

# **Credit & Data Usage App**

(including Credit & Data Modules)

# Credit and Data Modules

## Prior Document Revisions

name	version	date	notes
Rafael Rebolleda	1	Jun 15 2012	Quick mock up to get the conversation going
Rafael Rebolleda	2	Jul 19 2012	Full Spec
Marco Cimatti	3	Jul 30 2012	Top Up flow update after talking with the devs More explicit info about roaming situations, refresh errors, data module text updated. First time use scenario added Credit and data module settings area added. Low balance and No Balance

# Credit and Data Usage App

## Document Revisions

name	version	date	notes
Rafael Rebolleda	1	Jul10 2012	Recap based on Marco's and Ayman's work.
Rafael Rebolleda	2	Jul 12 2012	IA rework
Rafael Rebolleda	3	Jul 13 2012	Expanding on current ideas.
Rafael Rebolleda	4	Jul 13 2012	Refined IA controls
Rafael Rebolleda	5	Jul 17 2012	Better toggling of limits and warnings Interface toggle acts upon the graph *and* the list below Tethering demoted. Now displays in the list like any other app Graph labeling Better WiFi toggles in app break-down list Change document name to "Data Usage" instead of "Document Management"
Marco Cimatti	6	Jul 30 2012	Revised features based on review with FE devs on V1 feasibility Created appendix with V2 features IA refinement Detailed variety of graph states based on limits and alerts and filters Detailed coordination of Data Usage graph states with Data Module states
Marco Cimatti	7	Aug 6 2012	Single document created with Credit and Data Module. App approach revised UI on main screens, first time use, settings area, and credit module in postpaid scenario. Top-up flow revised

# Credit and Data Usage App

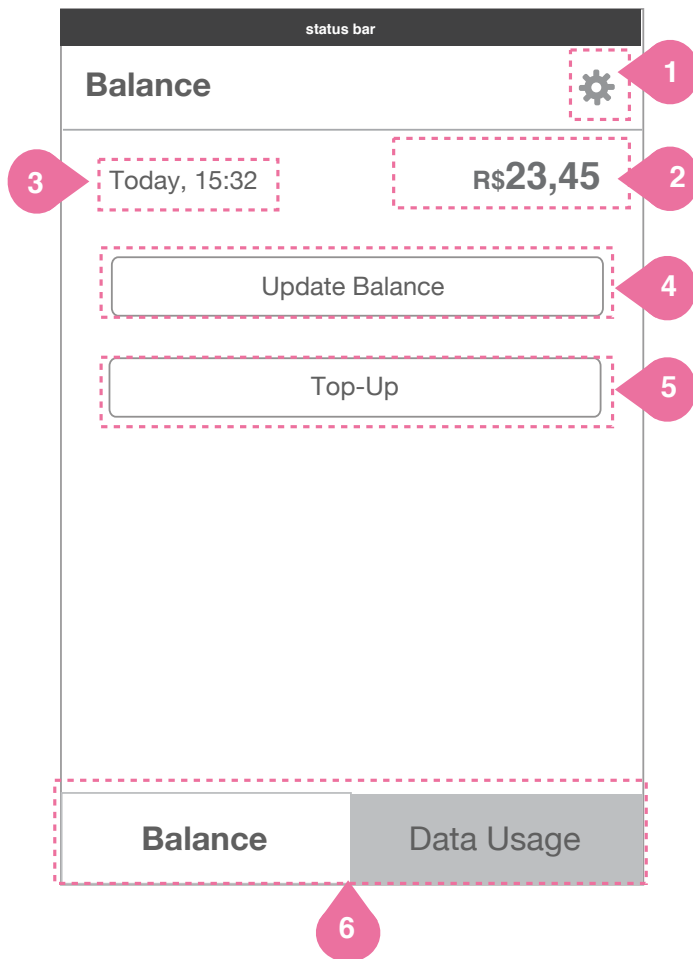
## Document Revisions

name	version	date	notes
Marco Cimatti	8	Aug 11 2012	Settings: - set plan type method altered to list prompt Modules: - updating state and tapping interaction on modules altered - refresh & error states changed - balance refresh altered to once every hour & when try is pulled down App: - vivo and number information added - Default Low Balance Alert raised to R\$ 3.00
Marco Cimatti	9	Aug 14 2012	SIM change flow and states added to App and Modules Reset function added to Postpaid settings. Removed vivo and number due to feasibility issue First time set-up: altered credit and data module entry point
Marco Cimatti	10	Aug 20 2012	Settings: - order and copy altered, consistency created with first time setup components App: - top-up flow detailed with incorrect pin and no confirmation state - top-up progress note detailed - low balance and zero balance state in app First Time Setup - copy changed - consistency with settings components created - non-vivo sim first time set-up flow detailed

