

## IBM Worklight

### Empowering Enterprise Mobility

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A Whitepaper by  
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### Abstract

Enterprises are constantly looking for new options to engage their customers. It has been realized that the target audiences of enterprise applications are moving rapidly from the traditional computers to mobile platforms like smartphones and tablets. At the same time, business, sales and development teams are adopting mobility by accessing more information and services remotely and in real time.

In response to these fast and frequent interactions, businesses can move to a self service model to quickly deploy mobile apps. One such service model for enterprise level solutions is IBM Worklight, which enables cross-platform mobile development for enterprises.

## Introduction

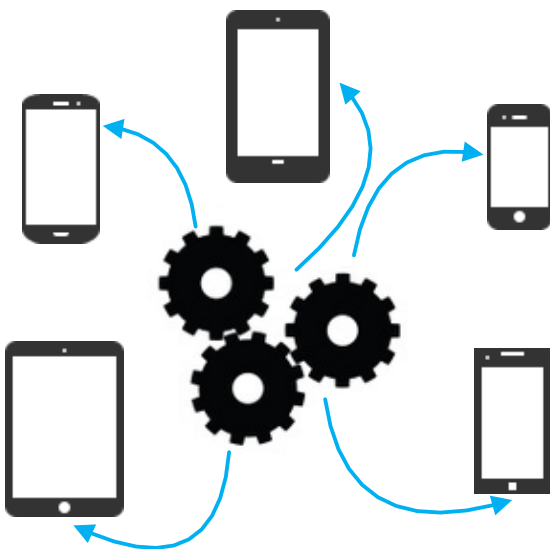
Just like the websites, mobile applications have become an integral part of any organization. Businesses now need to meet the increasing demands of their workforce and customer base that are treating mobility as a critical part of the system. But with so many mobile platforms and devices out there, it could be a challenging task to develop for all.

As a result, organizations need a strategic approach to address current and future business requirements. Clarity needs to be gained on how an app will help both the users and the organization itself. To ensure this strategic approach and a successful business, IBM offers Worklight, a development solution for creating superior and scalable enterprise level mobile applications.

IBM Worklight provides industry standard tools for rapid development of hybrid and native mobile applications using the familiar development technologies like: HTML5, CSS3 and JavaScript. Powered with the state of art services and solutions, IBM Worklight helps in bringing mobile devices effectively into business infrastructures.

## Cross-Platform Development

With over half a dozen mobile platforms out there and more in line to come up, it has become difficult to develop individually for each of these platforms and different form factors. As a result, cross-platform development is an approach which works on the ***build once and publish to many*** concept.



Cross platform, mobile development proves to be a profitable answer encompassing these varied needs of the multi OS market by offering them the universal app solution.

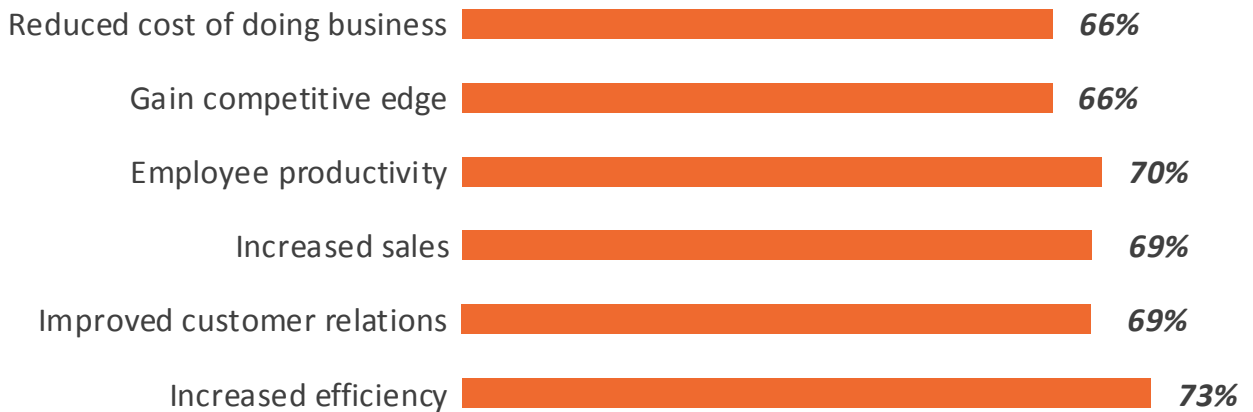
With a number of such solutions around, HTML5 based solutions are the most preferred ones amongst the developers these days. IBM Worklight is one such HTML5 based agile and scalable approach for publishing apps across multiple devices and platforms using the same code base which could either be native, hybrid or web. It delivers a rich experience while lowers the risk, time and costs involved.

