

REDUCING CUSTOMIZATION COSTS BY 75% THROUGH SELF-SERVICE

Executive Summary

WaveMaker Studio is a drag and drop development tool that runs in a browser. WaveMaker enables anyone to build web applications without complex coding. WaveMaker Studio is actually built with its own tools. This makes it easy for ISVs to embed the studio into any WaveMaker application.

One ISV who has seen these benefits is KANA Software. KANA Software is a leading customer service ISV with over 600 companies worldwide deploying its product, including half of the Fortune 50.

KANA wanted to give its customers a way to quickly and easily tailor the KANA applications to fit their particular business processes. KANA turned to WaveMaker to significantly reduce the time required to configure and customize typical customer service solutions.

By integrating WaveMaker directly into KANA, the customer service ISV will achieve a powerful competitive advantage. According to KANA's analysis, the results will be impressive. WaveMaker is expected to achieve the following benefits for KANA's customers:

- Reduce the cost to configure the UI for a typical customer service solution by 75%, from \$100,000 to \$25,000
- Make it possible to respond to changing business situations in minutes or hours rather than days or weeks
- Enable business managers and process owners to customize the software themselves without requiring expensive and specialized technical experts
- Allow IT to step back from the software customization process to focus on other business innovation
- Reduce the Total Cost of Ownership (TCO) of the product by greatly reducing customization costs
- Ensure a stable, flexible, standards-based dynamic platform for the software product

The KANA back-end platform is based on IBM WebSphere (KANA is an IBM Global Strategic Partner). Because WaveMaker is a browser-based tool that runs on any Java

*How WaveMaker
helped KANA
transform
its customer
service software*

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server, it is easy to integrate with IBM WebSphere Application Server, WebSphere Process Server and a Service-Oriented Architecture (SOA).

All told, KANA expects to save its clients over \$1.75 million dollars a year in UI design development costs. The KANA experience shows how WaveMaker can potentially deliver an impressive return on investment for software partners that need to modernize their offerings.

Introduction: the customization dilemma

Companies find it difficult to change the packaged applications they get from ISVs. No matter how good a software package is, invariably it will have to be changed in some way to fit the way the company works or its particular market or some specific process that gives it a competitive advantage. Every company is different; even routine business processes common to most businesses, such as answering customer questions, responding to email inquiries or processing online sales, differ for every organization.

The issue of changing software becomes particularly acute when the ISV's software addresses interaction with customers and other key stakeholders. In such customer-facing situations, organizations want the software to exactly match their business processes. And to complicate matters, a process may be slightly different even for different groups within the same company. In that case, no single change or set of changes works for everybody. That was the situation KANA faced.

ISVs like KANA need visual configuration tools like WaveMaker built into their products to simplify the change process, both for the client and for the ISV. Without something like WaveMaker, ISVs that want to do the right thing for their clients in terms of ease of change often find themselves scrambling to support multiple versions of the product. This dramatically increases the cost of development, product management and support.

Compare that to using a tool like WaveMaker. WaveMaker Software provides an open source, drag and drop development platform that makes web development easy. It provides a browser-based studio that enables the ISV's customer, especially those who are non-programmers and non-developers, to make changes to the software interface quickly and easily. In addition, that customization permeates the underlying processes without technical training or skills development.

WaveMaker consists of a development tool, the WaveMaker Visual Ajax Studio™, and a deployment server, WaveMaker Rapid Deployment Server™. WaveMaker's drag and drop studio enables business managers and non-programmers to quickly

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create, customize and deploy sophisticated GUI software using only their browser. KANA Software is incorporating WaveMaker into KANA's solutions to make it possible for nonprogrammers to modify and customize KANA's customer interaction management software.

The following case study shows how KANA is using WaveMaker's technology in conjunction with IBM's WebSphere platform. WaveMaker will allow KANA users to easily customize and deploy the software for their own environment. The case study shows:

- Why KANA chose WaveMaker and WebSphere for its built-in development environment
- How KANA was able to integrate the WaveMaker technology seamlessly into its product
- How its customers will use the WaveMaker technology to quickly customize the KANA software to meet their particular needs
- What advantages ISVs can obtain from the combination of WaveMaker and WebSphere

Background: KANA – a leading customer service company

KANA Software describes itself as helping the world's best known brands master the service experience. With the assistance of KANA products, companies are able to engage in consistent, knowledgeable conversations with their customers across every channel: in-person, phone, email, chat and Web. KANA's new product will represent a complete solution for mastering the multi-channel service experience including the contact center agent desktop, email management, chat management, agent knowledge and Web self-service.

