Oracle Autonomous Mobile Cloud Enterprise

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Mobile Cloud

"More than 50% of the world's population now carries a smartphone. Mobile is everywhere and continues to be the dominant way we consume information and services"

WHAT'S INLUDED

- Mobile Application Development Platform, Services & APIs
- Intelligent Bots
- Analytics
- Developer Cloud Service

More than 50% of the world's population now carries a smartphone. Mobile is everywhere and continues to be the dominant way we consume information and services. As consumers, many of us depend on rich Mobile apps to engage with brands, services and our work. The explosion in popularity and use of messaging and chat apps has given rise to a new breed of app; the "Chatbot". Intelligent Bots that are able to respond to the user through text chat or voice to obtain information or perform transactions on the user's behalf, right from the messaging app they already have installed. Today's Digital Enterprises need a Mobile platform that enables them to engage consistently across all these channels.

Complete Cloud Platform for Mobile, Web & Bots

Oracle Autonomous Mobile Cloud Enterprise (AMCe) is a complete omni-channel platform to help you engage intelligently and contextually with your customers, business partners and employees through the end user's channel of choice. It enables you to deliver digital experiences that will delight your internal and external customers across multiple digital channels. You can not only can engage via mobile and web channels, but now take the next giant leap in our evolution—Intelligent Bots backed by Artificial Intelligence. As well as providing the platform for you to build engaging experiences across Mobile, Bots and Web, you also get actionable insights via Analytics that gives you deep insights into user adoption and behavior, so you can personalize your engagement with your end users and ensure that everything is running at peak performance.

Building Better Mobile Apps Faster

At the core of AMCe is highly-scalable, enterprise-grade Mobile Application Development Platform (MADP), also sometimes referred to as a Mobile Backend as a Service (MBaaS). It provides a rich set of "Mobile First" services to allow mobile front-end developers to focus on designing delightful mobile experiences, while making it easy for back-end service developers to create secure and robust mobile optimized services to enterprise back-end systems. By utilizing these built-in services, developers can rapidly build great mobile experiences that are location aware, work offline and can handle push notifications anytime, anywhere.

These Mobile First services are exposed as APIs that mobile app developers can invoke through SDKs supporting the most common development tools including Oracle's JET

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- Connect any mobile client to any backend system using **industry standards** such as REST and SOAP
- Build **Intelligent Chatbots** for popular messaging apps like Facebook Messenger, Slack and Kik
- Easily build Bots that handle **QnA** requests from users and that can hand over to a **Live Agent** when needed
- Use **JavaScript** and **Node.js** to create highly scalable APIs and extend using popular open-source node.js modules
- **API First**: Browse and publish to API Catalog with built in lifecycle management. Collaborate faster with mock APIs
- Sophisticated usage and performance **analytics** with customizable dashboards providing **Actionable Insights**
- **Low code** development. Build and deploy native mobile & web apps in a visual dev environment. Code optional.

KEY FEATURES

- AI powered NLP for Intent and Entity detection
- Built in mobile services such as push notifications, location based services, storage, offline & sync and user management
- Client SDKs for Apple iOS, Android, Windows and JavaScript mobile apps
- Command line testing and debugging tools to support DevOps
- Configurable and reusable Connectors that define policies around APIs securely connect to external systems
- Express API wizard to rapidly design a set of APIs
- Support for OAUTH2, SSO with external identity providers and social logins
- Behavioral analytics to maximize digital traction by tracking usage, conversion and engagement metrics
- Service level analytics to detect execution anomalies, locate failed

(oraclejet.org), Ionic, Angular, native (Swift, Android), Microsoft Xamarin or directly from any client app framework using standard REST calls.

- **Offline / Data Synchronization**: Provides two-way data synchronization with conflict detection and customizable resolution rules.
- **Location Services**: Provides the ability to deliver contextual information based on user's location using a combination GPS and Beacons.
- **Push Notifications**: Adds immediacy to your mobile apps by communicating with your users when a significant event occurs.
- **Storage**: Stores data in a collection that can be accessed by any mobile app. Gets the data off the client and onto the server where it belongs.
- **User Management**: Simplifies self-registration and login procedures for the mobile app developer.
- **SMS** – with Syniverse / Twillio etc

You not only get the out-of-the-box services that every mobile app requires, but also the ability to define and implement new custom mobile-ready APIs quickly and cleanly. Using an API First approach, front-end and back-end developers can collaborate faster with mock APIs which can then be implemented in parallel and published to the API Catalog.

These custom APIs can make connections to your backend systems over existing REST APIs, SOAP web services or through Oracle Integration Cloud. Connections to Oracle Fusion-based software-as-a-service (SaaS) applications, such as Oracle Human Capital Management Solution (HCM), Oracle Supply Chain Management (SCM), and Oracle Customer Relationship Management Solution (CRM) are simplified with a built-in wizard.

*Back-end Connectors in Oracle Autonomous Mobile Cloud Enterprise*

The developer can then use simple JavaScript code to shape the data from the backend-end system and optimize the API according to the specific needs of each mobile front-end. Custom APIs are executed inside *node.js* containers, which allows you to extend your API with hundreds of thousands of open-source nodejs modules. What's more, all API calls from your mobile client applications to built-in or custom APIs are made via uniform REST calls, thus creating a cohesive development environment that's easy to control and maintain.

