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# Say Goodbye To Portal Servers

by Nate L. Root

TRENDS

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Interaction Platforms And App Server Platforms Take Over

by **Nate L. Root**

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### EXECUTIVE SUMMARY

Vendors like Plumtree Software and Epicentric created the portal server market in the late 1990s by offering servers with technical features that just didn't exist within firms' existing IT infrastructure. Now those features — like UI abstraction, integration, workflow, and delegated administration — have been co-opted, improved, and embedded in general-purpose infrastructure platforms from vendors like IBM, BEA Systems, Oracle, and Microsoft. The standalone portal server market is gone, absorbed into infrastructure vendors' app server platforms and emerging interaction platforms.

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### NOTES & RESOURCES

Forrester reviewed current vendor offerings, portal market dynamics, and our historical body of research for this report.

#### **Related Research Documents**

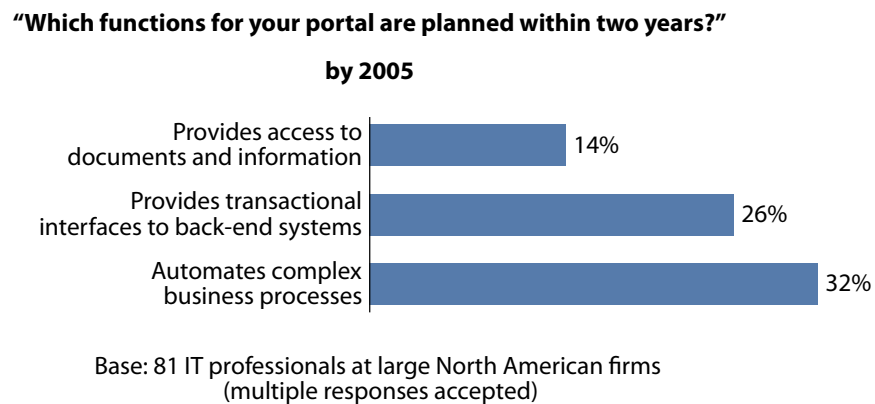
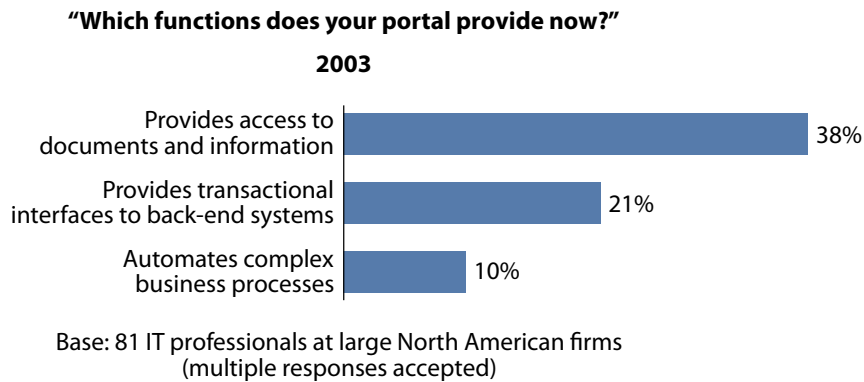
"The Interaction Platform"  
October 4, 2004, Trends

"Application Server Platforms"  
April 6, 2004, Trends

## RISING IT SPENDING IS REINVIGORATING PORTAL DEPLOYMENTS

Throughout the slump in IT spending, portal server sales and portal deployments have remained strong, driven by the promise of easy cost savings and quick ROI.<sup>1</sup> Now new tech spending overall is on the rise — 40% of North American firms expect to allocate more of their IT budgets to new investments in 2005.<sup>2</sup> Conventional wisdom says that the portal market, after seven years of solid sales, must be saturated by now and can't have the momentum left to capitalize on this new boost in IT budgets. But conventional wisdom is wrong: 38% of North American firms and 19% of European firms will purchase or upgrade portal software in 2005.<sup>3</sup> Instead of slumping, portal spending is staying strong as:

