Proactive Application Lifecycle Management ALM 2.0

November

2008

While all vendors are trying to overcome most of the maturity of the ALM 2.0 solutions only lately there is vas consideration what to do with all collect data. The Proactive approach introduce a new way to build knowledge not only on historical behavior but also during present events

Know before everyone else

Orcanos
Application Lifecycle Management

Proactive Application Lifecycle Management (ALM)

EXPLORE THE FULL VALUE OF MANAGED SOFTWARE DELIVERY

White Paper - October 2008

Proactive Application Lifecycle Management (ALM)

Contents

Executive Summary

Application Lifecycle Management (ALM) is emerging as a promising approach to improving the software delivery process. However, "traditional" ALM 1.0 hasn't been able to reach its full potential for delivering business value. Why? Because vendors are aggressively pushing restrictive, end-to-end ALM solutions that aim to lock customers into proprietary IT platforms.

Customers soon find that these solutions don't integrate well with their existing development processes, tools and platforms. Unfortunately, this leaves software development teams with non integrated processes, mass of stored data that do not serve other then documentation of the processes and silos of ALM data, which in turn prevents them from realizing the full value of ALM 2.0 and act based on it.

To overcome this challenge, a new approach is required, one that enables customers to deliver software on top of a mixed development environment (Agile, XP, CMMI, ISO, TL9000, FDA and Medical Device) and at the same time letting its data to works for you in proactive manner. With Orcanos Proactive ALM 2.0 solutions, organizations can leverage their existing software development assets and IP and achieve visibility, traceability and discipline across the complete software delivery cycle with alert and governance policies system based on BI architecture. Customers and their clients can now benefit from an optimized ALM 2.0 platform, with the advantages of a fully connected, managed and measurable software delivery process.

Identify anomaly Software Delivery: Mission Impossible?

Software development is an intrinsically complicated undertaking. Delivering reasonably defined software within acceptable quality, budget and time-to-market constraints requires constant coordination of a vast number of activities among many professionals which all in all created collaborative platform. From Market Requirements to Production there is a complexity of managing and tracking software delivery projects increases when organizations decide to leverage distributed development models, such as offshore development or outsourcing. As a result, project cancellations and failures are ubiquitous and cost billions of dollars to the economy. Cost overruns, schedule slippages, low quality and poor reliability are disturbing norms in the software industry especially when high competition is in hand by market leaders. Organization size factor turns out to be more critical as numbers are rising although more and more SMB organization early to adopt the new ALM 2.0 approaches.

Consequently, software development organizations have been increasingly pressured to become more mature, efficient and to adopt proactive, well-orchestrated, systematic and process-centric approaches that follow the steps of more traditional engineering disciplines. ALM 2.0 at the same time offers unified platform to reduce cost of maintenance and cost of operation

