

# MarketScope for Application Life Cycle Management

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**Organizations modernizing application development – for example, adopting agile or service-oriented development methods – need to make corresponding changes in ALM to plan, measure and report on their development activities. This MarketScope assesses the market offerings and their providers.**

## WHAT YOU NEED TO KNOW

Managing application delivery was always complex, and is now growing more so. Services, composites, packages and other new delivery vehicles are being combined with legacy technologies and are often built by virtual teams spread around the globe. Greater regulation and a need to dramatically improve productivity and delivered quality add to the pressure. Efficient coordination and automation of the delivery process requires new collaborative approaches to the planning, measurement, control and reporting of activities. These new approaches are what differentiate current application life cycle management (ALM) tools, and what make ALM processes vital to leading-edge development activities.

## MARKETSCOPE

IT organizations are under pressure to consistently deliver projects and to coordinate a variety of projects combined into large initiatives. Coordinating across teams and automating workflows requires a focus on management and governance. This focus is challenging the abilities of traditional suites of technical tools and is beyond the capabilities of a raft of home-built spreadsheets and post-it notes. ALM solutions are evolving to enable enhanced planning, measurement, control and reporting of activities in all the stages of all the various application delivery life cycles. They are also becoming more open to integration with other tools.

Organizations seeking ALM solutions are trying to move from approaches that use point tools and manual techniques to better-integrated, development-management suites. They are seeking ways to coordinate work and share data across phases and activities, which include requirements definition and management, different testing activities (including test case management), software change and configuration management, and more. Clients are resisting the tendency of product suppliers to apply the ALM term broadly to include functions focused on project execution, recognizing that the suites of application tools of the past 10 years fall short in their ability to maintain consistent and complete views across many process steps.

In most situations, ALM processes are implemented around a tool that has a metadata repository that allows specific implementation tools (compilers, debuggers, modeling tools) to share information about artifacts; a workflow system that describes the (sometimes quite messy) sequence of activities required to design, develop, and deploy the artifact; and a data warehouse that enables the capture of information about practices so that they can be repeated. Although ALM includes the management of specific phases – requirements, design, test – it is the extension of unified workflow and management across these phases that is the key element of ALM.

## Benefits – What Do You Get From ALM Implementations?

ALM processes yield five principal benefits to the organizations that embrace them:

- Agility – Through the collaboration and application of “just enough” processes
- Predictability – Through better estimation, better communication and more repeatable processes
- Auditability – Traceability of work back to a business need, accountability for each change or decision made and the ability to separate concerns
- Quality – Through more-effective management of requirements, design and quality processes
- Productivity – Through the continuous improvement of processes and practices, and more effective utilization of resources

These benefits result in better control of costs and risks in development projects across the spectrum of applications that run the business, grow the business or transform the business. Savings also stem from the reduction of unnecessary rework and better alignment of projects with business needs.

During the current economic environment, ALM, at its best, can enhance the productivity of teams and provide management with a more accurate view of project status. Many of the newer products in the market have very low or free entry points, but it is important for these companies to build and leverage effective partner strategies to help broaden their channel presence without increasing their marketing overhead.

### Market/Market Segment Description

ALM is the practices, processes and tools that aid in the management of the application life cycle, specifically the workflow of producing or maintaining an application. Key capabilities include change management, workflow and work item management, and an integration backplane that allows an organization to establish traceability and accountability across multiple processes, multiple locations, multiple tool types, and multiple tools of each type across the stages of development and delivery.

In addition to the general facilities mentioned, ALM offerings also should include at least a portion of the set of tools that support planning, measurement, control and reporting roles in the application life cycle. The principal tools that are included play management roles: requirements management, source code change, version and configuration management, build management, quality management, metadata management, and some sort of reporting facilities, often based on a specialized datamart.

We currently see four distinct approaches to the ALM market:

- Tools that are focused on enabling agile (in particular, scrum)
- Tools that are building from strength in an ALM submarket (such as software change and configuration management [SCCM])
- Tools that take a complete suite view
- Tools that are positioned as an integration hub

As organizations evaluate solutions, they must take into account the mix of products, the types of projects, and the individuals involved from a skills and roles perspective, as well as from a sourcing perspective. The ALM tools in this MarketScope are evolving rapidly as they add functionality and build partnerships. They are also evolving through market consolidation. Many are moving from the traditional “buy my complete stack” approach to one that recognizes the need to integrate with other products in a deeper, more meaningful fashion than traditional application-programming-interface (API)-level, menu-driven manual synching or artifacts. Another key value that can be delivered by ALM tools is a real-time view of the project status. This eliminates the need to manually collect data and build reports that are invariably outdated by the time they are delivered. Leading solutions can synthesize data not only from the tool, but from integrated components, and they can do so without the need to run a manual synchronization step. They allow team members to simply go to the reporting portal and view the information.

### Inclusion and Exclusion Criteria

To be included in this MarketScope as an ALM tool, offerings must facilitate distributed team activities, they must coordinate work items, they must structure the flow of work and they must share data across phases and activities. There should be federated sharing or central storage of metadata about the development resources and processes. Products must support customizable workflow that can draw on team definitions and permissions. Workflows for development processes need to be able to vary from team to team and from project to project. There must be some form of metadata integration hub to support custom integrations beyond those of the vendor.

