



# **BlackBerry Dynamics SDK for React Native Release Notes**

10.1



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# BlackBerry Dynamics SDK for React Native version 10.1

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
Supported versions of React Native	<p>The following version changes have been made in this release of BlackBerry Dynamics SDK for React Native:</p> <ul style="list-style-type: none"><li>• Version 0.68.x is now supported.</li><li>• Version 0.67.x is now supported.</li><li>• Version 0.63.x has been removed.</li><li>• Version 0.64.x has been deprecated and will be removed in a future release.</li><li>• Version 0.65.x has been deprecated and will be removed in a future release.</li><li>• Sample apps have been upgraded to version 0.66.4 and include steps on upgrading to version 0.67 or 0.68.</li></ul>
Support for local BlackBerry Dynamics SDK for iOS integration	<p>You can now integrate a locally downloaded BlackBerry Dynamics SDK for iOS into your BlackBerry Dynamics React Native app. To use a locally downloaded version of the library, run the following command:</p> <pre>\$ yarn set-dynamics-podspec --path "/Users/&lt;user&gt;/Downloads/gdsdk-release-dylib-X.X.X.X/BlackBerry_Dynamics_SDK_for_iOS_vX.X.X.X_dylib"\$ cd ios &amp;&amp; pod install &amp;&amp; cd ..</pre>
Implemented modules and sample apps	<p>The following module has been implemented in this release of BlackBerry Dynamics SDK for React Native:</p> <ul style="list-style-type: none"><li>• <a href="#">BlackBerry-Dynamics-for-React-Native-Application</a></li></ul> <p>The following Sample app has been implemented in this release of BlackBerry Dynamics SDK for React Native:</p> <ul style="list-style-type: none"><li>• <a href="#">Policy</a></li></ul>

## Support

Feature	Description
Development requirements	<ul style="list-style-type: none"><li>• macOS X</li><li>• Windows 10 (Android only)</li></ul>
React Native supported versions	<ul style="list-style-type: none"><li>• 0.68.x (0.68.2 is the latest supported version)</li><li>• 0.67.x</li><li>• 0.66.x</li></ul> <p>React Native 0.68.x requires Node.js version 14.x. and Java version 11.x.</p>

Feature	Description
BlackBerry Dynamics SDK supported versions	<ul style="list-style-type: none"> <li>• BlackBerry Dynamics SDK for Android version 10.2. See the <a href="#">software and development requirements</a>.</li> <li>• BlackBerry Dynamics SDK for iOS version 10.2. See the <a href="#">software and development requirements</a>.</li> <li>• The BlackBerry Dynamics SDK for React Native supports the <a href="#">BlackBerry Dynamics SDK for iOS version 10.0 dynamic framework</a> only. The iOS SDK static framework is no longer supported.</li> </ul>

## 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	<ul style="list-style-type: none"> <li>• XMLHttpRequest and fetch are secured in scope of the BlackBerry-Dynamics-for-React-Native-Networking module.</li> <li>• &lt;WebView /&gt; is secured in scope of the BlackBerry-Dynamics-for-React-Native-WebView UI component.</li> </ul>
Secure storage	<ul style="list-style-type: none"> <li>• AsyncStorage is secured in the BlackBerry-Dynamics-for-React-Native-Async-Storage module.</li> <li>• SQLite is secured in the BlackBerry-Dynamics-for-React-Native-SQLite-Storage module.</li> </ul>
Data leakage prevention (DLP)	<p>No code work is required to support DLP for iOS and Android. Note the following:</p> <ul style="list-style-type: none"> <li>• On iOS, the &lt;Text /&gt; component, &lt;TextInput /&gt; component, and Clipboard API are secured by integrating BlackBerry Dynamics.</li> <li>• On Android, the following items are required: <ul style="list-style-type: none"> <li>• The &lt;Text /&gt; component is secured in scope of the BlackBerry-Dynamics-for-React-Native-Text UI component.</li> <li>• The &lt;TextInput /&gt; component is secured in scope of the BlackBerry-Dynamics-for-React-Native-TextInput UI component.</li> <li>• The BlackBerry-Dynamics-for-React-Native-Clipboard module secures the <a href="#">Clipboard</a> API on Android.</li> </ul> </li> </ul>

