update stats
- Monitor for long running/failed jobs status (SM37)
- Monitor database alert logs and performance (ST04)
- Monitor spool job status (SP01)
- Monitor for Database locks (DB01)
- Interface monitoring (in/outbound queues on all systems)
- Resource Monitoring (CPU, Page, MEM, Filesystem)
- Maintain logon groups
- SAP Change Management (Transport Management)
- Implement recommendations by RTCCTOOL
- Implement recommendations by RSECNOTE
- Run TemSe consistency check
- Optimize SAP profile parameters
- Apply basis corrections supplied by SAP

SAP Basis Administration scope

- SAP Monitoring
- SAP Alerting
- SAP Daily Checks and Housekeeping
- SAP Backups (including DB)
- SAP Database Administration
- SAP Patch Management
- SAP Performance Tuning
- SAP Client Administration
- SAP Transport Management
- SAP System Refreshes included
- SAP Authorizations & Roles
- SAP Basis System Security
- SAP Capacity Planning
- SAP Database replication

Disaster Recovery

- Compile end to end Disaster Recovery test plan
- Perform Disaster Recovery test
- Execute Disaster Recovery process

SAP Monitoring & Alerting

- System outage
- System unresponsive
- System long running jobs
- High CPU usage period
- Dialog response time high

Database scope

- Database monitoring and daily checks
- Database backup and recovery
- Database security
- Database administration
- Capacity planning
- Database patching

SAP Upgrade Services

- Upgrade Operating System version
- Upgrade Database version
- Upgrade NetWeaver stack version
- SAP major release technical upgrades

Operating System scope

- Monitoring the Operating System
- Improving system performance
- Operating System administration
- OS Capacity planning
- Operating System Patching
- Operating System Anti-Virus





Should EPI-USE be successful in this engagement, 1% of net revenue derived therefrom will be channeled towards ERP projects in Africa. As customer you would be presented with a range of projects to choose from, and ongoing evaluation and monitoring reports will be provided regularly. Site visits would be welcomed, and customers would have the opportunity to brand the project, if so desired.



ELEPHANTS | RHINOS | PEOPLE

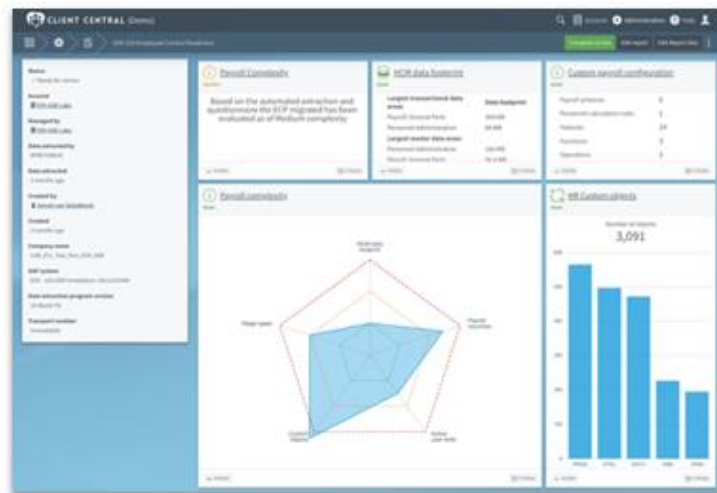
WE BELIEVE THAT EMPOWERING COMMUNITIES IN RURAL AFRICA
IS ESSENTIAL TO THE PRESERVATION OF ELEPHANTS AND RHINOS.

SAP Cloud Lift for Azure



EPI-USE has worked extensively with Microsoft and has an architecture and approach vetted by Microsoft's cloud architecture team. The Cloud Lift for Azure offering was specifically designed to help customer transform their on-premise SAP landscapes to Azure.

More information can be found [here](#).



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Apps > SAP Cloud Lift for Azure

SAP Cloud Lift for Azure

EPI-USE Labs
★★★★☆ (1)

Overview | Reviews

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Frictionless SAP® system syncing to the cloud
Data Sync Manager leveraging the power of Azure

Spin up SAP workloads in Azure for DevOps, training or project landscapes – including scrambling and securing data at source.

Frictionless migrations
Elegant solution, with wizard-driven provisioning tools and templates – reducing the time it takes for creating system copies.

Smart data selection
Easily decide which SAP data you want to lift to the cloud, allowing you to rightsize your SAP estate. Time- or enterprise-slice the data you want to sync.

Source-side data masking
Protect your sensitive SAP data by scrambling production data at source before it leaves the system, allowing you to test the process in pre-production systems securely on Azure.

Don't just lift and shift
Unlike other cloud providers that copy entire SAP systems, including their sensitive data, with EPI-USE Labs' Data Sync Manager you can optimise and secure your data when moving workloads to Azure.



