BlackBerry Dynamics SDK for React Native

Release Notes

11.0

2022-10-20Z

Contents

BlackBerry Dynamics SDK for React Native version 11.0

The BlackBerry Dynamics SDK for React Native is open sourced and available on GitHub, along with developer documentation and sample apps, at https://github.com/blackberry/BlackBerry-Dynamics-React-Native-SDK.

New in this release

Feature	Description
BlackBerry Dynamics SDK support	BlackBerry Dynamics SDK for iOS and Android 11.0 is now supported in this release.

Support

Feature	Description
Development requirements	• macOS X • Windows 10 (Android only)
React Native supported versions	• 0.68.x (0.68.2 is the latest supported version) • 0.67.x • 0.66.x React Native 0.68.x requires Node.js version 14.x. and Java version 11.x.
BlackBerry Dynamics SDK supported versions	• BlackBerry Dynamics SDK for Android version 10.1 10.2, and 11.0. See the software and development requirements. • BlackBerry Dynamics SDK for iOS version 10.1 10.2, and 11.0. See the software and development requirements. • The BlackBerry Dynamics SDK for React Native supports the BlackBerry Dynamics SDK for iOS version 11.0 dynamic framework only. The iOS SDK static framework is no longer supported.

Features

Feature	Description
Integration with BlackBerry Dynamics	Integration of the BlackBerry Dynamics SDK for iOS and Android into the React Native application is supported by the addition of the BlackBerry-Dynamics-for-React-Native-Base module. You can also integrate a locally downloaded version of BlackBerry Dynamics SDK for iOS into your BlackBerry Dynamics React Native app.
Secure connectivity	• XMLHttpRequest and fetch are secured in scope of the BlackBerry-Dynamics-for-React-Native-Networking module. • <WebView /> is secured in scope of the BlackBerry-Dynamics-for-React-Native-WebView UI component.

Feature	Description
Secure storage	• AsyncStorage is secured in the BlackBerry-Dynamics-for-React-Native-Async-Storage module. • SQLite is secured in the BlackBerry-Dynamics-for-React-Native-SQLite-Storage module.

Data leakage prevention (DLP)	No code work is required to support DLP for iOS and Android. Note the following:
	
	• On iOS, the <Text /> component, <TextInput /> component, and Clipboard API are secured by integrating BlackBerry Dynamics.
	• On Android, the following items are required:
	    • The <Text /> component is secured in scope of the BlackBerry-Dynamics-for-React-Native-Text UI component.
	    • The <TextInput /> component is secured in scope of the BlackBerry-Dynamics-for-React-Native-TextInput UI component.
	    • The BlackBerry-Dynamics-for-React-Native-Clipboard module secures the Clipboard API on Android.

Inter-Container Communication (ICC)	ICC (also known as AppKinetics) provides service discovery, service consumption, and service providing capabilities for BlackBerry Dynamics React Native apps and allows secure communication with other BlackBerry Dynamics apps. To implement some ICC capabilities in BlackBerry Dynamics React Native apps, use the BlackBerry-Dynamics-for-React-Native-AppKinetics module.
Support for Yarn package manager	• To add a BlackBerry Dynamics React Native module, run following command: `$ yarn add <path_to_module>` • To remove a BlackBerry Dynamics React Native module, run following command: `$ yarn remove <path_to_module>` For more information, see the readme file for each module.
Importing a prepopulated SQLite database	You can use any of the methods detailed here to import a prepopulated SQLite database: Importing a prepopulated database. The third method is supported for Android only. For more information, see the readme file at https://github.com/blackberry/BlackBerry-Dynamics-React-Native-SDK.