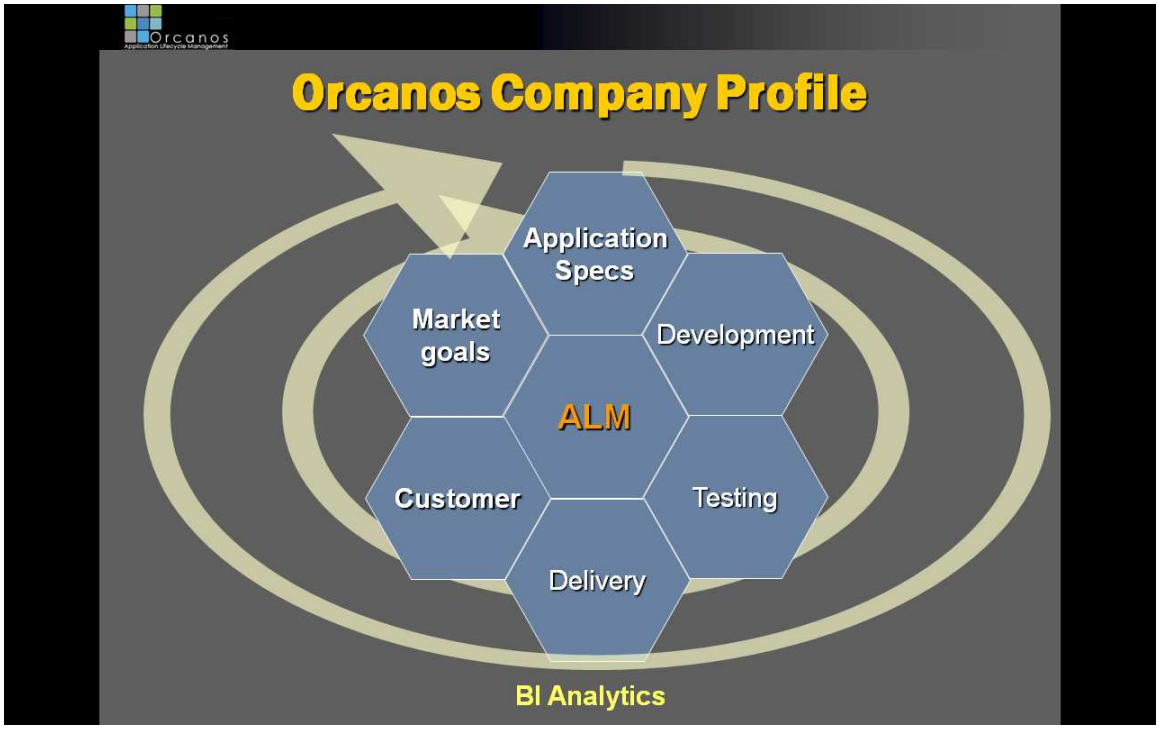
With growing standardization, regulation and adoption of enterprise development platforms, the challenges facing the industry have become less technical in nature. Rather, the ability to achieve consistent and predictable value from software development has become a top priority for many software executives who

need the confidence that their teams will be effective in their delivery but as the same time with transparent view of the overall impact of their work either on the specific issue they are working on or on the all project. With this in mind, companies like Orcanos have developed philosophy around the problem in hand and designed the ALM 2.0 platforms to address the demand for proactive platform that will react and respond to ALM driven events in a consistency and predictability of software delivery.

The Emergence of ALM

As the application development tools industry responds to the need for proactive software delivery, it has expanded its focus beyond tools for individual stakeholder in the development process. Vendors have expanded the breadth of their portfolios to address additional roles in the delivery process, and integrated existing and new capabilities into their offerings. These suites of products, often marketed and sold as team-based development platforms, have marked the emergence of Application Lifecycle Management, or ALM 2.0, as a new market category and as a software development discipline. ALM 2.0 platforms specifically address the challenge of increasing the consistency and predictability, in dynamic world of changes, of software delivery throw proactive mechanism. They do that by providing integration and automation for each of the major roles that participates in the process, and by automating the following capabilities:

1. Enable IT managers to balance and prioritize their software project portfolios, while achieving increased levels of control over their teams and much better visibility into project execution.
2. ALM 2.0 provides executives the assurance that the software development process is far more auditable, which supports better corporate governance and helps the organization to demonstrate compliance with various regulations such as FDA, IEEE, TL9000 etc.
3. Proactive mechanism for each role now can guaranty the quality of delivery in specific level but at the same time can generate impact analysis and impact assessment evaluations in all levels.



The ALM 2.0 Industry

Initially, Orcanos, Borland and IBM Rational were among the few innovators that recognized the importance of the ALM 2.0 trend, and shifted their product strategies to explicitly support it. Reacting to the evident opportunity, more companies such as Microsoft, Telelogic, Mercury and Serena jumped on the ALM 2.0 bandwagon. Today ALM 2.0 is an established trend and a growing industry, which is recognized by industry analysts. ALM 2.0 vendors provide a wide array of tools and technologies to support the process of software development. These tools go well beyond the traditional focus on individual developer productivity, and attempt to deliver a team-oriented methodology and tooling for software delivery. One major variable that truly distinct between ALM 1.0 to ALM 2.0 is the unified platform which the solution is based on, and for that there are less than 4 vendors out there that can supply such advanced architecture.

