EPI·USE® LABS
value through innovation

City of Palo Alto achieves a 55% reduction in the city's monthly AWS usage costs.

By leveraging our standardized process and innovative approaches, we strive to achieve SAP® on AWS cloud best practices. Our focus lies on engineering SAP solutions to enhance operational efficiency and optimize costs, thereby driving maximum value from the AWS platform.

About the City of Palo Alto

Palo Alto, known as the 'Birthplace of Silicon Valley', is home to 69,700 residents and nearly 100,000 jobs. Unique among city organizations, the City of Palo Alto operates a full array of services including its own gas, electric, water, sewer, refuse and storm drainage provided at very competitive rates for its customers. The City offers robust community amenities including 36 parks, 39 playgrounds, five community and youth centers, 41 miles of walking/biking trails and five libraries.

The Challenge

Efficiently manage SAP environment hosted on AWS

Eliminate unnecessary costs

Manage platform and landscape modernization

Introduce **IP-leveraged services**

Improve visibility and landscape control

The Solution

Managed Services: 24/7 AWS and SAP Basis Managed Services

Security: implemented recommendations from SAP Early Watch reports

Optimal performance: of SAP HANA database, and SAP-recommended settings

Monitoring and governance: incorporated Icinga and SAP Automatic Daily Checks

Cost optimization: eliminated on-demand EC2 costs and reduce Amazon S3 costs

Billing-as-a-Service (BaaS): clarity on AWS usage and costs

The challenge

In 2022, the City of Palo Alto reached out to EPI-USE Services for AWS to enhance the management of their AWS SAP® environment. The goal was to achieve greater efficiency through the implementation of IP-leveraged services, modernization, enhanced visibility, and improved control of their landscape. During the transition and handover phase, various opportunities were identified to enhance the overall AWS landscape and optimize SAP health, security, and response time.

The solution

Following a thorough evaluation of the City's SAP system, we provided recommendations to enhance security, performance and visibility. Subsequently, we formulated a detailed action plan to effectively implement these improvements in their environment within a specified timeframe.

Security

- Through using SAP Early Watch reports, we successfully identified areas in the City's security settings that did not meet SAP standards. To address this, we adopted a phased approach to implement the suggested SAP password policies and recommendations, while also considering the internal IT password policies in place.

- Upon observation, it came to our attention that the entire landscape had not undergone patching for the past three years. To address this, we formulated a comprehensive plan to initiate patching, starting with ECC and subsequently extending it to other components such as BW, Gateway, Fiori, CRM, and Portal. This approach ensures the application of all necessary security notes and patches to enhance the overall security of the system.

Performance

- By leveraging a combination of SAP Early Watch reports and SAP transactions, we successfully identified specific areas where we could enhance the City's SAP performance. Consequently, we implemented SAP-recommended settings to optimize the performance of their SAP system.

- To ensure optimal performance of the SAP HANA database, we deployed a combination of recommendations from SAP Early Watch reports and SAP HANA mini checks. By doing so, we compiled a list of pertinent SA HANA parameters that needed to be implemented for improved performance.

Monitoring and governance

- As part of the SAP Basis service, we incorporated Icinga as a monitoring solution to enable continuous oversight of the SAP systems and HANA DB servers. This encompassed monitoring essential aspects such as disk space, memory usage, CPU usage, and ensuring the availability of all systems. By establishing specific thresholds, we could promptly receive notifications in case of critical production issues, facilitating swift response and resolution.

- As part of our innovative approach, we implemented an internally developed solution called SAP Automatic Daily Checks for each server of the City's SAP system. These checks are scheduled to run every morning, providing valuable insights into the system's overall health. A comprehensive report summarizing the findings is automatically generated and reported into our Service Desk platform, Client Central.