As evidence of KANA's effectiveness, its clients report double-digit increases in customer satisfaction while reducing call volumes by an average of 20%. The ISV's products are deployed in more than 600 companies worldwide, including half of the Fortune 50.

KANA's primary customer offering is marketed as a conventionally licensed, on-premise packaged software solution. The company also participates in a global strategic alliance with IBM. Together KANA and IBM have delivered more than 50 successful implementations for many of the world's largest and fastest growing companies.

As a core practice, KANA aims to invest in software technologies such as WaveMaker and IBM's WebSphere platform to effectively differentiate itself from competitors. Also, the ISV has discovered that it is best positioned with customers when it uses widely

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accepted infrastructure components like the WebSphere platform rather than trying to build pieces from scratch. This approach leads KANA to focus on industry standards and the open source community.

KANA’s customization challenge – a critical point of differentiation

“The thing that most characterizes our involvement with our clients is the enormous amount of configuration and customization they need. They use our product as the foundation and then customize around it,” says Mark Angel, KANA’s chief technology officer.

Large companies turn to KANA to help them manage complex service interactions with their own customers. These companies typically offer multiple lines of business, each with a number of products. The customer interaction for each line of business and product may be different.

Further complicating the customer interaction process is the number of different ways companies can interact with their customers today: web-based self-service, telephone-based self-service, through a call center, interactive chat, email, in-person and voice.

Companies want to customize software to their unique business needs. Historically such customization has required difficult and expensive custom coding. With WaveMaker, however, the customization cost is greatly reduced and the frustration disappears. Call center managers can do the customization themselves, saving thousands of dollars. They also increase business agility by implementing the changes in hours or days, not weeks or months.

With WaveMaker, tasks that used to take months will be done by the ISV’s client in days. Activities that required technical experts can now be performed by business people. “In a typical contact center deployment, the cost of customizing and configuring the agent desktop UI may run as much as \$100,000 in professional services costs. Using our modeler tool and WaveMaker can reduce this aspect of a deployment to as little as \$25,000,” says Angel.

Until recently, technology barriers, particularly around integration and changing the UI, discouraged organizations from modifying their packaged software. Yet, “KANA’s core value proposition is to reflect changes in the customer experience in minutes, not months,” says Angel. Fast, easy modification is essential.

“WaveMaker is a key contributor to our ability to end one-size-fits-all service and allow service managers to execute their vision for great service in just minutes,” Angel explains.

Modifying the UI of a customer-interaction system is a major undertaking without a tool like WaveMaker.

“With WaveMaker, customizations that previously required technology experts can now be performed on the spot by business people.”

Understanding the KANA clients’ change process

Modifying the UI of a customer-interaction system is a major undertaking without a tool like WaveMaker. The changes KANA clients make to their customer interaction software typically mirror the steps a company would take in any significant application development effort. Beyond the change itself, the modification will likely involve planning and design considerations, integration with other applications and QA and testing to ensure the change does what was intended without breaking anything in the process.

Specifically, these changes touch on the client’s business logic and rules; may involve changes to the website, the web content and web page layout; and alter the business process and workflow. Once the change has been made in all these systems and tested, the clients then must coordinate the deployment.

Customer changes to ISV software can be costly, running as much as \$100,000 in professional services costs. However, using the WaveMaker visual development studio built in KANA, the ISV expects to reduce that aspect of a deployment to \$25,000 or less. Over the course of a year, KANA estimates its clients, in aggregate, will realize up to \$1.75 million dollars in development cost savings.

Illustrative example: change process for logistics company

An illustrative example for a major logistics company shows how WaveMaker and KANA will reduce the costs associated with modifying package software.

A logistics company routinely has to cope with severe weather that disrupts its schedule. Their customer interaction systems have to immediately reflect the fact that a weather event is impacting schedules and the impact of that event may ripple out to areas far removed from the immediate event.

Today, their process for modifying their customer service software package would entail making changes to both the website and the customer service systems. This also involves changing business rules to reflect the impact of the weather disruption.

Changing the logistics company’s website requires manually adding new content, new HTML and new JavaScript. The logistics company also has to rewrite scripts to reflect changes in workflow. Finally, it has to send a notification of the problem to those

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impacted. The process involves multiple technical and business experts from multiple organizations all trying to work in concert. Usually, the changes can't be made quickly enough to have meaningful impact on customer service.