To deliver a viable ALM 2.0 solution, vendors must address the "extended" application development team, and include roles that participate in the wider process:

- Executive needs are addressed with BI portfolio-level dashboards that surface important project metrics such as risk, progress, budget and quality.
- Project managers' needs are addressed with tools for project planning and tracking, tradeoff analysis and resource allocation. In most cases it is well known solutions which integrate to the ALM 2.0 open platform.
- Analysts' needs are addressed with tools to facilitate requirements definition, interaction with end users and other stakeholders, and the management of requirements throughout the project lifecycle, including changes over time.
- Architects' needs are addressed with tools to facilitate visual modeling of various application aspects (components, data, process) as well
- Integration to standard office environment for those users which the processes validity is based on but are not willing to change their native working environment.
- Reporting and analyzing such metrics throughout project execution
- **Alignment -** Aligning LOB and IT priorities
- Aligning project outcome with expectations of end users
- **Measurability -** Enabling the definition of systems of measures around quality, productivity, progress and risk which can be posted in push mode to specific individuals in the delivery process.
- **Discipline -** Defining, deploying and tracking compliance with software processes
- Introducing more rigors to the process of managing change and predicting its impact as tools for describing design patterns and enterprise architectures.
- Developers' needs are addressed with sophisticated coding environments, as well as with code-level quality tools, such as performance profilers, unit-testing frameworks and automated code audits.
- The needs of end users and business stakeholders are addressed with tools that automate demand management and provide self-service capabilities around communicating requirements, reporting defects and tracking their delivery status.
- Quality assurance engineers' needs are met with tools for test creation and management, automated regression and functional testing, and automated performance testing.
- The needs of the overall team are addressed with team-wide infrastructure that provides facilities for collaboration, process guidance, change management and version control.
- Software process managers' needs are addressed with tools for modeling and deploying a set of enterprise-wide process standards.

ALM 2.0 is widely recognized as a huge leap forward for the application development tools industry and for its customers. Interestingly, the latest Chaos report from the Standish Group indicates that failure rates of software projects have decreased to about half compared with a decade ago, an improvement that can be partly attributed to the emergence of ALM 1.0. However, deeper investigation of customer needs reveals that despite the obvious benefits of ALM 2.0, its full potential is still difficult to realize without changing the fundamental approach used to integrate processes and tools that are used across the software lifecycle.

ALM Business Value is Largely Unrealized

To better understand why current solutions make it difficult to unlock the full business value of ALM 2.0, let's take a closer look at typical software development and operation environments. We will examine how software is produced and deployed in terms of processes, development tools and runtime platforms. Ultimately, this discussion explains why software delivery remains one of the last business processes not being performed—let alone automated—in a consistent and proactive fashion.

The Enterprise IT Environment: A Case Study in Heterogeneity

The introduction of new technologies, the Internet and its adoption as a major commerce platform, as well as constant pressures to operate in a efficient, lean and agile manner, have caused major changes in the average enterprise IT organization. The crux of these changes revolves around an architectural evolution, which is designed to progress IT responsiveness, level of service and efficiency, through migration from legacy technologies into modern application platforms. The key areas of evolution are:

- Migration from monolithic, mainframe-based custom applications to new development done on enterprise distributed platforms, namely J2EE™ and .NET
- Migration from packaged enterprise applications built on legacy architectures to process execution and composite application frameworks, such as SAP NetWeaver and Oracle® Fusion
- Adoption of specialized platforms for specific needs, such as scripting languages for dynamic, database-centric Web applications (PHP, Ruby, and so on) or platforms for the development of rich Internet and media applications (for example, Adobe® Flash®/Flex™)

Each of these technologies is associated with specific application development tools (often offered by multiple vendors), which cover analysis, design, coding, quality assurance, version control and configuration management. It is reasonable to assume, especially for medium to large-size corporations, that in the foreseeable future every enterprise IT environment will include a combination of at least three of these deployment targets: mainframe, distributed (J2EE or .NET) and business process runtimes (SAP or Oracle). It is also likely (as is becoming increasingly evident) that some organizations deploy software to both J2EE and .NET.