- **Early adopters upgrade or replace previous portals.** Portal software isn't what it used to be — seven years of hearty competition have resulted in products that are far faster, more scalable, more usable, and more capable than the simple content aggregation engines that portals started from. The allure of new features, combined with lessons learned from semi-failed existing implementations, is an irresistible opportunity for many firms to give portals a second or third shot.
- **Firms refocus design on enabling business processes.** Initially, portals were all about content aggregation. Next came application integration, then — most recently — a focus on using portals that expose and/or automate core business processes — an evolution toward process portals (see Figure 1).<sup>4</sup> It's important to remember that user-centric design, not technology, is the cornerstone of process portal success.<sup>5</sup> However, many firms embarking on process portal projects find that while the project doesn't necessarily start with scrapping their old portal infrastructure stack, it's a good opportunity for an upgrade or platform change.
- **Ambitious firms extend portals to partners and customers.** In 2001, Forrester surveyed 49 firms about their portal projects and found that less than 10% of portal projects targeted non-employee audiences like partners and customers. By 2004, the non-employee audiences for portals had quadrupled, with 40% of 83 \$100 million-plus companies with portals including partners in the audience and 29% including customers (see Figure 2). A number of factors have driven this shift, including advances in portal technology, increasing demands for business-to-business integration, and a rising level of overall comfort and experience with portals. Whatever the motivation, partner-facing and customer-facing deployments are fueling a new round of growth in the portal software and services market.
- **Inevitable events constantly nudge the portal finish line into the future.** No firm, no matter how diligent and well intentioned, is ever really "done" implementing an enterprise portal. New requirements, changing audience needs, and corporate mergers send even the best-managed portal projects back to the drawing board. Often these business events require substantial reworking of existing portal sites or — in the case of mergers — the rationalization of two entrenched portal platforms. Though frustrating to project teams, these constant changes help keep portals vital and relevant — and help keep portal vendors and integrators fat and happy.

**Figure 1** Business Process Enablement Trumps Simpler Goals

Source: Forrester Research, Inc.

### But The Ideal Portal Platform Isn't A Portal Server

Increased IT spending, new audiences, and project do-overs all sound like great news to portal server vendors. But this rising tide won't float all ships; only the large infrastructure vendors will benefit substantially from the resurgence in portal spending. The reason? Buyers fundamentally view portal servers as a layer of a larger infrastructure stack, not a separate, standalone product.

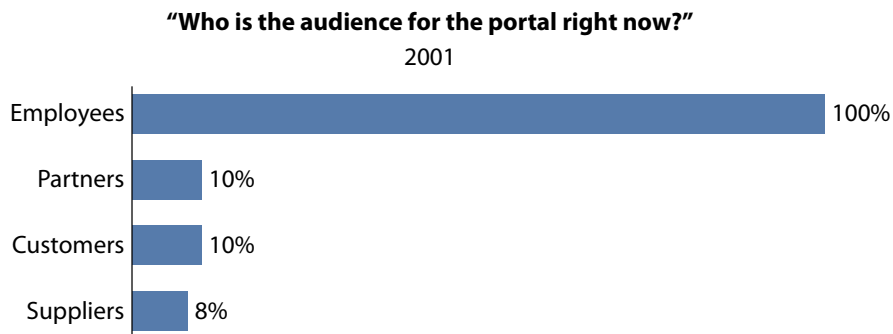
The proof is spelled out in buyer behavior: The portal vendors that now top buyers' lists are Microsoft, IBM, SAP, and BEA Systems, followed by one-time market leader Plumtree Software in a distant fifth place (see Figure 3).<sup>6</sup> Buyers now prefer to shop for portal software from infrastructure vendors because:

- **Deployments have become much more complex.** In 2001, it was clear that truly valuable portals were about more than Web-based email access and nice interfaces. To deliver true productivity gains and cost savings, portals needed to tap into the power of application servers and integration servers to assemble unique, new apps that helped people get things done faster, more accurately, and more independently.<sup>7</sup> Today, the addition of Web services, service-oriented