With the KANA product, which now incorporates WaveMaker technology, organizations like this one can respond to sudden events much differently. Instead of multiple groups being involved in each change, the organization's business process people can use a visual, drag and drop tool to change content and customize the process workflow themselves. The correct screens are automatically built without needing complex hand-coding. After reviewing the results, the business process owner hits a button and WaveMaker automatically puts the changes into production.

With WaveMaker, change no longer prevents a company from responding quickly to events that impact its service. Its customers are kept up-to-date on the situation almost immediately. The organization saves itself from having to race through a disruptive scramble to respond to business changes. By using the WaveMaker development studio embedded within KANA, process and content managers can make the necessary changes quickly, without the need for full scale application development, integration and testing.

KANA's modeling tool – a critical new capability

The heart of the new KANA package is the modeling tool. “The modeling tool is a new capability that lets the process owners of a service control and manage the service experience,” says Angel. It does so by melding business process management (BPM) with a rich internet UI.

To create the modeling tool, KANA first had to create a rich integration platform. That need led to the company forging a relationship with IBM. “We wanted IBM WebSphere as our platform partner because we faced a broad challenge. It goes beyond the UI,” says Angel.

KANA also wanted a tool like WaveMaker that would enable business managers to change the customer interaction quickly, by themselves and put the changes into production automatically. Although IBM WebSphere has tools to enable expert developers to create user interfaces, it has no tools that enable non-expert developers to customize web user interfaces. For this, KANA selected WaveMaker.

“Our goal is a simple yet sophisticated tool for business managers,” says Angel. This meant finding a browser-based IDE that could translate changes made by non-technical process owners through the modeling tool into deployment-ready changes to their KANA software.

The bottom line: WaveMaker met all of KANA's requirements and more.

The search for a configuration/customization solution

KANA rejected building a browser-based customization tool from scratch as an utter waste of capital. It considered using a mashup design tool but found that these tools were not powerful enough and would not meet their application needs. KANA did an in-depth evaluation of alternatives, looking at both technical factors and business factors, including the long-term business viability of each vendor. Solutions considered included:

- Coding frameworks like .NET and Ruby on Rails were considered, but KANA decided to make a long term commitment to Java and Ajax
- Ajax development platforms
- Browser plug-ins like Adobe Flex and Microsoft Silverlight

After an extensive search, KANA turned to WaveMaker Software Inc., San Francisco, which met KANA's three key criteria:

1. The solution must be based on open source code and open source standards.
2. The interface must be easy to use for business people and non-programmers.
3. The solution must be able to produce visually appealing, Web 2.0 applications.

WaveMaker fit the three criteria well:

1. Open source: WaveMaker is an open source product licensed under AGPL. WaveMaker is also built on a set of open source components, including the Dojo toolkit, the Spring Framework and Hibernate.
2. Easy to use: the WaveMaker studio is a browser-based development environment. Non-expert developers can build complete applications using a visual, drag and drop user interface and without complex coding. WaveMaker applications can include security, data access, custom code and web services.
3. Visually appealing: WaveMaker applications use the Dojo toolkit to create attractive web-based applications. The Dojo toolkit consists of a set of client-side modular, open source libraries intended to ease the rapid development of cross-platform JavaScript/ Ajaxbased applications. Dojo relies on pre-packaged widgets composed of JavaScript code, HTML and cascading style sheet (CSS) declarations, which can be used to enrich websites with interactive capabilities that work across browsers. In practice, Dojo turns the browser into a development platform and blurs the line between local native applications and browser-based applications.

“WaveMaker combines a slick web application builder with rock solid integration with our WebSphere-based service oriented architecture,” says Angel. “We believe WaveMaker

The result is tight integration with WaveMaker fully baked into the KANA product.

will emerge as the market leader for Ajax development tools,” he adds. The bottom line: WaveMaker met all of KANA’s requirements and more.

Integrating WaveMaker into the KANA platform

KANA’s insistence on open source simplified the process of integrating WaveMaker with its software. “WaveMaker has documented APIs for integration, which gave us what we needed,” says Angel. WaveMaker also was amenable to working with KANA to ensure a smooth integration. “We worked together to make adjustments,” he adds.

