



## Open source, commercial software or a coexistence strategy?

*Deciding what's right for your needs*

*Jean Louis Vignaud, senior manager, Rational change  
and configuration management product management,  
Rational software, IBM Software Group*

*Rolf Nelson, product manager, IBM Rational Team Concert  
software, Rational software, IBM Software Group*

*Pamela Induni, go to market segment manager,  
Rational software, IBM Software Group*

---

Contents

---

- 2 ***Introduction***
- 2 ***An important movement that drives innovation and encourages open standards***
- 3 ***IBM involvement in the open source movement***
- 4 ***When open source might not be the best option***
- 7 ***Developing a coexistence strategy***
- 8 ***Taking advantage of free community, commercial products for small teams***
- 8 ***Conclusion***

## **Introduction**

There's no doubt about it: Free sounds like a pretty good price. That's one of many reasons why companies often turn to open source software. And there are hundreds of open source applications to choose from, ranging from desktop applications and development tools, to Web servers and operating systems. But often there are hidden costs involved. So are there times when "free" isn't as good of a deal as it seems to be?

This paper examines the benefits of using open source software, along with some of the potential risks, to help you determine whether your company should turn to an open source solution, a commercial application, or a combination of both.

## **An important movement that drives innovation and encourages open standards**

One of the reasons the open source development model is so effective is because it can unite people from a wide variety of backgrounds to help solve their common problems. This community approach to problem solving—versus the hierarchical approach of more traditional development processes—can lead to the development of innovative new ideas and approaches.

Open source software is also valuable because it encourages the implementation and acceptance of open standards. For example, in 2007, the Linux Foundation, a nonprofit consortium, created the Linux® Standard Base project, which improves interoperability between the many Linux distributions in the marketplace.

IBM is innovating in this space by creating a community to collaborate on standards to help ensure that the numerous application lifecycle management (ALM) tools in the marketplace work well together. The Open Services for Lifecycle Collaboration community is working to create representational state transfer (REST)-style interfaces that allow users to build ALM integrations once and then use them with many tools. For example, Mylyn, an open source tool created by Tasktop Technologies, can now be integrated with practically any change management solution by writing and supporting a single integration interface. For more information about this initiative, go to [www.open-services.net](http://www.open-services.net).

---

---

**Highlights**

---

---

***IBM has been making significant contributions to the open source movement since 2001.***

***IBM established the Eclipse Consortium, a highly successful open source initiative focused on building an open development platform for building, deploying and managing software throughout the development lifecycle.***

Some vendors make a business out of providing support for open source applications. And some companies build commercial applications and products using open source components. Reusing open source components saves development time and allows software vendors to spend more time adding features that are of higher value to their customers. However, software vendors that reuse open source components must be cautious of such things as patent infringement and a lack of support for the very components they're reusing.

**IBM involvement in the open source movement**

For almost a decade, IBM has been making significant contributions to the open source movement. In 2001, IBM initiated the Eclipse Consortium, a highly successful open source initiative focused on building an open development platform for building, deploying and managing software throughout the development lifecycle. Over the years, numerous commercial companies have joined the Eclipse community and used the Eclipse framework to build their own offerings. In fact, IBM used the Eclipse framework as the basis for IBM Rational® Application Developer software. Today, IBM has more than 1,000 developers involved in over 150 open source projects, including the Apache, Mozilla and Linux projects.

**Significant IBM contributions to the open source movement**

1999–2001	<ul style="list-style-type: none"><li>• IBM forms the Linux Technology Center (LTC), a team of open source software developers from IBM that works in cooperation with the Linux open source development community.</li><li>• IBM establishes the Eclipse Consortium, an open source community that focuses on building an open development platform for building, deploying and managing software.</li></ul>
2002–2005	<ul style="list-style-type: none"><li>• IBM leads several Eclipse projects, including the Eclipse Graphical Editing Framework (GEF), the Eclipse Modeling Framework (EMF), the Eclipse XML Schema Definition (XSD) and Eclipse Equinox projects.</li><li>• IBM pledges 500 patents to the open source community.</li></ul>
2006–2007	<ul style="list-style-type: none"><li>• IBM leads the Open Asynchronous JavaScript and XML (AJAX) initiative and partners with the Dojo Foundation.</li><li>• IBM joins OpenOffice.org.</li></ul>

---

### Highlights

---

***By developing commercial software in the open on the Internet, IBM supports transparent development, which gives clients and potential clients all the transparency of an open source project, including access to road maps, project status and quality metrics, community forums and even source code.***