To be included, products must be able to manage change process workflows from initial change requests or requirements through build and turnover for release. They must also be able to manage work items at the granularity of source code changes made through editors or integrated development environments (IDEs). Products must also support two or more of these management domains: requirements, software change and configuration, quality, build, or distribution.

Integrating ALM products with project and application portfolio management tools is useful, but as of yet, are not core selection criteria. Similarly, integration with software distribution facilities or other operational tools is not yet common or highly sought after by users. The project management function is more important at this point. In the Scrum tools, one reason to buy VersionOne is because you have a big backlog and you move things off that backlog into projects and manage them. Some project management tasks are being done in ALM tools. Is this demand management or project portfolio management? No, and it isn't necessarily going to do what a project management tool would do,

but these limited facilities meet the needs of agile, at least as well as a traditional project system will. What is more interesting is the tool integration for demand in the form of connecting to a help desk/service desk, because change tickets are often the initiator of a project. Some organizations have good connections to Remedy, for example.

The majority of the products covered in this MarketScope are completely platform-neutral, with the ability to support both Java and .NET projects. We did not include or exclude products based on platform coverage, but this is a key selection criteria. If a mixture of platforms is in play and the teams are not completely autonomous, then it is preferable to have a single ALM solution that works for all the selected platforms.

Products must also be generally available, they must be the subject of client inquiry during the past year and they must be able to provide at least three reference clients.

## Rating for Overall Market/Market Segment

### Overall Market Rating: Positive

The adoption of ALM is in an early growth stage. The majority of users buy ALM products with a specific adoption value in mind, and only occasionally have the desire to drive the vision across the delivery chain. In addition, a good number of products in the market are provided as evolutions of more-fixed-point solutions or from relatively small (under 100 employees) private companies. As users adopt the solutions, many of them have viral adoption and the ability to start with one specific problem and then build out (for example, requirements management, then later test management and connecting from requirements to test cases). Even in current forms, the coordination of activities through ALM delivers value in five specific areas. These areas account for most of the early adoption, and will sustain the market growth through the next several years. Techniques perfected in these more-demanding situations will find their way into more-conventional shops beginning in 2011.

We estimate that sales of ALM tools totaled \$1.26 billion for calendar year 2007, with a growth rate of 11.2%. Although current economic conditions will suppress many projects, we believe that the ALM market will stay relatively strong because of the value that ALM returns to a company in productivity, predictability, automation and governance. However, tool providers that don't have solid cash flow will be challenged, and we expect failures and acquisitions. Organizations should push for source escrow clauses to ensure access to the source if the provider fails, but also recognize that the complexity of these solutions will seriously challenge internal IT teams' ability to maintain them. We also expect that companies with flexible price models and options such as hosted solutions will have an advantage. There are no viable open-source alternatives to the products covered in this MarketScope; however, many of them support a variety of open-source components stretching the capabilities of products such as Subversion, thus enabling them to potentially replace surrounding pieces of the ALM ecosystem.

Agile shops form a significant market for the lighter versions of ALM offerings. ALM creates a management framework providing consistent, auditable records of the decisions and activities of agile

teams. The collection of stories, and the pulse of the agile team's change and development activities form a sort of team memory. Collaborative and workflow orientation in the newer tools suit the agile practices and avoid some of the implicit process "straight jackets" that teams fear.

Developers of embedded systems (for example, in the appliance, automotive or aerospace industries) are another significant group of adopters. Much of the attraction here seems to be related to the management of complex requirements in a number of situations. A common software framework may be supporting many devices, and the development team must manage the unfolding complexity of the evolving hardware. There may be large-scale projects, integrating hundreds of elements, and the collation and management of the parallel streams of development become critical due to the sheer volume of items on the one hand, and the costs or consequences of errors on the other. The burden of complexity is such that this segment can find value in driving its teams to use a common set of tools and processes, rather than permitting the variety more common to commercial IT.

The demands of geographically distributed development are complex communication of the project's progress from location to location, and the management of distributed contributions to a common core of code. In particularly challenging cases, geographically introduced complexity is found with the complexity of multiple target platforms, and ALM's abilities become even more vital.

Process-centric shops are another beneficiary of the workflow and process discipline in ALM offerings. These may be technical development shops, particularly those involved with the development of software with critical performance requirements (for example, flight safety demands). They also may be in regulated industries, such as pharmaceuticals, where statutory requirements for processes justify the investment in ALM.

Needs or desires for ALM are much weaker in the majority of commercial shops that don't fall into the categories mentioned above. These traditional organizations often lack disciplined execution processes in a number of phases of the development cycle. Significant organizational change would need to occur to make ALM effective. With current offerings, these hurdles will seem forbidding, and we expect process improvements to focus on continued implementation of the silo-focused offerings.

