Leading Cement Manufacturer Streamlined Disaster Recovery by Migrating Solaris apps to Charon-SSP on the Cloud

Challenge: Legacy Infrastructure Creating a Single Point of Failure

A leading cement manufacturer from Saudi Arabia was using legacy Fujitsu SPARC servers for mission-critical production activities, with primary and secondary nodes configured in an active-passive setup.

Their legacy infrastructure included two Fujitsu SPARC M12-2 servers with SPARC64 XII processors, Oracle ZFS Storage, and Oracle Solaris 11.4.47.119.2. This set up supported ERP Oracle EBS R12.2, RDBMS v19.0, and Oracle Applications 12.2.11.

However, their legacy environment had a major problem: the on-premises infrastructure depended entirely on a single location for production workloads, creating a single point of failure. There was no secondary physical site for disaster recovery (DR). As a result, any network, disk, or operating system problem could lead to substantial downtime for critical applications.

Additionally, maintaining outdated SPARC hardware was costly due to expensive spare parts and a lack of experts.

Primarily, the lack of a secondary site for disaster recovery (DR) led them to look for a cloud migration solution. They searched for cloud vendors offering affordable DR solutions without the need to replace their vital legacy applications.

The Solution: A Well-Executed Cloud Migration with Charon-SSP

So, the need for modernization was evident, but a major problem hindered their search for a suitable solution: most cloud providers do not support Solaris.

Fortunately, Stromasys provided an ideal solution. Our esteemed partner, CloudWRKS, then introduced them to Charon-SSP: the leading SPARC hardware emulator, which facilitates a seamless migration of Solaris OS and applications to the cloud.

The customer fully utilized the latest version of Stromasys' SPARC hardware emulator, Charon-SSP 6.0, to migrate legacy applications to the **AWS Cloud.**

The installation and configuration were completed without the need for customization. This allowed the workload to run in DR mode with minimal adjustments to the application stack.

CLOUD WRXS

"The best feature of the Stromasys emulator is its compatibility with a wide range of operating systems, including RHEL, Amazon Linux, and Rocky Linux."

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Testing, implementation, migration, and production deployment went through these steps:

- Implementation of security guardrails for AWS accounts
- Provisioning of EC2 instances for the app, DB, and license server
- Configuration of Key Management Services (KMS) for disk encryption
- Installation and configuration of the emulator to run the SPARC system on AWS EC2
- Data synchronization and log archiving
- Restoration of the on-premise app and DB backups to AWS instances
- System restoration to baseline
- System stabilization
- Performance and functional testing

Results: A More Reliable and Cost-Efficient IT Environment

Stromasys ensured key milestones were met along with the team of CloudWRKS. It took around three months to complete the project.

The customer expressed their satisfaction, stating, *"Now the business feels more confident because the disaster recovery process can reduce potential downtime and keep systems running smoothly."*

The results are measurable and speak volumes:

1. **Robust Disaster Recovery Plan**
   - Active-passive DR setup supports an RTO of just one hour
   - Scalable on-demand resources maintain consistent performance during failover
   - Critical business applications remain operational even during on-premise disruptions

2. **Minimized Downtime & Uninterrupted Business Continuity**
   Thanks to the cloud DR site set up by Stromasys and its partner CloudWRKS, the business is better prepared to face disruptions without operational halts.

3. **Power Consumption Reduced by a Quarter**
   Decommissioning SPARC M10-4 servers reduced power usage by 25%. This was an immediate win for both cost savings and sustainability goals.

4. **Comparable Performance**
   Even with fewer CPU and memory resources allocated in the AWS setup, the DR site performed comparably to the on-premises production servers while delivering significantly better performance than the previously used DR servers.

5. Cost Efficiency

The Stromasys emulator significantly helped the customer cut down on the high costs of maintaining outdated hardware, while still ensuring seamless support for their critical legacy applications.

6. Seamless Integration with Modern IT

Charon-SSP facilitated easier integration with modern IT environments, such as cloud services, virtualized environments, and other contemporary systems, thereby enhancing flexibility and connectivity.

7. Business Continuity

Met regulatory compliance requirements and bolstered the customer's business continuity plan by ensuring mission-critical workloads were protected against unforeseen incidents.

About Stromasys

Stromasys is the original and leading provider of enterprise-class cross-platform virtualization solutions, including PDP-11, VAX, Alpha, PA-RISC, and SPARC servers. The company extends the life cycle of business and mission-critical applications through virtualization, modernization, and system enhancement.

Founded in 1998 and headquartered in Geneva, Switzerland, and in Boston, Massachusetts, with sales offices as well as engineering, development, and research labs located around the world, Stromasys has implemented more than 7,000 cross-platform virtualization solutions for the world's leading companies in over 70 countries.

Partner Profile

Cloudwrxs is a leading IT consultancy with a broad range of experience across different sectors – from Retail, Pharma, and Finance to Logistics, Manufacturing, and Supply Chain. They have migrated some of the largest and most complex workloads to private and public clouds. They help businesses with incomparable expertise for every step of the journey.

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