Appendix B: Success Stories

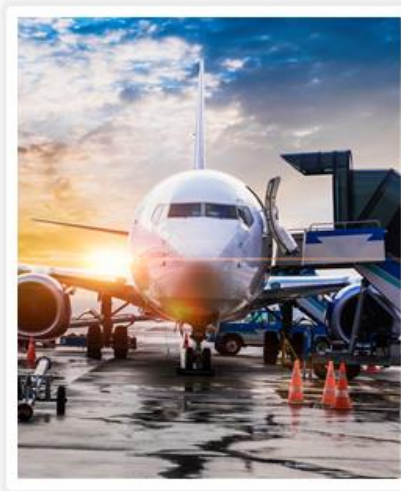


This Appendix includes selected relevant Success Stories of how we have helped our clients transform their landscapes:

Purdue University



Menzies Aviation



The Isle of Wight Council



Purdue University: transforming the future with S/4HANA

- A leading US university with over 30,000 employees was upgraded to S/4HANA as part of the Transform Purdue initiative
- Purdue entrusted the migration, hosting and management of all its SAP systems to EPI-USE
- We performed a rapid two-week cloud-based migration and conversion to S/4HANA
- Data Sync Manager™ was used to slice their legacy ECC system and create lean, secure non-productive landscapes



Moving to SAP S/4HANA allowed us to modernize our business processes, resulting in year-over-year cost savings while leveraging our SAP investment. Couple this with EPI-USE's extensive reputation for transforming how higher education does business, and we had a winning combination.

Victoria Farnsworth, Executive Director, IT Enterprise, Purdue University



Menzies Aviation: payroll hosting on behalf of SAP

- SAP selected EPI-USE as a partner for SAP SuccessFactors Managed Payroll. Under this agreement, SAP subcontracts EPI-USE to deliver all hosting and managed services for the SAP's Managed Payroll product worldwide.
- This partner selection process was rigorous, and SAP did a tremendous amount of due diligence before awarding us this partnership to ensure that their customers' SAP payroll systems will perform according to SAP's contracted rigorous Service Level Agreements and quality standards.
- EPI-USE was contracted by SAP and Menzies to host and manage the SAP payroll landscape in the cloud.
- This included an SAP enterprise carve-out of the Menzies Aviation payroll from the parent company. The newly provisioned system, SAP ECC EHP7, was made up of a Development, Test and Production system.
- Furthermore, a new Solution Manager was provisioned along with PI and Adobe document server. On cutover and go-live, EPI-USE continued providing services for ongoing managed private Cloud Hosting and SAP Basis Managed Services support.



The Isle of Wight Council: smooth migration to the EPI-USE Labs cloud

- Using Data Sync Manager™ suite, rapid migration of SAP environment to cost-effective cloud infrastructure, with ongoing hosting and Managed Services
- Seamless transition and successful migration
- Re-platforming of systems to newer operating system and database version
- Future-proofing of SAP solution for future HRSPs
- Refreshed landscape
- Improved resilience; better backup tools, ability to recover from snapshots
- On-boarding of EPI-USE Cloud and Basis Managed services for SAP landscapes



I would genuinely say there is a large percentage of the users that didn't know it happened. So it was the ideal project, with an improvement of performance and little to no interruption to access, because the migration was that smooth.

Gavin Muncaster, Strategic Manager of ICT & Digital Services,
Isle of Wight Council





Thank you

This proposal was prepared by:

For more information contact me on:

Reference architecture

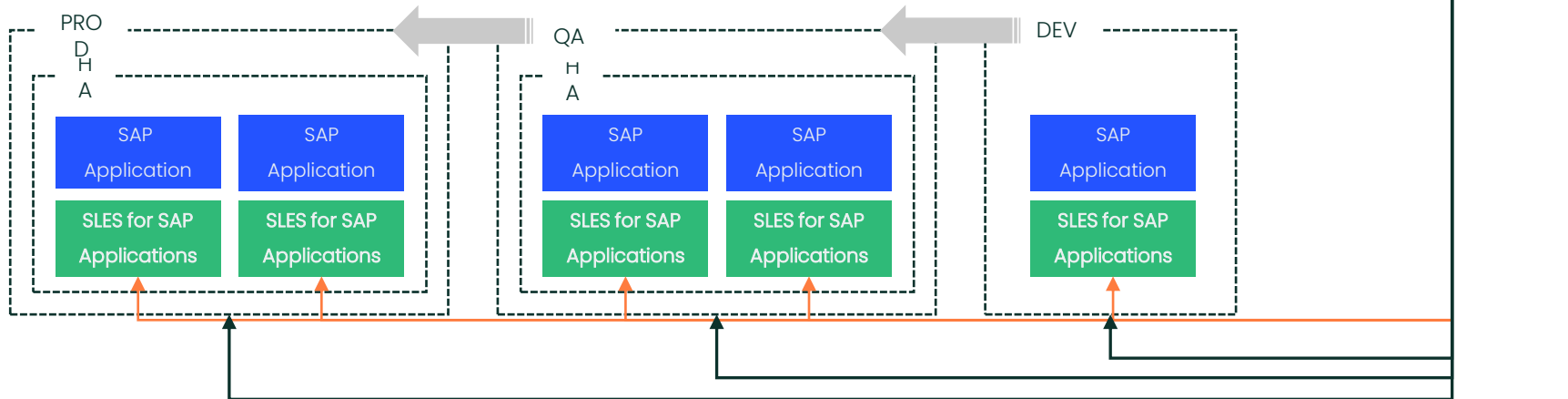
SUSE & SAP Applications / SAP HANA

SLES for SAP Applications: Tuned for SAP, includes HA. SAP Endorsed Application

Live Patching: patch the kernel without downtime

SUSE Manager: ensure compliance, reduce complexity & save cost

SUSE Consulting: validated installation & health checks



SAP Deployment Automation Framework – Process