WaveMaker offers a perfect complement for KANA’s process tools. WaveMaker provides front end UI development and UI configuration tools. KANA uses IBM WebSphere to provide the back end workflow and data management. The integration works seamlessly.

The result is tight integration with WaveMaker fully baked into the KANA product. The ISV’s clients see WaveMaker, but it is not intrusive. Neither does WaveMaker interfere in any way with what KANA does best, which is handle customer service interactions.

“You can’t use KANA without WaveMaker,” says Angel. Every screen is generated by WaveMaker; every change runs through the WaveMaker process. According to Angel, every process owner and IT user of the KANA platform will be trained on using WaveMaker to configure and customize the KANA platform.

Early results

KANA itself has adopted WaveMaker as part of its own ISV development process. It has embarked, for example, on enhancing the modeling tool with predictive experience modeling, which will analyze the flow of data through thousands of touch points to determine how its clients’ changes will impact their customers’ service experiences.

How WaveMaker helped KANA deliver self-service configuration

KANA heard from their customers that there was a drastic need to dramatically lower the cost and time to make changes to their packaged software. Integrating the browser-based WaveMaker studio into the KANA product solved the problem by making it possible to extensively configure the KANA software experience through its modeling tool. Non-technical users will be able to easily modify the software and quickly deploy

Any ISV can achieve similar benefits by integrating WaveMaker into their solution.

the results through WaveMaker. This enables KANA clients to achieve the benefits of customization without the usual overhead and risk.

Any ISV can achieve similar benefits by integrating WaveMaker into their solution. Specifically, an ISV can:

- Boost end user productivity through WaveMaker's drag and drop visual studio.
- Provide built-in customization capabilities for their web applications by embedding WaveMaker's Visual Ajax Studio into the ISV's platform as part of its standard offering.
- Ensure WebSphere compatibility through WaveMaker's standard support for WAR files that deploy naturally into the IBM WebSphere Application Server environment.
- Deliver SOA compliance through WaveMaker's native support for SOAP, REST, RSS and Java services via a visual, code-free way to call SOAP or JMS services using the IBM WebSphere Enterprise Service Bus or any other ESB.
- Scale to millions of web interactions per month through WaveMaker's highly scalable Dojo/JSON/Spring architecture and the IBM WebSphere platform.
- Enable internationalization support for 26 languages through WaveMaker's use of the Dojo toolkit (thanks in part to significant contributions to the Dojo project from IBM).
- Comply with Section 508 (Workforce Rehabilitation Act of 1973) that requires electronic and information technology developed by or purchased by the Federal Agencies to be accessible by people with disabilities; WaveMaker's use of Dojo enables ISVs to meet Section 508 accessibility requirements.

By selecting WaveMaker, KANA expects to be able to reduce the cost and time of UI customization by 75%, allowing its clients to precisely tailor the packaged software to their customers' desired experience. Due to WaveMaker's capacity to render screens dynamically, customer service unfolds more efficiently, which lowers average call times and increases first touch point resolution—all critical customer service business metrics for KANA clients.

About WaveMaker

Developers have been building web applications for almost ten years, yet there are still no easy-to-use tools for web development. WaveMaker is an open-source development platform dedicated to making web development easy.

WaveMaker includes an open source development studio and a full deployment server. The development studio, WaveMaker Visual Ajax Studio™ is intended for developing rich internet applications. The deployment server, WaveMaker Rapid Deployment Server™, is a standard WAR file that can deploy into any standard Java server such as IBM WebSphere, Oracle WebLogic, Redhat JBoss or Apache Tomcat.

WaveMaker provides its software under a dual license, which offers developers and enterprises the choice of an open source license (AGPL v3) or a commercial license. The WaveMaker Community Edition is an open source product that includes a development studio and a full deployment server. Customers wanting commercial support and add-on features such as role-based access controls can purchase annual subscription licenses for the Enterprise Edition.

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Hurwitz & Associates delivers strategic business support anchored in customer-focused primary research. The focus of Hurwitz & Associates is on market drivers, customer benefits, and business value, to build actionable strategic advice on product marketing and positioning. The focus of the organization includes Service Oriented Architectures, Software as a Service, Service Management, cloud computing, Information Management, collaboration and social networking, and software development. The members of the management team have written several best selling books including Service Oriented Architectures for Dummies, Information on Demand for Dummies, Service Management for Dummies (to be published in 2009), and Cloud Computing for Dummies (to be published in 2009). The team also provides thought leadership on many aspects of distributed computing.

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