

Cool Vendors in Platform and Integration Middleware, 2009

Benoit J. Lheureux, Massimo Pezzini, Paolo Malinverno

This research reviews three vendors with innovative middleware and collaborative IT solutions for use in cloud-computing scenarios, addressing the challenges of deploying distributed applications and collaborating on large-scale B2B and software-as-a-service (SaaS) projects.

The Amalto Technologies and RollStream solutions reviewed herein will appeal to SaaS vendors, electronic data interchange (EDI) managers, e-commerce directors and other IT roles that wish to reduce the time and effort of collaborating with customers and suppliers on large-scale B2B projects. The Hiperware solution will appeal to developers that want to be shielded from the complexities of implementing highly distributed, event-driven, Java-based applications.

Key Findings

- Despite ongoing consolidation in the market, innovation in platform and integration middleware continues, and addresses technology and delivery models.
- The need to support ultra-high-end requirements for transaction processing, messaging and other needs continues to be a major driver for innovation in this market.
- Cloud computing has spurred innovation in the area of community management to simplify the task of doing complex B2B integration.

Recommendations

- Leading-edge user organizations and service providers looking for innovative platforms for solving complex application development and integration needs should evaluate whether the breakthrough innovation proposed by these vendors can help their companies leapfrog competition and provide sustainable competitive advantage.
- Risk-averse organizations should consider these vendors primarily if more-established products cannot address their cost or functional requirements.
- IT vendors and system integrators looking for differentiation through technology innovation should evaluate whether the technologies proposed by the vendors reviewed in this research can augment the appeal of their offerings.

ANALYSIS

This research does not constitute an exhaustive list of vendors in any given technology area, but rather is designed to highlight interesting, new and innovative vendors, products and services. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

What You Need to Know

This research reviews three vendors with innovative middleware and collaborative IT solutions for use in cloud-computing scenarios, addressing the challenges of deploying distributed applications and collaborating on large-scale B2B and SaaS projects.

Although companies typically rely on well-established B2B gateway software or integration service providers to implement and collaborate on B2B projects (see "Magic Quadrant for B2B Gateway Providers" and "Magic Quadrant for Integration Service Providers"), solutions like those from Amalto Technologies and RollStream raise the bar for multienterprise community management and collaboration.

Hiperware technology belongs to a new generation of platform middleware, dubbed "extreme transaction processing platforms" (XTPPs; see "Emerging Technology Analysis: Extreme Transaction-Processing Platforms, Application Infrastructure"), that is primarily focused on supporting the more demanding, "extreme" application requirements. Although originally born to support classic "on premises" deployment models, many XTPPs — or some of the underlying enabling technologies — are increasingly being adopted to support cloud computing because of their ability to support large-scale deployments, coupled with their simple, often Plain Old Java Object (POJO)-style programming models (see "Enabling Transactions "in the Cloud" through Extreme Transaction Processing").

Amalto Technologies, Paris, France (www.amalto.com)

Analysis by Paolo Malinverno

Why Cool: Founded in September 2005, Amalto Technologies is a private company owned by its management, employees and venture capitalists. Amalto provides software solutions that enable organizations to manage their master data for multienterprise exchange more easily, simplify B2B exchanges between trading partners and facilitate multienterprise system integration. One of the offerings Amalto markets is called b2een, and it combines state-of-the-art, peer-to-peer technology, a Web user interface and a native XML database to facilitate the enablement of secured document exchanges with trading/business partners within communities. Once registered on b2een, you may subscribe to open or private communities — and once subscribed, you can establish relationships with other community members and, using B2B software, start exchanging messages with them (the user experience is a mix of Skype and Outlook). All exchanges are digitally signed and encrypted, and delivery is guaranteed. The b2een central infrastructure handles the community members directory, the set-up of the exchange between two members and the specific rules within a given community (such as allowed document types or specific control/validation rules). B2een is available as a free download at www.b2een.com .

All B2B infrastructure vendors support some form of trading partner community management, at different levels of functionality. Amalto sells that functionality separately, to be used for a private community (such as Chevron suppliers) or public communities (operators and suppliers of the oil and gas industry). Ariba is one of Amalto's clients. Amalto also implements trading partners' community management as SaaS, both to the community manager and to the users (who follow

the onboarding procedure) as an overlay to existing B2B infrastructure to facilitate growing the B2B community. This addresses directly one of the major barriers to B2B (the cost and the complexity of bringing business partners together as a connected group, working in a network), and makes a solution available at a reasonable cost and with reduced complexity.