## Enterprise Mobility

More than ever, efficient working is a key to business productivity and success. Enterprises need a way to keep the users connected between different locations and markets. Enterprise mobility enhances the productivity, customer responsiveness and operational performance by providing real time information to employees, customers and suppliers.


### Benefits Driving Enterprise Mobility

More and more organizations around the world are incorporating mobile technology and applications into their everyday operations. This movement towards enterprise mobility aims to accomplish several benefits, few of which are: Increased Productivity, Reduced Paperwork and Increased Revenue.




### Enterprise Mobility in Industries

The growing impact of Enterprise mobility is quite evident with the amount of its penetration in multiple industry domains. Enterprise mobility has found its implementation in each industry domain and is a preferred part of the IT strategy for many organizations. 67% CIOs and IT professionals believe that mobility will impact their businesses as much as or more than what internet did in the 1990s.

 **52%**  
Financial Services

 **50%**  
Hospitality

 **40%**  
Infrastructure

### HTML5- Preferred Choice for Enterprise Mobility

While there are number of ways for creating mobile applications, developers have already set HTML5 as their preferred choice of developing applications for enterprise mobility. This shows

that cross-platform HTML5 solutions are already an acceptable industry solution. Above this, with tools like IBM Worklight which focus on enterprise level mobile apps, it becomes one of the best solution out there for organizations looking to deploy mobile applications across their organization.

**75%** of Fortune 500 companies are taking steps to deploy HTML5 mobile apps

## IBM Worklight for Cross-platform Enterprise Solutions

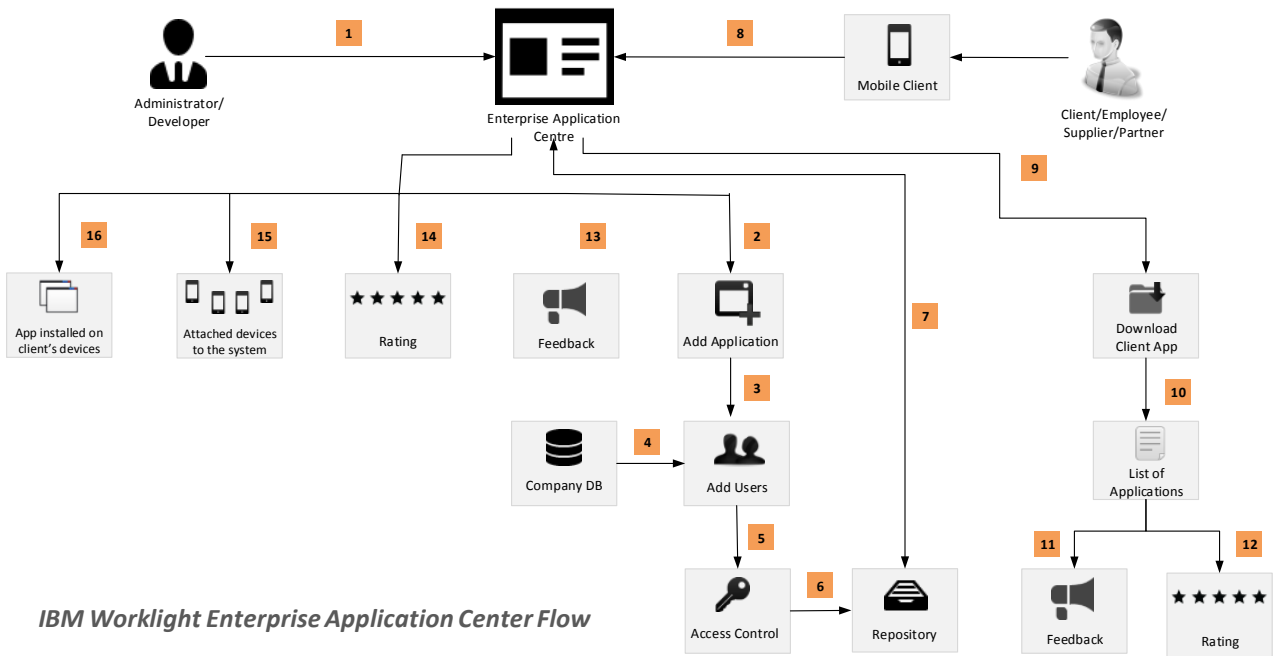
IBM has come up with **IBM MobileFirst** which is a set of six solution portfolios for providing end-to-end mobile solutions. This suite focuses on increasing workforce productivity and gain efficiency by extending business capabilities and applications to employees, customers and suppliers.

