

WAVEMAKER RAD VS. TRADITIONAL DEVELOPMENT

Abstract

This whitepaper details the obstacles to an effective Application Development and Delivery in an organization and how WaveMaker can help overcome the obstacles while saving time, money and effort

Karthick Viswanathan
Product & Customer-Success
WaveMaker, Inc.



Introduction

Effective and faster Application Development and Delivery (AD&D) has been a very tricky problem to solve for organizations. The reason is that conventional way of app development and delivery has not been able to keep up with the needs of the new age customer.

In today's digital world, application delivery has to take the center stage as the speed in developing and delivering applications is becoming essential to business success. Moreover, in the age of the customer, the demands on modern applications are unprecedented. Modern applications need to be customer focused, multichannel, engaging, interconnected and secure. In addition, all of these demands have to be delivered in a short time. Forrester, in one of its publications, put it simply as "do more with less — and fast".

In this white paper, we will talk about how WaveMaker RAD platform, with its unique rapid application development and delivery methodology, can not only help fix application delivery but also save time, money and effort.

Obstacles to effective app delivery

Demand exceeds capacity

CIOs are under pressure. Demanding business requirements cannot be handled by the limited staff strength. There is a tremendous pressure to take care of the budget for obtaining more resources.

Shortage of skilled resources

While unavailability of enough resources is one end of the problem, the other end is even worse. There is a shortage of skilled resources. Skilled resources come with a premium rate tag and is subjected to constrained budget.

Complexity of platforms

Big organizations have a problem of many platforms. Most of the time, usage of departmental software is outside of the purview of IT and a lot of times different platforms gets accumulated over the period of years, even if they are not used currently.

*"We have too many platforms (.NET, SharePoint, Java, PeopleSoft, and Siebel). These core systems have to integrate. We also have differences in methodology within the individuals in the team. Some teams use Agile, some use Waterfall."
CIO of UK based organization*

The legacy baggage

CIOs unequivocally agree on this point. Every organization spends significant time and resources to maintain existing applications based on legacy technologies. Moreover, getting an application built on data from a gamut of these legacy technologies, contributes to further delays in app delivery.

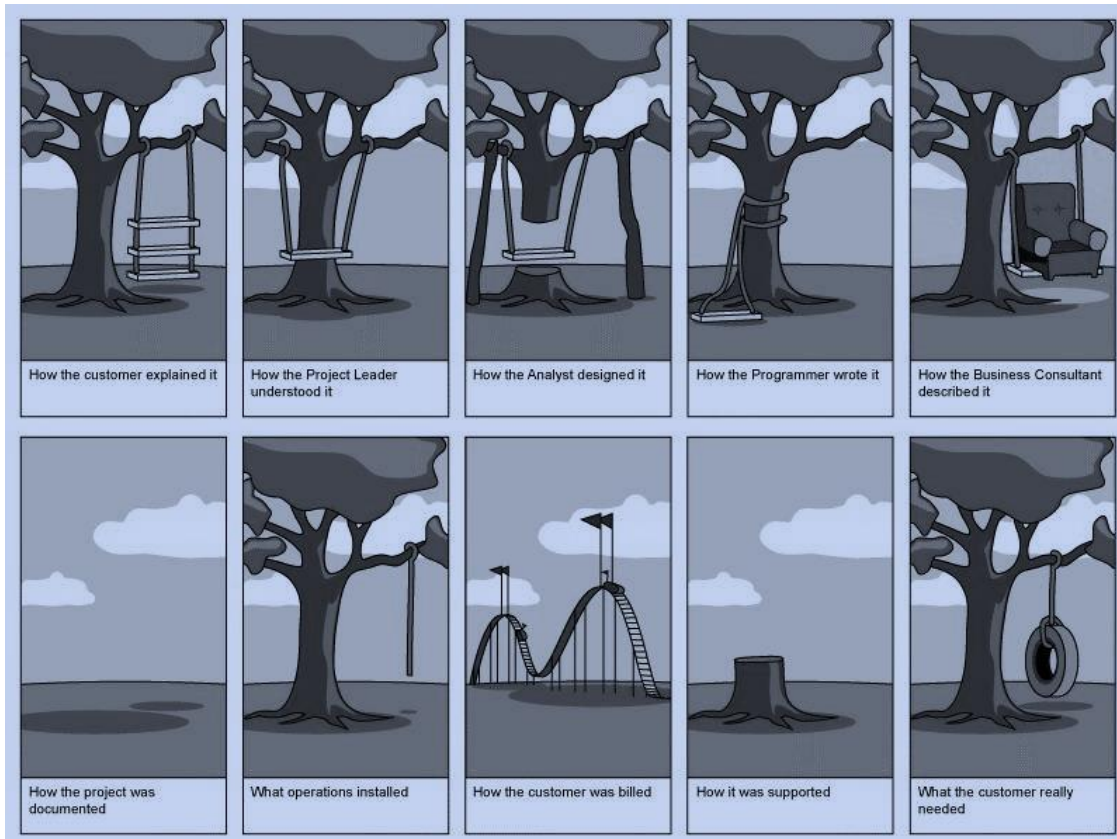
Human intervention in software development

