

Middleware Summary(2021202011)

Middleware is a software solution that sits between the application layer and operating system (OS) layer of your infrastructure stack to enable a channel of communication and data flow between these two components. Middleware is an essential part of any computing environment. While in consumer-facing environment, middleware comes built into the operating system, in Enterprises we need a robust and flexible middleware because they should be able to build, deploy and adapt their applications to achieve optimal performance. Between 2020 and 2027, the global application infrastructure middleware market is expected to cross \$3.58 billion according to Industry Research.

The following points are important for deploying or modernize middleware systems:

- ❖ **Interoperability support:** The middleware should include pre-built integrations and ready-to-use application programming interfaces (APIs) that make it easier to build a connected enterprise.
- ❖ **On-premise and cloud compatible:** This is a must-have feature for modern middleware offerings, which are deployed in cloud-based or hybrid environments. Your middleware must be able to support cloud-based applications and processes
- ❖ **Developer readiness:** It should be developer friendly. Middleware solutions may include software development kits (SDKs) in addition to APIs for custom configurations and development.
- ❖ **IT effort reduction:** A good middleware software should be able to connect the OS with multiple applications and simplify how you manage this entire connected environment. Some software solutions may include security features, while others may include workflow automation to reduce IT efforts.
- ❖ **Middleware community support:** An active community of experts, users and developers are required to help users optimize middleware capabilities and drive innovation. You may also be able to utilize open-source tools that help maximize the potential of the middleware technology.

The top 8 middleware software platforms in 2021 is are Flow Middleware Platform, IBM WebSphere Application Server, JBoss EAP, Oracle Fusion Middleware, Microsoft BizTalk Server, Temenos Fabric, TIBCO Connected Intelligence, WSO2 Carbon.

Conclusion: Middleware, IPaaS, or Both?

Middleware is any software application with a sole purpose of acting as a bridge between two applications allowing them to communicate and share information. IPaaS is a middleware platform that is specifically based in the cloud. Similar to the relationship between SaaS and IPaaS, IPaaS is a subset of middleware. Despite the advantages of IPaaS (convenience, cost efficiency, and flexibility), middleware provides more advanced functions. It can help to build a tightly controlled and centralized data environment and acts as a supporting backbone even for IPaaS implementations. Several middleware companies like TIBCO and IBM also provide IPaaS offerings or products that combine the functionalities of the two. So, the enterprises now a days are leaning more towards middleware instead of IPaaS.