Cost optimization

The City had concerns about the high on-demand costs of EC2 instances optimized for their SAP workloads. These instances, mainly from memory-optimized families, are designed for high-performance computing in the AWS cloud and run continuously in production. By selecting the right combination of commitment plans, we were able to eliminate the on-demand EC2 costs entirely. This optimization resulted in a 55% reduction in the City's total monthly cost, with an average savings of over $13,000 USD per month in their AWS usage expenses.

- We also focused on the Simple Storage Service (Amazon S3) costs. When analyzing the historic cost data, we noticed a gradual but steady increase in the standard tier costs for S3 over the months. On a closer look, we were able to identify errors within the City's existing S3 lifecycle management rules, which were quickly rectified, resulting in daily savings of up to 45 USD.

- Through Billing-as-a-Service (BaaS), the City is provided with monthly and quarterly cost reports, which gives the City clarity on their AWS usage and costs at a granular level. We leveraged several cost management tools to ensure tight monitoring of the City's infrastructure costs. We also have regular calls with the client to clarify their queries related to AWS cost and billing, and to keep them constantly updated on the cost and usage trends within their environment.

Managed Services

- Our commitment to 24/7 AWS and SAP Basis Managed Services support allows us to exceed expectations by providing personalized technical assistance for the City's SAP landscape, guaranteeing uninterrupted business operations.
- Driving effective communication with the City is an integral aspect of our support approach. We prioritize transparency, ensuring that the City remains fully informed about the activities within their landscape. We maintain constant updates throughout any change implementation process.
- We have also fostered a strong partnership with the City's IT and SAP Basis team, actively sharing knowledge to further enhance their expertise and capabilities.

> **EPI-USE has been supporting both AWS infrastructure and SAP Basis for the last few months, and their team members are very professional and knowledgeable in their respective domains. The team was quick to assume responsibility, and proactively shared several recommendations based on AWS and SAP best practice. Overall, we are extremely happy with EPI-USE and looking forward to building a long-term relationship.**
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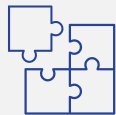> Jitendra Kulkarni – IT Enterprise Systems Manager, City of Palo Alto

The benefits

We assisted the City in achieving an optimized and cost-efficient SAP-compliant environment on AWS. The main benefits were:

Transparency and knowledge sharing

Improved system availability

Increased speed/ quick turnaround time

Knowledgeable/experienced and cooperative staff

Enhanced communication and presentation

Effective patch management technique, ensuring systems are patched regularly.

Keeping track of open issues and closing tickets efficiently

About EPI-USE Labs

As a global software solutions and managed services company, EPI-USE Labs helps you to maximise the performance, management and security of your SAP® and SAP SuccessFactors® systems. Our clients tell us every day how we have transformed their business operations.

Contact us to find out how we can help you solve your business challenges.

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EPI-USE Labs is a member of Group Elephant.

About EPI-USE Services and AWS

EPI-USE Services for AWS offers robust and scalable hosting solutions, based on AWS. As a Next-Gen Managed Services Provider (MSP) we provide managed services and consulting services for AWS, including assessment, development, migration, management, and optimization, allowing our clients to focus on their core business. By providing a flexible cloud migration methodology, we tailor our migrations to each client's unique requirements. This allows any business to move from traditional server environments to AWS quickly and efficiently, with little to no impact on existing environments.

To learn more about how we can help your business, contact info-aws@epiuse.com or visit epiuse.com/aws-services.

About EPI-USE Services for SAP

EPI-USE is an SAP® Gold Partner. Our clients can be confident that EPI-USE is a capable, experienced, and reliable partner for their SAP needs. With our extensive expertise and proven experience in SAP systems, we enable our clients to realize new efficiencies, insights and opportunities for growth. Our core capabilities, technical skills and cutting-edge software – along with the commitment from our wider group of companies – equip us to provide innovative solutions to business challenges and deliver value to our clients.

Group Elephant is a largely employee-owned group of companies, nonprofits and impact investment organizations, with a strong global presence. The Group is characterized by a primary strategic imperative in terms of which it goes 'Beyond Corporate Purpose' in its day-to-day activities.