Intelligent Bots

With AMCe you can develop Intelligent Bots that provide a more natural conversational user interface, through text or speech, to your enterprise systems. By using Artificial

calls, and identify opportunities for performance enhancements

Intelligence (AI) and Natural Language Processing (NLP) powered by Neural Networks and Machine Learning, your Bots can more easily detect what the user is trying to achieve (their intent) and any other relevant things mentioned in their chat message. All it takes to define an intent is a few sample phrases (utterances) that you use to train your Intelligent Bot on how to recognize that user intent. The built-in testing tool allows you to iteratively train and test your Bot to get the results you require.
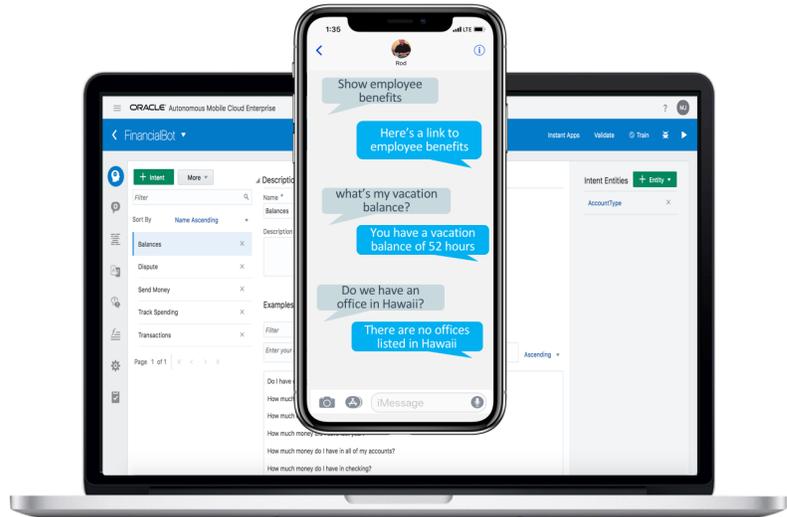
Oracle Autonomous Mobile Cloud Enterprise – Intelligent Bots

This intent detection is combined with a powerful state machine that maintains the context of the conversation and allows you to define the appropriate conversational flows and sub-flows, and how to properly respond to the end user. On occasions when the end user really does need to speak to a human being, the Bot can be configured to hand over the conversation to a live agent in Oracle Service Cloud (RightNow), where the agent can handle the enquiry as if it were a regular inbound communication, then pass control back to the Bot. A perfect collaboration between humans and Bots.

Custom components can be invoked during the flow to fetch information or perform transactions through your APIs to your backend systems. Your Bot can be programmed to carry out any task that your available APIs allow it to perform. APIs built for your mobile apps and your Bots can be shared across all application types, maximizing reuse and productivity.

Channels allow you to define how your Bot will be deployed to your chosen messaging or voice channels. With many of the Chat clients providing a richer set of UI controls in addition to plain text, channels help your Bot adapt the way the conversation is presented according to the capabilities of the channel currently in use. In addition to Facebook Messenger, Kakaotalk, iOS, Android and Web sites, AMCe provides a flexible Web Hook mechanism that can be used to connect your Intelligent Bot many other channels.

One of the most common uses for a Bot is to answer frequently asked questions. Oracle Intelligent Bots makes it easy to create a QnA Bot by importing a set of existing

questions and answers. Intents and QnA actions can be combined with a Bot to provide the best of both styles of interaction.

For more information see the Oracle Autonomous Mobile Cloud Enterprise Intelligent Bots datasheet.

Analytics

AMCe provides all the analytic tools you need to develop a deep understanding of customer behavior, so you can efficiently engage with them to drive key business goals. Included are a set of rich tools for analyzing, monitoring, and optimizing mobile, web apps, and Intelligent Bots. It provides up-to-the-minute, detailed insights into what users are doing — using actual behavioral data — to take the guesswork out of what's working, and what isn't. You can then take action based on these insights to optimize your solution.