Package contents

Feature	Description
Modules	• BlackBerry-Dynamics-for-React-Native-Base automatically integrates the BlackBerry Dynamics SDK for iOS and Android into the React Native application. • BlackBerry-Dynamics-for-React-Native-Networking secures XMLHttpRequest and fetch APIs on Android. For more information, see React Native: Networking. • BlackBerry-Dynamics-for-React-Native-SQLite-Storage secures SQLite database usage, based on the react-native-sqlite-storage third-party module. • BlackBerry-Dynamics-for-React-Native-Async-Storage secures built-in AsyncStorage. • BlackBerry-Dynamics-for-React-Native-Clipboard secures the built-in Clipboard API. • BlackBerry-Dynamics-for-React-Native-AppKinetics provides the ability to use BlackBerry Dynamics app-based services within a BlackBerry Dynamics React Native app to securely communicate with other BlackBerry Dynamics apps in a process called Inter-Container Communication (ICC) or AppKinetics; also provides service discovery, service consumption, and service providing capabilities. • BlackBerry-Dynamics-for-React-Native-FileSystem secures the API for the react-native-fs module; the JavaScript API of this module is the same, but files and directories are now stored and managed within the BlackBerry Dynamics secure container. • BlackBerry-Dynamics-for-React-Native-Launcher allows you to integrate the BlackBerry Dynamics Launcher with your BlackBerry Dynamics React Native apps. • BlackBerry-Dynamics-for-React-Native-Application allows you to access information that is globally available to any BlackBerry Dynamics app.
UI components	• BlackBerry-Dynamics-for-React-Native-Text enables data leakage protection (DLP) within UI components on Android. • BlackBerry-Dynamics-for-React-Native-TextInput enables DLP within UI components on Android. • BlackBerry-Dynamics-for-React-Native-WebView secures the built-in <WebView /> UI component to securely load public and enterprise resources within a WebView.

Feature	Description
Sample apps	• BasicNetworking provides examples of using fetch and XMLHttpRequest in different scenarios. This app covers different HTTP request types (GET, POST, PUT, DELETE, and so on), authentication types (basic auth, Digest, NTLM), and includes the ability to send different data types to the server and receive responses for different data types. • ClipboardTestApp demonstrates how to use the Clipboard API for data leakage prevention (DLP). It is possible to change the DLP policy on UEM and see how it affects the clipboard within the app. If DLP is enabled, clipboard data cannot be copied from a BlackBerry Dynamics app to a non-BlackBerry Dynamics app, and vice-versa. • DLP demonstrates how to use the <Text /> and <TextInput /> UI components together with the UEM DLP policy option. If DLP is on, it is not possible to perform cut-copy-paste operations to transfer data from BlackBerry Dynamics to non-BlackBerry Dynamics applications, and vice-versa. • SQLite demonstrates how to use a secure SQLite DB instance in a React Native app. • UnitTest runs Jasmine unit tests for fetch, XMLHttpRequest, Clipboard, AsyncStorage, SQLite, and AppKinetics in a React Native application. • WebViewBrowser demonstrates how to use the <WebView /> component in a React Native application. • FileSystem demonstrates how to use a secure FileSystem instance in a React Native app, how to manage files and directories, and how to upload and download files. • WebSocketClient and WebSocketServer demonstrate how to establish a connection to a WebSocket server using "ws://" or "wss://" protocols, how to send or receive text or binary data over a WebSocket connection, and how to close a WebSocket connection. • AppKinetics demonstrates how to use AppKinetics, or secure Inter-Container Communication (ICC), including sending and receiving files using ICC and creating secure email with BlackBerry Work or the native email client (if permitted). • Policy demonstrates how to retrieve a collection of app-specific configuration and policy settings. The retrieval of these settings happens during the method call or whenever settings are changed.

Known issues

- On an Android 11 device, if the targetSdkVersion is set to 30, a BlackBerry Dynamics React Native app stops responding with an "Exception in native call" error. This is due to a known React Native issue and is not specific to BlackBerry Dynamics. For more information, see ReactNative app crashes on Android 11 device with targetSdkVersion 30.
- When an app is in dark mode, text in textinput fields become white and cannot be read on a white background. This is a known issue with the React Native platform. For more information, see https://github.com/facebook/react-native/issues/26299 and https://github.com/xgfe/react-native-datepicker/issues/365. (GD-47807)

  Workaround: Add the following lines to your plist file to prevent system ui-elements from changing color when in dark mode:

```
*<key>UIUserInterfaceStyle</key>
<string>Light</string>*
```

- Flipper is disabled by default on iOS. Flipper cannot be used with BlackBerry Dynamics SDK for React Native on iOS in debug configuration because it disables some BlackBerry Dynamics secure networking functionality.

