

## Sierra-Cedar Migrates PeopleSoft to the AWS Cloud

### BACKGROUND

Sierra-Cedar serves a growing base of clients with highly efficient and economical private Cloud-based hosting and managed services on a 24/7 basis, supporting ERP, business intelligence, integration, and custom-developed solutions. Sierra-Cedar utilizes two geographically dispersed data centers to provide these services to clients. We have unsurpassed hosting experience, scaling from meeting the needs of customers ranging from small companies to the largest, most complex PeopleSoft and Oracle system environments. Our largest hosted PeopleSoft environments serve organizations with over 50,000 employees, 450,000 students, and 15,000 concurrent users.

### CHALLENGES

The main challenge Sierra-Cedar faced was our lack of agility in delivering hosting solutions when compared to Cloud-based solutions. The on-premise process requires non-stop efforts in procurement, capacity planning, maintenance of multiple tenants on shared hardware, and complex processes for failover. Sierra-Cedar leadership realized that the data center approach to hosting applications is becoming outdated and began evaluating Cloud alternatives. We decided to migrate our PeopleSoft non-production and production workloads to Amazon Web Services (AWS) Cloud. The project was a cornerstone for Sierra-Cedar to expand beyond private Cloud hosting service offerings and to engage our clients across a broader set of enterprise applications by leveraging the AWS platform to build innovative, product-agnostic managed services.

### SOLUTION

Sierra-Cedar chose AWS because of the Cloud service high-availability model, low-cost data archiving and backup, agility, and the breadth of services offered. AWS offers extensive options which Sierra-Cedar plans to use to better serve our clients. AWS has an impressive suite of security services to protect customer data and continues to improve API enablement to enhance interaction and integration within the virtual data center.

To host our architecture in the AWS Cloud, Sierra-Cedar is using Amazon Elastic Compute (Amazon EC2) as the compute layer for PeopleSoft ERP. Sierra-Cedar also utilizes Amazon Elastic File System (Amazon EFS) for application binary storage and Amazon Simple Storage Service (Amazon S3) for secure, durable, and highly scalable object storage. Sierra-Cedar implemented Amazon Relational Database Service (Amazon RDS) for Oracle Database to provide automated patching and backups while maintaining high availability databases deployed in multiple Availability Zones. Sierra-Cedar utilizes the Amazon Virtual Private Cloud (Amazon VPC) to segregate our network with a site-to-site virtual private network.

The Sierra-Cedar migration of our PeopleSoft workloads to AWS began in the spring of 2016 and nonproduction workloads were running at AWS within two months, followed by production several months later.



### RESULTS AND BENEFITS

By deploying our PeopleSoft applications in the AWS Cloud, Sierra-Cedar has obtained a high-availability environment which is critical for our business operations. While the AWS platform has provided 100% uptime to date, the PeopleSoft deployment is configured to automatically recover from small to large issues, including the potential loss of an entire AWS Availability Zone. The automated failover capability to another Availability Zone was a big benefit when compared to the complex and costly disaster recovery architecture in our traditional data center.

Sierra-Cedar has also successfully created a cost-effective scalable architecture for our PeopleSoft environments. In the traditional model, Sierra-Cedar procured servers to support the increased demand on compute and storage. Sierra-Cedar now has the capability and agility to select EC2 instances which meet current demands, change instance types when workloads exceed demand, manage performance by automatically scaling server resources in/out, and manage costs by running non-production instances only when required by the business. Sierra-Cedar can additionally leverage this capability across the application portfolio for Cloud architecture design, deployment, and managed services needs.

*Moving Sierra-Cedar's Financials and Human Resources PeopleSoft applications to Amazon Web Services (AWS) was an exciting and bold step for our company and an important use case for our clients. This move challenged our organization to completely rethink and redesign our support models with the Cloud in mind—not just as a platform, but as an asset contributing to an improved user experience. I am more than impressed by the measurable performance gains, improved operational efficiencies, and expanded security capability. Amazon Web Services was the right choice for us and we look forward to expanding usage to our entire portfolio of enterprise applications.*

**Timothy Gehrig**  
Executive Vice President  
Sierra-Cedar Shared Services

### Some key project highlights and benefits:

- Formation of dedicated operations and product delivery teams
- Rethinking administration and infrastructure designs
- Testing and deploying AWS services not widely used for ERP applications (such as RDS, EFS, Route 53, and ELB)
- Better understanding of the strengths and gaps of the architectures being developed
- Close working relationship developed and enhanced with AWS to address any challenges
- Development of automation designed to reduce the labor burden for administrators
- User experience improvements
- Scalability during peak usage times
- Segmentation and security of the AWS hosted solution
- Operational efficiencies around patching, monitoring, and planned maintenance windows

### Benefits of Sierra-Cedar's Enterprise focus in AWS:

- A public Cloud design approach is based on understanding how a client's applications are unique.
- A building-block approach to services abstraction creates high capacity for re-use and efficiency through Sierra-Cedar's Cloud Solutions Platform.
- With AWS Public Cloud as the focus, our services encompass the leading SaaS, PaaS, and IaaS providers. Sierra-Cedar has a deep understanding of how to secure and enable these technologies to work together.
- Sierra-Cedar has an in-house DevOps team to meet our clients' full Cloud enterprise service needs, allowing them to realize the expected cost savings and demonstrated flexibility of the AWS Cloud architecture.

### ABOUT THE PARTNERSHIP

Sierra-Cedar is currently an **AWS Advanced Consulting and Public Sector Partner** for Commercial, Public Sector, and Higher Education clients. Our strong strategic partnership with AWS is based on the breadth and depth of the AWS services we provide, resulting in a starting set of (rapidly growing) certifications that focus on moving our clients forward.

Sierra-Cedar has expertise and documented success with the following:

- Adopting RDS as a managed database platform
- Tuning online and batch performance of PeopleSoft applications
- Integrating Cloud, on-premise, and third-party applications
- Monitoring the complete environment allowing quick resolution when issues do arise
- Securing the environment through a combination of AWS delivered security profiles, host base software, encrypted VPNs, and login authentication integration with leading Cloud-based LDAP integrations
- Testing failover scenarios while keeping the application and web services available, including continued processing of production workloads when a failover occurs
- Load testing the PeopleSoft system to provide the business with confidence that the architected configuration will meet demand

### LEARN MORE

For more information about how Sierra-Cedar can help your company build and manage your AWS environment, refer to Sierra-Cedar in the AWS Partner Directory. To learn more about how AWS can help you migrate and deploy your enterprise applications in the Cloud, visit their Oracle and Amazon Web Services page.

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