Conflicting Agendas

It is interesting to note that for obvious reasons some IT vendors attempt to influence the heterogeneous nature of enterprise IT as much as they can. These vendors aspire to completely "own" the IT organization by pushing cradle-to-grave solutions, which include software development tools, application runtime environments, as well as network and system management tools. The largest vendors include the operating system or even the hardware as part of their solution. It goes without saying that such solutions include a significant component of professional services. Despite this massive promotion of comprehensive single-vendor stacks, the reality is that many customers simply cannot adopt this approach. This approach still requires from the end user to invest great effort to integrate between the tools as they are not based on what is called "Unified" platform. Such architecture also may prevent for organization to progress to advance capabilities of specific segment of the solution due to compatibilities issue. Such organizations promote heterogeneity at all levels, and therefore have a different set of priorities, which emphasize objectives critical to the customer (rather than to the vendor):

- Maximize competitive advantage—organizations that strive to deliver the best product or service tend to cherry-pick best-of-breed platforms and development tools based on project fit, to gain specific end-user advantages provided by each platform. This often happens in separate projects, but may as well happen in the context of a single project, resulting in "hybrid" applications that span multiple technology domains. Some relevant examples include:
    - Composite applications or services that wrap mainframe, packaged applications and homegrown distributed applications

  - J2EE/.NET hybrids that leverage the power and UI experience of .NET on the client side, and the scalability, manageability and security of J2EE on the server side. This architectural pattern is particularly common in the finance vertical, and is used for high-performance trading platforms, given that Windows® is the de facto standard desktop of Wall Street
  - Flash/J2EE hybrids that combine the power of Adobe Flash as a RIA and video streaming platform and the J2EE server-side advantages to achieve highly scalable, rich multimedia experience
- Cut development costs—organizations attempt to reduce the cost of software development and deployment by utilizing a combination of homegrown and open source tools and runtimes. In this context, it is worth mentioning the growing popularity of the LAMP stack (Linux, Apache, MySQL, PHP), and its increasing adoption in the enterprise.
- Decrease time to market—organizations may prefer certain development tools based on specific productivity enhancements that they incorporate. These have the potential to dramatically reduce time to market.
- Leverage legacy investments—any rip-and-replace approach has a significant barrier, since most organizations are unwilling to give up the significant investments made in older runtimes and tools.
- Reduce risk—some IT vendors provide nonstandard proprietary support to their platforms, which are viewed as risky in the eyes of their customers. Getting locked into your IT vendor platform may result in a significant business risk, especially if that IT vendor is or will become a competitor.

IT Heterogeneity: The Biggest Challenge for ALM

To summarize, many IT organizations view heterogeneity as the only alternative because of the many business advantages associated with it. More often than not, development teams use a wide variety of tools that were not designed to interoperate. There is no single vendor that provides tooling to cover all activities necessary in the context of a single software project. Yet there are clear binderies that can be identify and adjust to the need of the customer those in most cases are high end analytics tools, Source Control management tools, Project tools, and budget tools. Further, there is no single vendor that can completely cover the three primary domains of legacy maintenance and modernization, packaged applications extension and customization, and new development of distributed applications. Therefore, it is likely that organizations will continue to use diverse development tools within the same project and across different technology domains.

For this reason, ALM 2.0's biggest challenge is development tool heterogeneity. To recall, ALM 2.0 strives to achieve consistent and predictable software delivery through automated proactive behavior, measurability, alignment and discipline. However, these qualities of software delivery become much harder to achieve in a highly heterogeneous environment:

- While measurability requires harvesting metrics across disparate application development tools and repositories, there is no adopted standard that facilitates such data aggregation. Since no common information schema is available for all tools that participate in the process, it also becomes essential to "normalize" harvested metrics and to be able to correlate them to the context of specific projects. ALM 2.0 does not imply methodology but create a robust platform that can adopt it.
- Process documentation should support full flexibility to meet all standards compliancy such as FDA, TL9000, and CMMI etc.
- Alignment requires tracing deliverables and activities all the way from IT strategies down to deployed modules. Orcanos Market Requirements Tool provides this degree of traceability which is very hard to accomplish when process assets and activities reside in disparate tools and repositories. There is no standard facility that enables automatic definition, collection, management and utilization of traceability information. ALM 2.0 is aimed to cover this aspect of the process as its main objective is to drive the IT organization activities around business objectives rather than technology only.
- Discipline requires deploying, enacting and monitoring multiple overarching processes to govern software delivery. This becomes much harder when sub-processes reside as "process islands" within a variety of process-enabled tools. Orcanos advance BI Analytics platform which is based on Oracle Siebel Analytics act as proxy gateway to any system. No standard mechanism exists to provide choreography of such sub-processes (according to a higher-level process) or to deploy process components into these tools. There is also no common terminology to describe processes across disparate tools, which all use their own languages of "Items," "Artifacts," "Projects," etc. The other aspect of discipline calls for rigorous change management and impact analysis; however, these capabilities require end-to-end traceability to be properly realized. As

already discussed, end-to-end traceability is much harder to achieve in a heterogeneous development environment.

To overcome these challenges, organizations that practice ALM 1.0 often end up developing multiple ad hoc point-to-point integrations, which fill the process gaps between the various development tools that they use. Such integrations are fragile, break with upgrades or changes of tools, and are costly to build and maintain. They also result in software processes that cannot be easily managed, measured and audited. Obviously, this approach is unsustainable and not cost-effective. Therefore, most IT organizations pose big challenges for ALM 2.0 vendors. These organizations would like to get the huge value associated with ALM 2.0, namely a dramatically improved software delivery process that yields the required consistency and predictability by embedding the ability of the system perform data mining which will proactively result actions from the system back to the user. However, on top of that ALM 2.0 customers also want:

- To be able to use a mix of runtime platforms in a manner optimized to their business objectives
- The freedom to use a mix of commercial and open source application development tools, which are optimized to the deployment targets that they decide to utilize
- The freedom to use a variety of commercial or custom software development processes that are optimized to organization culture, project types and underlying technology
- The freedom to work with standard office tools which already well used
- The freedom from actively work with the system in pool mode vs. push mode

To address this challenging set of requirements, a new approach for ALM 2.0 is needed, an approach that enables customers to unlock the full value of ALM 2.0 on top of a heterogeneous IT environment. Orcanos recently announced Proactive ALM vision and product strategy is directly aimed at addressing this challenge. It is the only ALM 2.0 solution that is fundamentally designed to enable IT organizations to proactively deliver software on their own terms.

Conquering Heterogeneity: The Final Frontier of ALM 2.0

Proactive ALM 2.0 advances Orcanos established vision and product strategy. It represents a major architectural shift that is unique in the commercial ALM 2.0 market. In fact, when fully realized, the Orcanos Proactive ALM 2.0 platform and its associated applications could bring tremendous value to customers that don't use even a single Orcanos ALM tool. To be sure, Orcanos views its tools business as vital, and will continue to innovate and deliver best-of-breed tools to the extended software development team. Orcanos tools will be gradually integrated to support the Proactive ALM 2.0 strategy, which will enable them to participate in a Proactive ALM 2.0 – based orchestration of software delivery. However Orcanos tools could be replaced, if customers see fit, with any third-party or open source tool that supports their development needs. This level of modularity and flexibility is what makes Orcanos product strategy exceptional among ALM 2.0 vendors, many of whom attempt to own the complete software delivery chain.

