

Java Enabling Technology

A COMPLETE DEVELOPMENT FRAMEWORK THAT ENSURES QUALITY CONTROL AND J2EE COMPLIANCE

The Challenge for business is to get the right level of information efficiently. To gain a competitive edge, business needs to enhance IT capabilities and improve integration of operational processes, through implementing breakthrough solutions.

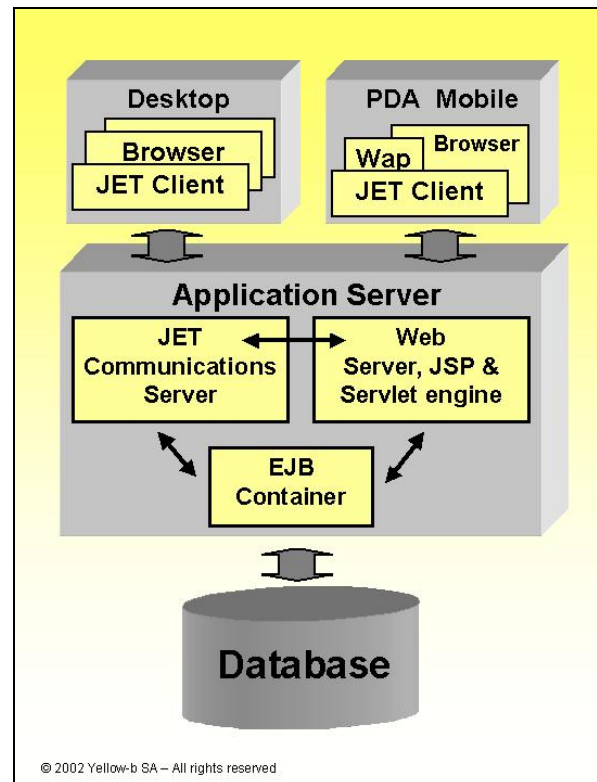
The challenge for information technology departments is to meet the business demands within the constraints of manageable costs and timescales. However systems, designed at different time and for different purposes, struggle to manage increased demand and workload. Delivering to business the right level of information and functionality is a major problem and the answer cannot be achieved by the methods previously deployed.

These are the challenges that Ian Griffiths, CEO of Yellow-b SA (Lausanne, CH) embarked on in 1997. Since then, Ian has established strong credence within the JAVA profession. Namely he was invited twice as a guest speaker at the JAVA One Conference (San-Francisco) where a crowd in excess of a 1000 professional acclaimed his work.

Initially three main area of concerns were identified:

- **Human factor:** recycle existing IT competence and fix lack of new skills
- **Financial factor:** limit new infrastructure investment and lower maintenance
- **Technological Factor:** increase performance by leveraging best practices and minimize complexity of infrastructure

Yellow-b has addressed these issues by providing a revolutionary systems framework called JET (Java Enabling Technology). This framework is component based and provides the methodology, tools and utilities necessary to create and run complete applications in both standalone mode or in J2EE or .NET compliant environments. This enables organizations to integrate new applications with their existing legacy system, when appropriate, and also implement open standards for the future.



Using JET, developers are lead into a logical structure of modeling and development, which will take care of producing robust, maintainable and easily deployable Java code within a predictable time frame. Therefore, developers need not know the full complexity of the ever-evolving JAVA language. JET ensures quality control throughout the application and the developer will achieve the most rigorous technological capabilities and manage shorter delivery time.

This document describes the characteristics of JET, underlining the key elements that corporation should focus on to leverage their current IT systems. JET enables simpler, more efficient development work with reduced system maintenance and achieve better cost effectiveness.

Complete Application Framework: JET is based on JAVA and XML technologies. It enables a corporation to achieve an end-to-end solution by managing every aspect of application integration within the current architecture. The JET framework is composed of three level of

segmentation: 1) Authentication and Authorization implements and enforces a robust, dynamic, high security policy. 2) Managers provide specialized functionality such as screens (GUI), application interfaces (API), database connectivity, industry standards (XML, SOAP), and support for web browsers. Finally, 3) the business components represent the core of the application and hold the business logic.

Flexible Architecture: JET architectural characteristics allow applications to run the same in client-server mode or on a multi-tier web browser (thin client), without having to sustain a substantial increase in development costs. This enables a corporation to accommodate their various classes of users with the best-suited solution for their particular needs.

Platform Compatibility: JET enables the same version of an application to run on any platform from Main Frame or desktop environments to mobile communication with PDAs and mobile phones. Applications are written once - no matter the operating system and hardware targeted - and have the same relevant functionality on all platforms. This not only diminishes the initial development but maintenance and support costs are also dramatically reduced.



This application runs on web browsers, laptops, Compaq iPaq and Palm Pilots. It allows traveling sales representatives to download customer and catalog/price information so as to take orders in customer offices and synchronize them with the corporate servers from home

Scaleable: JET is based on a standard multi-tier architecture, which enables scalability throughout the application. Moreover it takes advantage of the client resources to move functionalities onto it

in such a way that it reduces the server workload, but maintaining J2EE compatibility.

Code Quality: JET has enforced development conventions throughout its framework. This helps the IT professionals to adopt a consistent approach towards building a component based solution respecting current industry standards and more efficient testing.

Security: JET provides a simple descriptor format that allows full Java security to be leveraged (through the Java Virtual Machine) whilst enabling single sign-on throughout. If authentication depends on external machinery or software (smart cards – intelligent firewalls), JET provides a mechanism to make use of this information using a JAAS (Java Authentication Authorization Services) login module and also provides a number of authentication mechanisms for the most current problems.

Deployment: JET deployment is automatic and the target systems need not be re-started or running programs stopped.

Time Management: JET has further developed architecture and application conventions. With its own project methodology it has cut development time in the following areas; analysis by 20%, coding business applications by 100%, security sensitive applications by 200% and maintenance by an estimated 400%.

Internationalisation: JET supports complete internationalization of modules, screens and printouts without having to modify the core applications rendering roll out of the application independent of location.

Knowledge transfer and JET programmers: JET shields programmers from highly technical problems by defining a simple XML-based language to define forms, databases, security policies, printouts, etc. Programmers need only learn basic Java to be able to use JET. Therefore knowledge of specialized APIs (such as Swing, JDBC, networking, security) is **never** required. This enables organizations to keep focus on training costs, as JAVA programmers are operational within one week and traditional developers within two.

IF you are interested to learn more about JET and how it can help you and your organization to establish a consistent approach to development and open systems, please contact Yellow-b by email at: info@yellow-b.com, phone on +41 21 651 7810 or visit our website at <http://www.yellow-b.com>.