



# MODERNIZING THE MIDDLEWARE

Most large organizations rely on middleware to help bridge gaps between multiple and distinct applications, including mobile, cloud, and on-premise apps. However, what complicates matters is that over time, many of these organizations become laden with middleware from more than one supplier, owing to a variety of different Enterprise Resource Planning (ERP) and other applications being present within the organization. This, in turn, gives rise to a whole new set of **integration challenges** such as old and unsupported middleware, inability to use middleware optimally and challenges in migrating to cloud.

# NEED FOR A MIDDLEWARE STRATEGY

A recent study by Greyhound Research, a leading global analyst firm, confirms the above-stated challenges with middleware. While 89% organizations stated they have legacy middleware which was no longer supported by the vendors, 84% confirmed the sub-optimal use of their middleware, and 48% confirmed not using middleware at all due to lack of a sound Enterprise Application Integration (EAI) strategy.

In today's times, when customer and market demands are constantly fluctuating, and rapid business change is the need of the hour, organizations can truly gain a competitive edge by ensuring **coherent middleware implementation and integration**.

A leading **global brewer**, an Infosys client, was using multiple tools to integrate legacy and non-legacy applications, and wanted to move to a single integration tool. The client decided to move to **MuleSoft** to help them save on licensing, support, and maintenance costs.

Most clients look for the following benefits when they seek to link disparate applications and eliminate difficulties of middleware integration:

- **Improved Agility** in terms of the ability to deliver services across mobile, cloud, and traditional application platforms
- **Increased Efficiency** by way of business process automation and access to real-time and relevant information
- **Rapid Innovation** with reduced go-to-market time for new and innovative products and services

# OVERCOMING INTEGRATION CHALLENGES

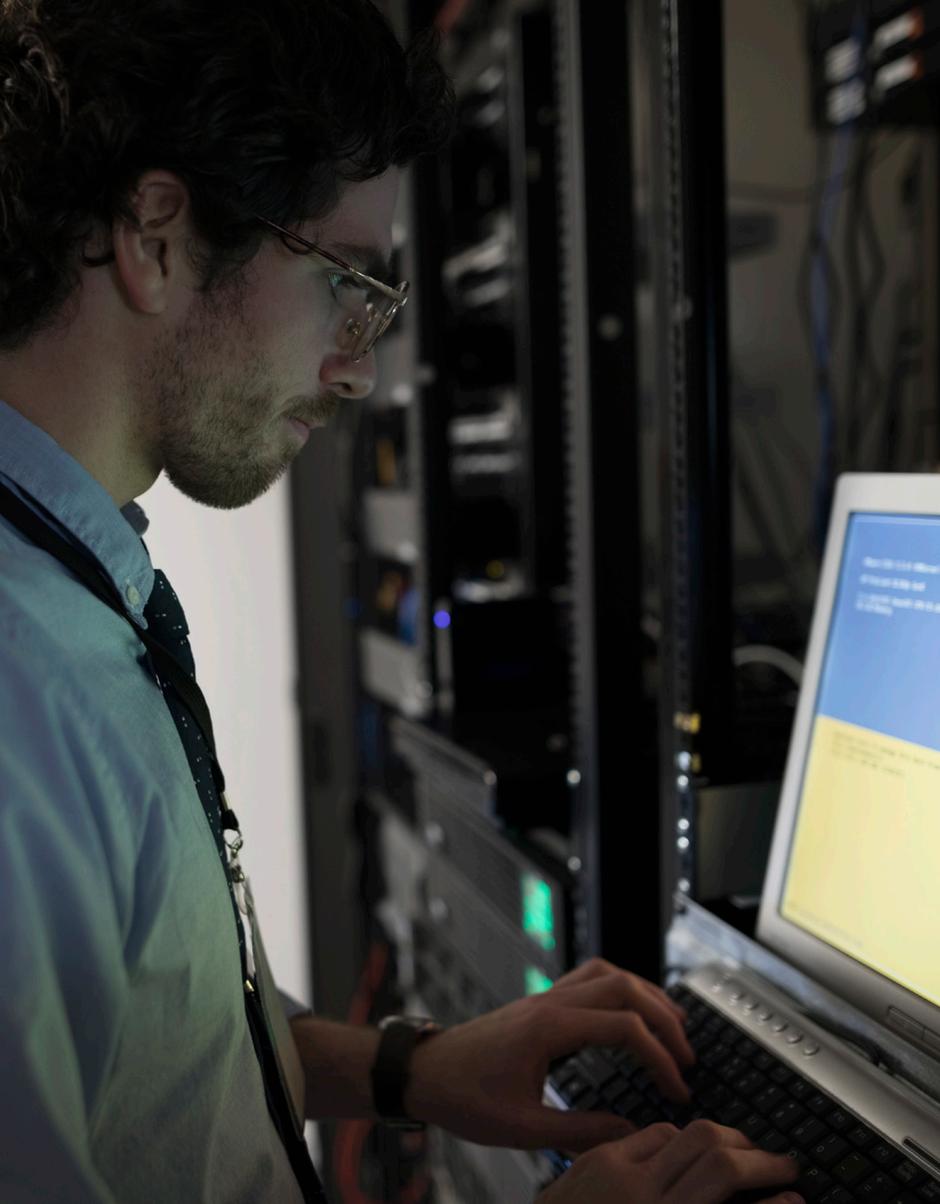
In our engagement with the brewery, Infosys faced the challenges of dated integrations, written 10 to 15 years ago and scarcity of proper documentation due to staff reduction and loss of institutional knowledge. We used **reverse engineering** to overcome these challenges.

