RED HAT® MOBILE

RED HAT MOBILE APPLICATION PLATFORM

Bringing agility to enterprise mobility

DATASHEET

BENEFITS

- Innovation and competitive advantage for line of business

- Centralized control of security and integration for IT

- Flexibility and agility for developers

- Agility and continuous delivery for DevOps

- Tools to create apps quickly

OVERVIEW

Red Hat® Mobile Application Platform brings together agility, integration, and centralized control for mobile innovation and a competitive edge. This platform offers a suite of features that embrace centralized control of security and back-end integration, collaborative app development, and a range of deployments that increase the speed of app integration with enterprise systems and delivery.

By securing and managing the connection to enterprise systems, IT organizations can control how and when mobile apps access core systems. And because the platform doesn't mandate one set of development tools or approaches, enterprise mobile app developers and DevOps teams can use their choice of toolkits to access reusable components across multiple organization-wide mobile projects. IT can maximize productivity, minimize cost and risk while empowering mobile developer teams to collaborate, discover, experiment, and iterate quickly, with a product that scales rapidly and securely.

Mobile Platform Overview
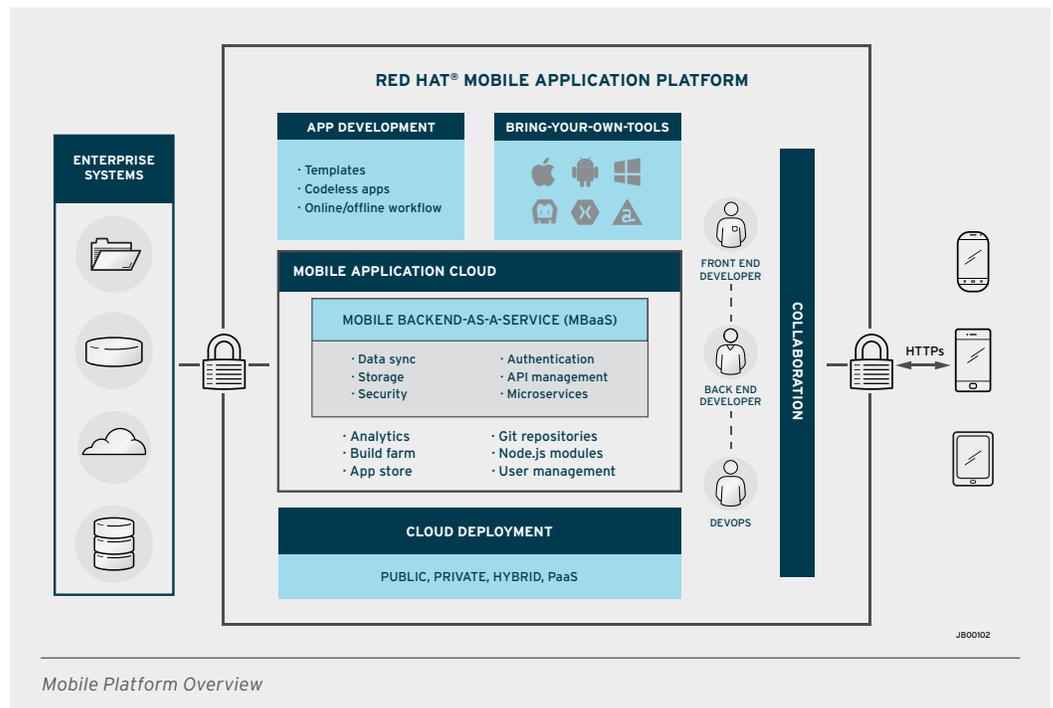
FEATURES

Key features of Red Hat Mobile Application Platform include:

- Back-end integration
- Collaboration and application life-cycle management
- Rapid mobile application development
- Security and authentication
- Front-end development tools
- Cloud and on-premise deployment

1. BACK-END INTEGRATION

FEATURE	BENEFIT
Mobile Backend-as-a-Service (MBaaS)	Based on open technologies and Node.js, MBaaS capabilities provide a high-performance, lightweight framework, allowing mobile developers to securely integrate mobile apps with back-end systems. An MBaaS manages data storage, scaling, notifications, analytics, and more between device and back-end systems. This allows mobile developers to focus on the app, playing a critical role in enterprise mobile app enablement. It comes with ready-to-use modules for common back-end systems such as Salesforce, Sharepoint, and Oracle.
Microservices and application programming interfaces (APIs)	The architecture is based on microservices and RESTful APIs. Developers can create microservices and back-end APIs in Node.js that can be reused across multiple mobile projects by multiple development teams, eliminating the need to recreate complex back-end connections. They can also create microservices specific to a mobile use case to optimize the information from back-end systems for mobile devices, leading to better, more efficient app design.
Node.js modules	Developers are free to create back-end services using Node.js modules. They can also create new microservices by accessing module snippets through the npmjs.org community.
Data sync	The data sync framework allows developers to include offline functionality in their mobile solutions. It provides a mechanism to manage bidirectional data synchronization from multiple client apps into back-end systems with the capability to manage data collisions from multiple updates.

