



TECHNOLOGY ANALYSIS

Domino vs. WebSphere: the case for NextGen

By Ron Herardian

In part one of this series, at <http://www.dominopower.com/issues/issue200212/websphere1202001.html>, we looked at whether the debate about Domino versus WebSphere makes sense. Both products have unique advantages and each is a compelling solution in particular situations: massive scalability for WebSphere, distributed IT infrastructure for Domino. The products also have significant areas of overlap, and there are cases where either product could be used cost-effectively to meet IT customer requirements with appropriate technology. We left off last month on the note that the Domino versus WebSphere debate does not make sense because the products are more complementary than they are in competition with one another.

"When the only tool you have is a hammer, every problem begins to look like a nail."

This month I want to drill down into the debate and take a critical look at both sides. Then we'll get on with the business of integration between Domino and WebSphere. In this article I also describe what I hope to see in terms of technology architecture in the NextGen product, which will be unveiled at the Lotusphere 2003 conference in Orlando, Florida, later this month.

Is WebSphere the future?

Companies that have a Domino IT infrastructure in place can maximize the benefits of Domino by building Web applications on Domino. Proponents of Domino don't like to admit that any solution that could potentially be provided using Domino might be a better solution if it were built on WebSphere and vice versa. Nonetheless IBM cannot ignore the application server market and must counter .NET and Sun ONE. Domino is an application server, but that doesn't make it the best strategic application server platform for IBM.

Unlike Domino, WebSphere can compete directly with BEA WebLogic, Microsoft's .NET platform, and Sun's Sun ONE Portal and Application servers. WebSphere can compete and win on its merits in companies where Microsoft Exchange is the preferred email platform while Domino overlaps Exchange and Active Directory.

Domino: built to last

Those who claim Domino represents technology that began in the 1980's and whose time is now past would also have to believe that the business people are not going to use email, calendars, directories, or databases anymore and that IT staff will be replaced by Java developers in the future. The problem with this thinking is that it doesn't put forth any solution to replace whatever it is about Domino that's allegedly obsolete. Maturity of a product does not equal obsolescence.

Arguments for the obsolescence of Domino are simply not credible. Until wired client/server IT infrastructures are replaced by distributed peer-to-peer networks of wireless mobile computing devices Domino has a place in the server room. If Domino were to go away before then, Microsoft would get another 80 million users for Exchange. The architecture of a future technology that could make Domino obsolete will probably look a lot more like the Groove client on a PDA-sized wireless computer than it will look like WebSphere.

Since Domino is an application server, it probably doesn't make sense to bring WebSphere to the party to build a workflow application in a company using Domino as their IT infrastructure. Time and again I've seen customers trying to do things with Web technology when they have Domino sitting in the server room. Too many Domino

customers fail to leverage their investment and spend more on solutions that they could build and deploy for less using Domino.

Web technology and application servers are clearly not the right answer for every IT problem. In the last few years the entire industry has suffered from the "only tool syndrome." When the only tool you have is a hammer, every problem begins to look like a nail. Now that the Internet mania has died down, hype is once again less important than reality. Thankfully the software industry can focus again on giving customers what they want and enabling customers to succeed in concrete and measurable ways (rather than on technology for technology's sake).

Customers that successfully exploit Domino are tremendously capable. Using only IT staff resources Domino customers deliver amazing functionality to business users, often including dozens of business applications and automation of data processing to meet a wide range of requirements. There is no more capable, more flexible rapid application development solution focused on in-house IT on the market today.

Integrating Domino and WebSphere

To end the Domino versus WebSphere debate there would have to be not only a clear difference between where WebSphere is focused and where Domino is focused but also no overlap. Borderline cases where either Domino or WebSphere could be used are the reason why there has been ongoing Domino versus WebSphere debate.

In these cases there is no clear-cut answer. To arrive at what's best for the customer both technology and non-technology factors have to be taken into account. Where features of the two products and the solutions they're appropriate for substantially overlap are exactly where we need to look to develop a sensible integration model.

Replacing the Domino Servlet Manager

Perhaps the most obvious idea is to replace the Domino Servlet Manager with a version of WebSphere that integrates directly with Domino. Today, integration can be achieved in either direction by making calls from a Java servlet running on either Domino or WebSphere to a servlet running on the other product. This is very crude as an integration model and doesn't facilitate portable servlet development. It also doesn't address EJB (Enterprise Java Beans) integration. An application server must have both a servlet container and an EJB container.

The best technical solution would be to replace the Domino Servlet Manager completely and thus allow both Domino and WebSphere application developers to create more portable and better servlets.

Porting servlet-based Domino applications to WebSphere

Replacing the Domino Servlet Manager with a version of WebSphere would mean that servlet-based Domino add-ons would either evolve into WebSphere applications or be replaced by superior applications built on WebSphere: including Sametime, Domino Everyplace Access Server (DEAS), Domino Everyplace Enterprise Server (DEES), and other products. This requires a well-developed set of Domino Java APIs, and further Java integration will certainly be a significant part of NextGen.

Portals of the future

This would also go a long way towards solving the problem of overlapping intranet portal solutions across Domino and WebSphere. Initially we can expect Web access to Domino mail and applications to move over from the current Domino Web architecture (which still reflects aspects of R4.6) to WebSphere. Domino's core IT applications will become a plug-in for the WebSphere Portal. This means that customers with WebSphere can drop in Domino to provide an integrated intranet portal and that Domino customers can extend their Domino infrastructure to an industrial-strength portal platform with broad functionality.

Although replacing the Domino Servlet Manager with WebSphere, introducing a new set of native Java APIs in Domino, and unifying servlet-based Domino add-ons with those of WebSphere into a single collaborative application suite is more than sufficient to fully define NextGen, further integration remains possible.

Unified middleware connector architecture

Among other things, Domino is also a middleware platform. It might make sense to converge the middleware connector architectures of both Domino and WebSphere into a single middleware product. This would result in a

single code base for Domino and WebSphere connectors and improve code reusability and portability of middleware components between Domino and WebSphere.

Product availability and resources

For the article, "Domino vs. WebSphere," by Ron Herardian in the December 2002 issue of DominoPower, visit <http://www.dominopower.com/issues/issue200212/websphere1202001.html>.

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