

THE State of Middleware



Bringing It All Together

New CMP Research shows the middleware market gaining strength as enterprises look to comprehensive product suites that empower IT operations to support changing business processes.

An exclusive CMP Research survey

Between the data repositories and applications proliferating throughout an enterprise's IT infrastructure lives a nearly invisible layer of software that's of growing interest to many companies.

Known as middleware, this layer of specialized software is proving to be of strategic value to businesses seeking to gain a competitive edge. The middleware market is undergoing a seismic change as it moves from individual, standalone products to integrated suites with modular components that businesses can deploy on demand to compete with greater agility.

Simply put, middleware helps organizations attain new levels of insight, responsiveness, ease of use and security in the way their IT systems support their business operations. Why? Because in its many varieties, middleware enables disparate applications and data sources to communicate better and helps employees at all levels access and manage the information they need to do their jobs.

Business process integration: Driving adoption

A recent CMP Research e-mail survey of 481 technology and business executives and managers found that the most widely used middleware application is business process integration. More than half (55 percent)

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of respondents already use process integration middleware, and another 29 percent are either evaluating it or planning to deploy it.

Business process integration middleware enables companies to define a process with a graphical tool, generate the code to support it, and then monitor the process down the line, across applications and IT

systems. By connecting the business process to tools throughout its lifecycle, process integration middleware enables software components to exchange information at every stage. The benefit is very real: Companies can roll out new products and services and quickly support and monitor the evolving business processes across the enterprise.

“With the ability to manage the entire process lifecycle, BPM middleware enables businesses to flexibly adjust their processes and respond to changes in the business environment with a far greater level of control and speed than we have seen in the past,” says Ken Vollmer, principal

analyst of Application Development and Infrastructure, at Forrester Research. “Customers tell me they have been able to create new business functionality 60 percent faster than before.”

New middleware evaluations are increasingly including functionality like Identity Management and Content Management.

Functionality as a service

Businesses are also commonly using Java/J2EE Application Server middleware, which 49 percent of respondents have already deployed. The adoption of open standards such as J2EE, Business Process Execution Language (BPEL), Web Services and SOAP into middleware products enables organizations to move to Services-Oriented Architectures (SOA). Standards enable organizations to integrate middleware and make it easier to reuse pieces of software they buy or develop down the road.

“Standards focus on the interactions among middleware tools, making application functionality available as a service and allowing modular components of code to be easily reused. This capability gives organizations the speed and flexibility to change business processes and support them with IT services,” says Vollmer.

Service-Oriented Architecture benefits both business and IT. SOA supports the security and management of an application infrastructure, enabling a company to analyze and monitor business processes, modifying them as the need dictates. Indeed, the need

to manage the complete SOA lifecycle – from development and integration to deployment and optimization – is driving organizations to expand their definition and usage of middleware.

A broadening view

Not long ago, many businesses thought of middleware as a group of narrow and proprietary solutions, such as message queue and application server software. More recently, however, the market’s view of middleware has expanded to include not only a run-time environment (such as the Java/J2EE server), but also portal and collaboration technologies, security and identity management features, and integration capabilities to build new applications and business services. Many businesses are also looking to middleware for better information visibility and insight when using business intelligence tools and business activity monitoring.

This broadening definition of middleware is evident in the widespread adoption of enterprise portal software (used by 46 percent of respondents, with another 33 percent evaluating/planning on deploying), content management applications (used by 42 percent, with 32 percent in the evaluation and planning stages) and business-intelligence software (used by 40 percent, with 32 percent evaluating/planning).

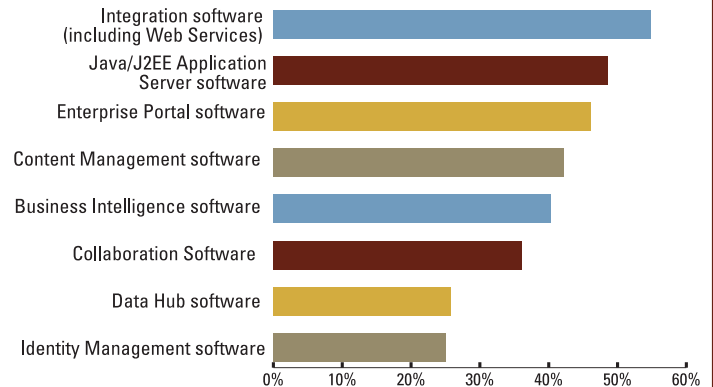
Of the companies planning to deploy middleware, 6 percent have already purchased and will soon begin installation. Sixteen percent are in the final stages of decision making. The middleware categories being evaluated by the most respondents are identity management (16 percent of those surveyed), enterprise portal (16 percent), content management (14 percent) and collaboration software (14 percent).