***Despite all the benefits of open source, there are times when a free solution isn't the best choice.***

Supporting a new trend in open development: transparent development

IBM is supporting a new development trend with IBM Jazz™ products by developing commercial software in the open on the Internet. IBM calls this method transparent development, as it gives clients and potential clients all the transparency of an open source project, including access to road maps, project status and quality metrics, community forums and even source code. Clients can engage in discussions with the development team about enhancements and new features. By opening up development and engaging the community, clients get the benefits of an open, community-based project while enjoying the 24x7 support of a commercial product offering. For an example of this, go to [www.jazz.net/projects/rational-team-concert](http://www.jazz.net/projects/rational-team-concert).

*“We are thrilled with the community forum support and technical information available at jazz.net. Much like the Eclipse open source project, we have direct access to developers on the forums who can answer our technical questions and we can see the status of any defect we have filed; therefore, when it is available in a build from the development team we can validate that it is really fixed to our satisfaction. We have complete visibility into the development of the products we use, and we also have access to traditional support 24x7 for time-critical and global needs.”*

—Roman Smirak, team leader, Tieto

#### **When open source might not be the best option**

Despite all of the benefits of open source, there are times when a free solution might actually turn out to be more costly than a commercial application. Consider the following questions carefully before deciding on an open source option.

Do you require a high level of support?

If you plan to use open source software as part of a mission-critical application, you should consider whether it will have the level of support you require. The support cycle for open source projects can be fairly short. Often, the only versions that are supported are the current version and the most recent previous

---

### Highlights

---

***If your company requires 24x7 support, open source may not be right for you.***

***If your company has to meet regulatory and industry standards, such as Sarbanes-Oxley or Basel II, open source software may not provide the auditing support you need.***

version. On the other hand, commercial applications have more robust support policies that can allow you to continue using the same version for a long period of time and still have the benefit of support. Open source projects generally do not have 24x7 worldwide support and services arms, and they are most often not globalized for worldwide enterprise usage models.

Your company could also be dependent on the foundation that developed the open source project and its supporters for fixing defects. While some open source efforts, such as Eclipse, are primarily supported by a large community of developers, others are supported by developers in a small, loosely unified community, which could dissolve at any time, depending on the funding model for the project.

Also, some open source developers are working on projects because they're interested in developing innovative new technologies—not because they're interested in solving a specific corporate problem. This can be problematic, particularly when migrating from one technology to another. Open source organizations are not required to provide migration utilities, so if the common application programming interfaces (APIs) change, this can increase migration costs or cause problems for integration interfaces you may be relying on.

Does your company have governance and compliance requirements?

Most companies these days need to meet regulatory compliance and industry standards—such as Sarbanes-Oxley; Basel II; IT Infrastructure Library® (ITIL®); U.S. Food and Drug Administration (FDA); Capability Maturity Model Integration (CMMI); and DO-178B, Software Considerations in Airborne Systems and Equipment Certification best practices. To meet these standards, it may be necessary to monitor and report on access control to data, implement electronic signatures, clearly separate tool and user administration roles, and establish policies on user permissions. Organizations may also need to clearly demonstrate these efforts via audits. However, many open source products are not designed to support auditing efforts. Plus, if you are using an ad hoc solution comprised of multiple, disparate open source solutions, you may not be able to provide the comprehensive audit trails required for your industry.

---

Highlights

---

***If an open source application needs significant customization or development before it's useful in your environment, this could significantly increase its cost of ownership.***

***A common ALM platform approach like the one used in the IBM Jazz platform can deliver a richer level of integration and automated traceability across components.***

Do you have the resources to customize and maintain the application so that it will work seamlessly in your environment?

Another issue to consider is whether the open source application can be used out of the box or whether it requires customization. An open source application may only provide a partial solution to your needs, in which case you will need to customize it or further develop it before you can deploy it successfully. Over time, this can significantly increase its cost of ownership and could even create a business risk as you'll have to maintain your own support infrastructure for the customization or development work.

*“With 400 developers and 350 technical support staff involved in many projects, we needed an integrated solution to reconcile management reporting and provide visibility into projects across the organization. With Rational Team Concert, we have reliable, real-time visibility of status, plans and teams across our projects. All aspects of the system are truly connected.”*

— Martin Bailey, product development manager, Temenos

Do you need an integrated ALM platform?

