

# **SMARTBUS APP TUTORIAL**

## **THE MOBILE CLIENT SIDE IMAGE SHOW**

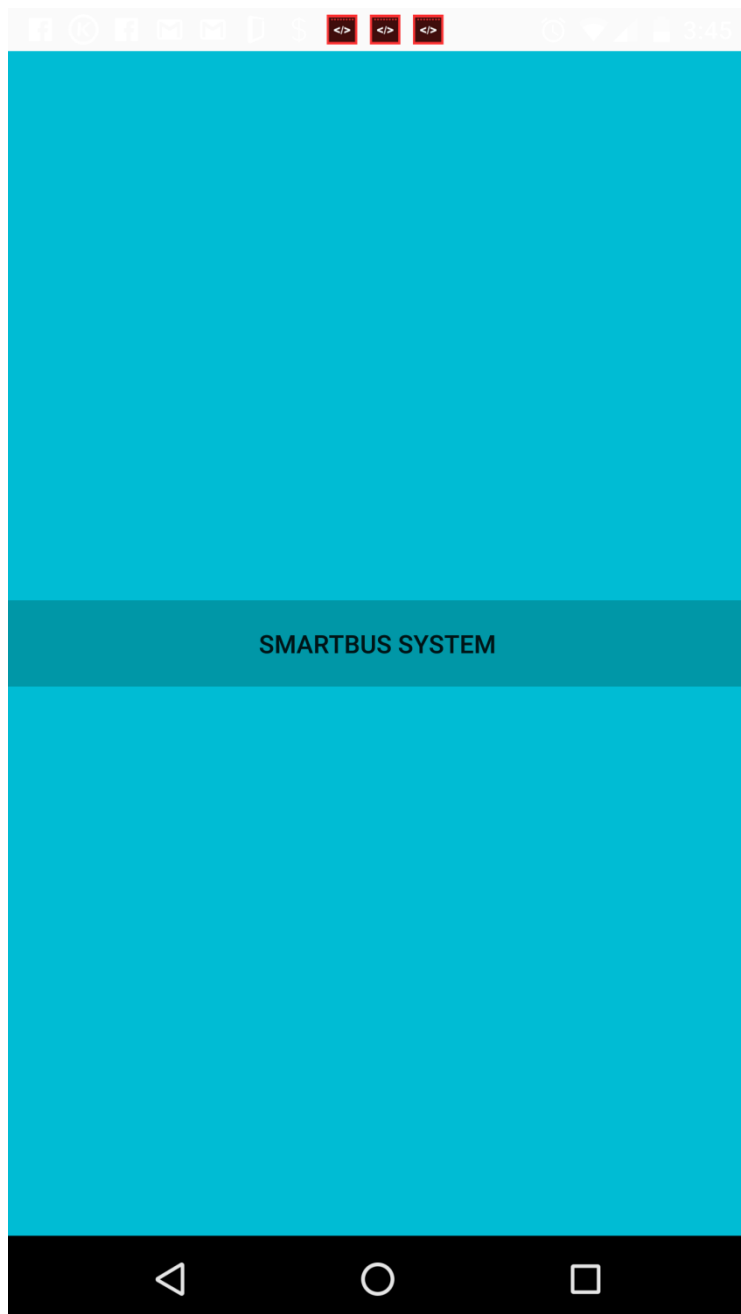
This is a project of SmartBus. This part consists of two parts: one is Android Mobile Client Application. The other is Java EE server for dealing with the data processing in the SQL database. This tutorial is to show how to use our app on Android smartphones. ---Stella

**5/24/2016**

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# SMARTBUS APP TUTORIAL

## THE MOBILE CLIENT SIDE IMAGE SHOW



## FIRST VIEW OF OUR APP

This is the first view of the smartbus app. You may add more option links on this view.

When you click the smartbus system button, it will show the next view, which is the main view of our app.

SmartBus System

Origin Route	M20	▼
Origin Direction	N	▼
Origin Stop	10	▼
Destination Route	M20	▼
Destination Direction	N	▼
Destination Stop	10	▼