Challenges: Despite the immediate applicability of its solution (appealing to private customers and technology providers, especially midsize companies), Amalto faces the classical challenges of a small player in a densely populated market, such as the ability to reach with its proposition an adequate number of prospects, or the risks of growing too fast as a company. Acquisitions have been swirling around the growing B2B market for a few years now, and still will for at least another two to three years, possibly limiting Amalto's future viability. Amalto's attractive functionality makes it an instant, appealing acquisition target; however, good technology typically survives through acquisitions.

Who Should Care: B2B infrastructure managers can find Amalto's approach to trading partners' community management useful in dealing with the day-to-day complexity and workload of onboarding new partners, and managing existing ones. Also, B2B infrastructure vendors (many of whom have been working hard at improving their trading partners' community management) can find Amalto's simple approach applicable to several end-user situations, and powerful when coupled with their existing solutions. Existing communities with established business document standards can leverage the solution and set up their own b2een community to speed up the adoption of B2B exchanges, thanks to b2een's advantages, as detailed above.

Hiperware, Singapore (www.hiperware.com)

Analysis by Massimo Pezzini

Why Cool: Hiperware is a 10-employee-strong, Singapore-based software company providing the Hiperware Platform — a Java-based, event-driven application server product focused on supporting distributed applications on clusters of multicore servers — and HiperSearch, a search engine. The company was incorporated in 2005, and is focused on the Asian market (primarily China, India, Japan, Malaysia and Singapore) and the U.S., although it has some presence in the U.K. as well.

The Hiperware Platform is a platform middleware product that enables users to develop and run Java applications on cloud-like clusters of multicore-based servers according to an event-driven, pipeline-oriented programming model. The primary aims of the Hiperware Platform are to enable applications to take advantage of the performance and scalability characteristics of distributed servers, while shielding developers from the inherent complexity of designing distributed and parallelized applications. A Hiperware application is a loosely coupled set of Java classes communicating with one another by exchanging events (or "objects") via the Hiperware Platform event-driven runtime.

The most important Hiperware Platform application is HiperSearch (a high-performance search engine for live data streams). It's a product focused on real-time monitoring, homeland security and surveillance scenarios.

The Hiperware Platform has approximately six customers and can potentially support a variety of application scenarios, including high-performance computing, extreme transaction processing and event-driven applications. Its characteristics make it suitable for supporting cloud-computing scenarios, although the vendor hasn't publicly announced its cloud strategy, yet.

The main distinguishing feature of the Hiperware Platform is its elegant programming model, which makes distributed and parallel programming approachable for non-highly-skilled programmers. Developers don't need to use any explicit messaging application programming

interface to send events across. They only need to define input and output objects for the Java event-handling classes. The Hiperware runtime transparently transmits the output object of a given class to the class needing it as its input object, regardless of its respective location in the distributed system. This is possible because the physical topology of an application is not determined at design time, but rather at deployment time. When an application is deployed, the relevant Java classes can be dynamically allocated on different cores (on the same CPU, on a different CPU on the same server or on networked servers), as needed, to provide the needed levels of performance and/or availability. For example, it is possible to deploy a "shadow" instance of an application that mirrors step-by-step the execution of the main instance. This way, the shadow instance can take over immediately in case of failure of the main one.

Challenges: Leading-edge users are looking for alternatives to the now-dominant Java Platform, Enterprise Edition (Java EE) and .NET platform middleware to better exploit the potential cost and flexibility benefits of cloud-like, distributed clusters of commodity hardware. Products such as the Hiperware Platform offer a technically solid alternative foundation. However, a lack of commonly agreed on standards enabling application portability and interoperability across different vendors' products, a still tiny installed base, minimal industry awareness, vendors' small size and limited support from third parties (and, possibly, hostility from established platform middleware megavendors) are major challenges to Hiperware Platform's widespread adoption.

