

KOVAIR OMNIBUS INTEGRATION PLATFORM

WHY INTEGRATED ALM/SDLC?

You have purchased the best tools money can buy to make your development process more effective. You have trained your people in using these expensive tools. But, are you getting the most value out of these investments? Are you still missing the deadlines? Are the customers dissatisfied with quality and delivery problems? Do you feel that the answers are not easily forthcoming? The problem is that even though you have purchased the best-of-breed development tools from various vendors, they are not talking to each other. Every group is working in isolation and the things are falling through the cracks. You don't have a consolidated picture of your whole development projects but only the pieces of the puzzle!

As such, integration of tools becomes indispensable. By integrating all or most of your ALM/SDLC and IT tools, you should derive the following benefits:

- View artifacts managed by one Tool from another Tool – without paying for additional licenses or manual data transfer
- Automate processes cutting across the tool boundaries and implement complete ALM lifecycle without the silos – no more cumbersome managing of tasks
- Project and Resource Management across the tools – no more blind-spots due to lack of reliable data
- Create various impacting and non-impacting traceability relationship between any two Artifacts – change management across the tools
- Create cross tools Analytics, Metrics and Dashboards – a complete view of all aspects of the development projects
- Free information from Tools Silos to create actionable intelligence – no more pockets of hidden inefficiencies

WHY THE KOVAIR OMNIBUS INTEGRATION PLATFORM?

Kovair Omnibus Integration Platform is the only multi-vendor ALM/SDLC tools integration technology that is based on the Enterprise Service Bus (ESB) Architecture. Serving as the single data-repository of all essential ALM/SDLC services such as collaboration, traceability, process automation, security, reporting and analytics, Kovair Omnibus integrates multiple tools for multiple functions using tool-specific Kovair Adapters.



SALIENT FEATURES OF THE KOVAIR OMNIBUS

- Ability to integrate multiple tools on the bus for the entire development & IT Lifecycle
- Service Oriented Architecture (SOA) based Enterprise Service Bus (ESB) Architecture
- Supports 2-way Synchronization and Federation
- Thin Adapters - no hard-coded business rules
- High level 'Tool Class'- specific API
- Supports migration and synchronization b/w HP QC, Microsoft TFS and Microsoft Test Manager
- Conflict Detection and Mediation
- Omnibus augments integrated tools' capabilities for Process & Traceability
- Comprehensive and user-friendly Web interface
- Adapters can be created by users with API's from Kovair if needed
- Rich Plug-ins for popular IDEs to provide end users with visibility across tools
- Consolidated Reporting and Dashboards from Multiple ALM Tools

DISTINCT ADVANTAGES

Being ESB-based, cost-effective, flexible and user-friendly, Kovair Omnibus does away with complex and costly tools integrations, overcoming limitations of the existing point-to-point and single-vendor tools integrations. Its distinct advantages have been explained as under:

Significantly Simpler Development:

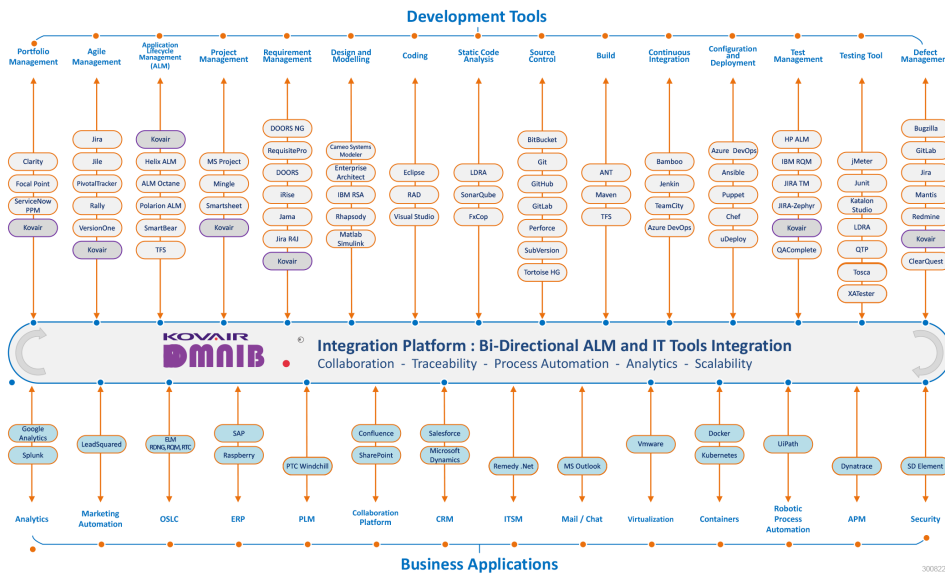
A point-to-point integration between every pair of n tools, we need $n \times (n-1) / 2$ number of integrations. Accordingly, for a simple case of 5 tools, this amounts to 10 integrations and just by doubling the number of tools to 10 will result in a 4.5 fold increase in number of integrations to 45. On the contrary, Kovair Omnibus is based on the ESB architecture which needs 5 and 10 adapters, just one per tool! Moreover, replacement of one of 5 and 10 tools needs replacement of just one adapter, a far cry from the redevelopment of 4 and 9 integration codes respectively.