SUBMIT

SHOW ARRIVAL TIME INFO

Show the delay information

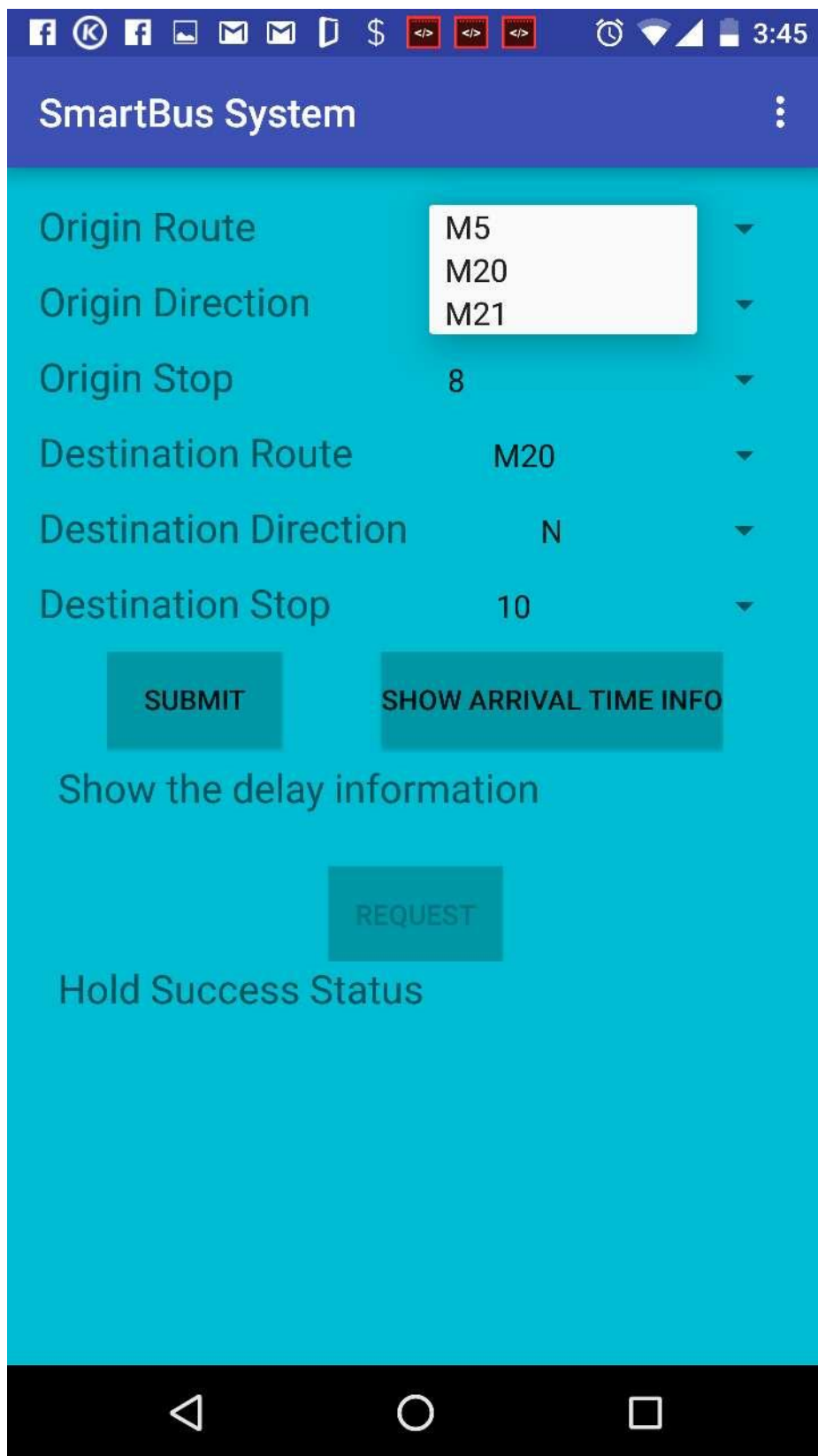
REQUEST

Hold Success Status

## MAIN VIEW OF OUR APP

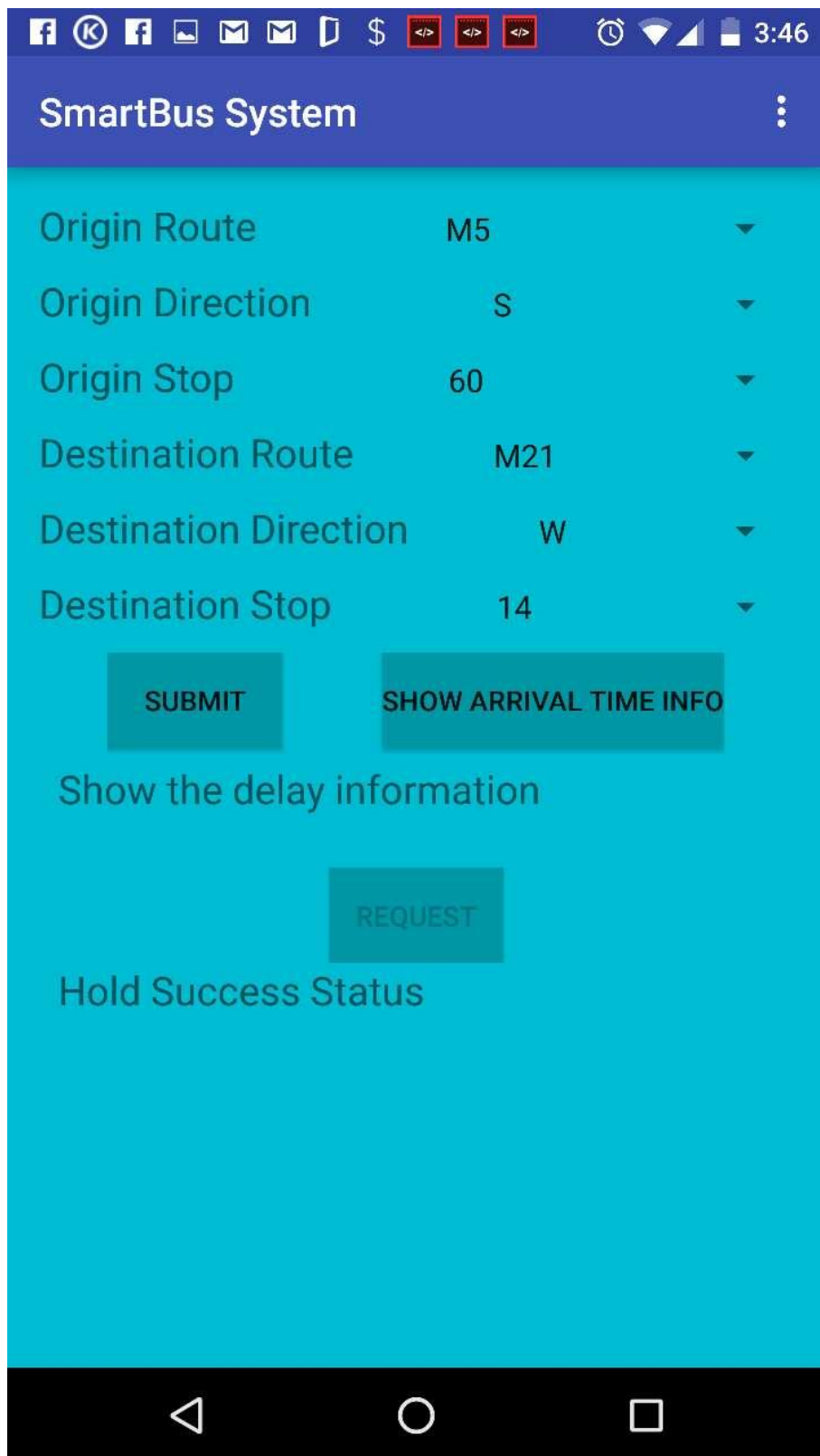
This is the main view of the smartbus app. You can choose the origin route, origin direction, origin stop, destination route, destination direction and destination stop from the right lists. If you choose different route, the related direction and stop will be changed along with it. If you have chose your origin and

destination, you can click the submit button and the data will be sent to the database through our JavaEE Tomcat Server.

The image shows a mobile application interface for a 'SmartBus System'. At the top is a dark blue header with the text 'SmartBus System' and a three-dot menu icon. Below the header is a light blue form area. It contains several input fields with dropdown menus: 'Origin Route' (with a dropdown menu open showing 'M5', 'M20', and 'M21'), 'Origin Direction', 'Origin Stop' (with the value '8'), 'Destination Route' (with the value 'M20'), 'Destination Direction' (with the value 'N'), and 'Destination Stop' (with the value '10'). Each field has a downward arrow icon. Below these fields are two buttons: 'SUBMIT' and 'SHOW ARRIVAL TIME INFO'. Underneath the buttons is the text 'Show the delay information'. Further down is a 'REQUEST' button. At the bottom of the form area is the text 'Hold Success Status'. The entire app is shown within a mobile device frame with a status bar at the top (showing icons for social media, currency, and time 3:45) and an Android navigation bar at the bottom.

## MAIN VIEW OF OUR APP

For example, you can  
choose origin route  
M5 here as the image  
shows.



The image shows a mobile application interface for a 'SmartBus System'. At the top is a status bar with various icons and the time 3:46. Below it is a purple header with the text 'SmartBus System' and a menu icon. The main area has a light blue background and contains several dropdown menus for selecting travel details: 'Origin Route' (M5), 'Origin Direction' (S), 'Origin Stop' (60), 'Destination Route' (M21), 'Destination Direction' (W), and 'Destination Stop' (14). Below these are two buttons: 'SUBMIT' and 'SHOW ARRIVAL TIME INFO'. A text label 'Show the delay information' is positioned below the buttons. Further down is a 'REQUEST' button and the text 'Hold Success Status'. The bottom of the screen features a black navigation bar with standard Android icons.