Who Should Care: CIOs, IT architects and developers looking for platform middleware to support the implementation of demanding applications in terms of performance and/or scalability should evaluate the Hiperware Platform, especially if based in Asia or the U.S. They should also be aware of the still-limited installed base (a handful of users) of the product.

Cloud-computing providers, software vendors and IT service providers looking for technologies for implementing cloud services should look at Hiperware Platform as a platform middleware enabler for a variety of high-performance, elastically scalable and fault-tolerant applications.

RollStream, Fairfax, Virginia, USA (www.rollstream.com)

Analysis by Benoit Lheureux

Why Cool: RollStream was founded in 2005. It delivers a SaaS-based community management solution designed to facilitate the collaborative aspects of multienterprise integration projects, including e-commerce mandates and cloud-computing scenarios, typically as an overlay for existing B2B infrastructures. Example uses of the company's solution include organizations that need to more efficiently manage the trading partner onboarding process for e-commerce projects, or SaaS providers that need to more efficiently manage onboarding tasks such as SaaS integration for their SaaS customers. The RollStream collaborative platform is a hybrid combination of a portal (for example, to manage personalized access to information and applications), community management (for example, to manage trading partner profiles), workflow (for example, to define the steps or activities associated with an e-commerce mandate) and content management (for example, to manage B2B documents). The solution gives B2B project designers a "project/activity" metaphor for designing B2B projects, including any combination of activities, such as customer or supplier registration, capturing credentials, assessing compliance, and handling disputes and relationship activities (such as scorecarding or soliciting community feedback).

The RollStream solution is cool because it addresses the collaborative, labor-intensive aspects of complex B2B projects beyond the rudimentary provisioning of electronic connections (such as Applicability Statement 2 [AS2]), which companies have typically formerly handled via telephone, spreadsheets, mass-mailings, custom applications and other manual or resource-intensive processes. The highly configurable collaboration platform allows designers with limited technical skills to define projects with any combination of community management activities — and to

implement these projects in conjunction with existing B2B infrastructures, whether software or services. One large retailer has combined RollStream with its provider of integration as a service (GXS) to better manage supplier onboarding and to facilitate community activities, such as data collection, to collect product liability and certification data from their suppliers. Other companies leverage the RollStream service in conjunction with their own on-premises B2B software.

Challenges: RollStream is a relatively small (30 employee) vendor that delivers its solution as SaaS. This makes its solution more suitable for companies that are SaaS-savvy and risk-tolerant. Although RollStream has developed templates for common community management tasks, such as partner registration or claims management, designers should be prepared to extend existing templates or create new templates to meet their requirements for unique or highly customized B2B projects. RollStream also faces the prospect that SaaS vendors (for example, salesforce.com) and B2B software and service providers (Software AG, Sterling Commerce and GXS) will eventually implement their own solutions to address the community management gap in their solutions. This puts RollStream "in play" as a target for partnerships, acquisition or other forms of business alliances in the highly active B2B market segment.

Who Should Care: IT end users, including EDI managers, supply chain integration managers, e-commerce directors, vice presidents of suppliers or customers, or anyone else responsible for coordinating and managing the rollout of e-commerce mandates involving complex, direct B2B integration projects to large multienterprise communities (of 100 to 1,000 or more participants) should evaluate RollStream.

Providers of cloud computing, SaaS and integration as a service that are responsible for coordinating and managing the direct integration between their SaaS functionality and on-premises applications and systems for a large (100 to 1,000 or more) customer base should also look at RollStream's offerings.

RollStream's "sweet spot" is large B2B projects involving 100 to more than 1,000 external business partners, where the community management tools inherently available with B2B software or services lack the ability to flexibly define and manage the human-oriented tasks associated with large B2B projects.

RECOMMENDED READING

"Key Issues for Platform Middleware, 2009"

"Key Issues for Application Integration, 2009"

"Key Issues for Multienterprise B2B Integration, 2009"

"The Birth of the Extreme Transaction-Processing Platform: Enabling Service-Oriented Architecture, Events and More"

This research is part of a set of related research pieces. See "Cool Vendors 2009: Changing Models and Changing Times" for an overview.

REGIONAL HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road
Stamford, CT 06902-7700
U.S.A.
+1 203 964 0096

European Headquarters

Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters

Gartner do Brazil
Av. das Nações Unidas, 12551
9º andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509