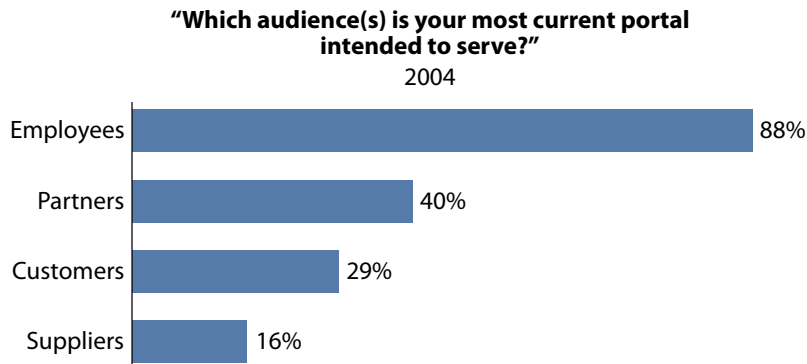
architectures (SOA), and business process management (BPM) software to the mix means that firms can develop extremely powerful process portals — but only if they can get this complex collection of technologies working together.<sup>8</sup> For this task, infrastructure vendors like BEA and SAP offer compelling benefits — preintegrated components and a single vendor relationship — that smaller portal vendors can't match.<sup>9</sup>

- Portal functionality is blending into apps.** The premise of an enterprise portal as a single place where users can interact with the content, systems, people, and processes that they need to do their jobs is elegant and attractive. But the reality of most deployed portal sites is much clumsier. Portals' user interfaces are usually slow and awkward, so they never fully replace other application interfaces (like email clients and office productivity apps) on users' desktops. However, new products have begun to blur the lines between portal and app UIs. For example, Microsoft's Word and Excel can communicate directly with Sharepoint Portal sites and display live portal content in a frame within the thick client app. And IBM's Workplace rich client promises to put a high-performance thick-client front-end on WebSphere Portal sites. Without software portfolios that include other apps like IBM's and Microsoft's, smaller portal vendors can't match these integrations.

**Figure 2** Non-employee Portals Have Quadrupled Penetration In Three Years

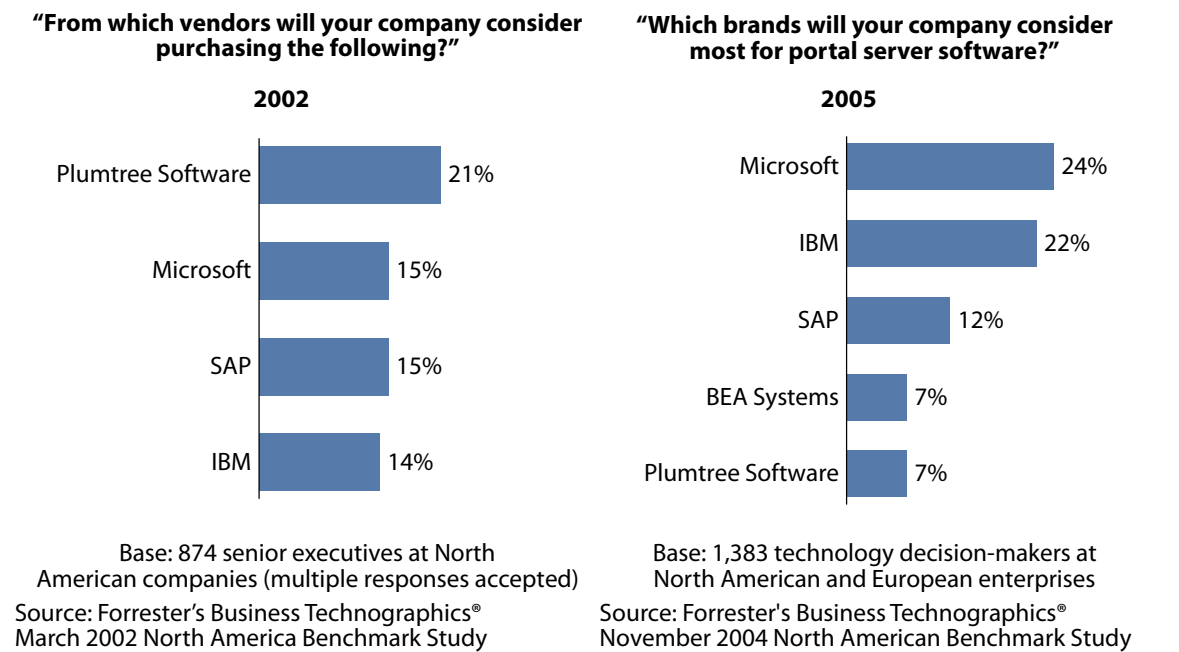


Base: 49 firms building enterprise portals  
(multiple responses accepted)



Base: 83 \$100 million-plus companies with portals  
(multiple responses accepted)

Source: Forrester Research, Inc.