Currently, the majority of organizations are still not procuring tools from an integrated ALM perspective. This is generally because a specific group needs a specific set of functionality, and there isn't a concerted effort to get the entire IT organization onboard with a single integrated product. However, we are seeing vendors get a foot in the door with one group, and then expand their presence. Generally, however, most organizations have a large economic barrier to buying a solution just to gain integration, especially if it requires switching out existing preferred solutions. Thus most buying is a gap-filling exercise: improve requirements, support a specific development process or replace an existing tool that is not meeting needs.

## Market Conditions

In an early and fragmented market, the MarketScope ratings reflect our assessment of vendors' prospects of executing in their selected domains. Clients need to focus on the subset of vendors that address their particular needs and their desired solution architectures. For example, clients focusing on agile need to look first at Rally, VersionOne, Polarion and, perhaps, MKS. Clients that want a flexible process model and an integration-bus-focused approach should look at Kovair.

Note that current economic conditions will favor vendors that have access to cash, which will enable continued growth and investment in R&D, as well as provide the ability to access credit lines for large deals. Many of the vendors in this space are backed by private investments, and the current venture capital market is limited, thus creating a focus for companies on cost management. We expect that this will cause changes in the landscape during the next 12 months, including acquisitions, a specific focus on market niches and the potential for failures. As equity funding becomes available, it will re-enable the market to expand.

## Products Not Included

A number of products have some ALM capabilities, but failed to meet one or more of the above criteria (see Note 1 for a list of these products).

## Evaluation Criteria

**Table 1. Evaluation Criteria**

Evaluation Criteria	Comment	Weighting
Overall Viability (Business Unit, Financial, Strategy, Organization)	Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.	high
Market Understanding	Ability of the vendor to understand buyers' wants and needs, and translate those needs into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.	high
Offering (Product) Strategy	The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements	standard
Product/Service	Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets and skills, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.	standard
Sales Execution/Pricing	The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.	standard
Customer Experience	Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways that customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), the availability of user groups, service-level agreements and so on.	standard

### Note 1

#### Some Workflow, Quality, PPM and SCCM Vendors With Some ALM Characteristics

- Atlassian
- Axosoft
- CA
- Compuware
- HP
- Seapine Software
- SemanticSpace Technologies

## Vendor Product/Service Analysis

### Aldon

Aldon is a privately held company with a strong, more than 20-year SCCM heritage, much of that as a supplier to the IBM iSeries software market. This shows through in its customer base, which is focused primarily on the tasks of change management. The Aldon tool exploits a common repository, and the company broadly supports both ALM tasks, as well as release and service management. Matching with this is Aldon's focus on supporting traditional processes, and the company provides a number of compliance and industry-specific solutions. This includes

Figure 1. MarketScope for Application Life Cycle Management

	RATING				
	Strong Negative	Caution	Promising	Positive	Strong Positive
Aldon			x		
Borland				x	
CollabNet			x		
IBM					x
Kovair			x		
Microsoft				x	
MKS				x	
Polarion			x		
Rally Software				x	
Serena Software				x	
TechExcel				x	
VersionOne			x		

As of 11 December 2008 Source: Gartner (December 2008)

Information Technology Infrastructure Library (ITIL), Capability Maturity Model Integrated (CMMI) and Sarbanes-Oxley solutions. The strong change management foundation also comes through in the strong facilities for managing multiple releases, which recognizes that projects don't just start and end, they have maintenance releases.

The Aldon solution best fits teams working relatively conventional development methodologies. There is little explicit support for teams that are working to shift to an agile process. Aldon doesn't have tools for requirements or test case management. Reporting and analytic tools are good for the core elements, but are limited by the lack of integrations to requirements and testing. However, Aldon's configuration management database (CMDB) and software distribution function facilitate impact analysis and close integration with operations processes. The products are targeted toward companies that want to have efficiency and that require strong governance and compliance.

Aldon's challenges are to build better brand recognition and expand its sales presence. We rate Aldon Promising. It appeals to regulated or process-intensive organizations, or to those that need broad multiplatform server support. Aldon has experience in global sales and support, and has a sizable customer base into which to sell.

*Rating: Promising*

### Borland

Borland's main challenge is rebuilding customer and vendor confidence in the company. It has to show consistent financial performance, demonstrating execution by its sales and marketing organizations in a very challenging environment, hemmed in with competitors that are much larger or much smaller, with larger cash supplies or smaller cost structures, respectively. Borland was early to embrace a sound first-generation ALM vision based on acquiring strong tools in the SCCM, requirements, and quality and test markets. It has labored to rework its tools into an appropriate architecture.

These products – SilkTest, StarTeam and Caliber – all have established market positions, but generally the collective products are not displacing competitive products. Like IBM, Borland needs to work through an evolution of its existing SilkTest and StarTeam products, and clarify its relationship to the newer packages.

Borland has embarked on its latest embellishment to ALM with its new Borland Management Solutions (BMS) product family. Leveraging its experience in agile and distributed development has informed the company's product development, leading to a strong set of capabilities focused on workflow, governance, collaboration and reporting. The marketing message focuses on good key messages of demand, focus and analytics. Integration to other vendors' products is limited for now, but the core architecture to do so is set. There are integrations to HP Quality Center and to Microsoft Project, and a number of source change management systems. Borland has committed a team to work on additional integrations, and has a solid layered architecture.