main app screens

# Balance Details

## Overview - Prepaid view

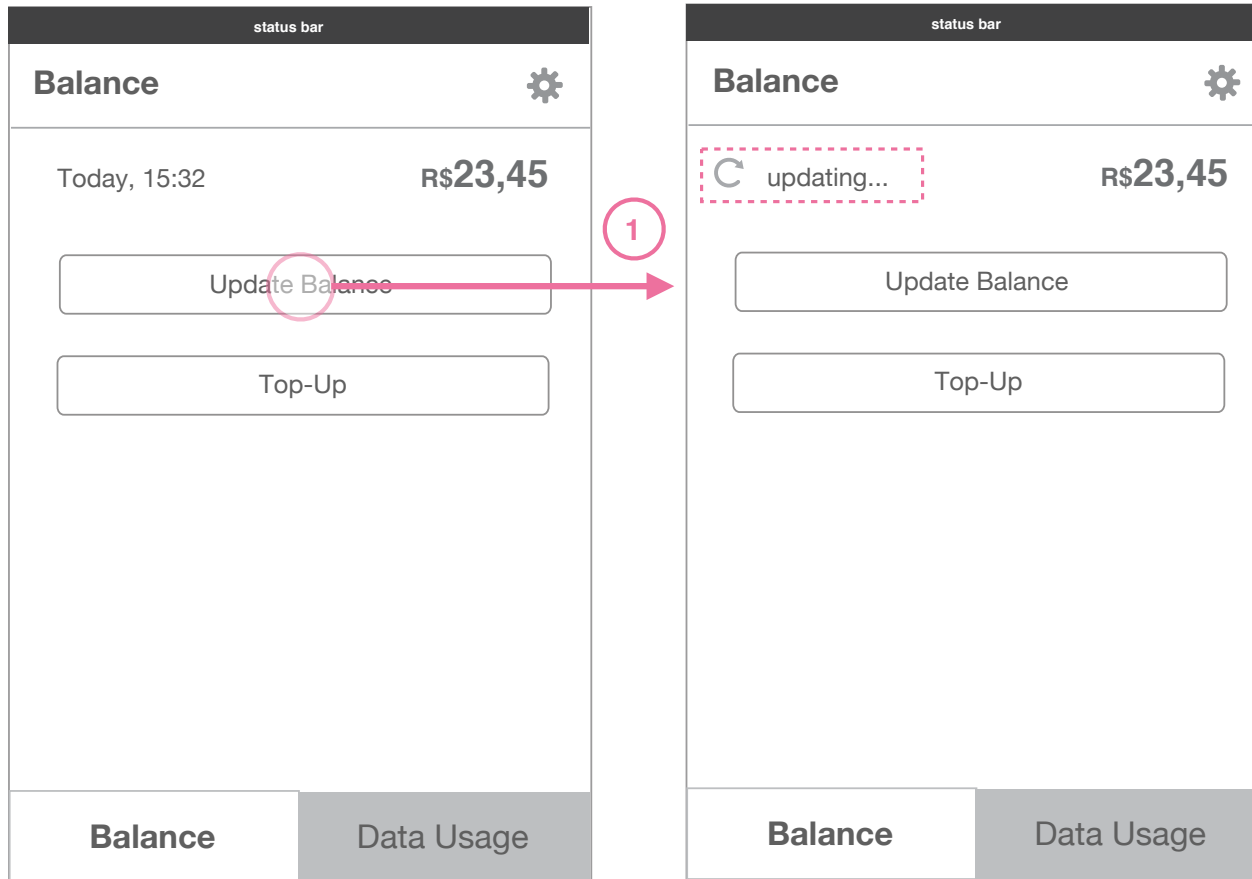


### Details

- 1 Settings**  
Tap to access settings area of app.
- 2 Balance**  
This Balance should be updated so that it appears exactly as Credit Module. It is seen updating only when user presses Update Balance in this view, or if an update from Credit Module is in progress.
- 3 Timestamp**  
Timestamp shows the time of the last successful refresh of the credit counter.
- 4 Update Balance Button**  
Tapping on this button activates a balance refresh.
- 5 Top-Up Button**  
Tapping on the Top-Up button starts the top-up flow detailed later in document.
- 6 Balance and Data Usage Tabs**  
Switches view to Data Usage information.

