



NDS Systems, based in Tampa, Florida, offers an Oracle-based Enterprise Resource Planning (ERP) product that serves manufacturing, distribution, and fulfillment companies.

CHALLENGE:

The NDS ERP Oracle-based application began as a client-server suite and evolved over time as the technology and client demand changed. The software had been completely re-engineered and enhanced to include web-enabled multi-tier architecture with fully integrated business logic using the Oracle Application Server and the Oracle database. With an increasing number of users, the software's scalability gradually became a bigger issue. Maintenance needs & the number of ever-increasing software license fees also proved to be problematic. An outdated hardware and unsupported operating systems fueled the need to re-engineer the code.

Technical Challenges	Management & Maintenance Challenges
Infrastructural scalability is never achieved	Unsupported hardware and OS needed replacement
The performance was on the decline as the number of users increased	Increasing hardware & software license expenses
Storage for year-long data backup is challenging	Delay in procurement
No transient environment for R&D	Infrastructural reliability trending down
Security compliance is challenging & expensive	Maintenance effort is high
Operational excellence is challenging	
Hardware-dependent accessory services	
Defining high-level architecture best practices that were secure, scalable, resilient and technically proficient	

SOLUTION:

The Idexcel team worked to review the current workload and integration points to identify several parameters that are vital to the product. To attain a high level of performance, security, compliance, and resilience, Idexcel migrated the application to the Amazon Web Services (AWS) public cloud. The Idexcel team had various discussions with stakeholders to come up with a solution and to perform a phased analysis of the workloads.

Idexcel used the following tools:

1. Cloud Readiness Assessment using AWS Cloud Readiness tool
2. Discovery using CloudHealth
3. Migration Readiness using AWS Migration Readiness tool
4. Portfolio Assessment using AWS Portfolio Assessment tool
5. Migration using CloudEndure

As the application was developed and built using a legacy approach, and our ultimate goal was to reduce data center costs significantly, Idexcel decided to start with a lift & shift migration approach to reach these cost saving goals. Once the application was moved to the cloud, Idexcel quickly re-platformed the database to reduce expenses further while providing higher reliability & scalability.

Idexcel's solution included:

1. Lift & Shift on the workloads using CloudEndure to prevent unsupported hardware from becoming obsolete.
2. Amazon Elastic Compute Cloud (Amazon EC2) for computing instances.
3. Amazon Virtual Private Cloud (VPC) and its associated services to securely isolate cloud resources.
4. Re-platformed the FTP & Storage Service using S3 & FSx to eliminate dependencies on hardware.
5. Enabled infrastructural health monitoring with efficient notification system using CloudWatch, SNS and other third-party solutions.
6. Provisioned auto-healing of the infrastructure with proper health monitoring using ELB.
7. Script-based automation to create snapshots for higher availability & reliability.
8. Implemented AWS CloudFormation to deploy infrastructure as code.
9. Implemented cloud security best practices.
10. Utilized AWS DMS for efficient data migration from source to target.
11. Implemented Lambda & CloudWatch-based automation to create and copy AML, and to copy over to different regions.

By teaming with Idexcel, the client was able to deploy a cost-effective, scalable & reliable AWS infrastructure. These practices allowed for continuous integration, transparency and accountability across teams that were then able to deliver high-quality software at a faster pace as compared to before the transition came in effect. The lift & shift approach paved the way for faster relocation to the cloud, allowing the workload to go into production by Feb 10, 2019.

BENEFITS:

With an efficient strategy, design & project management tools, the Idexcel team was able to complete the migration within a short period of time, reducing operating expenses by Q% per month. The ERP workload was more responsive and resilient to failure. The client was able to cut down the previous time it took to upgrade the platform by 50%, which also opened the door for a more scalable environment for R&D without any additional costs. Successful migration of the older legacy data reduced the company's storage cost by 85%. The new portal and its integration reduced manual processes by 25%. The client is now able to focus on improving the software's functional capabilities and implement excellence by incorporating new technology quicker than before.

OUR AWS COMPETENCIES



- Public Sector
- Solution Provider
- DevOps Services Competency

- Financial Services Competency
- Migration Services Competency

Contact us

Idexcel, Inc.
459 Herndon Parkway Suite 10, Herndon, VA 20170
Tel: 703-230-2600
Email: inquiry@idexcel.com



Find out how Idexcel solutions can help your business. Contact us today!

inquiry@idexcel.com | www.idexcel.com