Because Borland is focused on providing views and management on top of existing ALM component tools, the company does not try to synchronize data or create yet another repository, but rather provide a high-level portal that provides a view but relies on the tool of origin to manipulate the data. Borland is prominent among the larger vendors in recognizing that it needs a product that fits with organizations' existing development tools. A key value of Borland's approach is the strength of its reporting and analytics package, and the overall flexibility of the system. The majority of development tools in the market are still overly focused on the current project and they limit the ability to share assets and knowledge across projects. Borland's product enables information to be collected and compared so that organizations can see trends in productivity and quality, and understand where projects may be challenged or see the effect of process changes. This helps bring software development into the same realm that supply chain management systems provide to corporate planners. The richness of this platform, however, comes at a relatively high price, and

Borland has chosen to break and sell BMS as three pieces. This provides the flexibility to choose the piece you value, but it complicates sales and marketing.

We rate Borland Positive. The new BMS product is just reaching the market, and needs to establish a referenceable track record. Facilities for reporting and planning are strong. They will need to improve the breadth of integrations. They need to rebuild market confidence in their stability and staying power.

*Rating: Positive*

### CollabNet

CollabNet, founded in 1999, introduced its first ALM offering, CollabNet Enterprise Edition, in 2000. This primarily software-as-a-service (SaaS) offering was complemented by the acquisition of SourceForge Enterprise Edition in late April 2007. SourceForge Enterprise Edition, now branded as CollabNet SourceForge Enterprise, was principally used inside enterprise firewalls. The converged customer base from this successful acquisition, together with the company's high-profile support for the Subversion community (Tigris.org), forms a strong base for CollabNet in the ALM market.

CollabNet's architecture integrates collaborative facilities (including document sharing, wikis, customizable project portals, discussion management, file releases and more) with facilities to associate any object with any other, and gain visibility and traceability between them. This focus on integrated components extends to change management and the CollabNet Tracker architecture. The product's integration architecture utilizes a Web service framework that can support a federated repository scheme. This architecture is a key buying factor and is a reason that CollabNet fits into organizations where other management tools are already in place. In addition, the rapid advance of Subversion into the market provides a large lead base. CollabNet SourceForge Enterprise provides a flexible workflow model and a good collaboration base, which makes it a substantial advancement over the spreadsheets and basic Wikis commonly in use. Users often cite the workflow and approval system as critical factors that enable extensibility and the desired process control. The product is available as SaaS and as a traditional local installation. CollabNet began in 1999 by hosting open-source development communities, and from that experience, CollabNet has developed an open community for product integrations called CollabXchange, which is currently in beta. This site carries integrations created by CollabNet, partners and users. All of these connectors are available for free from this site.

On the down side, the system uses a single name space for all artifacts. Using CollabNet's platform, you can define an arbitrary number of "trackers" per project that vary by state transition model, user-defined fields and tracker name. Furthermore, it is possible to set per-artifact associations and parent/child relationships to knit these trackers together. The architecture is designed to allow you to create trackers for requirements, user stories, defects, test cases and so forth, and have them work together in a cohesive manner. It also numbers them all on a single stack. Although there can be separate requirements, defects or user-defined items with complex relationships, they all share a single tracker numbering scheme (for example, artf1024, artf1025 and so forth).

The tool is very project-oriented and has limited support for aggregation across projects. Project definitions can be used to ease the tracking of product requirements across projects. There is a centralized keyword search capability that returns matching artifacts (and other assets, such as documents or forum posts) in search results that span across projects. It is also possible to define and track a number of real-world projects under a single logical CollabNet "project" to increase the level of aggregation beyond the broad search capabilities.

The product has integrated reporting tools and a configurable workflow. It will fall short for those looking for a clean textbook implementation of Scrum with Scrum-tailored reports (like a project board, for example). CollabNet is in use in many agile projects, but has the flexibility to support other methods. The system is more workflow/work item oriented, with the ability to define workflows and required items for state change. Reporting facilities are fairly standard, and the product has been shown to scale well to large, distributed teams – a property inherited from its initial use as a repository for open-source projects.

Beyond the core ability for workflow and collaboration, the toolset does not provide facilities for performing individual tasks, such as requirements elicitation. The tools can manage the documents and their state, as well as facilitate collaboration around these documents, but they don't capture user stories directly other than text description fields in Tracker artifacts. Without a focus that goes beyond the idea of everything being an asset, there is a lack of the automation across the life cycle that other tools are beginning to demonstrate (for example, use cases automatically creating test cases). Although changes are tracked and managed, there is not a clear view of dependencies or an ability to perform impact analysis. The simplicity of the system is both its strength and its weakness.

Users report that CollabNet is responsive from a support perspective. The company's ability to continue driving upstream into large-scale enterprises relies a lot on word-of-mouth promotion. CollabNet needs to convert its grassroots support into greater brand awareness at executive levels. The company currently calls and sells initially at the team or project level, rather than at the enterprise level. In contrast, many of its competitors concentrate on executive-level selling.

CollabNet is rated Promising. It has a strong user base – very large in proportion to its staffing. The fundamentals of the Tracker architecture are simple but flexible. CollabNet's challenges will be to articulate and execute a more complete ALM vision.