# Balance Details

## Prepaid Balance Check



### Details

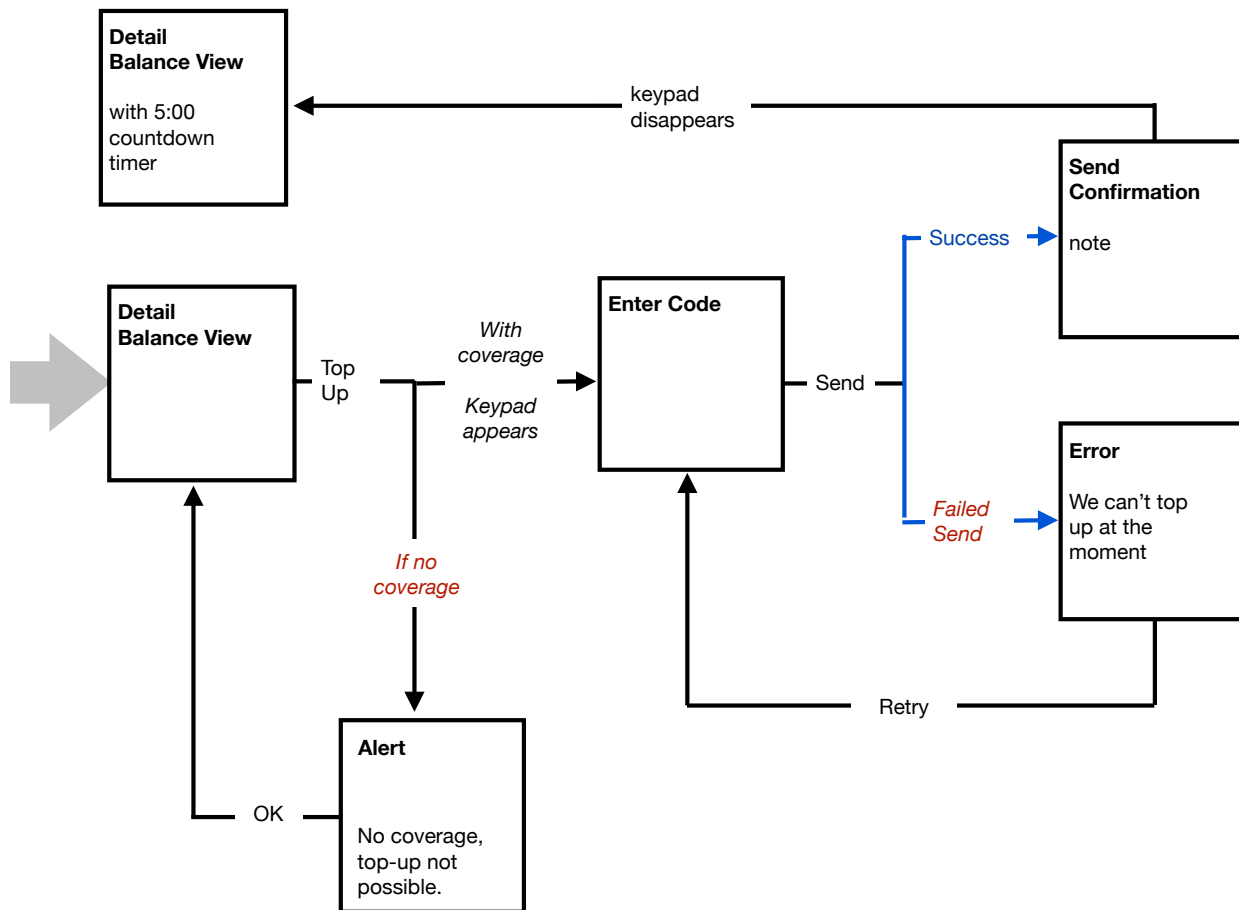
- Update Balance**  
Tapping on the Update Balance button performs a balance update. A refresh wheel slides in from the side, rotates and the time stamp changes to say 'updating.'

When the update is done, the new timestamp appears. The behavior of the refresh wheel here should match that of the credit module.

**Detailed Balance view  
when updating**

# Balance Details

## Prepaid Top Up Flow



Confirmation SMS arrives before 5:00

if app is opened

**Passive Notification**

Top-up completed  
X added.