One of the main component of the portfolios in this suite is IBM Worklight. Worklight provides an open platform that offers speed delivery of existing and new mobile applications to multiple devices and addresses the reusability in mobile apps better than any other approach out there.

### IBM Worklight- Technology Offerings

IBM Worklight platform comprises of 5 main components which are listed as follows:

- **Worklight Studio:** It is an Eclipse based IDE for developing native, web or hybrid applications for multiple platforms. The IDE provides with an extensible environment for rich multiplatform applications, maximizing the core reusability and device specific optimizations.
- **Worklight Server:** This is a Java based server which provides a scalable gateway between the applications, external services and enterprise back-end infrastructure. The main features of server include: access to back-end and cloud based systems, role based access, direct updates and security.
- **Worklight Device Runtime Components:** It is an extensive set of libraries and client APIs that provide access to native device functionality. Other major feature is the provision of server functionality within the application using client-side code. It also enables features for handling large offline data with encryption and back-end synchronization.
- **IBM Worklight Application Center:** One of the major components of this system is the Application Center which distribution of the apps through an internal hosted distribution channel for distribution amongst teams, customers, suppliers and partners. It allows developer to publish multiple versions of the app to an in-house app store and view reviews and feedbacks for the apps.



*IBM Worklight Enterprise Application Center Flow*

- 1** Administrator/Developer visits the Application Center.
- 2** Application is added to the Application Center.
- 3** Users are provided access to use the application
- 4** Company's database shows the list of Clients/Suppliers/Employees/Partners.
- 5** Give access to the users for using the application.
- 6** Application, Users and Access Control over users; store in the repository.
- 7** All details of the repository is visible to the system administrator.
- 8** From mobile Clients/Suppliers/Employees/Partners visit to the Application Center for Application Installer.
- 9** Client app download on the mobile only once.
- 10** Clients/Suppliers/Employees/Partners can access the application that are available to them.
- 11** Clients/Suppliers/Employees/Partners can give feedback about the application.
- 12** Clients/Suppliers/Employees/Partners can give rating to the application.
- 13** Administrator/developer can view the feedback given by the mobile client.
- 14** Administrator/developer can view the Rating given by the mobile client.
- 15** List of attached devices to the system is visible to he administrator/developer.
- 16** Administrator can see list of application installed on client/user/employee device.

- **Worklight Console:** This console provides an insight into the apps being installed by users. Using this one can collect user statistics, generate reports, configure data collection reports, export data to BI systems, remotely disable applications and send push notifications or customized messages.