*Rating: Promising*

### IBM

IBM's Rational division, one of the first vendors to tell a story about integrating across the life cycle, has been hampered by a mass of products built with different technologies amassed through acquisition. However, the existing tools can, with significant effort on the part of all involved, implement ALM processes, including traceability and common management from requirements through testing to build and distribution. IBM is one of the few vendors with credible offerings in almost all the requirements of ALM – software

change and configuration, quality, build, and distribution domains – while also offering a wealth of methodology content and workflow support through Method Composer.

The overhead created by the multiple products and integrations is significant and has limited the adoption of the complete solution to larger organizations. IBM's pre-Jazz solutions have been able to handle some of the largest and most complex development projects, but they carry a tag of being difficult to learn, expensive to administer and operate, and they now seem somewhat outdated when viewed in terms of current development trends, such as agile.

IBM launched the Jazz initiative to create a new code base designed for collaborative, workflow-driven development with a new repository. Team Concert, the first product of the Jazz initiative, foreshadowed the rebuilding of the Rational offerings around the new technology base, and has been joined by new Jazz-enabled offerings in the requirements and quality area. The gradual revision of the remainder of the line should leave the solution lighter and more robust. The remake will allow IBM to regain ground, not only in large, process-focused organizations, but also in technical and agile ALM subsectors.

IBM's marketing and sales organizations have maintained a presence in the ALM space with the older products, and will benefit as the Jazz initiative reaches critical mass. IBM is currently in early release for support of Microsoft's Visual Studio (VS) from Team Concert, and has foreshadowed significant additional releases within the next year. The willingness to embrace heterogeneous tools had already been demonstrated in the current solutions based on ClearQuest, and will be reinforced by the support for VS. If support for other vendors' tools (such as HP's Quick Test Professional [QTP]) continues in the revised products, then the IBM solution should be attractive to large enterprises that choose best-of-breed solutions.

Outstanding questions include the degree to which third parties will support Jazz (which is built on Eclipse but is not open source), and the sufficiency of support for Microsoft's .NET platform. Scalability and performance of the Jazz-based products is still to be determined, although IBM is supporting a broad number of internal users and has taken care to tune the network use and caching strategy. IBM's premium pricing is an inhibitor and will create niches for some smaller vendors to thrive. IBM does have an Express Edition of TeamConcert (and many of its other tools), but this removes several pieces of functionality, such as reports, Clearcase support, and customization of work item attributes or workflow.

We rate IBM as a Strong Positive because of its current market strengths and breadth of portfolio. This gives the company a broad base to sell into. In the midterm, gaps in the project and portfolio management offerings will handicap some broader integrations. The open development model of Jazz, coupled with IBM's aggressive introduction of new tools and renovated Rational offerings, sets a strong pace. Jazz is a solid architectural foundation for further innovation.

*Rating: Strong Positive*

## Kovair

Kovair is a ground-up implementation with a single repository that has been available as an on-site install that will gain a SaaS offering. Functionality covers a very wide portion of the development life cycle, including the management of requests, requirements, projects, tests, work items and vendors. Several of these items are unique to the product, and although Kovair provides a lot of functionality, its products also integrate to several existing products, thus fitting in where tools are already in place or as a greenfield installation. Integration is via a Web service bus. This style provides the best of a single stack provider, while at the same time, providing best-in-class integration facilities for the tools you already have. In addition, this very configurable tool enables users to create their own ALM applications within the same framework using its drag-and-drop administrative interface.

The process engine is full-featured and supports parallel tasks. It also has templates for Scrum and Waterfall. Scrum support does not adhere as strictly to the textbook as some of the other tools, but all of the key processes, reports, and backlog/sprint elements are captured. A key element of the workflow process is the degree of automation in the system, which includes items such as automatically generating requirements from user requests, the automation of the requirements review process, and connecting requirements and test cases for impact analysis. This is a key value that ALM solutions should deliver – the ability to drive collaboration and automation between the various phases of a project. In addition, the ability to connect governance by enforcing policies along the life cycle helps avoid rework and helps drive a quality assurance mentality. Kovair's integration and process technologies work together in a seamless manner to process-enable those external tools that don't have any built-in process capabilities of their own.

Kovair has been around for seven years, starting first as SpeedDEV with relatively slow, but steady, growth. The SaaS offering should help in providing a vehicle for easy trial access and market seeding, such as that enjoyed by Rally and others. Kovair must combine this with a concerted partner effort and the development of a stronger community where users can share process templates and integrations.

Kovair is rated Promising. The product is strong, but has a different model for delivering the ALM function. Pricing is attractive. Kovair needs to establish a differentiation from larger, stronger competitors. The key will be to build an effective marketing message, and then enough of a customer base on which to build. The company has decent access to private capital, but not in a quantity to make any large growth moves.