Benefits of Proactive ALM 2.0

Proactive ALM 2.0 provides the functional value of ALM 2.0 while introducing unprecedented levels of flexibility at the process, tools and platform levels. More specifically, Proactive ALM 2.0 customers would:

- Be free to choose any combination of platforms and runtime environments in the context of a single software project or across different projects, based on business priorities and project fit
- Be free to choose the best development tools for chosen platforms, per economic considerations, specific productivity enhancement and technical fit
- Be free to choose or design development processes that are best fit for their projects and chosen platforms, as well as match their organizational culture and time-to-market needs

The Proactive ALM 2.0 platform and its supporting tools will, for the first time, enable IT organizations that deploy heterogeneous application development environments to:

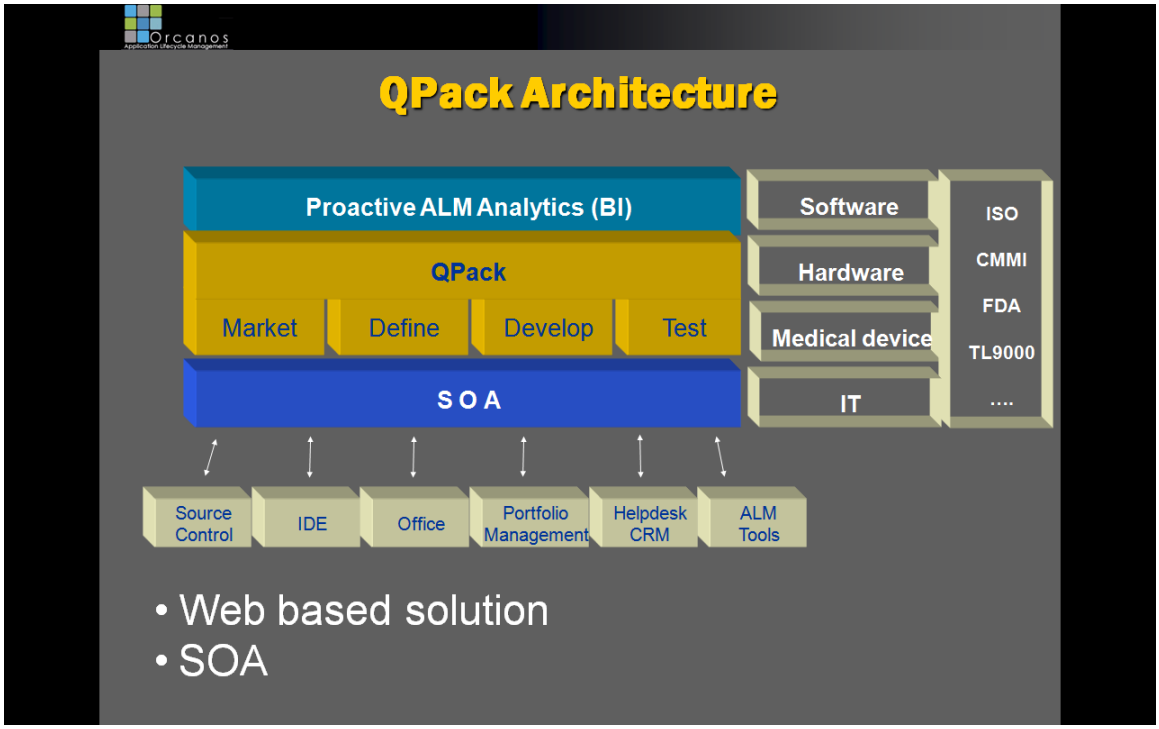
- Gain unparalleled, multidimensional and customizable visibility into progress, quality and risk metrics of projects and portfolios, to support project management and process improvement initiatives
- Reach the holy grail of full lifecycle traceability to support true alignment of business objectives, from market requirements to production and development activities, better correlation between end-user expectations and project outcome as well as better project management through accurate and comprehensive impact analysis
- Achieve a new level of control over software delivery through automated process-driven orchestration of practitioners and tools that participate in the lifecycle

These capabilities enable superior team productivity, support quality initiatives and ease the burden of compliance with internal and external regulations. They will be delivered in a set of infrastructure-level components and enterprise ALM 2.0 management tools. On top of that, customers can also use Orcanos best-of-breed integrated application development and portfolio management tools to realize the value of four core process areas:

- **Requirements Definition and Management** – a set of tools and best practices to ensure that project requirements are accurate and complete, can be effectively traced back to business objectives and are optimally covered by software tests
- **Quality Management** – discipline and tools to govern the definition and measurement of quality across all phases of software delivery. It is designed to detect and prevent quality problems early in the process, when the cost of fixing is relatively low, and to enable QA teams to ensure their tests are complete and based on end-user requirements
- **Customer Facing –** Well integrated tool to allow external resource access to limited related issues of the ALM
- **BI OASIS system** – A set of logical algorithms used to Operate Analyze Score Inject Sharpen your activities in proactive manner.