For the **middleware decomplexity** project, we leveraged the **Infosys Integration Workbench (IIW)** framework. This meant we didn't need to build similar integrations from scratch and instead focused efforts on configuring the source and target formats for data exchange. Once configured, the IIW framework auto-generated code, helping **reduce build effort by 25%** during migration of interfaces.

We also migrated the client's **Electronic Data Interchange (EDI)**, which is the computer-to-computer exchange of business documents in a standard electronic format between business partners. The client had been using EDI interfaces from two different vendors, and we moved them to IBM Managed cloud B2B services. The task involved migrating transactions for 140 EDI partners.

The engagement was a complicated and time-consuming one. Spread across 18 months, the initial migration to MuleSoft took around 9-12 months, with the remaining six months spent on EDI migration.

Our middleware decomplexity solution resulted in the **simplification of the integration landscape** and eventually reduction in licensing and support costs. It also brought in **operational efficiency** in support processes. Infosys also analyzed current capacity usage, identified, and optimized unused vCores (virtual cores), resulting in **license renewal savings** of approximately \$30,000 for the client's global zone. Our solution also helped the client achieve **better governance and control** around user access management by closely tracking access and ensuring unauthorized access is prevented.



# MODERNIZING THE MIDDLEWARE: THE FIVE TAKEAWAYS

- 1 **Move** to a single middleware tool for application integration
- 2 **Implement** reverse engineering to overcome challenges of dated integrations and scarcity of proper documentation
- 3 **Leverage** automation and reusable frameworks to accelerate migration process and reduce effort
- 4 **Use** EDI interfaces from a single provider to reduce complexity
- 5 **Identify** and optimize unused virtual cores to save on license renewal costs

# BIG LEARNING:

The case for middleware integration for organizations needs no advocacy. Organizations who adopt and implement middleware without a sound strategy may well end up creating more integration problems for themselves than solutions. These challenges will only multiply as they initiate complex and demanding projects like IoT and Blockchain that use multiple delivery mechanisms, spanning cloud to on-premise. In the end, organizations and their CXOs must not lose sight of the fact that while middleware doesn't touch the customer directly, it is the backbone of all systems that allow for delivery of exceptional customer experiences.

## WE DID THIS FOR THEM. WE CAN DO IT FOR YOU.

To learn more about developing a middleware strategy, reach out to us at [askus@infosys.com](mailto:askus@infosys.com)

For more information, contact [askus@infosys.com](mailto:askus@infosys.com)



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