2. SECURITY AND AUTHENTICATION

FEATURE	BENEFIT
Encryption	Security begins on the device with the optional use of AES/RSA APIs for encryption of locally cached data, followed by HTTPS protocol from the app to the MBaaS. Additional security is provided by the ability to add an API key per application. A set of authentication APIs makes it easy to implement authentication with session management.

FEATURE	BENEFIT
Protecting access to back-end systems	Access from the MBaaS to back-end systems can be secured in accordance with the organization's security policies. This includes the use of IP address punch-through, fully configured site-to-site VPNs, strong firewalls, demilitarized zones (DMZs), approved datacenters, approved datacenter locations, on-premise deployment, and more.
User authentication and authorization	User security and authentication can be managed through user credentials or a user's own LDAP/Active Directory system. OAuth integration is also available for third-party services. Single sign-on (SSO) with vendor-specific offerings can also be implemented.

3. COLLABORATION AND APPLICATION LIFE-CYCLE MANAGEMENT

FEATURE	BENEFIT
Team- and role-based collaboration	Development teams, both in-house and outsourced, composed of different skills—UI/UX design, front-end coding, back-end services development, administration, DevOps, and more—can work concurrently on multiple app projects without impacting individual developer agility.
Access control	Configuration of fine-grained controls at all levels of each mobile project facilitates secure access to key project and product components. This helps lock down functionality at different levels within the platform. It also encourages an API-driven and microservices development approach, enabling ease of discovery and reusability.
Mobile application life-cycle management (ALM)	Time-to-market for mobile projects puts DevOps teams under pressure to manage multiple iterative app releases. Mobile ALM allows configuration and management of multiple project environments (e.g., development, test, pre-production, production) incorporating the access control features of collaboration.
Developer workflow	By giving every application and cloud back end within a project its own Git repository, a coordinated workflow is a reality. Git supports source code version control and collaboration, allowing multiple developers to work on the same code in parallel.

4. FRONT-END DEVELOPMENT TOOLS

FEATURE	BENEFIT
Open and flexible toolkits	Developers are more productive with freedom to use their choice of tools, including any integrated development environment (IDE) for hybrid and native mobile app development. Support is provided for native software development kits (SDKs) (iOS, Android, Windows Phone), hybrid Apache Cordova, HTML5 and Appcelerator, as well as Xamarin, Sencha, React, Ionic, Backbone.js, Angular.js, Ember.js, and JBoss Developer Studio.

FEATURE	BENEFIT
JBoss Developer Studio	An Eclipse IDE for building mobile apps for all major operating systems via Apache Cordova. Integrated with the mobile platform, JBoss Developer Studio provides organizations with a fully supported development environment. This includes productivity tools such as UI element palettes and quick-start projects for popular frameworks like Ionic, Angular.js, and Backbone.js.
Application migration	Existing mobile applications can be migrated and centrally managed. Whether it's native, HTML5, or hybrid applications, code is not lost. Credentials and certificates are centralized and updates can be transferred from one team to another.
Online/offline workflow	Developers are free to work locally in their own environment or in the hosted studio with access to collaboration, MBaaS features, reusable code, templates, APIs, shared services, and more.
Multidevice builds	The hosted build farm service supports builds for native and hybrid applications for iOS, Android, and Windows Phone, generating build and digital signatures. This eliminates the need to maintain device-specific hardware/software environments to build new applications.
Credential storage	Developers can store credential bundles for building debug, test, and production apps across all platforms. This provides a single repository for signing credentials independent of the developer's local machine. For organizations with large in-house or external development teams, this simplifies the management of signing credentials and future app updates.

5. RAPID MOBILE APPLICATION DEVELOPMENT

FEATURE	BENEFIT
Mobile forms builder	Fast results can be achieved from quickly transforming paper-based processes to mobile forms. Apps can be quickly created, without writing code, with the ease of a mobile forms builder. This low-code approach to building apps is also an excellent option for prototyping ideas and extending existing back-end applications with forms capabilities.
Templates	To kick-start the creation of new mobile app projects, the ready-to-use sample and template apps provide the fundamentals of building cloud-powered mobile apps and back-end integrations.
Field workforce management (WFM) modules	Field WFM modules are open source components designed for organizations building mobile apps for field operations. They can be used to customize features to support workflow of job orders, scheduling, and management of field workers on mobile devices.

6. CLOUD AND ON-PREMISE DEPLOYMENT

FEATURE	BENEFIT
Hosted deployment	Red Hat Mobile Application Platform is a cloud-agnostic architecture and offers a wide range of cloud deployments to suit any enterprise requirement. Public cloud hosting offers affordability and reasonable service level agreements (SLAs). For highly sensitive mobile workloads and high availability requirements, organizations can consider dedicated clouds or hybrid cloud environments that offer the best of both worlds. Cloud hosting options include: • Public multitenant • Private, dedicated and managed • Hybrid, the application cloud code (dedicated MBaaS) can reside in other clouds
On-premise deployment	Taking advantage of the capabilities of Red Hat Enterprise Linux® and OpenShift Enterprise by Red Hat, Red Hat Mobile Application Platform can be deployed in traditional on-premise scenarios where the organization manages the platform. This facilitates a greater degree of data management, as all data from back-end systems will pass through an organization's infrastructure on its way to the mobile device.

ABOUT RED HAT
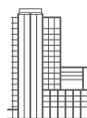
Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.