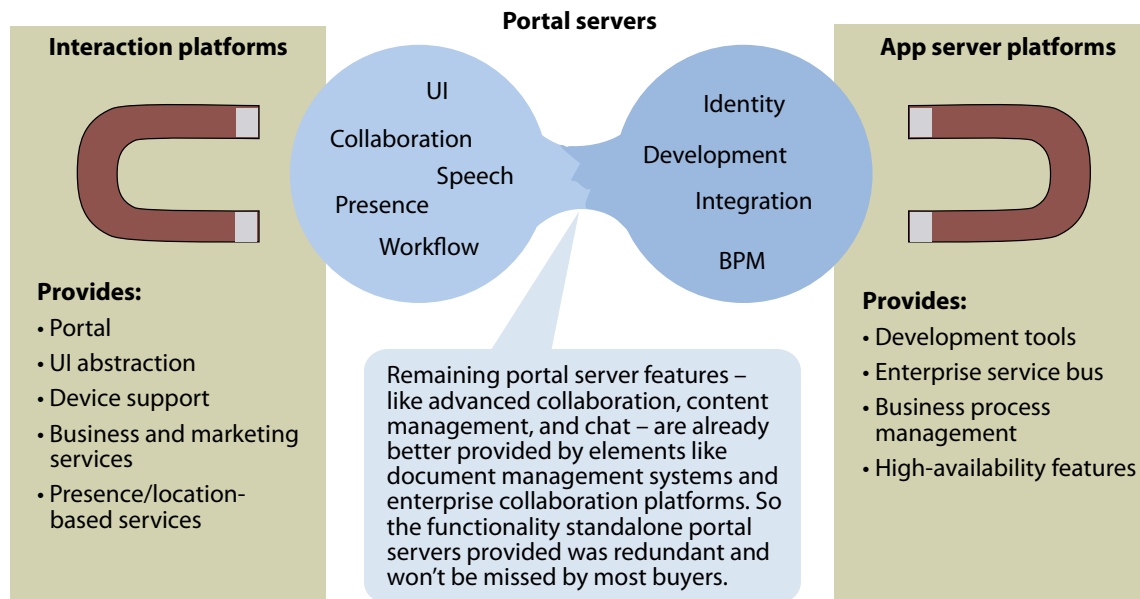
**Figure 3** The Portal Vendor Popularity Contest, 2002 To 2005

Source: Forrester Research, Inc.

- Pure plays' futures are uncertain.** Though tech spending is certainly on the road to recovery, the dot-com bust left IT managers more than a little gun-shy about buying software from small vendors. But as the old saying goes, "nobody ever got fired for buying from IBM." This risk aversion has dogged portal pure plays like Plumtree Software and Epicentric (now part of Vignette) since they created the market in the late 1990s. This stance was easy for pure plays to deflect when competitive products from vendors like IBM, Microsoft, and SAP were comparatively weak and unusable, but the big vendors have closed the functionality gap and, in areas like business process automation and app integration, have gone beyond what the pure plays offer. In the face of these seemingly unbeatable foes, portal veterans like Plumtree Software and BroadVision have begun to experiment with other markets — like search, collaboration, and packaged business processes — which only feeds the speculation that they won't be portal vendors for much longer.

#### PORTAL SERVERS ARE BEING RIPPED IN HALF

The ideal platform for building a portal isn't a portal server anymore, but it's not any other single piece of IT infrastructure either. Tomorrow's portal sites will be built using services from two main architectural elements as traditional portal server features are divided up and absorbed (see Figure 4). During the next three years, standalone portal servers will cease to have a home in IT's strategic architecture plans because:

**Figure 4** Portal Servers Are Absorbed Into Interaction Platforms And App Server Platforms

Source: Forrester Research, Inc.