Field	Value
Origin Route	M5
Origin Direction	S
Origin Stop	60
Destination Route	M21
Destination Direction	W
Destination Stop	14

**SUBMIT** **SHOW ARRIVAL TIME INFO**

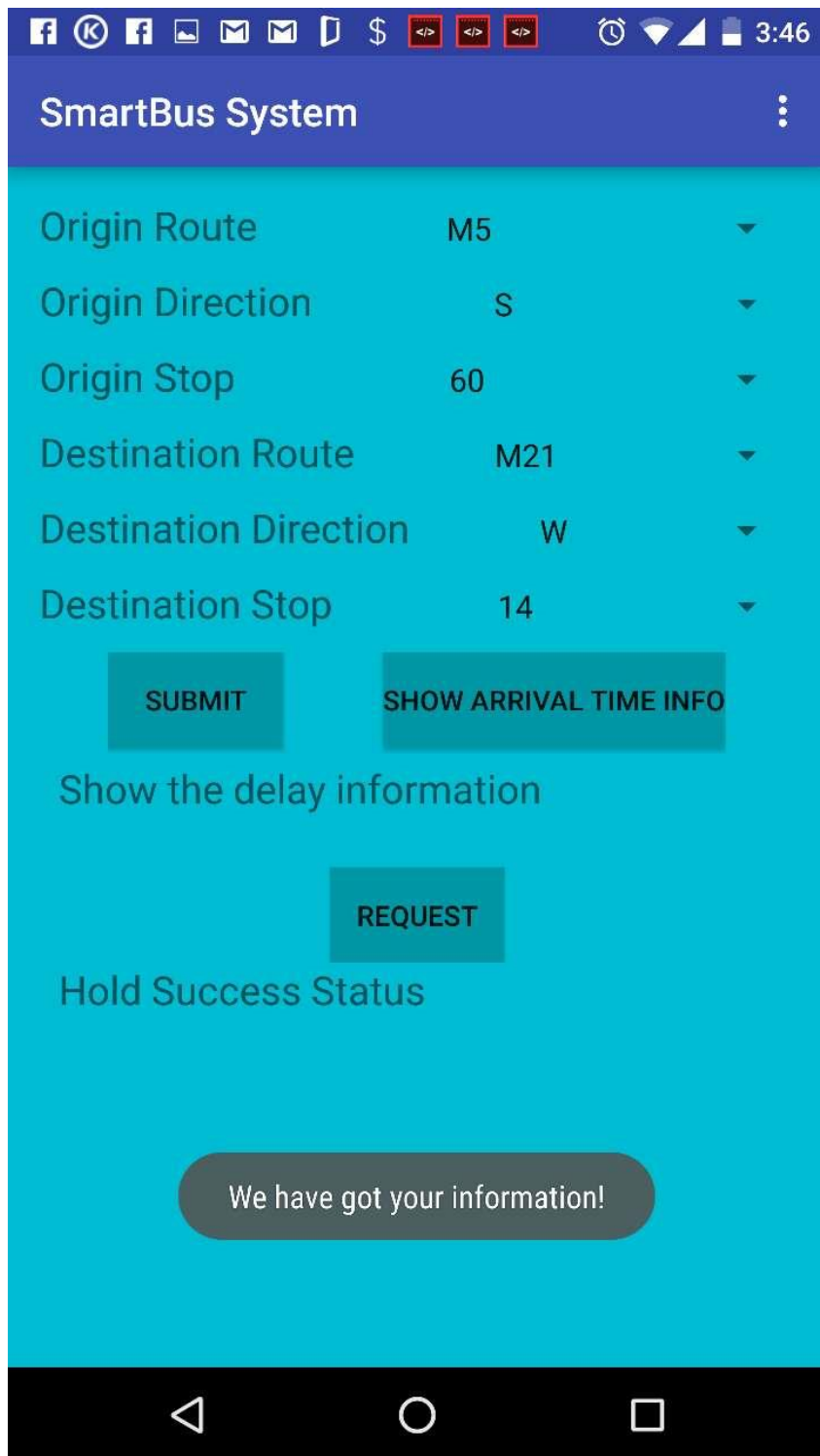
Show the delay information

**REQUEST**

Hold Success Status

## MAIN VIEW OF OUR APP

For example, you can choose origin route M5 here. And then you choose origin direction S, origin stop 60, destination route M21, destination direction W and destination stop 14 as the image shows.

