* **Using the Telephony API**

The telephony API is used to among other things monitor phone information including the current states of the phone, connections, network etc.  
  
In this example, we want to utilize the telephone manager part of the Application Framework and use phone listeners (PhoneStateListener) to retrieve various phone states.  
  
This is a simple tutorial utilizing the telephony API and its associated listener which can be good before implementing other application functions related to a phone state like connecting the Call.

**TelephonyDemo.java**

package com.telephone;  
  
import android.app.Activity;  
import android.content.Context;  
import android.os.Bundle;  
import android.telephony.PhoneStateListener;  
import android.telephony.TelephonyManager;  
import android.widget.TextView;  
  
public class TelephonyDemo extends Activity {  
 TextView textOut;  
 TelephonyManager telephonyManager;  
 PhoneStateListener listener;  
  
 /\*\* Called when the activity is first created. \*/  
 @Override  
 public void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.main);  
  
 // Get the UI  
 textOut = (TextView) findViewById(R.id.textOut);  
  
 // Get the telephony manager  
 telephonyManager = (TelephonyManager) getSystemService(Context.TELEPHONY\_SERVICE);  
  
 // Create a new PhoneStateListener  
 listener = new PhoneStateListener() {  
 @Override  
 public void onCallStateChanged(int state, String incomingNumber) {  
 String stateString = "N/A";  
 switch (state) {  
 case TelephonyManager.CALL\_STATE\_IDLE:  
 stateString = "Idle";  
 break;  
 case TelephonyManager.CALL\_STATE\_OFFHOOK:  
 stateString = "Off Hook";  
 break;  
 case TelephonyManager.CALL\_STATE\_RINGING:  
 stateString = "Ringing";  
 break;  
 }  
 textOut.append(String.format("\nonCallStateChanged: %s", stateString));  
 }  
 };  
  
 // Register the listener wit the telephony manager  
 telephonyManager.listen(listener, PhoneStateListener.LISTEN\_CALL\_STATE);  
 }  
}

**main.xml**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
 xmlns:android="https://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="fill\_parent">  
 <TextView  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Telephony Demo"  
 android:textSize="22sp" />  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/textOut"  
 android:text="Output"></TextView>  
</LinearLayout>

**Output**