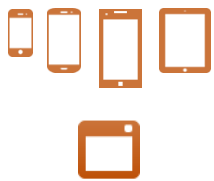
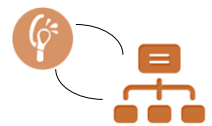
### IBM Worklight- Enterprise Benefits

With a huge set of these technological offerings, the Worklight suite delivers real enterprise benefits and enables organizations to adapt to mobile technology in no time. Some of the features, why IBM Worklight is one of the best solution out there for enterprise mobility are:



**Reduced Development Cost & Time:** With one single shared codebase for all major mobile platforms, the development cost and time decrease by considerable amounts. This makes it easy for the organization to rapidly develop and deploy apps.

**Easy Integration:** IBM Worklight seamlessly integrates itself with the existing enterprise environment using existing resources. It can retrieve and update data from multiple sources in the existing setup and provides support for transactional capabilities.



**Application Management and Maintenance:** The system provides enough features to easily upload apps and distribute it within the organization. The system maintains versioning for all the apps. Also, it becomes easy to maintain apps across multiple devices when there are changes in the internal systems and operations of the organization.

**Feedback and Bug Reporting:** The applications can be distributed internally within different teams and departments who can socialize their ratings and provide feedback. Application developers can then aggregate these feedbacks and provide timely and relevant updates. Also, this works best for beta testers to provide bug reports which get organized by the device type and application version.



**Remote Controlling and Analytics:** Using the Admin Console, user can remotely disable any deployed app based on pre-set rules such as version and device type. It also collects usage statistics from running apps and displays them within the console. These reports can then be exported to Business Intelligence systems.

**Security:** Worklight Application Center provides complete control over the application distribution by using organization's existing user access and classifications. Applications are deployed within the company's firewall, thus safeguarding against unauthorized use.



## Industries Adapting to IBM Worklight

Industry verticals are actively adopting enterprise mobility for increasing productivity, both now and in the future. Some of the industry leader only leveraging services from IBM Worklight suite are:

- Zylog Systems Limited (ZSL) – Computer Sciences
- OpenLogix Corp. – Computer Sciences
- Rohde & Schwarz – Electronics
- Daegu Health College – Education and Healthcare
- Cincom Systems – Computer Sciences
- TBC Corporation – Automotive
- Lotte Card Co., Ltd. – Financial Markets

Besides this many companies are providing libraries and APIs for this platform for providing enhanced features. One of the market leaders providing APIs for this platform is AT&T.

## IBM Worklight Development at SoftProdigy

Realizing the potential within the Worklight system for Enterprise solutions, SoftProdigy has quickly adapted itself with this new technology. The developers have gained hands-on experience on developing applications for multiple mobile platforms using Worklight.

The mobile development team at SoftProdigy is already experienced in tools like: jQuery Mobile, Sencha Touch and Dojo Mobile. These tools are closely integrated with the IBM Worklight development suite and make the development process even more quick along with flavors of rich user experiences.

Our mobile application development as well as integration differentiates our work from the other mobile application development companies globally. We not only focus on developing the mobile applications, but also keep important steps in our process plan like testing, maintenance and marketing.

## About the Author

### Rahul Joshi

Rahul Joshi is a Business System Analyst with more than 5 years of experience in the IT industry. Started his career as a Software Engineer, he has worked extensively on front-end development technologies like: Flash and Flex. After moving into business analysis, he has been supporting clients from varied industry domains with technical consulting, focusing on areas like: Mobile Development, Rich Internet Applications and Gaming.

## About SoftProdigy

Founded in 2006, SoftProdigy is an award-winning organization with expertise in the areas of Web & Mobile Technologies and Consulting services. Over the last few years, the organization has made a reputation for building quality solutions for its clients that helped them get more out of their business. SoftProdigy's customers range from start-ups to Fortune 500 companies such as Intel, Hyundai and Sony Ericsson. The company has worked with entrepreneurs as well as established corporate houses across the globe to put their ideas into inception and take it to the market. It employs over 150 technology and management professionals who work closely with each other. With a consistent growth track record that has surpassed the industry trends year on year since the company's inception, what sets it apart is the philosophy of pursuing, quoted as "measured success". For further details contact us at [sales@softprodigy.com](mailto:sales@softprodigy.com).

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