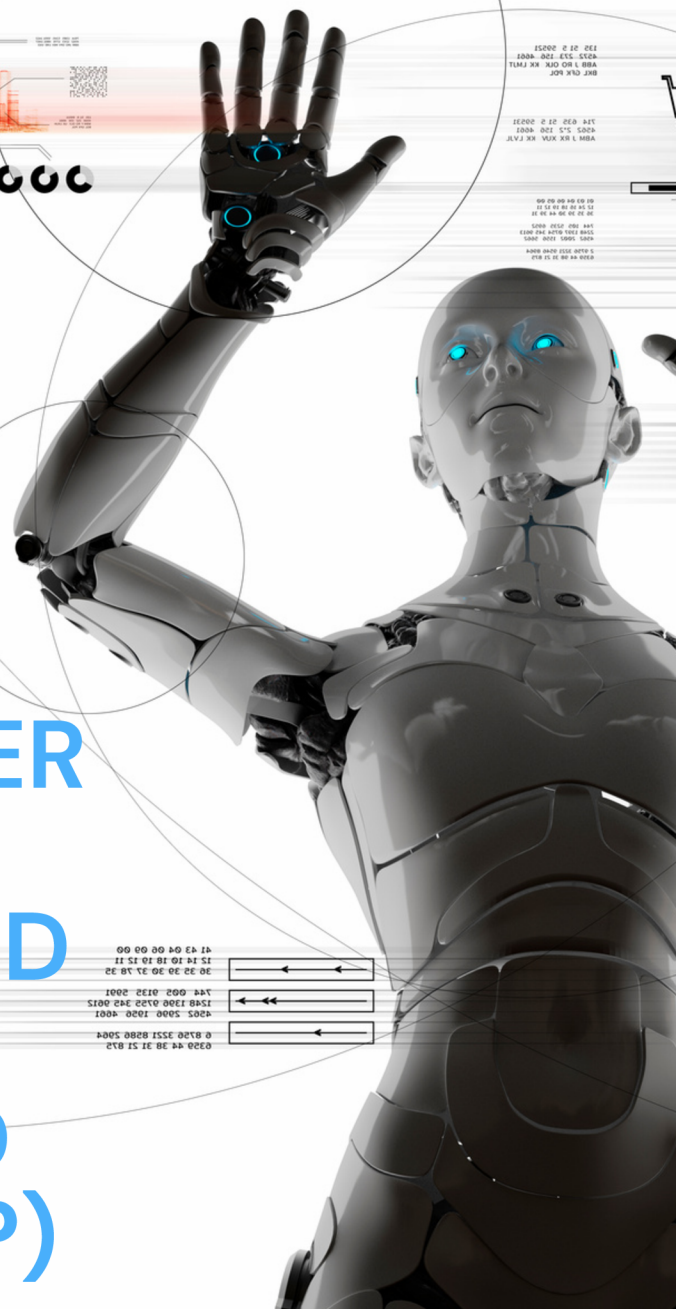




ACHIEVES HIGHER AVAILABILITY, SCALABILITY AND SECURITY WITH GOOGLE CLOUD PLATFORM (GCP)

Umwelt.ai is an AI Powered People Analytics and Employee Engagement Platform to measure, build and improve experiences for better engagement, retention and productivity. Their AI-based Smart chatbot, Nikki, connects with Employees and hears them all through the life cycle, generates insights in real time and guides them to take effective actions, proactively.



EXECUTIVE SUMMARY

Business Challenge

Umwelt wanted to make its SaaS application highly available, scalable and secure. Further they wanted a solution to do a new release deployment in a seamless manner. In addition, an incident management capability was needed to monitor, notify and resolve incidents in a speedy manner.