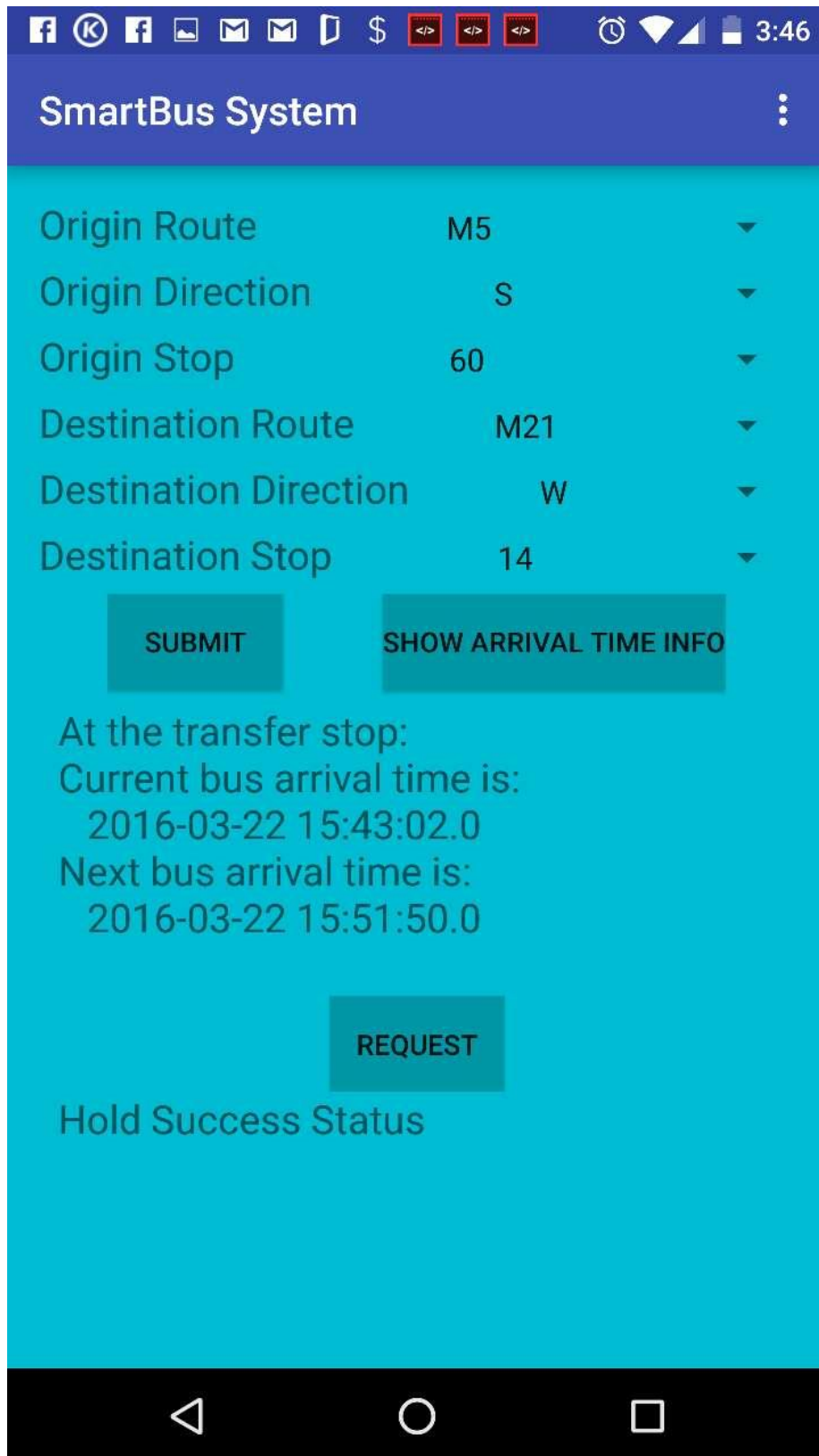


## MAIN VIEW OF OUR APP

After you selected from the lists on the right side, you can click the submit button to send your data through server to the database. Then the app will tell you that "We have got your information" since here we are connected with the server. But if the server is not accessible, it will show

"Sorry. Fail to connect server. Please try later."



A screenshot of a mobile application titled "SmartBus System". The app has a blue header bar with the title and a menu icon. Below the header is a form with six input fields, each with a dropdown arrow: "Origin Route" (M5), "Origin Direction" (S), "Origin Stop" (60), "Destination Route" (M21), "Destination Direction" (W), and "Destination Stop" (14). Below the form are two buttons: "SUBMIT" and "SHOW ARRIVAL TIME INFO". Under these buttons, the text "At the transfer stop:" is followed by "Current bus arrival time is: 2016-03-22 15:43:02.0" and "Next bus arrival time is: 2016-03-22 15:51:50.0". Below this text is a "REQUEST" button. At the bottom of the form area is the text "Hold Success Status". The app is running on an Android device, as indicated by the status bar at the top and the navigation bar at the bottom.