While it is possible to build an ALM platform from multiple, disparate open source and commercial products, such a platform can have significant issues due to architectural limitations. The reality is that individual point products may solve one problem very well—but these products aren't designed to work with other applications seamlessly. And this problem is not limited to open source applications. Isolated point products that have their own security model, process model and different database schemas can make building and maintaining an integrated ALM solution costly and labor intensive. Contrast this with a common ALM platform approach like the one used in the IBM Jazz platform ([www.jazz.net](http://www.jazz.net)) and in products such as IBM Rational Team Concert™ software. Since the Jazz platform delivers a common set of services, each capability provided by Rational Team Concert software can deliver a richer level of integration and automated traceability across planning, work items, version control and continuous build. Each component shares a common security and process model, making it easier to use the solution in a unified way. So you don't have to worry about developing point product integrations that may break from release to release.

---

---

Highlights

---

---

***Sometimes, the best option may be using a mix of open source and commercial applications. In this case, a unified process or platform can help you maintain consistency.***

*“By itself, JIRA (a commercial product), Subversion and Hudson are great products, all backed with commercial support options and a large community. However, when you want to use them as one integrated whole, there is only limited support for this, and each product has its own release cycle and strategy. Rational Team Concert provides a much richer integration experience and allows us to focus on delivering value to our clients rather than maintaining less capable integrations from release to release.”*

—Peter Hendriks, senior software developer/designer, Info Support Netherlands

#### **Developing a coexistence strategy**

In some cases, the best option may be to use a mix of open source and commercial applications. For example, you might use the open source Subversion tool for smaller, less complex projects and a commercial product for larger, more complex, business-critical projects. If you plan to go this route, it's important to develop a successful coexistence strategy. A unified process or platform that supports both open source and commercial applications can help your teams work together and help you maintain consistency throughout the company. This strategy can also help teams using open source tools upgrade to a commercial offering if necessary. Rational Team Concert software can support agile planning, work items and project status reporting for open source version control tools like Subversion or Git. A unified ALM platform enables you to manage the plans and work across many version control tools for multiple teams. This way, you get the benefits of a common platform along with dashboards for project status and planning, while getting the most out of your existing open source or other version control tool.



### **Taking advantage of free community, commercial products for small teams**

Another option for small teams is to use the free community editions of commercial offerings. For example, teams with less than 10 developers can use Rational Team Concert Express-C software and take full advantage of the integrated capabilities of agile planning, version control, work items and continuous build. Using the free edition of a commercial offering allows small teams to focus their energy on developing great products for their marketplace, while using an infrastructure that can grow with and support their future needs. In addition, if you are developing open source software or are part of an academic institution, IBM provides Rational Team Concert software free of charge for any size team.

### **Conclusion**

There are many criteria to consider when deciding what's best for your organization. The answer may lie not in selecting open source over commercial applications, but instead in implementing a coexistence strategy. If your ultimate goal is to have an ALM platform rather than just a point product, IBM recommends that you ask yourself and your stakeholders the following question: "How can we use a collaborative ALM platform to unify all the tools we have today, while benefiting from the tighter integrations made possible by open life-cycle standards?" Such a platform can unify the open source and commercial solutions you have today and improve the productivity of the entire team.

### **For more information**

To learn more about IBM solutions that might be right for you, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/rational](http://ibm.com/rational)

© Copyright IBM Corporation 2009

IBM Corporation  
Software Group  
Route 100  
Somers, NY 10589  
U.S.A.

Produced in the United States of America  
December 2009  
All Rights Reserved

IBM, the IBM logo, [ibm.com](http://ibm.com), and Rational are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml)

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency, which is now part of the Office of Government Commerce.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

The information contained in this document is provided for informational purposes only and provided "as is" without warranty of any kind, express or implied. In addition, this information is based on IBM's current product plans and strategy, which are subject to change by IBM without notice. Without limiting the foregoing, all statements regarding IBM future direction or intent are subject to change or withdrawal without notice and represent goals and objectives only. Nothing contained in this documentation is intended to, nor shall have the effect of, creating any warranties or representations from IBM (or its suppliers or licensors), or altering the terms and conditions of the applicable license agreement governing the use of IBM software.

IBM customers are responsible for ensuring their own compliance with legal requirements. It is the customer's sole responsibility to obtain advice of competent legal counsel as to the identification and interpretation of any relevant laws and regulatory requirements that may affect the customer's business and any actions the customer may need to take to comply with such laws.

RAW14140-USEN-00