Feature	Description
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	<ul style="list-style-type: none"> <li>To add a BlackBerry Dynamics React Native module, run following command: <code>\$ yarn add &lt;path_to_module&gt;</code></li> <li>To remove a BlackBerry Dynamics React Native module, run following command: <code>\$ yarn remove &lt;path_to_module&gt;</code></li> </ul> <p>For more information, see the readme file for each module.</p>
Importing a prepopulated SQLite database	You can use any of the methods detailed here to import a prepopulated SQLite database: <a href="#">Importing a prepopulated database</a> . The third method is supported for Android only. For more information, see the readme file at <a href="https://github.com/blackberry/BlackBerry-Dynamics-React-Native-SDK">https://github.com/blackberry/BlackBerry-Dynamics-React-Native-SDK</a> .

### Package contents

Feature	Description
Modules	<ul style="list-style-type: none"> <li>BlackBerry-Dynamics-for-React-Native-Base automatically integrates the BlackBerry Dynamics SDK for iOS and Android into the React Native application.</li> <li>BlackBerry-Dynamics-for-React-Native-Networking secures XMLHttpRequest and fetch APIs on Android. For more information, see <a href="#">React Native: Networking</a>.</li> <li>BlackBerry-Dynamics-for-React-Native-SQLite-Storage secures SQLite database usage, based on the <a href="#">react-native-sqlite-storage</a> third-party module.</li> <li>BlackBerry-Dynamics-for-React-Native-Async-Storage secures built-in <a href="#">AsyncStorage</a>.</li> <li>BlackBerry-Dynamics-for-React-Native-Clipboard secures the built-in <a href="#">Clipboard</a> API.</li> <li>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.</li> <li>BlackBerry-Dynamics-for-React-Native-FileSystem secures the API for the <a href="#">react-native-fs</a> 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.</li> <li>BlackBerry-Dynamics-for-React-Native-Launcher allows you to integrate the BlackBerry Dynamics Launcher with your BlackBerry Dynamics React Native apps.</li> <li>BlackBerry-Dynamics-for-React-Native-Application allows you to access information that is globally available to any BlackBerry Dynamics app.</li> </ul>

Feature	Description
UI components	<ul style="list-style-type: none"> <li>• BlackBerry-Dynamics-for-React-Native-Text enables data leakage protection (DLP) within UI components on Android.</li> <li>• BlackBerry-Dynamics-for-React-Native-TextInput enables DLP within UI components on Android.</li> <li>• BlackBerry-Dynamics-for-React-Native-WebView secures the built-in <code>&lt;WebView /&gt;</code> UI component to securely load public and enterprise resources within a WebView.</li> </ul>
Sample apps	<ul style="list-style-type: none"> <li>• BasicNetworking provides examples of using <code>fetch</code> and <code>XMLHttpRequest</code> 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.</li> <li>• ClipboardTestApp demonstrates how to use the <a href="#">Clipboard</a> 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.</li> <li>• DLP demonstrates how to use the <code>&lt;Text /&gt;</code> and <code>&lt;TextInput /&gt;</code> 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.</li> <li>• SQLite demonstrates how to use a secure SQLite DB instance in a React Native app.</li> <li>• UnitTest runs Jasmine unit tests for <code>fetch</code>, <code>XMLHttpRequest</code>, <code>Clipboard</code>, <code>AsyncStorage</code>, <code>SQLite</code>, and <code>AppKinetics</code> in a React Native application.</li> <li>• WebViewBrowser demonstrates how to use the <code>&lt;WebView /&gt;</code> component in a React Native application.</li> <li>• 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.</li> <li>• 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.</li> <li>• AppKinetics demonstrates how to use <a href="#">AppKinetics, or secure Inter-Container Communication (ICC)</a>, including sending and receiving files using ICC and creating secure email with BlackBerry Work or the native email client (if permitted).</li> <li>• 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.</li> </ul>

### 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.



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