*Rating: Promising*

## Microsoft

The launch of VS Team System (VSTS) and Team Foundation Server (TFS) in 2005 began Microsoft's ALM journey. Microsoft is building from significant strengths in the construction core (VS); in the broad enterprise use of Office and SharePoint for requirements, tasks and workflow; and in its aggressive pricing model. It continues to enhance workflow and metadata handling, as well as

expand the tools from which you can use the ALM features, to include Office, Project and SharePoint, for example. Unlike IBM, Microsoft relies on a partner to support Eclipse users. Although the partner, Teamprise, gets high marks, it is not the same as IBM clearly supporting both Eclipse and VS. The other strength here is the pricing model. Microsoft is already leveraging its strong project and portfolio management and agile methodology positions to build awareness and commitments in larger clients. Although gaps remain in some management and execution tool areas, the technical approach is well-suited to supporting multiple instances of tools from multiple vendors, and Microsoft has been steadily filling in the gaps.

VSTS and TFS have demonstrated that they are very scalable. Administrative facilities, although improving, are still immature, with full functionality at least one release away. These products are flexible in supporting both agile and more-formal development processes, and have rich reporting and analytic capabilities. Although the scaling is attractive to larger shops now, many are choosing to wait for the improvements coming in the next major release of VS. Leveraging VS10 improvements will lead to accelerated success beginning 12 to 18 months out. In the long term, Microsoft will have to improve interactions with its own operational management tools and those of others. Microsoft's tools and understanding of development, operations and planning should allow its ALM offering to approach that of IBM in breadth.

Microsoft's offering is well-architected for provisioning as a service and for support of emerging styles of application delivery. Weaker points include tooling to build a custom process or to modify the processes in the box. Outstanding questions include the acceptance of Teamprise as the Eclipse client, and how enthusiastic third-party tool vendors will be to support a heterogeneous development environment around the Microsoft core. Although Microsoft has made progress in building out the field team required to sell to and support large-scale enterprise development, its real strength is its overall Microsoft Developer Network (MSDN) franchise. Microsoft has long held a strong position in end-user development and solutions that can support nonprofessional developers. This is a rapidly growing segment in the Web 2.0 market and beyond. To complete its professional developer offering, Microsoft needs to develop a story for how professional developers can more readily share assets and interact with nonprofessional developers.

We rank Microsoft as Positive. The company has a strong reach in the market, and moderate pricing for a large, stable provider. It has a proven scalable architecture, but it needs to complete the toolset. Furthermore, Microsoft needs to mature its sales force so that it can more consistently reach enterprise buyers.

*Rating: Positive*

## **MKS**

MKS builds from a strong heritage in SCCM and developer tools, particularly in large enterprises. The company has created an ALM platform based around a framework with unified support for requirements, test management, development workflow, reporting and metrics. This framework supplies a consistent data structure that permits the creation of relationships that, in turn, allow the traceability, metrics and suspect flagging that is essential to collaboration. It further allows the construction of composite items (that is, documents) from the underlying artifacts. The architecture

employs Java Web servers to allow platform-neutral, multitier enterprise implementations. The product has strong tools for customizing workflows and reports, and is capable of supporting highly regulated processes. Customizing and tailoring processes can require consulting assistance.

MKS has enjoyed success with extensions for requirements management and versioning. This, combined with support for parallel development, has given MKS a good presence in the technical and embedded systems spaces. Although the product is extensible and MKS has a fair number of "partners," the focus on the merits of its complete integrated system has resulted in fewer out-of-the-box integrations to other systems (that is, integration of data from other tools and the synchronization of this information). Clients use MKS for a variety of development methodologies, including agile, but usually including more-traditional techniques. The solution is often selected when a strong focus on regulatory governance is needed.

The pricing structure has been viewed as a positive by clients. Rather than separate prices for each of the pieces, there is a single price per user for the entire platform.

We rate MKS Positive based on its relatively complete offering, multiplatform support and success in enterprise-level selling. MKS will be attractive to clients seeking strong process, change and configuration support for parallel or distributed development, or those who find MKS's approach to requirements compelling.

*Rating: Positive*

## **Polarion**

Polarion's product is a single repository solution. This design is utilized to good effect, with the product delivering strong change management, change propagation and traceability. The product is a browser client application and offers support for a broad set of functionality, including the management of requirements, test cases, change, tasks and builds. The key technology team played a critical role in the development of the ground-breaking Togethersoft tools, giving the company a solid technical footing. However, Polarion is lacking in marketing execution, including community and partner ecosystems. Polarion is in the early stages of developing a North American operation.

Polarion's ALM products can support agile and more-traditional development forms, but a key focus is on support for CMMI. There is no strong workflow element to the product, nor are there planning tools that support or report on Scrum-style backlogs and burndowns. For organizations that are focused on operating at CMMI Level 3, the product basically enables this out of the box. Data is stored in XML, simplifying the sharing of data, but there are few out-of-the-box integrations currently available. The core technology is built on top of Subversion and the Apache Web Server, and utilizes Eclipse, which provides a well-know set of APIs. However, there is a lack of IDE integration, including Eclipse (outside of a community effort), and, like many tools, the client is browser-based. Because there is not a strong workflow perspective and the tool has a lot of functionality, immediate usability of the tool is challenging. Polarion's tools also lack customization, which requires users to write scripts and edit XML files.