Protects Investments:

Kovair Omnibus is based on a standard set of web service based APIs. Without any special requirement on the tools, Omnibus can integrate tools from different vendors, including internally developed tools. This means all the tool investments by a development organization are protected and enhanced with integrations and the training and familiarity of people using these tools is also protected from an investment perspective.

Best-of-breed Tools for Best Functions:

Kovair Omnibus allows integration of multiple third party tools from different vendors (for eg. VSTS Designer, Rational, Eclipse, Subversion, TFS, ANT, JUnit, Quick Test Pro, Clarity etc.) for the same function. What is even better, it can support simultaneous usage of multiple tools from multiple vendors in a single tool ecosystem. This allows organizations to select best-of-breed tools available in the market without locking themselves into a single-vendor solution.



KOVAIR OMNIBUS INTEGRATING MULTI-VENDOR BEST-OF-BREED ALM and IT TOOLS

HOW DOES THE KOVAIR OMNIBUS WORK?

Kovair Omnibus Integration Framework is SOA-based. It has defined a common interface model to expose the objects tracked or managed within an ALM/IT tool along with the object metadata, events, actions and relations between the objects. This interface provides mechanism to collect events raised within a tool and also to perform actions on the objects. This common interface is implemented as a Web Service and named as Omnibus Adapter. Each tool has an Omnibus Adapter built specifically for that tool to hook to Omnibus Integration Framework. Omnibus Framework has a Configurator tool and an Execution Engine. Configurator tool offers an easy drag-drop presentation to setup integration flows between participating tools. This tool facilitates establishing and customizing integration rules as per organization needs.

Omnibus Execution Engine is the central component responsible for retrieving the event messages collected by Adapters, processing those event messages according to Integration flows and then sending action messages to target tools through Adapters. Kovair offers various off-the-shelf Adapters for best-of-breed ALM tools. Kovair can also provide SDK for building Adapters easily and quickly for any custom or specialized application.

Flexibility of Integration Business Rules:

Kovair Omnibus allows creation and management of integration business rules independent of the individual tool adapters. Unlike point-to-point and single-vendor integrations where the logic is hard coded in the integration codes, platform adapters do not have any hard coded embedded business rules and are configurable with mouse clicks. **Traceability with Change Impact Analysis:**

Kovair Omnibus's central framework allows creating and managing Traceability relationships between artifacts from multiple (more than a pair of) tools. This is not possible with Point-to-point integration where without a central framework only two tools are integrated at a time. Moreover, due to its flexibility in relationship management, Kovair Omnibus promotes multi-tool proactive and reactive change impact analysis, which is impossible in the case of both point-to-point and single-vendor integration solutions.

Process Automation without Boundary:

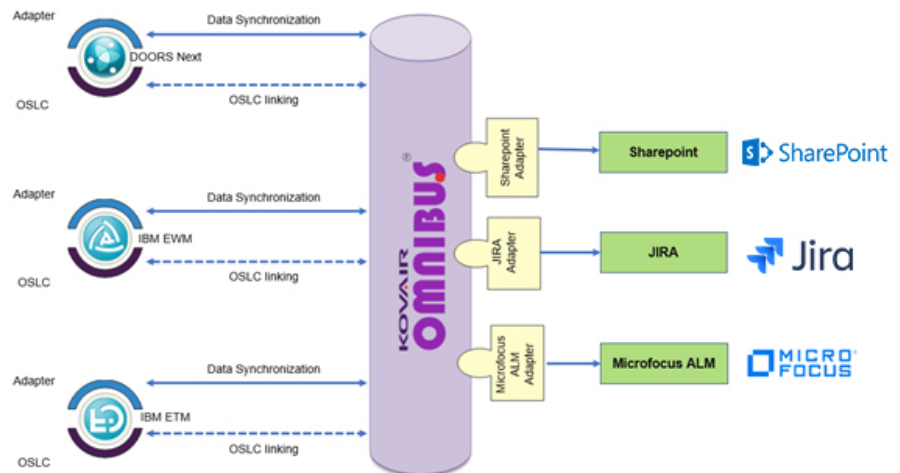
Through its built-in process automation capability (Omniprocess Workflow Automation engine), Kovair Omnibus creates a cross-tools process and automates it for a transparent no-overhead implementation with a much larger success potential. The typical example is that of a Requirement Management tool, is reviewed and approved by stakeholders in a Project Management tool, is implemented by a developer in an IDE, and tested by testers in a Test Management tool. Kovair Omnibus automates the whole process for all these users irrespective of the difference in tools and locations.