- **Application server platforms tackle the back end.** BEA Systems, IBM, Microsoft, and Oracle have combined functionality traditionally provided by app servers, portal servers, integration servers, development tools, and data management software into application platform bundles.<sup>10</sup> As these platforms mature beyond simple bundling and shared services, they will become true service-oriented architecture platforms, paving the way for the development of next-generation applications focused on aggregating and organizing scattered Web services into usable service-based applications. Forrester evaluated the top seven application server platforms using the hands-on TechRankings™ methodology in late 2004.<sup>11</sup>
- **Interaction platforms handle the front end.** While app server platforms handle all the back-end heavy lifting of app development, integration, and scalability, they know little about users. Interaction platforms fill the gap between back-end processing and end users by providing services like Web interfaces (portals), workflow, support for devices like phones and PDAs, and even marketing services like campaign management and customer relationship management.<sup>12</sup> Though interaction platforms' cross-channel marketing spin seems at first blush to be mismatched with many firms' simple employee portal ambitions, it's actually a perfect fit. To build successful portals of *any* kind, even those that just target internal staff, firms must think about each and every user as a customer with needs, priorities, likes, and dislikes.<sup>13</sup>
- **The leftover features were never really portal servers' domain to begin with.** When you pull architecture and user-facing interaction features out of some modern portal server products,

you've still got a pile of features left over. The orphaned functionality includes services like Web content management, document management, collaboration, and messaging — all services that are typically provided in a much more robust and strategic way by other software firms already own, like enterprise content management (ECM) suites and enterprise collaboration platforms.<sup>14</sup> As service-orientation makes integration an easier endeavor, smart firms will turn their back on the scaled-down ECM and collaboration features that came with their portal server and integrate the superior, enterprise-class features from their ECM suites and enterprise collaboration platforms instead.

### BUT PORTAL SITES LIVE ON

So, if portal servers go away, does this mean you should hit the brakes on your portal project? Absolutely not. There's an important distinction between portal *servers* and portal *sites*. Portal servers are software specifically designed to enable the building of portal sites. Portal sites — or just “portals” for short — are the actual Internet or intranet destinations firms build to serve their employees, customers, and partners.

Portals will live on for some time — at least the next five years. What's changing is simply the underlying stack of technology firms use to build their portal sites. Instead of having an explicit, independent technology — the portal server — to support the sole task of building portal sites, firms that embrace app server platforms and interaction platforms will use the same IT architecture to build all their custom apps, portals included.

## RECOMMENDATIONS

### SYNC UP PORTAL PROJECTS WITH SOA STRATEGIES

Many firms are in the midst of both portal projects and SOA strategy formulation, but few have explicitly linked the two. As portal server infrastructure is absorbed into app server platforms and interaction platforms, portals allowed to remain islands of unique functionality and infrastructure will bring redundant development, administration, and operations skills, which are unnecessary and costly. To encourage synthesis between existing portal projects and emerging SOAs:

- **Fully embrace new portal standards.** JSR-168 and WSRP hit the portal market with a thud — most buyers couldn't find a good reason to care about the two specs. However, both standards encourage two very central tenets of SOA policy: code standardization and reuse. So it's a virtuous cycle, using these standards for portal development will reinforce your overall SOA push, which will in turn further promote the use of standards.
- **Stop portal server upgrade cycles.** Standalone portal servers aren't going to wink out of existence overnight, but they're certainly losing the long-term battle to interaction platforms and app server platforms. Ripping out your existing portal infrastructure immediately and

replacing it with these new technologies would be expensive and yield little short-term gain. But expending resources to upgrade and enhance existing infrastructure would be worse — it's pouring money down a hole that you'll eventually walk away from. When your portal infrastructure starts showing its age, erect your next-generation platform alongside it and carefully transition content and apps without an all-at-once push.

- **Wire SOA architects directly into the portal governance team.** Service-oriented architecture is as much about policy and practice as it is about software. To truly realize the promise of the SOA hype, firms must sear into their culture best practices like code reviews, modular development, and component reuse. So if the portal project team is disconnected from IT's SOA planners, they're likely to reinforce bad habits and unwittingly work against the success of the overall SOA initiative. To avoid this conflict, insert a rep from the SOA planning team directly onto the portal governance and development squads.