**Detail Balance View**

(without timer)

Incorrect Code

**Passive Notification**

Incorrect Top-Up code entered.

tap on notification

if app is opened

**Enter Code**

incorrect code entered  
please try again

Send

**Send sequence repeated**

If no confirmation SMS arrives

**Detail Balance View**

with 5:00  
countdown  
timer at 0:00

**Detail Balance View**

top up timed  
out, update  
balance or retry  
top up again

top up

**Enter code**

with old code  
present in keypad



# Balance Details

## Prepaid Top Up Flow

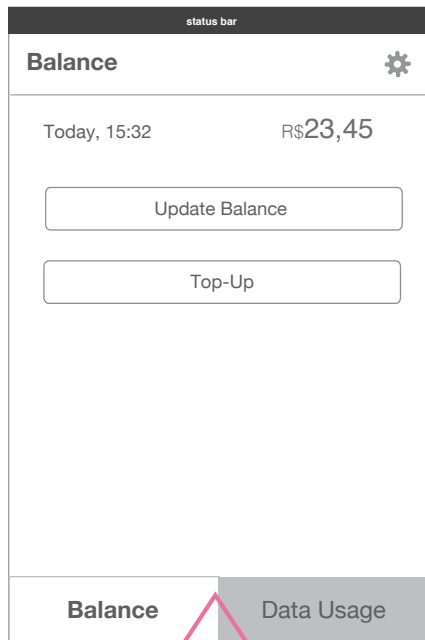
**Note:**  
if multiple messages come form vivo when top-up is performed, they should be placed in the sms inbox.

Detailed Balance View

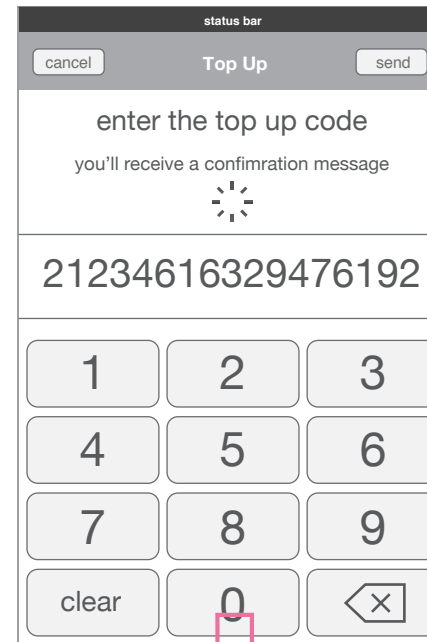
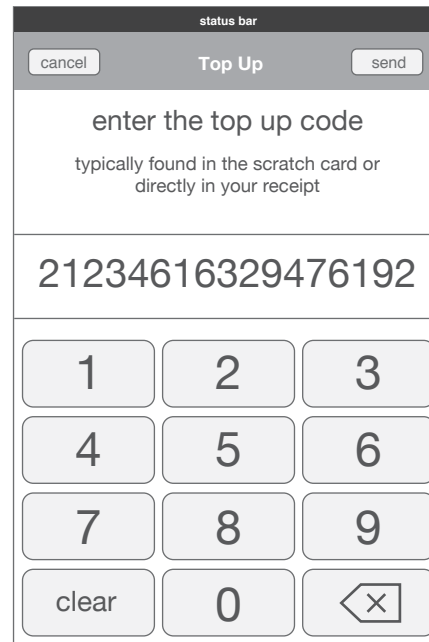
Enter Code Window with  
cancel and send buttons

Enter Code Window with  
top-up sending view

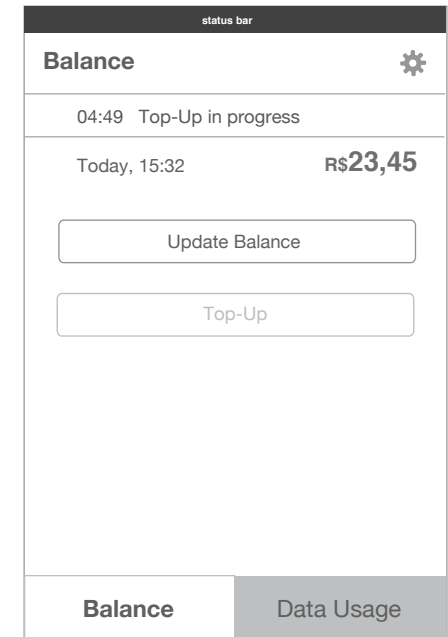
Detailed Balance View with  
top-up progress clock



top-up keypad animates on top.



