

Gartner Research Reviews on Middleware

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Abstract- Middleware becomes a strong research area. The reason is the ability of middleware technologies to solve all the integration problems in an enterprise. This technology combined with other technologies can solve pressing problems for mankind.

Index Terms- Middleware, Integration, PreSales, Request for Information, Request for Proposal, Gartner Studies

1. Gartner views on Worldwide Application Infrastructure and Middleware Market Revenue

Gartner study says "Application infrastructure and middleware projects increasingly span on-premises, cloud and external business partners," said Fabrizio Biscotti, research director at Gartner. "The impacts of using multiple delivery models, increased reliance on governance technologies, and convergence of application and data integration requirements are driving organizations to sustain significant investment in AIM technologies and skills."

"Cloud computing is increasingly becoming mainstream and gaining traction in the market. Middleware vendors should leverage their expertise to offer competitive cloud services in addition to on-premises software products," said Mr. Biscotti, Research Director at Gartner. "Although the transition from on-premises to cloud computing will take an extended period of time, the demand for hybrid use of platform technologies is present now, and is projected to grow rapidly during the next two to four years. End users can judge the long-term viability of a platform as a service (PaaS) provider in part by its ability to attract independent software vendors (ISVs) and other partners into its ecosystem."

Several segments showed a double-digit growth rate including application servers, where the performance of application PaaS vendors has been strong. Service oriented architecture (SOA) governance technologies, portal products and user interaction tools also performed well.

"Business process management (BPM) suites continued to grow at a sustained pace as some providers are evolving their offerings into next-generation application infrastructure platforms that Gartner defines as iBPMSs. These platforms address the growing need to account for social interactions, mobility and decision management in the process management context," said Mr. Biscotti, Research Director at Gartner.

2. Gartner Magic Quadrant for Application Infrastructure for Systematic Application Integration Projects

Enterprises need functionality that ranges from basic robust messaging to advanced support for B2B that can be applied to application integration. We examine vendors whose products address the needs of systematic A2A, B2B and cloud-to-on-premises application integration projects.

The objective of data consistency integration is to make data across all applications consistent. For example, if a customer changes a billing address in a CRM application, that event is pushed out to other applications (such as accounting, billing and ERP) so that the applications can update their databases with the current data.

The development of composite applications is growing rapidly as organizations seek to leverage established assets (including the services created using service-oriented architecture [SOA]), and to minimize the amount of new code that must be developed and maintained.

This Magic Quadrant emphasizes the product capabilities most relevant to projects that have as their primary objective applying the above styles to:

- Integrate applications deployed on-premises and externally (i.e., at trading partners or in the cloud, e.g., as software as a service [SaaS]).
- Create business services and business object services using existing assets.

These projects deliver increased cohesion and unified access to all types of resources, including packaged applications, legacy applications, and applications that are new and custom-designed. When evaluating products to meet these requirements, an important goal of systematic application integration projects is to acquire as many technical capabilities as possible from one vendor.

To succeed in the modern business computing environment, organizations must have the flexibility to experiment and innovate, while preserving the overall integrity and quality of service of their core systems. To achieve this, most enterprises are engaged in two kinds of projects:

- Systematic projects: These are designed to advance core, enterprise-computing capabilities.
- Opportunistic projects: These are projects with a less-formal approach to design, review, testing, documentation, etc.

The product and vendor evaluations in this Magic Quadrant can be used to select products for both project types, but the evaluation criteria are most heavily weighted toward supporting systematic projects, because these projects require a more

comprehensive set of product features that best reflects the vendors' ability to provide and support enterprise application infrastructures for larger, more demanding IT projects.

3. Magic Quadrant for Application Infrastructure for Systematic SOA Infrastructure Projects

The deployment of an infrastructure, shared across multiple applications and enabling interoperability and governance, is vital for service-oriented architecture initiatives. We assess application infrastructure middleware vendors providing support for the implementation of this infrastructure.

When organizations develop their service-oriented architecture (SOA) application infrastructure, the choice of SOA containers and other SOA capabilities is, in some cases, made upfront in the life cycle of an SOA initiative, especially when it comes to selecting a comprehensive set of components to address multiple and related systematically oriented SOA applications. However, this selection is often done in the context of specific projects, driven by a variety of technical and local convenience considerations.

Increasingly, the choice of technologies and products aimed at supporting the implementation of the SOA infrastructure for the whole initiative is done "once and for all," because the resulting platform is, almost by definition, shared among all the SOA application projects in the enterprise (or in a specific SOA domain). Therefore, the process of defining the SOA infrastructure architecture, selecting, integrating, implementing and deploying suitable products is a key enabling project in most large-scale SOA initiatives, and must be pursued with systematic rigor.

Such a project may be kicked off after the organization has successfully implemented multiple stand-alone SOA application projects, as long as it realizes that a common infrastructure, shared across established and future SOA applications, would be most cost-effective and more manageable. However, a systematic SOA infrastructure deployment project increasingly precedes every SOA-style application project, because it is intended to provide an infrastructure that all the SOA application projects framed in that particular initiative will share.

In the early days of SOA adoption (circa the mid-1990s), the SOA infrastructure was implemented by leading-edge organizations by aggregating products from multiple vendors, often complemented by significant custom developments (for example, many early SOA adopters custom-developed their own

SOA registries/repositories). The advent of Web services in the early 2000s created a standard foundation for SOA, which fostered industry excitement. Therefore, many vendors — both established and startup — developed specific products for SOA infrastructure, and several can now provide the full set of capabilities, either as integrated suites or collections of related products. Because SOA has entered a phase of widespread adoption, mainstream organizations, traditionally reluctant to deal with too many vendors, now look at single sourcing their SOA infrastructure technology from one strategic vendor.

CONCLUSION

Based on the research reviews, middleware professionals can help customers and product companies to understand, get the requirements and use their competencies to build a framework for suggesting the successful architecture using middleware technologies. The previous article on middleware presales and this current one along with case study approach will pave way for arriving at the framework for middleware presales consulting.

REFERENCES

Gartner views on Worldwide Application Infrastructure and Middleware Market Revenue - <http://www.gartner.com/newsroom/id/2001115>

Gartner Magic Quadrant for Application Infrastructure for Systematic Application Integration Projects
<https://www.gartner.com/doc/2056219/magic-quadrant-application-infrastructure-systematic>

Magic Quadrant for Application Infrastructure for Systematic SOA Infrastructure Projects

http://www.linkedin.com/groups?viewMemberFeed=&gid=64542&memberID=1587176&goback=%2Egmp_64542

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