Risks in Middleware Migration- Demystifying the Journey
Table of contents

03 ............................................................................................................................ Risks in Middleware Migration- Demystifying the Journey
03 ............................................................................................................................ Information risk
03............................................................................................................................ Capability risk
03 ............................................................................................................................ Migration risk
04 ............................................................................................................................ Infrastructure planning risk
04 ............................................................................................................................ Awareness risk
04 ............................................................................................................................ People risk
05 ............................................................................................................................ About The Author
05 ............................................................................................................................ About Wipro Technologies
Risks in Middleware Migration- Demystifying the Journey

Middleware migration programs are akin to shifting our dwelling from one city to another. Vendors layout large promises of a magic wand for a seamless middleware migration. If you are a decision maker in an enterprise and govern a large migration program of a middleware platform, you are sure to be bombarded with a set of lucrative offerings from multiple firms on middleware migration.

With such wonderful offers, should you really worry about your migration program? The answer is ‘No’, with the caveat that you are aware of the multiple risks involved in middleware migration and the means to resolve them. Without this awareness, no magic wand is likely to work. Some of the risks associated in the journey of middleware migration are:

1. **Information risk**

   You are all set to move to a new city and begin a new life. At such a time, it is important to have your bank data and medical records of the previous city, as failure to do this poses a major risk. For instance, you may fall in debt later or face a major health issue.

   Similarly, as you migrate to new middleware platforms, you are taking on a major risk if you fail to capture the complete landscape of existing middleware as this will lead to incomplete and incorrect migration. This in turn will impact the stability and integration of your organization. Middleware landscape assessment is all about understanding connecting applications, adapters, orchestration, routing et al. Upfront knowledge of this information will mitigate the risk of incomplete migration. It also aids better impact analysis, service rationalization and assessment of migration complexity. You should ensure that your magic wand in middleware migration is capable of such automated and accurate assessment.

2. **Capability risk**

   Going back to the analogy of moving to a new city, many of us would use search engines and other references to understand the city better before actually shifting. The city’s historical greatness, economic prominence and job prospects will definitely influence our decision. However, ground reality and past glory may not go hand in hand. Moreover, every individual’s expectations of a city are likely to be different.

   Middleware migration is no different. Sure, product specifications and whitepapers can help determine a suitable middleware platform. But you need to be aware that your enterprise demands may be unique in many ways. Also, your needs may vary in the future, posing a major risk to your environment in terms of technical gaps that arise. You may later realize that your choice of middleware does not cater to all your integration needs, especially the non-functional requirements. Enterprises are recommended to perform a proof of concept with newer platforms before undertaking a major middleware migration program to ensure that the new platform is capable of handling all scenarios.

3. **Migration risk**

   How would you feel if you lost a precious piece of diamond during transit? The feeling would be similar if you lost valuable information, a common risk, in the course of the middleware migration.
The technical team would have spent years in developing and stabilizing the services on a given middleware platform. During migration, you will probably lose an important piece of information related to routing rules, validation rules, enrichment, message flows and so on. Such an occurrence will cause a severe dent in the entire application integration, especially a mission critical one. One way to alleviate this risk is to use an automated approach in middleware migration. Automated migration ensures that all minuscule information is captured and safely migrated to the new platform, thus reducing the risk of losing valuable information and ensuring predictability in the migrated platform.

4. Infrastructure planning risk

Several years back, when we shifted to another city, we were shocked when we realized that our new home was not big enough to accommodate all our belongings. We surely do not need similar unpleasant surprises on our middleware migration journey.

Several enterprises make the mistake of overlooking infrastructure planning before migration, thereby exposing themselves to a major risk. Existing middleware platforms may be running seamlessly, but anticipating a new middleware platform to run on existing infrastructure is imprudent. Detailed infrastructure planning that is properly documented is recommended during the planning phase of migration. The infrastructure should be in a position to handle peak load situations and also increased integration demand in the future.

5. Awareness risk

Let us go back to the scene of shifting cities. Before we make the final move, all our acquaintances will reach out to us through personal visits and letters. But what happens after we settle in the new city? How can they reach us? How can we communicate the change of address effectively to all parties? What if an important courier from the bank wrongly lands at the old address? Middleware migration is fraught with an identical risk. The end consumers who used to interact and work closely with the old middleware platform may not be aware that a change has taken place, but may face difficulties coping with the new platform. This is an important risk that needs to be duly addressed and involves a multistep process. As part of planning, a detailed impact analysis needs to be performed to assess the impact of each interface with every other interface and with external systems. This study needs to be documented and interfaces for migration need to be prioritized after considering their impact. Later, the migration of interfaces needs to be done in batches as part of a phased approach. The number of interfaces in a batch and the collation of similar interfaces are crucial for risk mitigation. You can minimize migration impact on end consumers by ensuring minimal change in the protocol of communication, interface operation name/parameter information and security configurations. You should also clearly communicate particulars about the middleware migration to all end user application stakeholders and receive an acknowledgement for the same.

6. People risk

An electronic asset in a residence is maintained by an AMC (Annual Maintenance Contract) with an organization who maybe providing support only in select geographies. What if the company does not provide AMC support on shifting of residence? This is a major risk in supporting assets in one’s home. It is a threat in the case of middleware platform migration as well. The current support and maintenance team may be clueless about the technologies associated with the migrated platform. This is a people-related risk and needs to be mitigated. Here again, timely communication about the migration plan is important. Further, the team should be given cross-training to ensure that they can be involved in future support as well. Failure to do this can lead to increased attrition and instability in the organization.

The success of middleware migration hinges on understanding and addressing the risks involved. Established middleware migration methodologies, automation tools, best practices and guides in migration can significantly reduce the risks. Companies around the globe have successfully embarked on the journey of middleware migration in a seamless, accelerated manner by using the above risk mitigating assets. Organizations with a dedicated focus on middleware migration can also help you with such assets and assist you in your migration journey. The magic wand will surely work then.
About Wipro Technologies

Wipro Technologies, the global IT business of Wipro Limited (NYSE:WIT) is a leading Information Technology, Consulting and Outsourcing company, that delivers solutions to enable its clients do business better. Wipro Technologies delivers winning business outcomes through its deep industry experience and a 360 degree view of “Business through Technology” – helping clients create successful and adaptive businesses. A company recognized globally for its comprehensive portfolio of services, a practitioner’s approach to delivering innovation and an organization wide commitment to sustainability, Wipro Technologies has over 140,000 employees and clients across 54 countries.

For more information, please visit www.wipro.com or contact us at info@wipro.com.

About The Author

Sankara Subramanian Palanisamy is handling Middleware Migration Solutions in Wipro Technologies, Bangalore. He has 13+ years of experience in product development, architecture, strategizing and management. He is an author of a book that focuses on technology and management gaps that arise in software development. He has worked with leading organizations and played a key role in establishing and operationalizing some major initiatives related to Information Technology. He can be reached at sankara.subramanian@wipro.com.