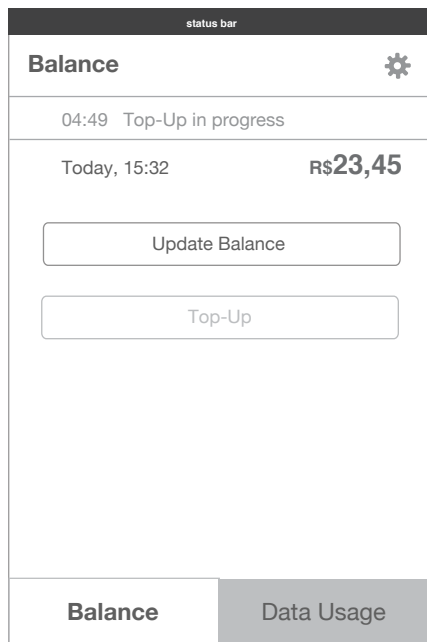
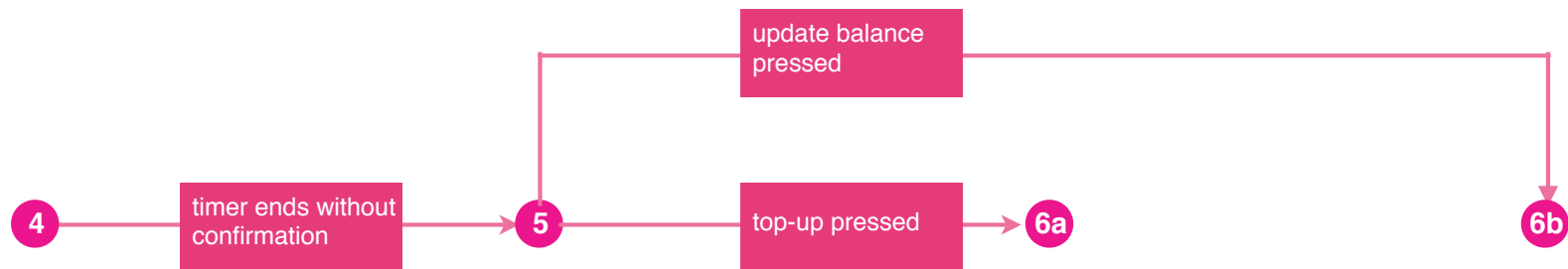
keypad dismisses downwards



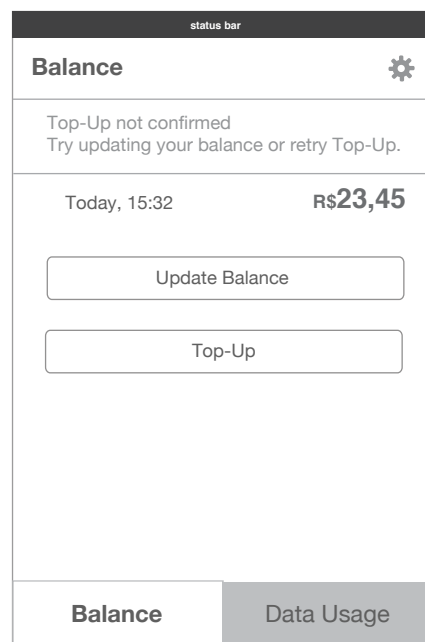
# Balance Details

## Prepaid Top Up Flow

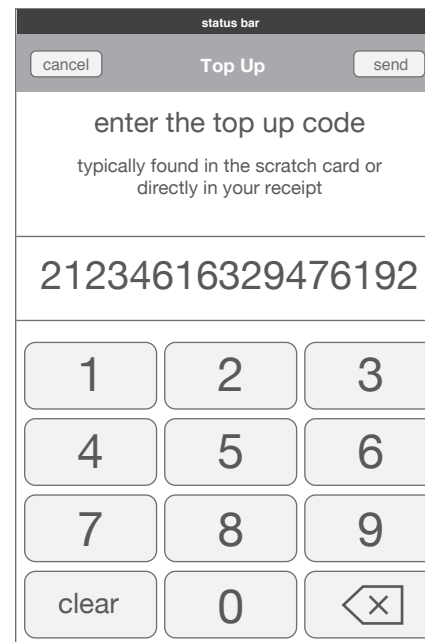
### Unconfirmed



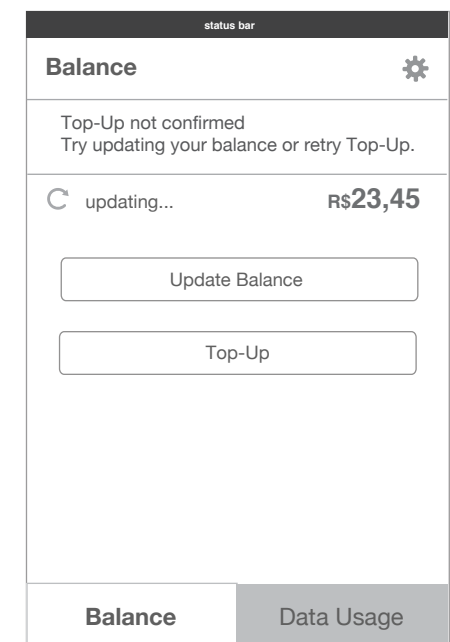
Detailed Balance View with top-up progress clock



Detailed Balance View with top-up unconfirmed message



Enter Code Window with old number still present



Detail Balance View being updated with top-up unconfirmed message present.