Single-vendor solutions

Facing the challenge of solving a range of business needs with middleware,

Who's using middleware?

More than 87% of survey respondents are already using some kind of middleware.



Source: State of Middleware survey, CMP Research, October 2005

many companies expressed a desire for a single-vendor solution. The primary benefit of buying middleware from one vendor is the ease of integration among middleware products, according to 67 percent of those surveyed.

Other frequently cited reasons for using single-vendor middleware were one-stop customer service and support (64 percent), easier installation and maintenance among middleware products (50 percent), consistent look and feel of applications (36 percent) and lower cost (30 percent).

Forrester Research Principal Analyst of Application Development and Infrastructure Ken Vollmer agrees that single-vendor middleware suites make sense for most businesses. "Suites are a much easier way to gain a high degree of functionality in your shop and use it effectively. Plus, they require much less maintenance moving forward to keep them running," says Vollmer. "The vendor takes the responsibility to make sure all the pieces work together; that's a huge benefit."

Risk mitigation

An important driver for many businesses is risk mitigation, according to Rick Schultz, VP of Oracle Fusion Middleware marketing. Schultz claims that "customers are looking for security and compliance capabilities to manage their users with single-password sign-on, role-based access and federated identities, which give their trusted partners defined access to certain functions."

Today's content management middleware enables organizations to easily manage documents and other unstructured records across the enterprise with a trail they can audit. Unlike highly specialized products intended for a limited group of super-users, content management middleware addresses the needs of any and all employees who store and share documents across the enterprise. "By enabling companies to set security, storage and document retention policies via an easy-to-use interface, middleware can help drive down the cost of compliance and management," Schultz says.

Additionally, compliance efforts can be costly and disruptive to business operations. Developing business process management functionality is imperative for business and IT stakeholders who must rapidly enact changes that impact the flow of business processes. Moreover, adding process steps and controls without impacting critical processes is a major obstacle for many organizations today.

What customers want

Middleware continues to serve an ever-growing number of purposes across organizations. Of the IT professionals surveyed, managing access to enterprise systems, ensuring that business-critical systems were secure and available, and integrating applications over a heterogeneous environment topped the list of requirements. A similar number of respondents look

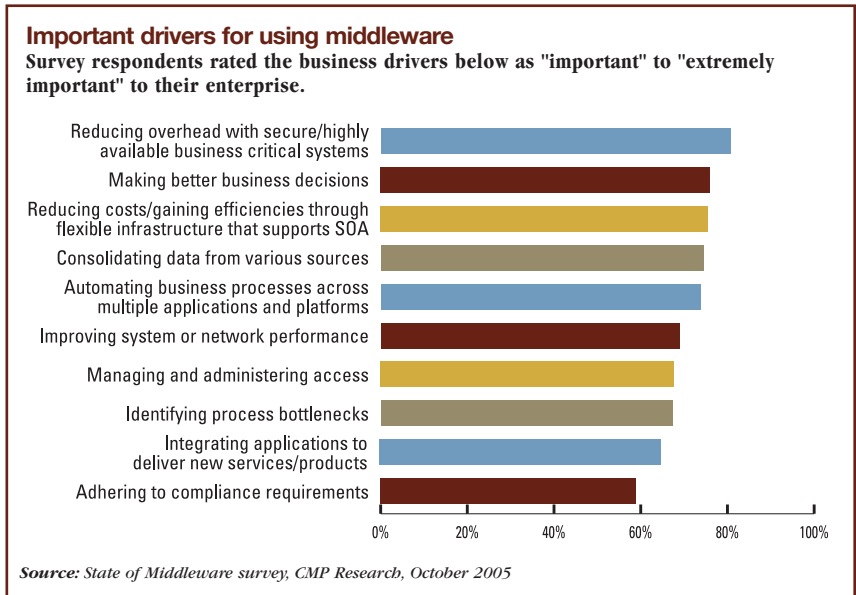
to middleware to help them make timelier and better informed business decisions, improve system performance, consolidate data, and automate business processes.

As they look ahead, companies are expecting middleware to address a wide range of needs. More than 75 percent of respondents felt it was important to extremely important for a middleware solution to help reduce downtime by ensuring that systems are secure and highly available. This audience also felt that middleware is critical for improving business decision support, and reducing costs/ gaining efficiencies enabled by service-oriented architecture.