  If your BlackBerry Dynamics SDK for React Native app on iOS does not use the secure connectivity feature (**BlackBerry-Dynamics-for-React-Native-Networking** module), you can enable Flipper by uncommenting the **use_flipper!()** line in Podfile.

Legal notice

WERE FORESEEN OR UNFORESEEN, AND EVEN IF BLACKBERRY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW IN YOUR JURISDICTION, BLACKBERRY SHALL HAVE NO OTHER OBLIGATION, DUTY, OR LIABILITY WHATSOEVER IN CONTRACT, TORT, OR OTHERWISE TO YOU INCLUDING ANY LIABILITY FOR NEGLIGENCE OR STRICT LIABILITY.

THE LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS HEREIN SHALL APPLY: (A) IRRESPECTIVE OF THE NATURE OF THE CAUSE OF ACTION, DEMAND, OR ACTION BY YOU INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR ANY OTHER LEGAL THEORY AND SHALL SURVIVE A FUNDAMENTAL BREACH OR BREACHES OR THE FAILURE OF THE ESSENTIAL PURPOSE OF THIS AGREEMENT OR OF ANY REMEDY CONTAINED HEREIN; AND (B) TO BLACKBERRY AND ITS AFFILIATED COMPANIES, THEIR SUCCESSORS, ASSIGNS, AGENTS, SUPPLIERS (INCLUDING AIRTIME SERVICE PROVIDERS), AUTHORIZED BLACKBERRY DISTRIBUTORS (ALSO INCLUDING AIRTIME SERVICE PROVIDERS) AND THEIR RESPECTIVE DIRECTORS, EMPLOYEES, AND INDEPENDENT CONTRACTORS.

IN ADDITION TO THE LIMITATIONS AND EXCLUSIONS SET OUT ABOVE, IN NO EVENT SHALL ANY DIRECTOR, EMPLOYEE, AGENT, DISTRIBUTOR, SUPPLIER, INDEPENDENT CONTRACTOR OF BLACKBERRY OR ANY AFFILIATES OF BLACKBERRY HAVE ANY LIABILITY ARISING FROM OR RELATED TO THE DOCUMENTATION.

Prior to subscribing for, installing, or using any Third Party Products and Services, it is your responsibility to ensure that your airtime service provider has agreed to support all of their features. Some airtime service providers might not offer Internet browsing functionality with a subscription to the BlackBerry® Internet Service. Check with your service provider for availability, roaming arrangements, service plans and features. Installation or use of Third Party Products and Services with BlackBerry's products and services may require one or more patent, trademark, copyright, or other licenses in order to avoid infringement or violation of third party rights. You are solely responsible for determining whether to use Third Party Products and Services and if any third party licenses are required to do so. If required you are responsible for acquiring them. You should not install or use Third Party Products and Services until all necessary licenses have been acquired. Any Third Party Products and Services that are provided with BlackBerry's products and services are provided as a convenience to you and are provided "AS IS" with no express or implied conditions, endorsements, guarantees, representations, or warranties of any kind by BlackBerry and BlackBerry assumes no liability whatsoever, in relation thereto. Your use of Third Party Products and Services shall be governed by and subject to you agreeing to the terms of separate licenses and other agreements applicable thereto with third parties, except to the extent expressly covered by a license or other agreement with BlackBerry.

The terms of use of any BlackBerry product or service are set out in a separate license or other agreement with BlackBerry applicable thereto. NOTHING IN THIS DOCUMENTATION IS INTENDED TO SUPERSEDE ANY EXPRESS WRITTEN AGREEMENTS OR WARRANTIES PROVIDED BY BLACKBERRY FOR PORTIONS OF ANY BLACKBERRY PRODUCT OR SERVICE OTHER THAN THIS DOCUMENTATION.

BlackBerry Enterprise Software incorporates certain third-party software. The license and copyright information associated with this software is available at http://worldwide.blackberry.com/legal/thirdpartysoftware.jsp.

BlackBerry Limited
2200 University Avenue East
Waterloo, Ontario
Canada N2K 0A7

BlackBerry UK Limited
Ground Floor, The Pearce Building, West Street,
Maidenhead, Berkshire SL6 1RL
United Kingdom

Published in Canada