# Balance Details

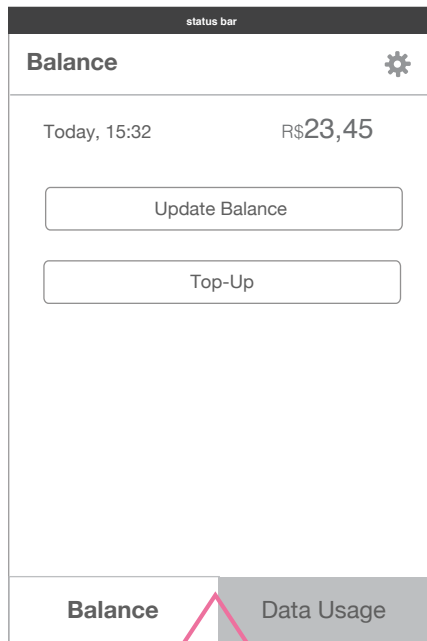
## Prepaid Top Up Flow

### Failed Send

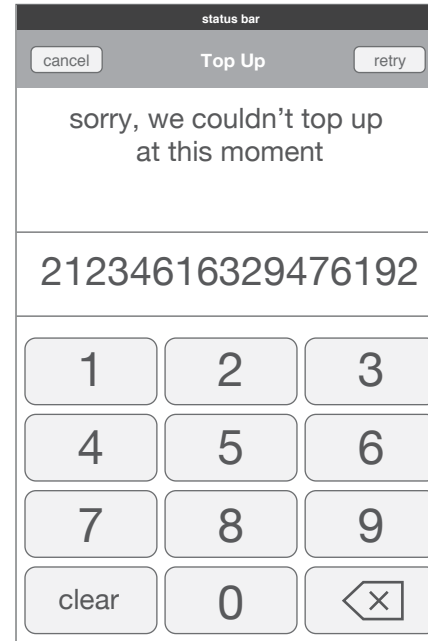
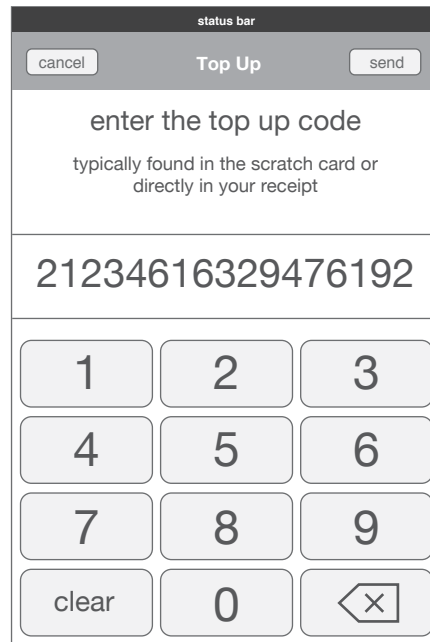
Detailed Balance View