The core principle driving the design of the analytics is to allow customers to generate as much data as they want and still be able to obtain reports in seconds. This is achieved via a Big Data Lambda Architecture that supports real-time updates without needing to maintain infinitely growing mutable states. The goal is to capture and analyze any number of user actions as events within an application. An event can be anything – someone selecting and placing an item in a shopping cart, a registered user logging into an application, or someone reading an e-book.
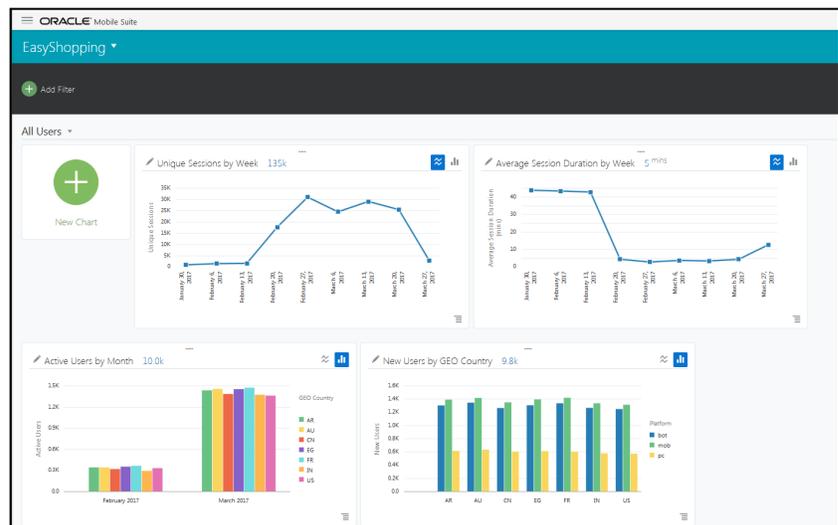
Customer Experience Analytics

Any enterprise-grade mobile analytics service must cater to a broad range of personas, each of which has its own specific set of requirements and business goals

The **marketing analyst** persona is primarily interested in obtaining the classical funnel, retention, and segmentation behavioral patterns. These patterns can range from simple, "number of users active on a given day", to fairly complex "people who have started using the app X days after installing it". Queries can be either pre-canned or ad hoc.

User and sessions reports give you a deep look into who's using your app, and how often users return. Use these reports to gain basic insights, such as identifying new

users who sign up, their location, what model of device they're using, and the total time spent by users on the apps (among other options). These reports can also be used by the business manager persona to conduct a portfolio analysis of the mobile apps to determine usage/error trends.

The analytics reports generated by AMCe Analytics enables **developers** to see an application's adoption rate and identify which APIs/functions are used the most (or the least). Response time monitoring allows you to detect execution anomalies, locate failed calls, and identify opportunities for performance enhancements.

For more information see the Autonomous Mobile Cloud Enterprise Analytics datasheet.

Mobile App Development

With AMCe developers are free to choose the front-end development tools and frameworks most suited to their skills and requirements. Any client side tooling that can make REST API calls can be used with AMCe. Client SDKs are provided for native app and hybrid developers to make it easier to use APIs and services published from AMCe's mobile core.

- **Native SDKs**: Apple iOS, Android, Windows and Xamarin
- **Hybrid & Web SDKs**: JavaScript, Apache Cordova

Whilst AMce is completely open to any client-side development tools and frameworks, it includes a set of Oracle development tools to suit the skills and requirements of different developers.

JavaScript, Java or Low-Code Mobile App Development Tools

- **Oracle Mobile Application Accelerator** (Oracle MAX) is a no-code Rapid Mobile Application Development Tool (RMAD) that allows non-technical "citizen developers" to quickly compose on-device mobile apps. Using templates and the simple drag and drop designer you can quickly develop Apps that can be simply deployed to your users through a container app they can download from the app store relevant to their device. MAX apps access your backend systems through the APIs published in the same API catalog as any other mobile app, so your citizen developers don't need to deal with creating secure connections into your enterprise systems.
- **Oracle JavaScript Extension Toolkit** (Oracle JET) empowers developers by providing a modular open source toolkit based on modern JavaScript, CSS3 and

HTML5 design and development principles. It is targeted at intermediate to advanced JavaScript developers working on client-side applications. It's a collection of open source JavaScript libraries along with a set of Oracle contributed JavaScript libraries that make it as simple and efficient as possible to build applications that consume and interact with Oracle products and services, especially Oracle Cloud services. Jet applications can be deployed as responsive web apps or deployed as an Apache Cordova hybrid mobile app through an App Store. Using the AMCe JavaScript and Cordova SDKs, Oracle JET applications have full access to all of the rich mobile services and APIs to connect to your enterprise systems. See oraclejet.org.

- **Oracle Mobile Application Framework** (Oracle MAF) is a hybrid mobile framework that enables developers to rapidly develop single-source applications and deploy to Apple's iOS, Google's Android, and Microsoft Windows 10 platforms. Oracle MAF leverages Java, HTML5 and JavaScript to deliver a complete MVC framework with declarative user interface definition, device features integration and built-in security. Oracle MAF provides a visual and declarative development experience and maximizes code reuse resulting in faster development of mobile applications. Oracle MAF is tightly integrated with AMCe making it easier for MAF developers to take advantage of all the built-in mobile service and APIs to connect to your enterprise systems.

So whether your developers already have a favorite set of mobile application development tools or you are looking to adopt a new set of tools, AMCe has you covered.

Build BETTER Apps FASTER

Oracle Autonomous Mobile Cloud Enterprise enables you to connect any mobile client to any backend system. Whether it's text and speech capable Chatbots, device-resident mobile apps for smartphones, tablets and "wearables" or mobile web, you'll have a platform that enables you to develop, deploy, manage and analyze mobile apps for all your end users. Built on open source technology, Oracle's Mobile Cloud is designed to be future-proof, agile and flexible for whatever lies ahead.

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Integrated Cloud Applications & Platform Services

Oracle is committed to developing practices and products that help protect the environment