

AWS Solutions Help A HR Solutions Leader Scale Faster & Enhance Security



A leading Human Resources (HR) solutions company uses innovative technology to simplify HR processes like recruitment, payroll, employee lifecycle management and compliance. With a customer base of over 175 companies and 500,000 users, the HR solutions provider is one of the largest in India and offers services across Asia Pacific, Middle East, Australia, Europe and America. The HR leader has clients across multiple industries and some of its major customers include Schneider Electric, Mahindra & Mahindra, IndiGo Airlines, Aditya Birla, TATA Motors, Vistara Airlines and Maersk. As a pioneer in HR tech innovation like India's first HR mobile app, the company believes in offering solutions based on cutting edge technology.

Two of the company's flagship products are based on big data, engulfing all HR processes from hire to retire. Their primary app acts as a HR App store encompassing categories ranging from Culture and Engagement to Travel and Productivity. Another multipurpose end-to-end payroll management system simplifies payroll accompanied by security and compliance.

The HR solutions giant requires a highly scalable, agile and secure platform for a wide variety of clients that span small, medium and large businesses. As their solutions cater to a mix of B2B and end users, they must ensure their technology is heavily backed by the following:

- Security as HR solutions handle personal and critical information.
- High availability and scalability as they service leaders in other industries and must make sure their brand promise is kept
- Ability to add new features and go to market faster
- Ability to process heavy load and erratic concurrency during payroll season

The customer was spending too much time on managing infrastructure and maintenance and wanted to focus on building their application. They were seeking a reliable partner who would help them innovate successfully by streamlining their infrastructure and ensure availability, reliability and security.

Client Challenges	Umbrella-AWS Solutions
<ul style="list-style-type: none">• Apps were designed for a legacy system• Very large data size• Stringent data security requirements• On prem managed services were restrictive	<ul style="list-style-type: none">• Better app performance on AWS• Various approaches for data migration• Enhanced security for handling sensitive data• Ease of monitoring, manageability, high scalability & agility

Client Challenges & Umbrella's AWS Solutions

When the HR solutions provider began exploring possibilities with AWS, their systems were running on CtrlS and several apps were hard bound on code. Their application was designed for a legacy system and they had their doubts about how effective application performance would be on cloud environment. When it came to migration, they were concerned how smooth it would be, considering they had thousands of users and the complexity of their operations. Manageability, maintenance, integration with multiple platforms and network integration were the other concerns they had.

Being a HR solutions leader, their data size was very large, and they were concerned about aspects like effective program management, testing and other aspects while determining whether to migrate. They had customers in industry sectors that were accompanied by stringent firewall policies and limited permissions for security and data protection purposes. Such limitations required meticulous planning and execution. They were restricted by the existing framework, unable to leverage analytics and were facing difficulties with their on-premise managed services. They wanted a solution that would ensure zero downtime, help them add a lot of new features and components, and enable them to scale up or down on need basis.

After thoroughly considering the client's concerns, AWS and Umbrella came up with a Proof of Concept (PoC). This evaluation helped the customer team understand the vast benefits of AWS including ease of setup and manageability, adaptability, security by design, application performance, various approaches for data migration and improved productivity. These benefits persuaded the leading HR solutions provider to migrate their apps to AWS.

How Umbrella Helped the HR Solutions Leader

Umbrella's PoC convinced the client's team they would gain the requirements they were asking for and benefit from the AWS migration. The planning and testing phase took four to six weeks and the Umbrella team was asked to migrate with minimum downtime. To adhere to this, Umbrella completed the migration on a national holiday over 15 hours. The entire process required efficient program management, team coordination and had to factor in multiple platforms. Umbrella and the client team worked together for a while between the Pilot and actual migration to make their transition smooth and trouble free.

The company's tech stack consisted of JAVA on Linux CentOS for a few applications, with MSSQL Enterprise DB for some apps. The tech stack for the other applications was LAMP on Linux CentOS with MySQL DB.

For the migration, Umbrella used a lift and shift approach and executed the following:

- All application servers were migrated from Linux CentOS using AWS VM import and AWS connector for VMWare.
- Database replication was done for Alt migration and Galera cluster node replication for Webpay migration. Database backup and restore was carried out for other applications.
- Manual scaling was enabled for the applications as the application doesn't support autoscaling
- Multiple servers were migrated for high availability behind the HAProxy cluster in High Availability mode.
- EC2, VPC, VPN S3, Cloudwatch, Security Groups and ElastiCache were used as core services for all the applications.
- Site to site VPN was deployed to ensure security.
- Config, CloudTrail and Trusted Advisor were used for compliance and governance.
- Infrastructure, automation and application release were done manually.

Result

The large and leading HR outsourcing solutions provider was able to derive multiple benefits from their move to AWS with Umbrella. They are now able to innovate as planned, which they were unable to do previously due to the lack of a robust framework and infrastructure. Containerization and Microservices have helped them achieve this effectively. Their other major concern was scalability with several leading industry players having a huge employee base that is growing. They have a large tech team and a maximum number of resources were working on managing the huge load. There is huge variation in payroll processing and the processing load varies accordingly demanding appropriate availability and load balancing on the customer's side. AWS migration

enabled them to address these challenges very effectively. They were also anxious about security as they handled sensitive data for sectors with stringent data protection laws and Umbrella's AWS solutions closed this gap for the HR solutions company.

Umbrella's work with the company helped them successfully address multiple challenges through AWS migration and keep the customer service excellence value in their brand promise.