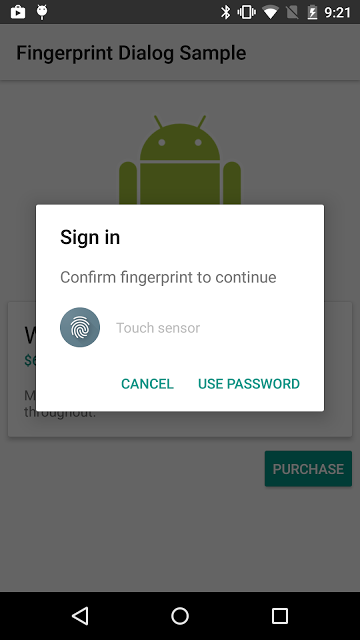
Android Finger-Print API

# Introduction

Finger print API is a new feature supported in Android M and above OS versions. This API coordinates access to the fingerprint hardware for authenticating a user locally. Fingerprint hardware which is a biometric fingerprint reader that takes the place on the devices where manufacture’s integrated. Using this API the user can authenticate various payments, unlock the device and so forth. Finger print API is securely stored in the secure enclave of the device and is not accessible outside. Hence this authentication mechanism is very secure.

2. Scope

This feature is available from Android API level 23 and above onwards. Sample screen where touch ID API is invoked looks as below.



In above screen shot, alert is show to the user when application require authentication through fingerprint. In this process for each action application gets respective status code, so that developers can build there logic and customized UI with respective response.

The user can choose whether he/she want to authenticate either by fingerprint or password. When the user chooses the “Enter password” option the application has to handle this alternate authentication method.

# 3. Widgets Applicable

N/A

# 4. Properties

N/A

# 5. APIs

## 5.1kony.localAuthentication.getStatusForAuthenticationMode

This API returns the status of authentication mode. Developer can use this API to verify whether local authentication is supported on the device or not.

## 5.1.1 Signature

status kony.localAuthentication.getStatusForAuthenticationMode(authenticationMode)

## Parameters and Return Type

1. status - a status code indicating the support for local authentication using touch id. It also returns a different status code based on the state of the device. These status codes are explained below in the section 6. “Status and Message”.

|  |  |
| --- | --- |
| name | Status |
| Data type | Number |
| Mandatory / optional | N/A |
| Description | status code indicating the support for local authentication using touch id |
| Supported platforms | IOS and Android only. |

1. authenticationMode – the authentication mode for which the status is being requested.

|  |  |
| --- | --- |
| name | authenticationMode |
| Data type | constant |
| Mandatory / optional | Mandatory |
| Allowed values | constants.LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID |
| Description | The authentication mode for which the status is being requested. |
| Supported platforms | IOS and Android only. |

## JavaScript Example

function isAuthUsingTouchSupported()

{

var status = kony.localAuthentication.getStatusForAuthenticationMode(constants.LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID);

if(status == 5000)

{

kony.ui.Alert({message: "AUTHENTICATION BY TOUCHID SUPPORTED",

alertType: constants.ALERT\_TYPE\_INFO,

yesLabel:"Close"},

{});

}

else

{

var msg = "TOUCHID AUTHENTICATION RETURNED THE STATUS ::"+status;

kony.ui.Alert({message: status,

alertType: constants.ALERT\_TYPE\_INFO,

yesLabel:"Close"},

{});

}

}

## Platform Availability

Available for iOS and Android.

## kony.localAuthentication.authenticate

This API is used to authenticate the user. It takes three parameters, which are the authentication mode, a status callback and config map.

## Signature

## kony.localAuthentication.authenticate(authenticationMode,statusCallback,configMap);

## Parameters

1. authenticationMode

|  |  |
| --- | --- |
| Name | authenticationMode |
| Data type | Constant |
| Mandatory / optional | Mandatory |
| Allowed values | constants.LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID |
| Default value | N/A |
| Description | Authentication mode for authentication |
| Supported platforms | IOS and Android |

2.statusCallBak(status,message)

A call back, which is used to convey the status of the authentication with, appropriate status and message.

|  |  |
| --- | --- |
| Name | statusCallBak |
| Data type | Call back |
| Mandatory / optional | Mandatory |
| Allowed values | Java script call back |
| Default value | Nil |
| Description | Call back to convey the status of the authentication |
| Supported platforms | IOS and Android. |