Analytics and Dashboards:

Once Kovair Omnibus has all the artifacts and Meta information about the artifacts (e.g. not just the Requirement but the information about the Requestor, Type, Priority, Approval status, Approver, Lifecycle status, etc.) in its repository either by replication or federation, you can create all sorts of dashboard metrics and reports for those data in real-time. These reports provide valuable insights about the whole cross-tool process, which is often impossible or difficult to get.

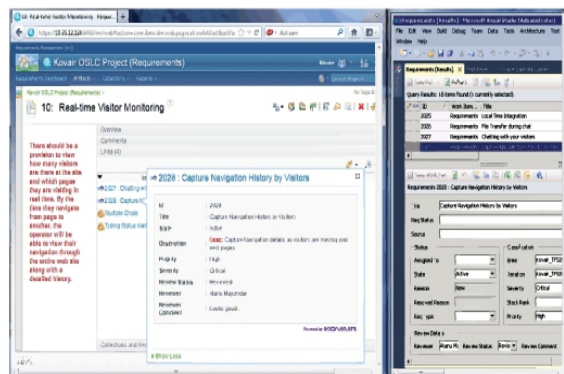
Open Services for Lifecycle Collaboration (OSLC) is an open community, originally proposed a decade ago to define a set of specifications that enable integration of software development. It has evolved, and continues to evolve, to areas such as Application Lifecycle Management (ALM), Product lifecycle Management (PLM), IT Operations and more. The OSLC community develops open specifications for services that enable tools from different domains (i.e., Requirements Management, Change Management, Test Management) to provide common integration scenarios. These specifications allow conforming tools to integrate their data through simple and live linking of artifacts contained in these tools. IBM Jazz tools like Engineering Workflow Management (EWM), Engineering Requirements Management – DOORS Next (DOORS Next) and Engineering Test Management (ETM) have built-in support for OSLC. However, it will take time before OSLC is widely supported by other leading ALM solution vendors. Now, how do you connect popular ALM tools, which does not support OSLC based linking, to these IBM offerings on the Jazz Platform? Kovair has come up with a solution for this need.

Kovair has built an OSLC wrapper around its Omnibus repository-based adapters that enables all the tools already connected to the Omnibus to be exposed as —OSLC Service Providers. Any OSLC enabled Consumer tool like IBM native tools can now connect to variety of ALM tools including Micro focus ALM, SharePoint and Atlassian Jira through OSLC based linking in the consumer tools only. Thus, any ALM artifact in IBM EWM can have a live link to any artifact in Atlassian Jira.



What exactly you can do with OSLC?

- You can browse the list of Bugs in Jira, Test Cases in Microfocus ALM from an OSLC Consumer tool like DOORS Next.
- As these artifacts are getting worked on by different stakeholders, users in OSLC Consumer tools will be able to follow the latest status, updates, activities, and comments.



With the Kovair OSLC wrapper product, organizations using Jazz based Rational tools can quickly integrate with a wide range of popular ALM tools from HP, Microsoft, Open Source as well as Rational's own legacy tools.

Tool Integrations

Following is a list of Integrations by development function available off-the-shelf from Kovair:

Requirements Management RequisitePro, IBM Rational DOORS, DOORS Next Gen, Jama	
Designing & Modeling RSA, RSM, Visual Studio, Rational Rose, Enterprise Architect	
IDEs Visual Studio Team System, Eclipse, RAD	
Testing Tools Junit, HP QuickTest Pro (QTP), HP Quality Center, Rational Functional Tester (RFT), Selenium, TestLink, IBM RTM, IBM RTRT	
Issue Tracking Tools ClearQuest, JIRA, Bugzilla, Redmine	
Source Code / Configuration Management Systems ClearCase, Team Foundation Server (TFS), Subversion, Perforce, Rational Team Concert (RTC), Git, GitHub, Gerrit	
Build Tools ANT, Visual Studio, Hudson, TeamCity	
Security Active Directory, LDAP	
Project Management / Project Portfolio Management MS Project, Clarity	
Document Management SharePoint, Word	
Open Standards OSLC and the IBM Rational JAZZ Platform	
Other Applications Salesforce, ServiceNow, Remedy	

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