Orcanos Proactive ALM 2.0 Solution

As previously mentioned, the major objective of ALM 2.0 is to achieve managed software delivery through proactive automated measurability; alignment and discipline. We have seen that each of the three dimensions of ALM 2.0 becomes much more difficult to accomplish in a heterogeneous application development environment, and therefore presents a set of specific problem areas to ALM 2.0 customers. Orcanos Proactive ALM 2.0 platform is architected as a set of three solution areas, each of which is intended to specifically address one of the major ALM 2.0 problem domains. Every ALM solution area is based on a highly modular and extensible infrastructure layer and delivers its business value through a set of dedicated applications. The purpose of the infrastructure layer is to enable the Proactive ALM 2.0 platform and applications to work with any combination of commercial or open source development tools and processes, regardless of vendor or expected runtime technology. The diagram on the following page provides a conceptual decomposition of Orcanos ALM solution.



Business Intelligence for ALM 2.0

Business Intelligence for ALM 2.0 (OASIS) is based on a standard infrastructure and applications to increase measurability of progress, quality productivity or any other custom metric of software projects in a heterogeneous application development environment. OASIS provides infrastructure for unobtrusive, distributed collection of data, correlation and analysis of metrics from any application development tool that registers itself with it. By pulling predefined metrics from its data sources, the OASIS infrastructure unifies information silos that are scattered across the software delivery cycle. Such consolidation provides powerful capabilities, such as an aggregated project view of metrics and the definition of new project metrics that combine several lower-level ones.

The OASIS infrastructure employs a data warehouse, which stores current and historical information harvested from tools that participate in the various phases of the software delivery process, using a structure that is optimized for querying and analysis. OASIS applications are capable of transforming the collected metrics into actionable information, enabling decision making and early awareness of problems:

- Real-time dashboards—customizable views of key performance indicators, showing trends over any time period
- Metrics-based alerts—configurable notifications that get triggered under certain conditions (i.e., when a certain threshold is crossed). Alerts help to accelerate management responsiveness to various project problems, such as slow progress, low quality, insufficient productivity or any other problem that can be quantified using metrics
- Decision-making tools—analytical tools that use historical project and cross-project information to facilitate various project management decisions

Proactive Traceability for ALM 2.0

End-to-end process traceability supports many important ALM 2.0 benefits. To name a few, it is a critical enabler for business-driven development, requirements-based development and testing, and accurate change impact analysis. Proactive Traceability for ALM 2.0 provides infrastructure to create and classify

relationships between assets created in the software delivery process, regardless of the tool that hosts them, establishing a flexible graph of asset links. It also provides the means to navigate the asset relationship graph and to optimally query and mine data that is captured in it. Proactive Traceability ALM 2.0 provides applications that transform captured traceability data into actionable information:

- Automated planning, change impact analysis, accurate cost/budget predictions
- Scope monitors—early alerts for scope deviations (i.e., assets that do not trace to requirements) and unimplemented requirements
- Reuse analyzer—enables reuse of complete asset trees (from requirements to models to tests) rather than simple reuse test modules
- Trace View—cross-project interactive traceability viewers that help locate every process asset and relate it to other assets

Common Platform Infrastructure

The Proactive ALM 2.0 infrastructure includes two components that are shared across all solution areas:
• **ALM data-model** – a common language to describe software processes, process asset relationships (traceability) and measurement units (metrics). The ALM 2.0 data-model provides a rich conceptual model for the software delivery domain. It is essential for describing the standard vocabulary that all ALM 2.0 –compliant tools must understand in order to effectively participate in the Proactive ALM platform.
• **ALM BI layer** – an extensible and pluggable integration mechanism and SDK, which defines the standard manner in which ALM 2.0 tools can be invoked, ALM 2.0 metrics can be harvested and asset traceability graphs can be navigated. To support and participate in the ALM 2.0 platform, a tool needs to provide a platform plug-in that conforms to the Proactive ALM–standard API, or utilize a custom adapter that connects it to the rest of the application development environments through processes orchestrated by the Proactive ALM 2.0 platform.

