



Client story

Modernizing and migrating applications to the cloud

Objectives

- Modernize and migrate a portfolio of 90+ application projects to the cloud
- Achieve business agility and optimize performance while ensuring data security and compliance
- Transform legacy monolithic infrastructure to a dynamic microservices-based architecture

Solution

- Delivered comprehensive application advisory and consulting with [data solutions](#) and [AI capabilities](#) from Unisys
- Conducted an in-depth analysis of 90+ application projects to create a migration and modernization roadmap
- During the pilot phase, migrated and modernized four application projects within five weeks to Amazon Web Services (AWS), followed by a large-scale project to migrate and modernize the remaining 86 application projects

Results and benefits

- On track to lower the total cost of ownership and accelerate time to market
- Enhanced security, compliance, business agility and overall productivity
- Decommissioned middleware to realize additional cost benefits from improved resource management
- Improved application performance with a new microservices-based architecture and market-standard software development life cycle

Additional benefits from data solutions and AI capabilities by Unisys include enhanced code quality and user experience, leading to increased productivity and enabling the organization with data analysis and continuous improvement capabilities.

90+

application projects assessed in 1 month

4

application projects migrated and modernized in 5 weeks (pilot phase)

86

migration and modernization projects completed in 10 months (phase two)

Streamlining operations and unlocking business agility

In today's fast-evolving technological environment, standing still is not an option. That's why NI, part of Emerson's Test & Measurement business group, was at a crossroads. Despite its history of innovation, this leading provider of automated test equipment and virtual instrumentation software faced the growing challenges of an aging IT infrastructure.

Comprising nearly 190+ applications with complex dependencies, NI's legacy systems had become a hurdle to further growth and efficiency. It recognized the urgent need for a comprehensive digital transformation. Its objective was not just to update but to overhaul: to shift from a monolithic system to a dynamic microservices-based architecture, all while migrating and modernizing these applications to a public cloud. This move aimed to achieve greater business agility, bolster security and meet compliance standards — all essential elements for leading its industry into the future.

Why Unisys: a partnership built on trust and expertise

When selecting a partner for this transformative journey, the choice for the organization was clear: Unisys. A unique blend of tried-and-true methodologies, unmatched experience managing complex projects, and innovative financial strategies to minimize capital and operational expenses set Unisys apart. But what truly convinced the organization was the ease and clarity Unisys brought to the complex application modernization process.

Unisys offers an all-encompassing suite of advisory and consulting services, allowing for a complete evaluation of the organization's existing application portfolio. The approach would allow NI to take the reins of the entire migration and modernization process from start to finish and enable a seamless transition to leading cloud provider AWS.

Orchestrating a comprehensive transformation

To initiate this ambitious endeavor, Unisys' cloud, applications and generative AI experts meticulously analyzed the organization's existing application environment. In the early discovery phase, 90+ application projects were scrutinized to craft an all-encompassing strategy for migration and modernization. This strategic plan included a full spectrum of assessments, from defining complexities and recommending a cutting-edge technology stack to setting priorities, creating a phased migration and modernization plan and identifying associated risks and dependencies.

During the pilot phase, Unisys effectively migrated and modernized four distinct application projects within five weeks. This involved a blend of re-architecting and refactoring solutions. Leveraging the power of microservices, Docker, and Kubernetes, Unisys prepared the applications for their new cloud-native environment on AWS.

Moving beyond the pilot, NI, in partnership with Unisys, migrated and modernized the remaining 86 application projects, each customized to leverage the organization's latest Continuous Integration/Continuous Deployment (CI/CD) platform, within ten months. This incorporates fully automated build, test and release workflows across multiple environments and advanced features like secure source and binary scanning, cloud image repositories and API documentation generation. Leveraging data solutions and AI capabilities from Unisys, the organization has automated tedious and complex tasks, reducing the cost and time associated with application modernization. In this strategic migration and modernization, specific





components like the Relational Database Management System and the Enterprise Service Bus were earmarked to remain in place for the immediate future. These will be revisited for potential replatforming or refactoring as part of an upcoming third phase. Additionally, a handful of applications were identified for consolidation into newly architected projects and were subsequently decommissioned.

Achieving tangible success on multiple fronts

In just one month, the Unisys team completed an exhaustive analysis of 90+ application projects. This served as the foundation for an actionable roadmap and overarching strategy, which Unisys now oversees.

Collaborating closely with Unisys, NI has set a solid course toward a future of optimized operations. They are achieving reduced total cost of ownership and accelerated speed to market. Additionally, it has fortified its security measures and compliance standards, which allows it to reap the rewards of cutting-edge cloud advancements easily. Through this partnership, NI is realizing greater value from past technology investments and fostering agility and modularity, thereby becoming a more adaptable and responsive enterprise. Additional benefits from data solutions and AI capabilities by Unisys include enhanced code quality and user experience, leading to increased productivity and enabling the organization with data analysis and continuous improvement capabilities.

One of the standout outcomes was the organization's ability to say farewell to its legacy middleware, pivoting instead to the Amazon Elastic Kubernetes Service for more streamlined deployment, scaling and management of containerized applications. This move enabled the organization to draw additional cost-saving benefits through improved resource management.

The transformation culminated in the successful transition to a microservices-based architecture aligned with industry-standard Software Development Life Cycle practices, elevating overall application performance.

A transformation journey well underway

Together with Unisys, NI has embarked on an ambitious journey to revolutionize its operational landscape. By successfully navigating challenges and capitalizing on cloud-driven efficiencies, it is already reaping the rewards of modernization. Its course is set for a future of innovation, agility and sustainable growth.

To explore how Unisys can help with your application migration and modernization, [visit us online](#) or [contact us](#).

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