Traditional development using Java and .NET are not the best choices anymore. Even with the best resources, there is always the question of future proofing your application to scalability, security, performance and other such factors. As long as there is a dependency on people to create software for a particular business goal, there is always a question on the best practices and future-proof solution.



Unclear requirements definitions

This is an age-old problem with IT projects, which has become even bigger with the changing business environments. The result is a mismatch between requirements and delivery.



Project visibility for business managers

While unclear requirements, given by business managers, is one end of the problem, the other end is when these managers do not have visibility on the project status during the development phase. This has been addressed to some extent with shorter cycles of reviews, but it has not been eliminated entirely.

Focus is on technology and architecture and not business problem

At every stage of the app life cycle, there are tasks that are not related to the actual business problem. The list of irrelevant tasks endless - ranging from selecting a technology for development to selecting a tool for managing releases. Whether they are related to application programming interfaces (APIs), deployment descriptors, and build scripts, or to coding for software packaging, deployment and platform configuration, these tasks have got more to do with technology and architecture selection than the solution of a business problem.

Traditional app delivery is broken

App development and delivery life cycle, from requirements to deployment is broken. There are conflicts and obstacles at every stage of this cycle. You can try work arounds like relying on a set of tools for project management, handover, and reusable libraries, but then you get into another problem. The problem of scattered libraries, managing each of these libraries and managing their revisions and so on.



WaveMaker Rapid Application Development and Delivery

WaveMaker RAD platform tries to address the problem of broken app development and delivery by exactly addressing those areas of the AD&D process that are broken. Let us see those in detail:

Visual app building

WaveMaker has a unique visual approach to app building. Developers have to just drag and drop the UI controls onto a WYSIWYG canvas and see the user experience come alive right in front of their eyes. Not just UI, but also other facets of AD&D like integrations with DB and APIs, configuring enterprise grade app security, deployment and go-live are visual in nature.

“WaveMaker flat out saved my job! Using WaveMaker, I build and inventory tracking application using 80% less code than I would have needed in MS Access, making much more valuable to my employer!”
IT Developer, US government organization

Visual app building addresses the two most important obstacles for an organization in app building - Shortage of skilled resources and Building apps in lesser time. Requirements defined by business managers, can move away from being just documents to interactive UX. Existing developer staff can be used to write custom extensions and styling touches to the app.

Enterprise architects can heave a sigh of relief on issues referred in the section “Human intervention in software development”, because WaveMaker automatically generates code, based on best practices, using AngularJS, Spring, Hibernate and other open source technologies.

CIOs have a winner on their hands to handle the problem of legacy technology baggage. The biggest challenge of modernizing legacy applications is the reuse of existing resources who are skilled with legacy technologies. These resources can be reused to build new apps visually.

“We saw tremendous productivity gain using WaveMaker – we can build apps 61% faster with 98% less code”
SVP, Fortune 500 bank

CIOs can adopt a single platform to let departments, which typically operate out of the control of IT (called shadow IT problem), to build departmental apps. Shadow IT has been a perennial problem for IT since it is, more often than not, responsible for information security issues in an organization. With WaveMaker, IT team can instantly provision a new account using WaveMaker and let departmental apps be built by developers with zero technical skills. This will consolidate all the different platforms into just one platform.

Instant testing

A unique feature of the WaveMaker RAD platform is that at any point of time, the current stage of the application can be viewed and tested. The application would be presented as it would appear for an end user and be instantly tested. This allows business managers, developers, QA and all stakeholders during app building to ensure that the application is building up as per the initial laid out requirements.

In addition, WaveMaker platform’s inbuilt continuous deployment capabilities allows a smooth and instant transition of the app from one stage of the app lifecycle to the next one. For instance, developers can instantly deploy the app in a designated QA environment, without any worries about provisioning hardware and installing the software stacks.