Only slightly less important was the need to consolidate data, automate business processes, improve system or network performance, and manage access to enterprise systems.

Interestingly, the leading challenges that customers are looking for middleware to solve (i.e., high availability, better decision making, greater efficiency and access) are the same areas with which existing middleware users are most satisfied.

The recurring theme among businesses that want robust middleware is to keep their IT systems secure and highly available.



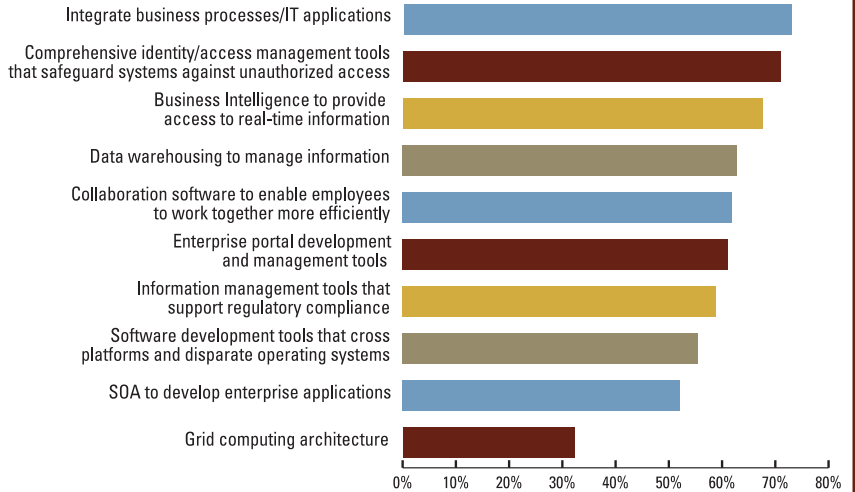
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When businesses consider which middle-ware products to purchase, they look at a range of factors. Of those surveyed, 84 percent said high availability and reliability were most important to them. Other frequently cited factors were middleware’s interoperability with existing applications and technology (82 percent), security features (82 percent), use of industry standards (79 percent), ability to leverage existing hardware and software investments (77 percent), and the ability of a vendor’s products to integrate well with each other (77 percent).

Not every business surveyed is planning to deploy middleware, however. For respondents that had no plans to use middleware, the main reasons were seeing no need to use that particular middle-ware or not having the time, staff or budget to address the specific business need. Another reason given was that they plan to upgrade their systems before deploying middleware.

Urgency to implement middleware

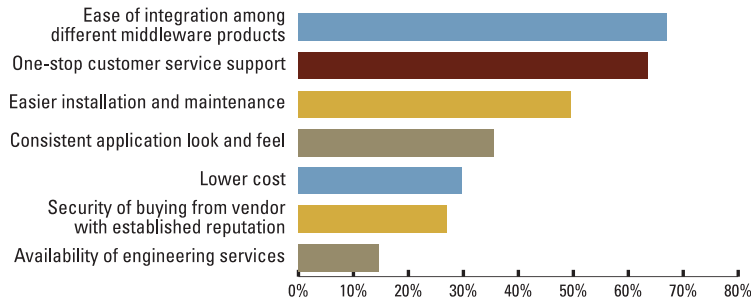
Respondents rated solving these business needs as "urgent" to "extremely urgent."



Source: State of Middleware survey, CMP Research, October 2005

Single vendor solution benefits

Respondents identified the advantages of buying middleware from a single vendor, with ease of integration at the top of the list.



Source: State of Middleware survey, CMP Research, October 2005

“We’ve seen a consistent desire among customers to increase business agility, while reducing IT infrastructure costs to create competitive advantage and differentiation in their core business,” says Oracle’s Schultz. “Plus, they want to gain better business insight and use that to optimize business processes.”

To businesses considering purchasing middleware, Forrester’s Vollmer offers a final piece of advice: “Rather than buying a tool with a lot of bells and whistles that you’ll never use, focus on your business requirements and identify a product that will meet your needs,” he says. “Integrated, packaged toolsets allow you to deploy products individually as needed, with the assurance that they will all work together and be supported by the vendor.”

Looking ahead

The recurring theme among businesses that say they want robust middle-ware is that of helping their IT systems remain secure and highly available. These reasons were the leading drivers governing why they currently use middle-ware, and also the foremost factors in making the purchasing decision.

But beyond security and availability, companies want the ability to use information more strategically, to flexibly adapt business processes using service-oriented architecture, and to share and access information across disparate systems.

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