3.configMap

A configuration dictionary for the specified authentication mode. Authentication mode with touch id ( LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID) requires a mandatory prompt message to be displayed to user as to why he is being asked for authentication. The key to be used is “**promptMessage**”. The config map looks as below

var configMap = {"promptMessage" : "PLEASE AUTHENTICATE USING YOUR TOUCH ID"};

|  |  |
| --- | --- |
| Name | configMap |
| Data type | Map |
| Mandatory / optional | Mandatory in IOS, Optional in Android |
| Allowed values | Key values based on the authentication mode |
| Default value | N/A |
| Description | A configuration dictionary for the specified authentication mode |
| Supported platforms | IOS and Android |

## 5.2.3 JavaScript Example

function statusCB(status,message)

{

If(status == 5000)

{

kony.ui.Alert({message: "AUTHENTICATION SUCCESSFULL",

alertType: constants.ALERT\_TYPE\_INFO,

yesLabel:"Close"},

{});

}

else

{

var messg = status+message;

kony.ui.Alert({message: messg,

alertType: constants.ALERT\_TYPE\_INFO,

yesLabel:"Close"},

{});

}

}

function authUsingTouchID()

{

var config = {"promptMessage" : "PLEASE AUTHENTICATE USING YOUR TOUCH ID"};

kony.localAuthentication.authenticate(

constants.LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID,statusCB,config);

}

## 5.2.4 Platform Availability

Applicable for IOS and Android.

## 5.3 kony.localAuthentication.cancelAuthentication

This API is to cancel the current authentication process. If cancel happened successfully authentication status callback gets called with “5002” status-code with respective error message

## 5.3.1 Signature

kony.localAuthentication.cancelAuthentication()

## Parameters and Return Type

N/A

## Platform Availability

Available only in Android.

# IDE/Codegen requirements

Finger-print permission “USE\_FINGERPRINT” must be added under application properties -> Native tab -> Android -> Permissions Tab. On selecting this permission, there must be an entry in the manifest file.

# Status and Message

5000 - No Error

5001 - Authentication was not successful because the user failed to provide valid credentials.

5002 - Authentication was canceled by the user—for example, the user tapped Cancel in the dialog.

5003 - Authentication was canceled because the user tapped the fallback button (Enter Password).

5004 - Authentication was canceled by system.

5005 - Authentication could not start because the passcode is not set on the device.

5006 - Authentication could not start because Touch ID is not available on the device.

5007 - Authentication could not start because Touch ID has no enrolled fingers.

5008 - Authentication could not start because Target device's os does not support local authentication with touch id.

# Usage guidelines/Restrictions/Examples

Application must be in the foreground (this doesn't work with background processes) if any application uses local authentication method with touch id, it is the apps responsibility for handling all errors and properly responding with UI/UX to ensure there is an alternative method for logging into the app.

# Developer test cases (P0 test cases)

|  |  |  |
| --- | --- | --- |
| Sl# | Test case Steps | Expected result |
| 1. | 1. Create an application with 2 buttons on the form 2. On the first button Call getStautusForAuthenticationMode with constants.LOCAL\_AUTHENTICATION\_MODE\_TOUCH\_ID on supported device by setting the passcode and registering the finger for touch id 3. Call the API by disabling the pass code 4. Call the API by enabling the pass code and not registering any fingers for touch id. 5. Install the app on a device where touch id is not supported and call the API. 6. Compile the app in OS versions where Touch-Id is supported and try to install the application un-supported OS versions devices 7. Call this API with adding the permission in the manifest. | 2.This api should return 5000 indicating that the particular mode is supported  3.This api should return 5005  4.This api should return 5007  5.This api should return 5006  6.This api should return 5008  7. This api should return 5009 |
| 2. | 1. On the second button call kony.localAuthentication.authenticate   With proper parameters for touch-Id supported devices.   1. Call the API and swipe the wrong finger 2. call “cancelAuthentication” on cancel button on-click in the dialog. 3. Call the API and press the “Enter Password” button.   5. Test cases 3,4,5,6 of getStautusForAuthenticationMode should be executed even for this API. | 1. The status callback should get called with 5000 status and no message is passed 2. The status call back method should be called with 5001 status and appropriate message is passed 3. The status callback should get called with 5002 status and appropriate message is passed 4. The status callback should get called with 5002 status and appropriate message is passed   5. The status callback should be called with appropriate code and message |