Instant deployment

WaveMaker RAD platform allows users to configure different sand boxed environments in an app lifecycle like Development, QA, Staging and Production environments. The configurations cover

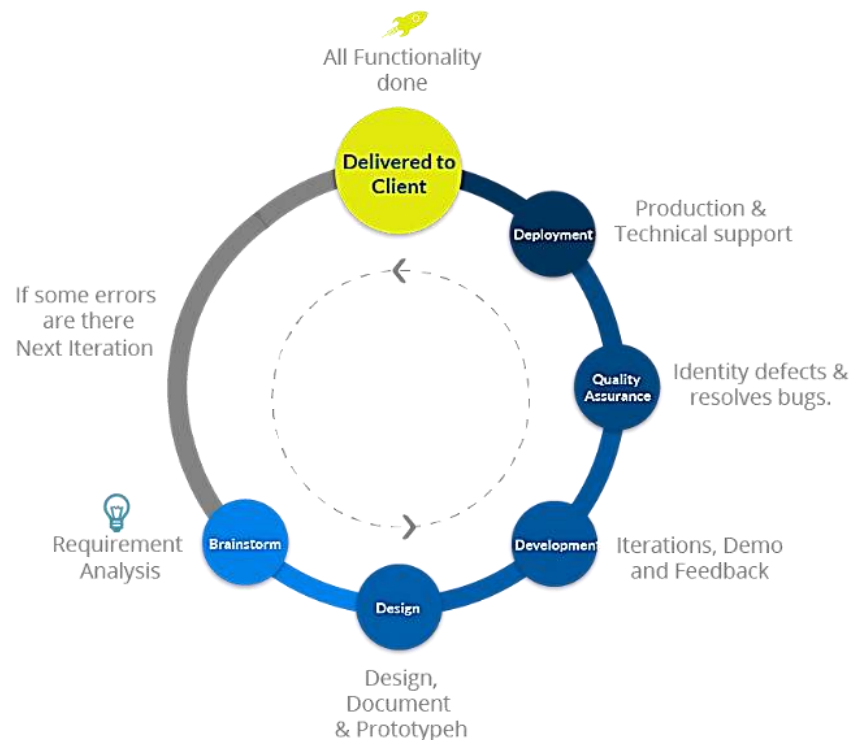
- Hardware configurations of the environments (Memory, Disk space, CPU)
- Software stack for the environments (software with versions)
- Database and APIs to be used for the environments

Therefore, when you are app is ready for deployment to production, all you need to do is to select the app environment and click deploy.

By commoditizing the hardware and software stack provisioning, WaveMaker platform allows the app stakeholders to focus on the business logic and defocusses efforts towards hassles of configurations, thereby saving time and effort.

WaveMaker and Agile Development

Agile development is a proved methodology to reduce time and effort in an app delivery cycle. WaveMaker app delivery works complementary to the agile methodology, where visual development, instant testing and deployment fits nicely into the agile project cycle.





More features that make WaveMaker a Winner

If the features mentioned in the previous section is not good enough to satisfy, here are more features that will make the CIOs happy.

Open Standards based

Apps that are built using the WaveMaker RAD platform, are based on proven open source technologies that are being used by millions of users around the world.



No Vendor Lock in

WaveMaker RAD platform does not let the vendor locked into the platform. It auto generates code based on open standards. It allows the code to be exported out of the platform any time and any number of times. It does not license its run time libraries, so that you can deploy into any runtime platform, not just WaveMaker's runtime platform.

Code and extend app capabilities

WaveMaker allows multiple extension points that allows custom coding. You can create your own Java libraries and import into WaveMaker as a Java service. You can create your own custom UI styling and extensions using JavaScript. You can integrate any external AngularJS and jQuery UI controls into the WaveMaker platform as a drag-and-drop UI widget. The generated code is Maven compliant and you can instantly import to any IDE, like Eclipse and work on it. In essence, you have total control over your platform.

Save time, effort, cost with WaveMaker

Check out the infographic on the following page which shows how WaveMaker can save you in terms of cost, time and effort. The data in the infographic is from an actual project implementation of one of WaveMaker's customers.

There is more...

Learn more about WaveMaker Rapid Application Development Platform at www.wavemaker.com



Deliver apps with twice the speed, half the resources and
65% lower cost than traditional development.