## ENDNOTES

- <sup>1</sup> The biggest potential benefits of enterprise portals are usually cost savings through both infrastructure consolidation and the introduction of self-service. Many other positive impacts of good portal sites — like happier users and more fruitful collaboration — are compelling but hard to quantify. See the January 28, 2003, Forrester Brief “How To Build An Enterprise Portal Business Case.”
- <sup>2</sup> In 2005, North American enterprises expect to spend an average of 24% of their overall IT budget on new investments — a larger piece of the pie than last year. Compared with 2004, 40% of respondents expected their investment in new technologies to increase and a further 49% expected their spending to at least remain flat. See the December 17, 2004, Trends “Highlight: New Investments In IT Will Grow In 2005.”
- <sup>3</sup> In North America, portal server spending plans matched content management and data warehousing plans and beat many other hot topics like identity management, RFID, and business process management in 2005. See the December 15, 2004, Data Overview “2005 Enterprise IT Outlook.”
- <sup>4</sup> Portals have evolved through three main stages, starting with content aggregation, followed by transaction integration, and finally capped by the addition of business process features. See the June 26, 2002, Forrester Brief “Gear Up For Process Portals.”
- <sup>5</sup> When Bell Atlantic and GTE combined to form Verizon, they ended up with 35,000 human resources documents spread across multiple legacy intranet sites. Rather than focusing on a technological solution, Verizon first set out to audit and document the business processes surrounding HR. The result: an employee-facing process portal that wasn't constrained by preconceptions over which technology to use or how to use it. See the February 14, 2003, Forrester Brief “Best Practices: Verizon's Process Portal.”
- <sup>6</sup> Specialist content management vendors face the same threat that pure-play portal vendors are dealing with. In 2002, buyers' top-three preferred content management vendors were Interwoven, Vignette, and Documentum — all pure play vendors. Now, however, EMC/Documentum, IBM, Microsoft, and Oracle are poised to dominate the enterprise content management market. See the March 2002, Forrester Report

- “Benchmark March 2002 Data Overview: Covers 2002 Technology Spending Plans” and the January 13, 2004, Planning Assumption “Will The Real Enterprise Content Management Please Stand Up?”
- <sup>7</sup> In 2001, Forrester identified portals as simply the top layer of a multitier architecture stack that included application servers, integration servers, and enterprise applications. See the October 17, 2001, Forrester Brief “Portal Servers Rely On App And Integration Servers.”
- <sup>8</sup> As portals have expanded from content aggregation to application enablement and business process automation, their differentiating features have shifted from user-facing niceties to complex features that dig into back-end systems and enable true self-service. See the June 17, 2003, Forrester Brief “How To Evaluate Process Portal Platforms.”
- <sup>9</sup> The core of a manageable IT infrastructure should be an application server platform that bundles core features and services like development tools, integration engines, and high-availability features. Getting these pieces from a single vendor helps buyers better manage the configuration and licensing of their entire IT infrastructure. See the February 4, 2005, Best Practices “Dodging The Software Infrastructure Collision.”
- <sup>10</sup> Skeptical buyers fear this new bundling is nothing more than an overt attempt by vendors to squeeze their competitors out of IT datacenters. While that’s partially true, the move toward unified application server platforms is also a direct response to the market demand for IT infrastructure that’s cheaper to manage and easier to develop on. See the April 6, 2004, Trends “Application Server Platforms.”
- <sup>11</sup> Architectural cohesion — the measure of how well the platform’s individual components work together out of the box — tops the buying criteria for app server platforms. See the May 14, 2004, Tech Choices “How To Evaluate Application Server Platforms.”
- <sup>12</sup> Interaction platforms offer three main layers of functionality: interaction services, business services, and infrastructure services. The infrastructure services layer is where interaction platforms attach to app server platforms. See the October 4, 2004, Trends “The Interaction Platform.”
- <sup>13</sup> Many firms make a costly mistake with their employee portals: they figure that internal users are a captive audience that will just clam up and deal with whatever information architecture and design IT decides to build into the site. The results of this miscalculation are painful: low portal usage, high support costs, and angry users. To build employee portals that work, firms must treat employees the same way they treat customers — and get IT out of the role of designing portal interfaces too. See the November 9, 2004, Best Practices “What Skills Are Needed To Deliver A User-Friendly Portal?”
- <sup>14</sup> Collaboration platforms combine email, calendaring, real-time messaging, presence awareness, and communities into a single, enterprisewide layer of services. This platform approach — as opposed to the multivendor, piecemeal strategy popularized in the late 1990s — reduces overall administration cost and ensures that firms have a solid, unified platform for building contextual collaboration into their applications. See the May 20, 2004, Tech Choices “Evaluating Collaboration Platforms” and the December 10, 2004, Trends “Trends 2005: Collaboration.”

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