A leading genomics-based drug discovery company enhances agility and scale operations using WinWire's AWS Cloud Platform and Engineering Expertise



About the Client

A California-based company that uses genomics and artificial intelligence to discover and develop new drugs for various types of cancer.

Business Challenge

The customer faced significant challenges in managing their cloud services effectively. The complexity of their operations required a robust and dedicated Cloud Engineering team to enhance service levels and optimize the TCO. Specifically, the customer needed expertise in three critical areas: **Database Services, UI/UX Center of Excellence (CoE), and Cloud Engineering.**

To address these needs, the customer turned to WinWire for their proficiency in cloud engineering solutions. The goal was to ensure a seamless transition with minimal impact on engineering velocity, along with continuous service improvement post-transition.

Business Solution

To address these challenges, WinWire implemented a multi-faceted approach encompassing cloud engineering, database services, and application development.

Conducting In-Depth Knowledge Transfer Sessions

We began by conducting comprehensive knowledge transfer sessions with the current team to understand the existing architecture and processes. This step was crucial for identifying gaps and areas for improvement.

Following Agile Project Management

Adopting Agile Project Management ensured that our solutions were implemented in iterative cycles, allowing for continuous feedback and improvements.

Cloud Engineering

- **Designing Cloud Environments:** Create detailed design documents and runbooks for new tools and services, ensuring a clear blueprint for implementation.
- **Building and Designing Cloud Environments:** Using Terraform, Packer, and related DevOps libraries, build and deploy cloud environments in both test and production environments.
- **Upgrading Existing Cloud Infrastructure:** Enhance the infrastructure by adding higher compute power, new storage volumes, and implement a comprehensive naming and tagging strategy for existing resources.
- **Monitoring CI/CD Pipelines:** Continuous monitoring of CI/CD pipelines for code vulnerability issues and implement necessary remediations ensured secure and reliable deployments.
- **Disaster Recovery and BCP Planning:** We meticulously planned, set up, and executed disaster recovery and business continuity plans to minimize downtime and data loss.
- **Monitoring Deployment and Backups:** Regular backups and replication processes were monitored manually to ensure data integrity and availability.
- **Change and Break-Fix Support:** Troubleshoot environmental issues, addressing bugs, and managing alerts on live environments. We triaged bugs and feature requests into JIRA boards for efficient resolution.

Database Services

- **Upgrading DB Patches:** Regular updates to database patches and installation of necessary agents ensured the databases were secure and up to date.
- **Volume Upgrades:** Upgrade to additional volumes to meet growing data storage needs.
- **Support for Failed DB Jobs:** Providing support and debugging failed database jobs helped in maintaining seamless database operations.
- **Disaster Recovery and BCP Support:** Support and test disaster recovery and business continuity plans to ensure data protection and availability during unforeseen events.

Application Development (API and UI/UX)

- Bug and Alert Management: Addressing bugs and alerts on deployed and live environments and triaging them into JIRA boards for prompt resolution.
- Follow-up on Resolved Issues: Continuous follow-up on resolved bugs and incidents ensured that issues were permanently fixed.
- Collaboration with Business Teams: We worked closely with the business team to identify requirements, design APIs, and create intuitive UX designs.
- API and UI Integration: Integrating APIs with the user interface and deploying the application in test and production environments ensured a cohesive and user-friendly application.

Business Value

- **Enhanced cloud infrastructure** to handle higher computational needs and increased storage requirements.
- **Improved database performance** to minimize downtime.
- **Streamlined application development** to enhance user experience and reduced the time to market.
- **Reduced downtime** and improved reliability.