SmartBus System

Origin Route M5

Origin Direction S

Origin Stop 60

Destination Route M21

Destination Direction W

Destination Stop 14

SUBMIT SHOW ARRIVAL TIME INFO

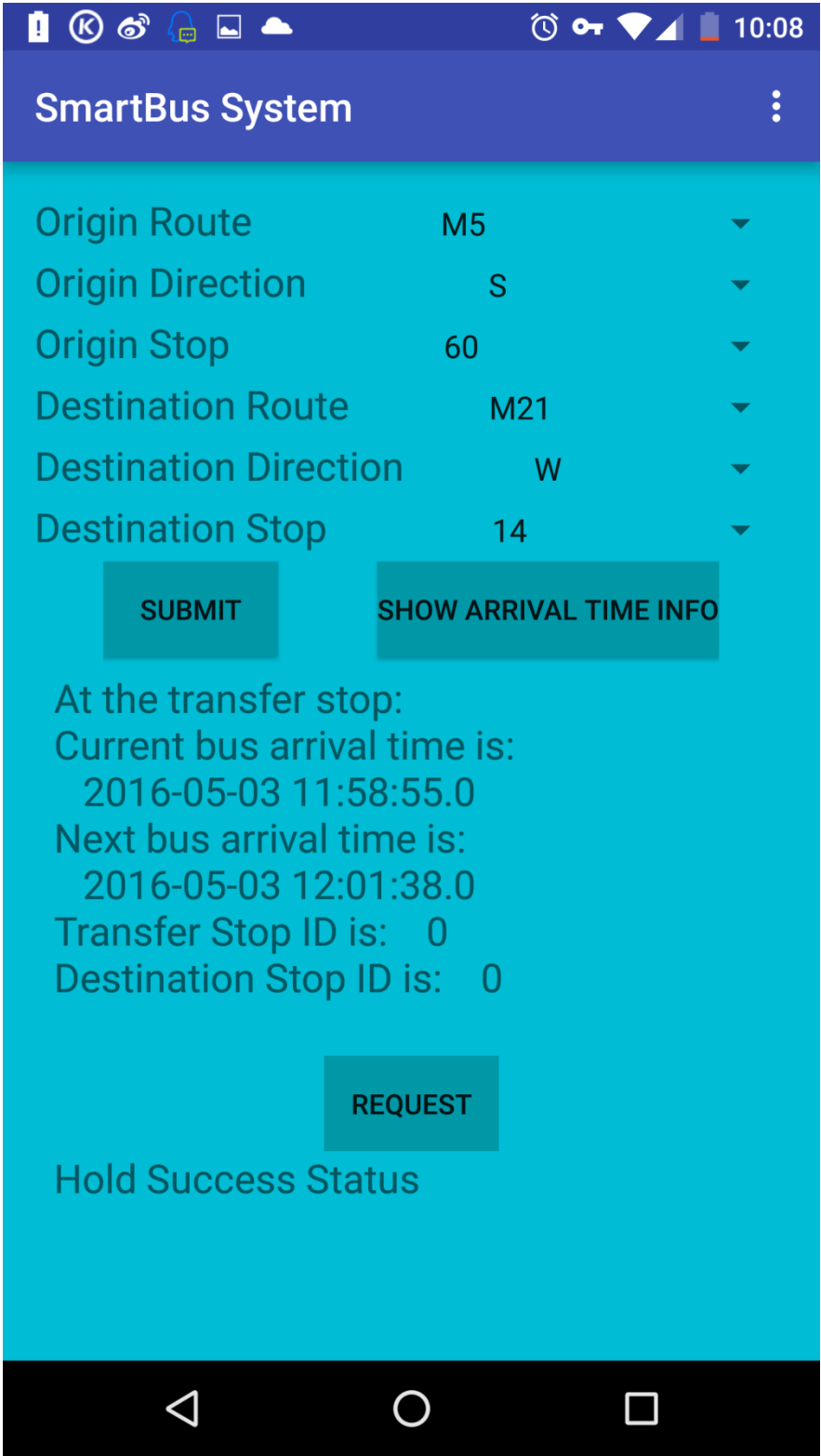
At the transfer stop:  
Current bus arrival time is:  
2016-03-22 15:43:02.0  
Next bus arrival time is:  
2016-03-22 15:51:50.0