Polarion offers several entry points to its product line with an ability to seamlessly move up as the organization is ready for additional levels of process management. This includes a basic defect tracker

and wiki collaboration portal that are integrated to Subversion. In essence, this tool can manage any type of work item, but it doesn't have requirements management functionality. There is also a stand-alone requirements solution, so the company is being effective at offering a variety of solutions from a common code base.

Polarion is rated Promising. The product is well-designed and supports good traceability. Polarion has several hundred customers and has demonstrated good scalability in those shops. The company's challenge is to establish a presence beyond Europe, principally in North America, which will especially be true during the next two years. Polarion needs to demonstrate its ability to expand its base, while continuing to provide good support.

*Rating: Promising*

### Rally Software

Rally focuses on shops adopting agile methods. In addition to strong support of Scrum, Rally supports other Agile methods, including XP, Agile UP and Dynamic Systems Development Method (DSDM). It promotes the use of "lean" principles across the ALM life cycle and offers a strong, independent toolset that integrates with many products through a solid architecture. The product supports requirements, test case, defect, program, project and product management functions.

The management team has a strong track record that shows through to how the application is architected. It recognizes the need for more than project management and that more roles are involved than developers or project managers. The offering is flexible and well supported by Rally's training and consulting offerings, including an online community and the Agile University.

Because of the Web focus of the tool, Rally also provides unique Ruby integration facilities and a mashup toolkit. That allows wiki, Web pages and reports to use Rally, or community scripts and themes embedded without the Rally tool. It also offers a platform-as-a-service offering to support community exchange, mashups and popular cloud toolkits.

Unlike the majority of tools in this MarketScope, Rally is offered primarily as SaaS. The product can be run on-site, but this is a bit restricted in that a complete virtual machine configuration must be run. This limitation on internal configuration and online format provides benefits to those who select the product, but limits its acceptance in organizations that have tight security rules or require access to specific components in the image. Rally has invested heavily in scaling to mirror very large and complex, multiteam organizational structures. They have deployments with more than 1,000 seats. However, many organizations are still coming to terms with agile methods, and we expect this to limit the agile-focused teams to small or midsize teams and projects initially.

Solid ALM tools are a key that will enable organizations to scale agile across the enterprise. Additionally, we believe that, over time, SaaS and other network-delivered platforms will continue to gain acceptance as they provide ease of administration, remove upgrade challenges and reduce cost of ownership. This will be similar to the change in the CRM market started by salesforce.com, which was initially only utilized by small and midsize companies, and which has now begun to penetrate large enterprises. Organizations that are using salesforce.com for customer service, and those that are also focused on agile Web

application projects, are a good fit for adoption of Rally. Since the product is offered as SaaS, it is especially easy to try out on small projects because there is no download and install, and Rally offers a free community edition, which supports up to 10 users. In addition, the SaaS model provides advantages to companies with no need to install any software or worry about software updates. This provides a short on-ramp to product use.

With the announcement in June of a new partnership with AccuRev and almost \$17 million in round C venture financing, Rally is poised for further growth. This will also strengthen the company's traceability support. This product fits best in organizations with teams that are distributed (including the use of external contracted development work), where organizations are comfortable with an agile approach and don't have significant investments in a high-end SCCM system.

Rally is rated Positive. It primarily offers a hosted format, but it has the strongest overall support for agile. The company's architecture and integrations are sound and reasonably complete. The hosted offering is easy to adopt and inexpensive to propagate throughout the organization.

*Rating: Positive*

### Serena Software

Serena (see Note 2) has solid coverage of the roles involved in the delivery of applications, and deep experience with products spanning multiple platforms. The company's primary strength is in change management, and its approach provides a pragmatic way to fit in with existing products. Dimensions is the primary product, serving as a principle repository. It has a solid workflow engine with good customization tools. Additionally, external workflows can be composed in the Business Mashups facility. The Business Mashups facility can be a locally delivered or a SaaS-delivered toolkit for building a variety of facilities, including reporting, asset management and auditing. The biggest challenge Serena will face with its spread product line will be where workflow is controlled and how to tell a unified story, especially with the growing number of integrated single-platform solutions.

Serena has a good solution for organizations that have a mixture of mainframe and distributed platforms that desire a unified set of tools for change and reporting. The Mariner Project Portfolio Manager offering complements the ALM story.

#### Note 2 Disclaimer

Serena Software is a portfolio company of Silver Lake Partners, a private investment firm that also owns a substantial, publicly disclosed interest in Gartner, Inc., and has two seats on Gartner's 11-member Board of Directors. Gartner research is produced independently by the Company's analysts, without the influence, review or approval of our investors, shareholders or directors. For further information on the independence and integrity of Gartner research, see "Guiding Principles on Independence and Objectivity" on our Web site, [http://www.gartner.com/it/about/omb\\_guide.jsp](http://www.gartner.com/it/about/omb_guide.jsp).

We rate Serena Positive because of its broad customer base and sizeable sales reach. Like Borland, Serena is rebuilding its product line and needs to establish customer confidence in the new story and in its commitment to continuing support for the installed base.