Enter Code Window with cancel and send buttons

Enter Code Window with cancel and retry buttons



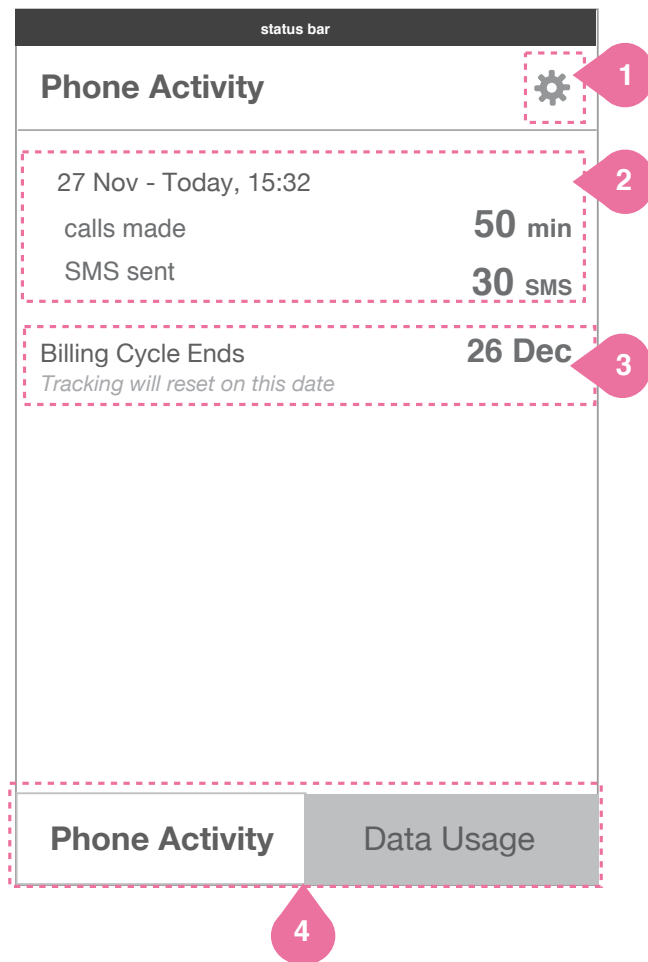
top-up keypad animates on top.



error message, allows user to retry sending or to cancel out.

# Phone Activity Details

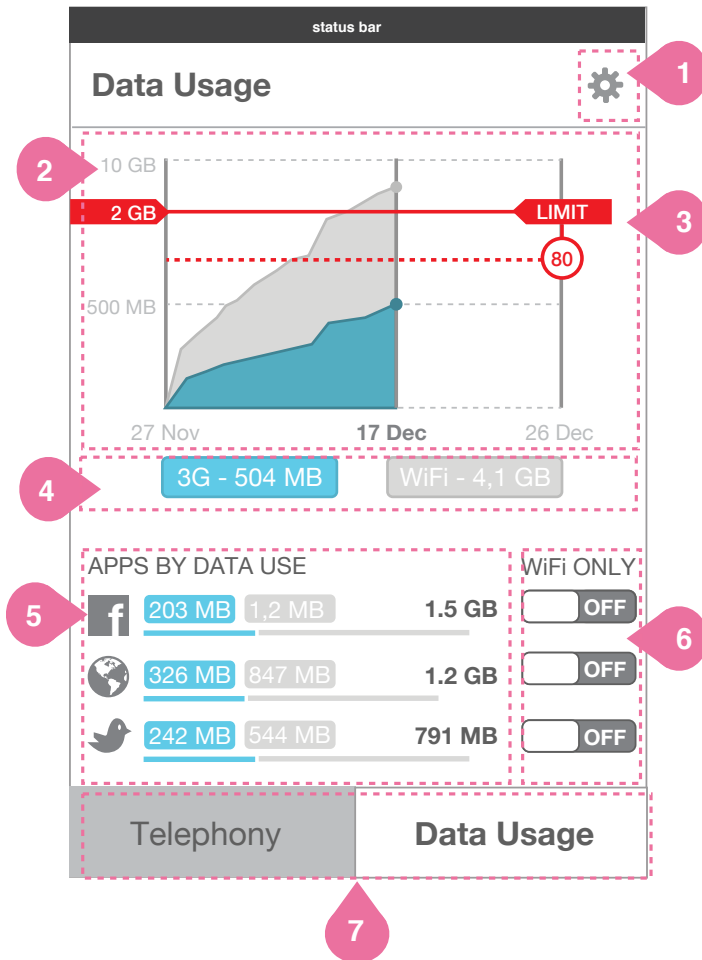
## Overview - Postpaid view



### Details

- 1 Settings**  
Tap to access settings area of app.
- 2 Outgoing Call Minutes**  
Counts total outgoing call minutes from beginning of billing period to current date.  
  
This counter resets at the end of the billing cycle set by user.  
  
**SMS sent**  
Counts total SMS messages sent from beginning of billing period to current date.  
  
This counter resets at the end of the billing cycle set by user.
- 3 Billing Cycle End**  
States the end of the user's billing cycle.
- 4 Phone Activity and Data Usage Tabs**  
Switches view to Data Usage information.

