Engagement with a Mortgage Software Platform Company

Microland's client is a software company that processes almost 40% of U.S. mortgage applications. The company provides a digital mortgage software platform, that connects the mortgage ecosystem of mortgage lenders, investors, and service providers. The SaaS offering enables the lender to gather behavioral, transactional, and performance data, and make smarter decisions through predictive analytics and machine learning running through the entire process.

The Client needed a partner who could:

- Handle the vast DC and network estate, while ensuring reliable performance and continuous process improvement
- Respond to their velocity of decisions implementations
- Bring a proactive automation mindset for better efficiencies and
- Ensure strictest data security compliance standards in a highly privacy sensitive industry.

The client chose Microland as its partner because of the demonstrated experience of managing complex estates across diverse technologies and industries. The 9-year engagement commenced with Microland enabling the Network Operations Center. Currently, Microland manages most of the infrastructure and application estate including their flagship application software.

On the Data Center front, Microland manages two production data centers in Chicago and Santa Clara and one pre-production data center in Sacramento. Microland is also responsible for a co-location data center focused on edge services. The key part of the data center engagement involves managing the crown jewel core mortgage processing software application, its associated applications and underlying infrastructure. Microland manages not only the application suite but also the underlying vast data center infrastructure estate.

The core mortgage processing software is an application with a massive footprint, used by nearly 125,000+ customers. The application comprising 52 different modules is hosted on over 3,000 servers and has 1,000 database servers located across 3 different data centers. Microland brought in the principles of System Reliability Engineering to ensure the availability of complete system and infrastructure stack to function without failure.

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Microland's SRE team handle 8,000 Virtual machines thar run the application and database estate and own all root cause analysis.

As a part of the digital transformation programme, the client is in the process of adopting a Hybrid Cloud infrastructure. Microland architected the next-gen data center design and involved in assisting several cloud migration initiatives including building 600+ site to site VPN tunnels across regions between AWS infrastructure and private datacenters helping migrate various micro services from private data center. Microland also completed the first set of workload migration to AWS hybrid cloud that involved migration of full stack database of the development, staging and quality infrastructure server infrastructure.

The storage infrastructure consists of NetApp devices entirely, which involves managing over 30 petabytes of data with 1 PB growth/quarter spread across 3 distinct locations of data centers in Santa Clara, Chicago and Sacramento regions. The storage infrastructure consists of 24 storage cluster hosted over 84 different storage controllers under cluster mode Data ONTAP versions, along with some CVO (Cloud Volume ONTAP) instances to make a wide presence in cloud as the hybrid storage infrastructure. Microland in addition to managing existing storage infrastructure has been involved in several Storage modernization initiatives including migration from On-Prem data to cloud targets (S3, CVO etc.), SATA storage to SSD storage, encryption of data using Vormetric, outline automation of new provisioning, other administrative tasks or define alerting, streamline storage processes and upgrades.

Microland has been involved in several other aspects of the data center management including:

- Supporting Client's 30 + internal IT applications deployed across additional 1,000 servers
- Security Operations Center
- Client handles sensitive private data of end users and Microland ensures 100% compliance of all
- security requirement to ensure no vulnerabilities
- Strengthening proactive monitoring using SCOM and implementing synthetic monitoring

In addition to the data center management, the Microland team manages the complete network infrastructure involving 300+ network devices which includes routers, switches, firewalls and load balancers. From an Operational perspective Microland is responsible for maintaining the hardware/software lifecycle for network devices which involves all the data centers network devices refresh, contract and license renewal and upgradation

In line with the principle of the Client's "Automate the automatable", Microland has been involved in several automation projects using Jenkins, SQL & Web services tools. One of the critical outcomes of the several automation initiatives has led to the provisioning of new customers to come down from 3 weeks to 6 hours.

Beyond the data center, Microland has been involved in managing the desktop infrastructure for 1,400 + business users Finally, 24 x 7 network monitoring desk is staffed by the Microland team including coordinating with all service providers to ensure network infrastructure.

Microland looks to extend this relationship by continuing make digital happen by automating processes in the client environment, improving their agility and flexibility across the IT infrastructure estate. As the client continues to be the leader in digitizing an entire industry in US, Microland provides critical support to enable their impact.

About Microland

Microland's delivery of digital is all about making technology do more and intrude less. As we help enterprises move to nextGen technologies, we make sure this embrace of brilliance is predictable, reliable and stable. Incorporated in 1989 and headquartered in Bengaluru, India, Microland comprises more than 4,500+ digital specialists across offices and delivery centers in Asia, Australia, Europe, Middle East and North America.

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