*Rating: Positive*

### TechExcel

TechExcel provides a single integrated set of tools that supports strongly governed practices, as well as review and change management. The system has good facilities for workflow management and can support formal and informal reviews by individuals or groups. The ability to conduct and track attendees and outcomes of group reviews is unique to this product. This helps the tool succeed in technical environments, such as embedded system development. The company is also one of the few with explicit links to IT service management tools (ITSM) and TechExcel provides CRM tools to connect to customer support activities. This is not to say that the product cannot be utilized for agile projects. The workflow for TechExcel's products is flexible and supports agile and more-structured methods. However, like the other multiworkflow tools, there is no textbook, Scrum-specific tooling, although they have a template that supports Scrum-specific terminology and user interfaces, including product and sprint backlogs. Workflow is customizable and is modified via a model-oriented interface.

The solution is available as a hosted or traditional installation. In addition to the core products, TechExcel offers a set of prebuilt outlines for handling specific areas of the application life cycle, as well as industry-specific solutions. The product is integrated to a number of version control systems, but there is no general integration hub. Integration is through a Web service for synchronization. The product covers requirements, defects, test management and project management, with integrated support for workflow and collaboration. Traceability is handled across all the life cycles that TechExcel supports.

Overall application architecture is a multitier Web application (databases, applications, Web servers, with the option for dedicated search engine or document management) that allows scale out. The system is also scalable in its support for subprojects, and each of these can have an individual workflow.

TechExcel is rated Positive. It has an established customer base and attractive pricing. The tools are flexible and well integrated. Small and midsize companies, particularly those with Microsoft-based development organizations, will find this a good fit.

*Rating: Positive*

### VersionOne

VersionOne is focused wholly on supporting agile development projects and has had a strong focus on Scrum. Although it's available as a SaaS offering, VersionOne can also easily be installed on-site, which is one of the reasons customers choose it. VersionOne supports iterative methods, and supplies templates and a good set of materials for Scrum, DSDM, XP and Agile Unified Process. The product has a strong Scrum support model, including close replication of documented Scrum methods and

tools. Templates are highly customizable for terminology and fields around a general iterative process model. The iterative focus makes VersionOne less attractive for organizations that may have other practices in place. An advantage with VersionOne (and many of the newer Web-centric tools in this MarketScope) is their pricing and licensing model. This is often a subscription model, and many of the products have a free or very low-priced entry edition that enables a large base of supporters to promote the product.

VersionOne has open APIs for product integrations. Integrations are available for several product management and PPM tools, a number of popular open-source tools and a tool that exports effort data to a SQL file. Integration and traceability beyond this starter set are weak. The strength of this product is planning and managing the tasks. Users tend to be focused on project management, which is Scrum's strong suit. Administration facilities are improving. Performance tuning has been demanding, complicated by the rapid adoption rates that have been achieved.

VersionOne appeals to buyers concerned with specific problem gaps or process changes, because the company focuses on delivering a feature-rich iterative or Scrum implementation. Immediate value is great for the traditional project manager or developer role, but value drops outside of that. If Scrum is your key driver, then this is one of a handful of products to focus on. VersionOne will provide less value outside its agile, project-management-oriented "sweet spot."

VersionOne is rated Promising. This is based on the company's focus on Scrum, its attractive price and its ability to achieve viral adoption. The product focus is narrower, mostly on project management, compared to other offerings.

*Rating: Promising*

### Vendors Added or Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor appearing in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. This may be a reflection of a change in the market and, therefore, changed evaluation criteria, or a change of focus by a vendor.

### Gartner MarketScope Defined

Gartner's MarketScope provides specific guidance for users who are deploying, or have deployed, products or services. A Gartner MarketScope rating does not imply that the vendor meets all, few or none of the evaluation criteria. The Gartner MarketScope evaluation is based on a weighted evaluation of a vendor's products in comparison with the evaluation criteria. Consider Gartner's criteria as they apply to your specific requirements. Contact Gartner to discuss how this evaluation may affect your specific needs.

In the below table, the various ratings are defined:

### MarketScope Rating Framework

#### Strong Positive

Is viewed as a provider of strategic products, services or solutions:

- *Customers:* Continue with planned investments.
- *Potential customers:* Consider this vendor a strong choice for strategic investments.

#### Positive

Demonstrates strength in specific areas, but execution in one or more areas may still be developing or inconsistent with other areas of performance:

- *Customers:* Continue planned investments.
- *Potential customers:* Consider this vendor a viable choice for strategic or tactical investments, while planning for known limitations.

#### Promising

Shows potential in specific areas; however, execution is inconsistent:

- *Customers:* Consider the short- and long-term impact of possible changes in status.
- *Potential customers:* Plan for and be aware of issues and opportunities related to the evolution and maturity of this vendor.

#### Caution

Faces challenges in one or more areas.

- *Customers:* Understand challenges in relevant areas, and develop contingency plans based on risk tolerance and possible business impact.
- *Potential customers:* Account for the vendor's challenges as part of due diligence.

#### Strong Negative

Has difficulty responding to problems in multiple areas.

- *Customers:* Execute risk mitigation plans and contingency options.
- *Potential customers:* Consider this vendor only for tactical investment with short-term, rapid payback.