REQUEST

Hold Success Status

## MAIN VIEW OF OUR APP

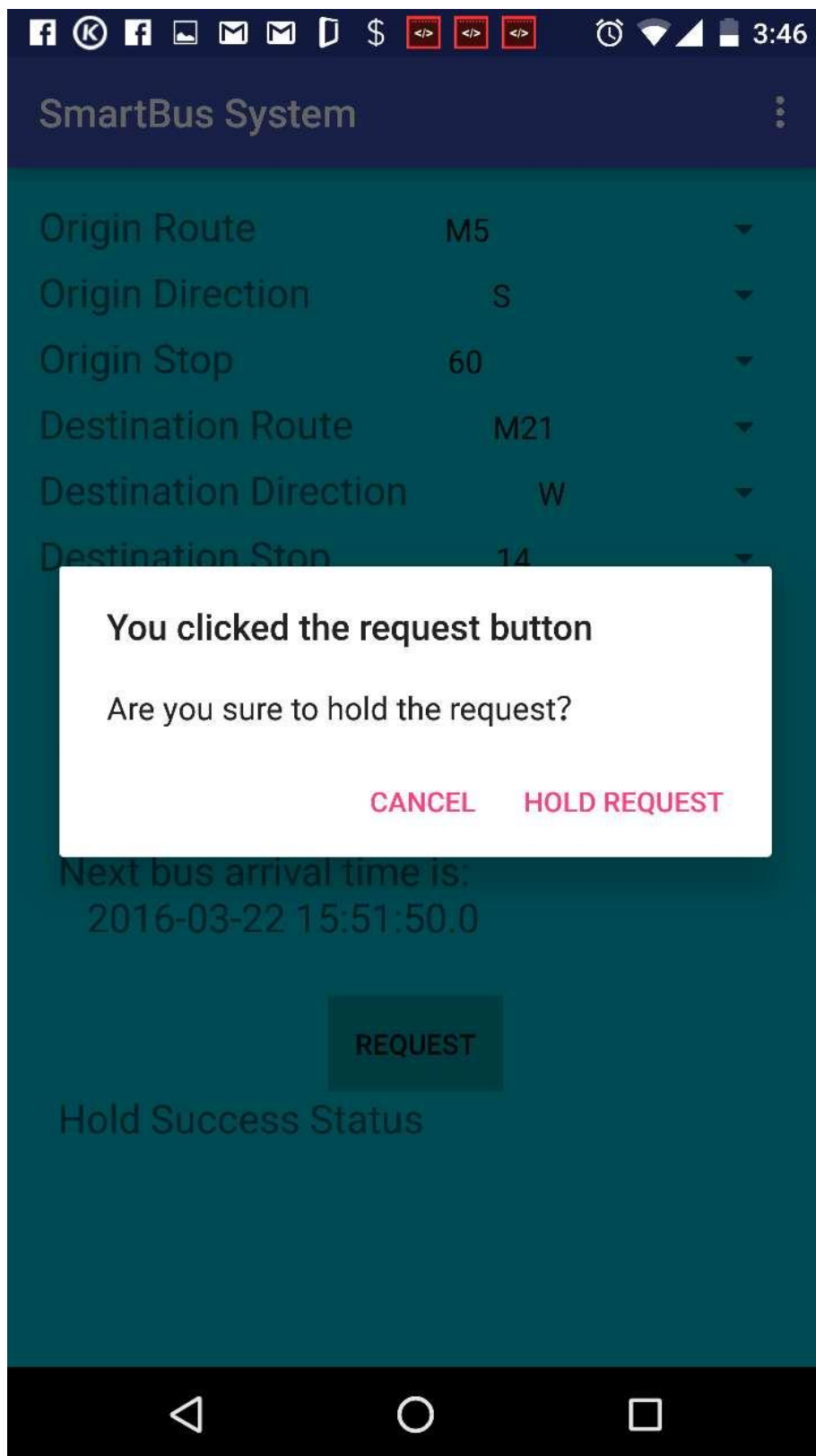
After you clicked submit button, you can click "Show arrival time info" button to show the arrival time information. Then "Show the delay information" will change to the information we requested from the server. This part will show the current bus arrival time and the next bus arrival time at the transfer stop.



# MAIN VIEW OF OUR APP

This is the update version. It can show not only the arrival time information, but also the transfer stop id and destination stop id.





## MAIN VIEW OF OUR APP

If you want to hold the request (to request the transfer bus and let it wait for you), you can click the "request" button at the bottom.

And then a popup window shows up and ask you whether you are sure to hold the request. Since sometimes we may click a wrong button with no intent. With this we can avoid the

unnecessary touch from the user. If you are sure, then you can click the "Hold Request" button on this window.

The image shows a mobile application interface for a "SmartBus System". At the top is a status bar with various icons and the time 3:47. Below it is a blue header with the text "SmartBus System" and a menu icon. The main content area has a light blue background and contains a form with the following fields:

Origin Route	M5	▼
Origin Direction	S	▼
Origin Stop	60	▼
Destination Route	M21	▼
Destination Direction	W	▼
Destination Stop	14	▼

Below the form are two buttons: "SUBMIT" and "SHOW ARRIVAL TIME INFO".

At the transfer stop:  
Current bus arrival time is:  
2016-03-22 15:43:02.0  
Next bus arrival time is:  
2016-03-22 15:51:50.0

Below this information is a "REQUEST" button.