Solutions

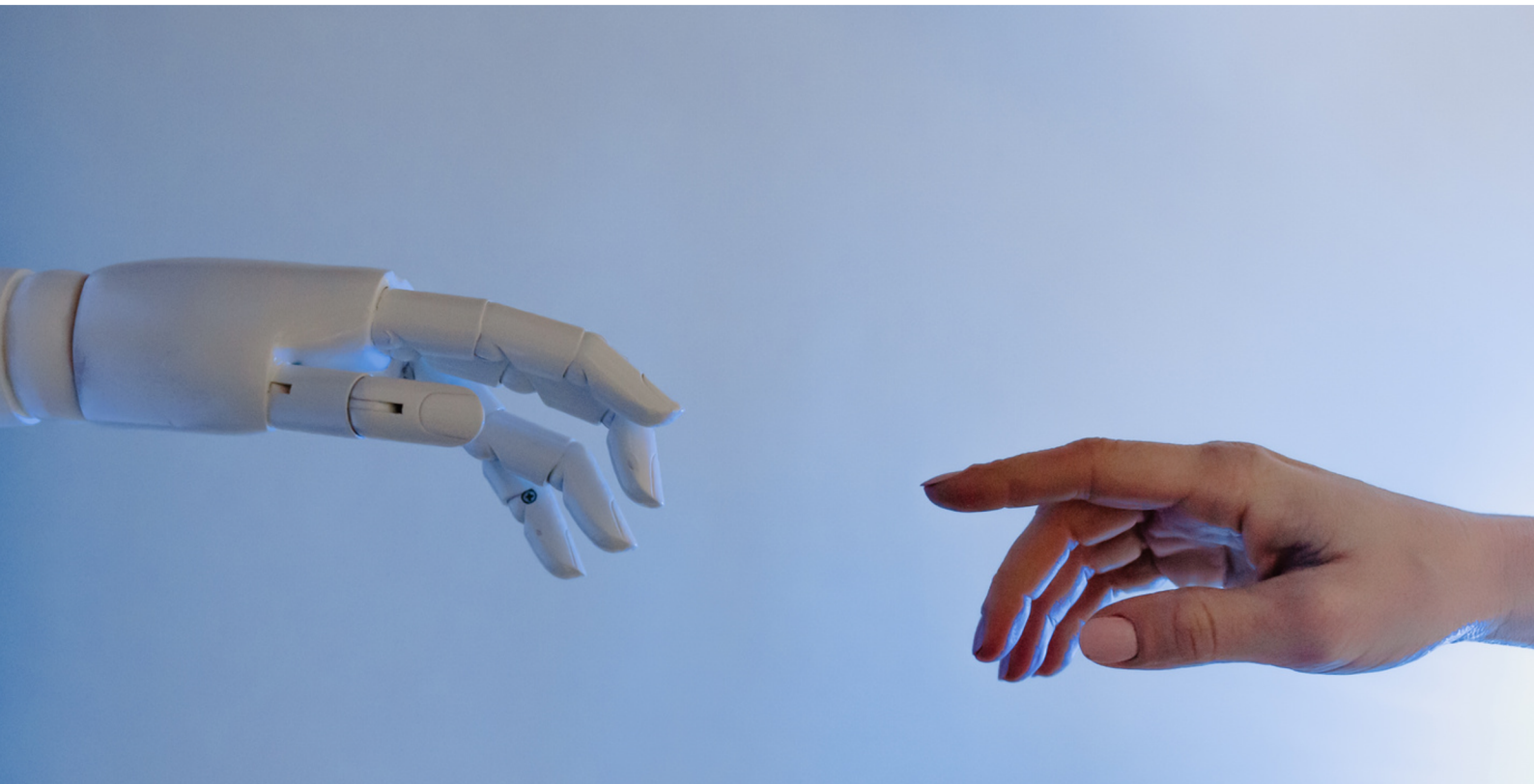
Sygittech helped modify the existing application to run efficiently on cloud native multi-tenant architecture using various services offered by GCP to achieve the desired goals.

Results

The Umwelt.ai application is now highly secure, scalable, and 24/7 available. Umwelt can deploy new releases smoothly, across different clients. And the entire infrastructure is under 24/7 monitoring.

THE BUSINESS CHALLENGES

Umwelt.ai SaaS platform was being used by thousands of employees at several large organizations. Hence, the platform had to be highly available 24/7. The usage of the platform generally peaked during certain weeks or even on certain days. So, the company needed to scale resources occasionally depending on the business needs. Moreover, as the company has been in its growth phase, they have been on-boarding new clients at a very high pace. This means high availability and scalability needs had to be addressed soon. The platform stores employees data; and integrates with enterprise HR systems. Hence, Umwelt wanted it to be very secure as well. Lastly, Umwelt wanted to roll out new changes for their prospects quickly and easily. So, they needed to deploy the new release in a seamless way, test, and rollback customizations. No such platforms can afford downtime. Hence, on top of everything, a mechanism was to be devised for Umwelt to continuously monitor the application so that any trouble incident could be raised automatically and resolved immediately.



SOLUTIONS OFFERED

Sygitech expert IT consultant reviewed application code, database design, current architecture and security parameters. Sygitech team then redesigned and deployed a completely new infrastructure on the Google Cloud Platform (GCP). Although the client was already on GCP, they were not making full use of the platform. Sygitech is also taking care of 24/7 monitoring and maintenance of the entire infrastructure. Here are the details of the solutions offered and implemented.

IT Consulting

Sygitech expert IT consultant reviewed the application code, database design, current deployment architecture and security implementation. Sygitech added value in the following areas:

- Provided required knowledge and expertise to make the application from standalone to multi-tenant
- Helped modernize, and develop native to cloud custom-built, multi-tenant application engineered to take full advantage of cloud architectures and microservices
- Cleaned up the codebase to remove unnecessary blocks and optimize overall stack. Sygitech started quickly and worked its way down.



Managed IT services

After careful review of the infrastructure, a new infrastructure design was presented keeping scalability, security and deployment in focus. Following tasks were performed to create the new infrastructure:

- A new infrastructure was set up using a separate Virtual Private Cloud (VPC) for staging and production environment. A VPC provides flexibility to scale and control how workloads connect regionally and globally
- Database multi nodes cluster was set up to increase redundancy using different availability zones.
- High availability and auto-scaling was provisioned for production workload using Instance group, autoscaling and load balancer. Managed instance groups (MIGs) offer autoscaling capabilities that lets automatically add or delete virtual machine (VM) instances from a MIG based on increases or decreases in load. Autoscaling helps apps gracefully handle increases in traffic and reduce costs when the need for resources is lower.
- Firewall rules were created using network tags to separate different instances as per their work profile (web, db, etc) and which instance can access DB or other required services.
- Instance template was created along with data script for deployment when a new node is provisioned
- Centralized logging was set up to allow developers to view application logs without requiring access to servers.
- VPN and bastion nodes were provisioned to allow secure access to infrastructure
- Monitoring is done by Sygitech's centralized monitoring and alerting system
- Deployment pipeline was created to allow new changes to be pushed to staging and production with ease.



VALUES ADDED

- Provisioning or re-deploying made simple. The infrastructure can now be re-provisioned in just a few minutes
- Applications can now scale up or down as per the occasional spikes in the traffic
- The infrastructure is now more secured as all instances are part of private VPC and access is limited only to the DevOps team
- New deployments are now a matter of just running a command
- The entire infrastructure is now monitored as per the SLA. Incident and problem management is now taken care of an expert team

THANK YOU

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