The Road to Proactive ALM 2.0

Over the next 24 months, Orcanos will incrementally roll out the infrastructure, applications and tools that comprise its Proactive ALM 2.0 platform. Orcanos also intends to round out its product offering with a comprehensive set of professional service programs, designed to accelerate the deployment and ensure the success of enterprise Proactive ALM 2.0 implementations. Some of the advantages of Proactive ALM 2.0 can be enjoyed by customers today. Organizations that seek to improve their quality, change management and project management processes, will find the current Orcanos solution extremely compelling. This solution provides highly automated and integrated support for four critical application development process areas:

- **Requirements Definition and Management**
- **Quality Testing**
- **Customer Facing**
- **BI OASIS system**

These solutions are delivered through tight integration between Orcanos tools and third-party tools, which gives customers the desired flexibility that they seek while significantly improving their ability to manage software delivery projects today.

Why Orcanos?

Throughout its long history of innovation, Orcanos has consistently partnered with its customers to enable them to build software the way they see fit. With its uncompromising adherence to standard-based development and broad multiplatform support, Orcanos has offered IT organizations the flexibility and freedom to choose what they require. With Proactive ALM 2.0, Orcanos elevates its traditional values to a whole new level, which clearly separates it from the pack of ALM 2.0 vendors and non-commercial ALM initiatives. When it comes to the largest ALM vendors, IBM Rational and Microsoft, it can hardly be

claimed that serving the customer agenda is of top priority, as both of these vendors continuously attempt to leverage their development tools to lock customers to their middleware and system management platforms.
In contrast, Orcanos has always insisted on standard had strong and integrated support for Microsoft's platform, languages and development tools, and continues to be very committed to extending Microsoft's ALM solution in meaningful ways. The investment made by Orcanos to support the latest Microsoft® technologies is very significant. For example, QPack foundation, which is the first fully integrated requirements management solution for Team System, is recommended by Microsoft to complement the basic requirements functionality delivered by VSTS. Orcanos plans to continue to enhance the synergies between the development platforms by providing additional capabilities.

The open source movement has also identified the challenge that heterogeneity creates for ALM. The objectives of several Eclipse initiatives, Application Lifecycle Framework (ALF), Corona, and the Eclipse Process Framework (EPF), are somewhat aligned with those of Orcanos ALM. While Orcanos understands and identifies with the motivation behind these projects, it feels that their approach is insufficient. Both ALF and Corona are attempting to deliver components of the ALM infrastructure only. However, Proactive ALM 2.0 represents a more holistic approach, since it also enables customers to extract business value from such infrastructure out-of-the-box, through a set of value-add applications.

In its quest toward Proactive ALM 2.0, Orcanos goes further than any other ALM vendor, and has recently expanded its horizons to cover additional application development domains.

Conclusion

Orcanos is uniquely positioned to help ALM 2.0 customers build software on their own terms. The Open the ALM vision and product strategy clearly differentiates Orcanos from other ALM vendors as well as from open source initiatives. Orcanos is the only major ALM vendor that genuinely accepts the reality of IT heterogeneity, and attempts to enable ALM adopters to leverage their existing investments in development processes, runtimes and tools. Orcanos process-driven integration approach further separates Orcanos from its peers, enabling it to deliver ALM 2.0 -wide visibility, traceability and discipline.
As Orcanos begins to roll out the Proactive ALM infrastructure, applications and compliant development tools, customers will be able, for the first time, to unlock the full value of ALM 2.0, and experience the benefits of a fully connected, managed, measured software delivery process - proactively.