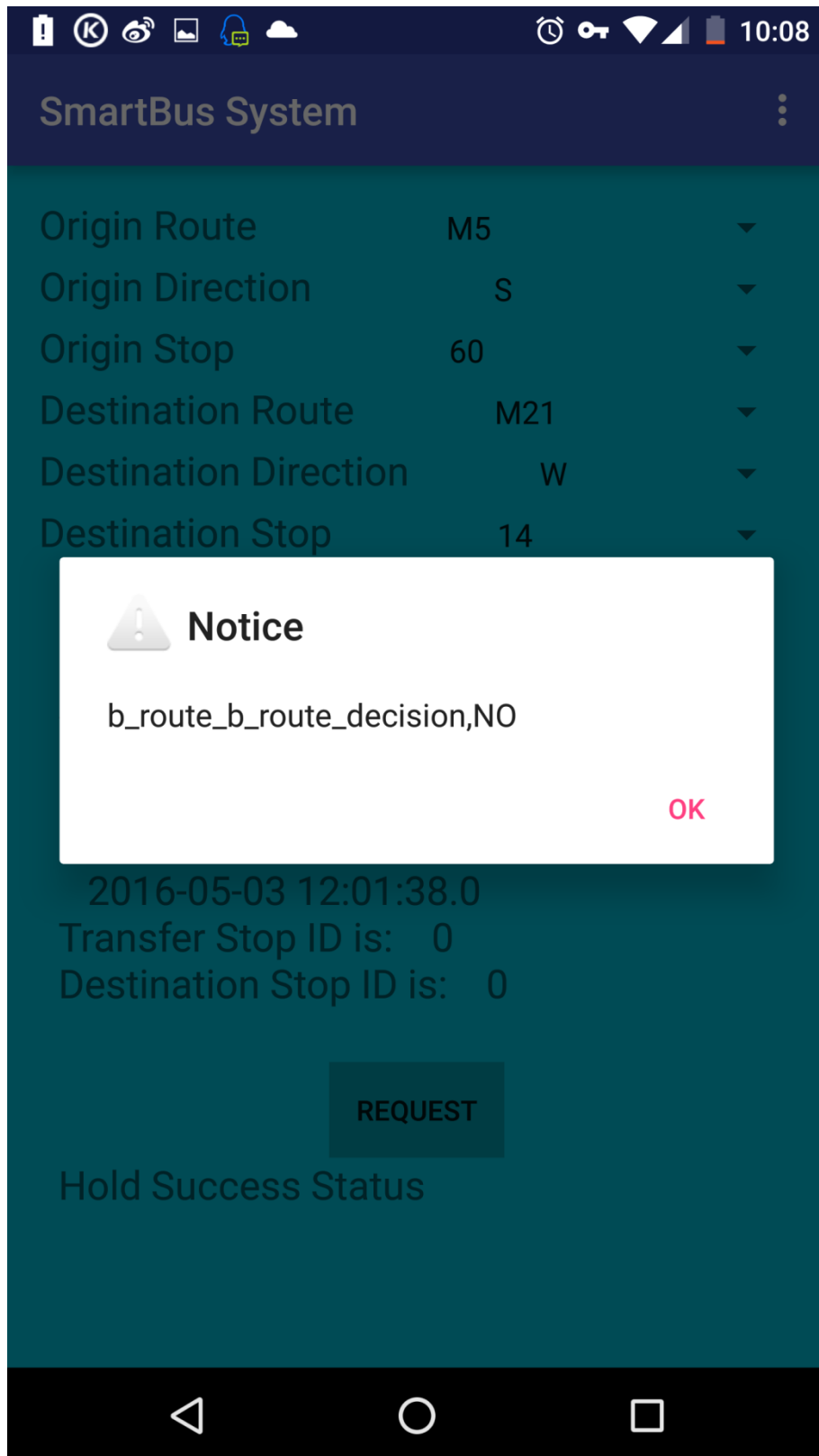
We cannot hold your request.

At the bottom is a black navigation bar with three icons: a back arrow, a circle, and a square.

## MAIN VIEW OF OUR APP

After you click the "Hold Request" button, you will find that "Hold Success Status" will be updated to "We cannot hold your request", which means that you can catch the next bus since there is an interval time period between current bus arrival to the next bus coming time. So it is no need to hold your request. Thus we

cannot hold your request. If the request is accepted (you cannot catch the next bus but the interval time is very small), this will show "Success hold your request".



## MAIN VIEW OF OUR APP

We will update the route information from the user click the “submit” button to send the route information. We update the route information every 20 seconds. When the route is changed, there will be a popup window shows related route change information. You can click “ok” to close this

window. We update the information in the window directly to avoid the redundant windows.