# Data Usage Overview

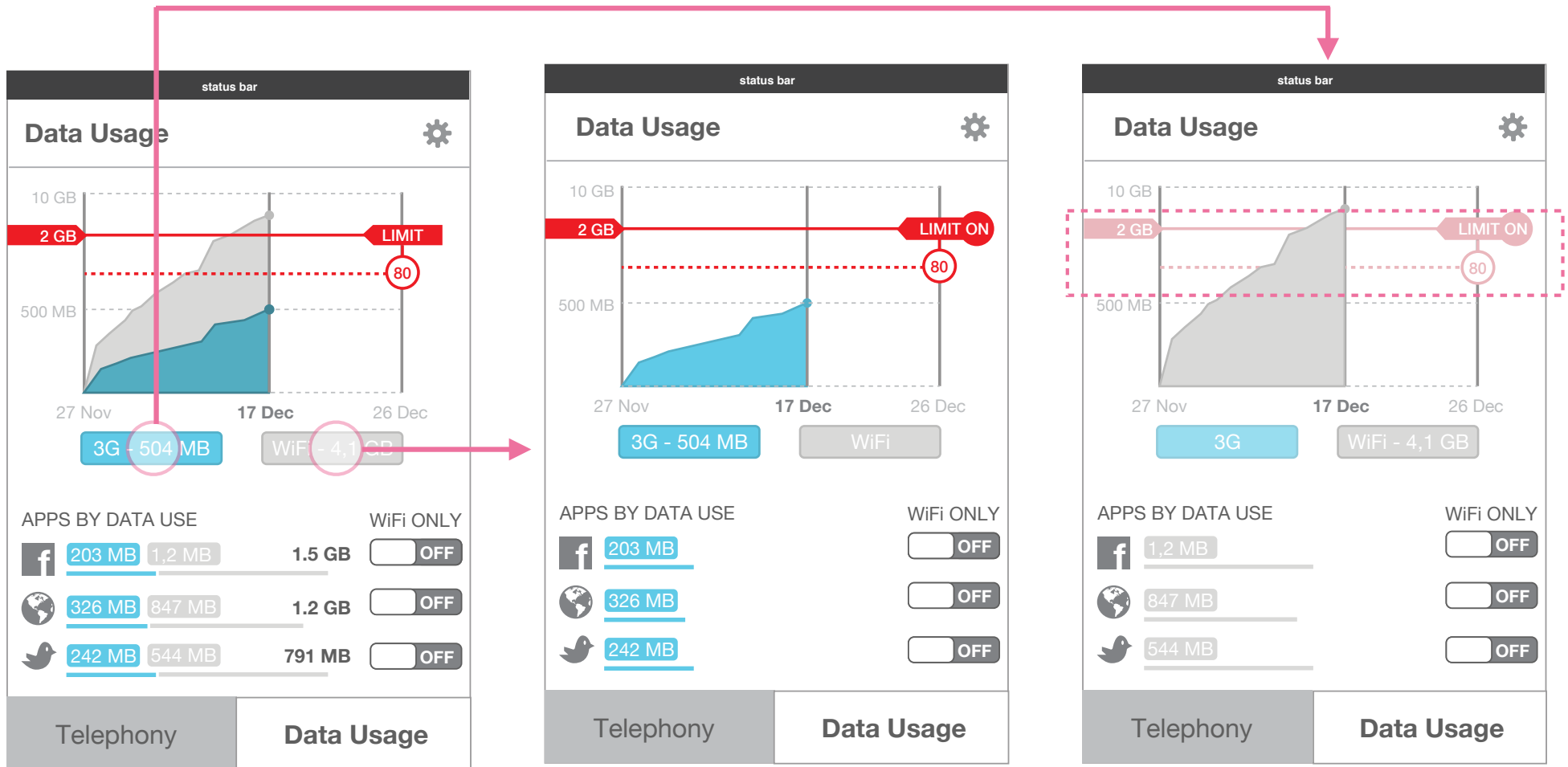


## Details

- Settings**  
Tap to access settings area of app.
- Graph**  
Graph displays data in time period set and Data Toggles selected. Graph will scale and adjust automatically with adjustment of limits and/or alerts. Data resets at the end of Usage Cycle set.
- Limit & 80% reminder**  
Limit and 80% reminder can be turned on or off in the settings area. When on, they affect the state of the Graph and Data Module in Utility Tray.
- Data Toggles**  
Tap to toggles to display or hide data type. Toggles that are off are not displayed in the chart are dimmed out. These toggles affects both the graph and the App Data List.
- App Data Use List**  
All data displayed in the list corresponds to the selected range and interfaces. Apps ordered by total data consumption. The longest bar defined by the app with biggest data usage in selected interface(s) and date range. Total only displayed when 3G & Wifi are both selected.
- App Connection Management**  
Apps can be set to using Wifi only. Default is OFF,
- Data Usage Tabs**  
Switches view to Balance or Phone Activity information.

# Data Usage

## Data Toggles



### All toggles ON

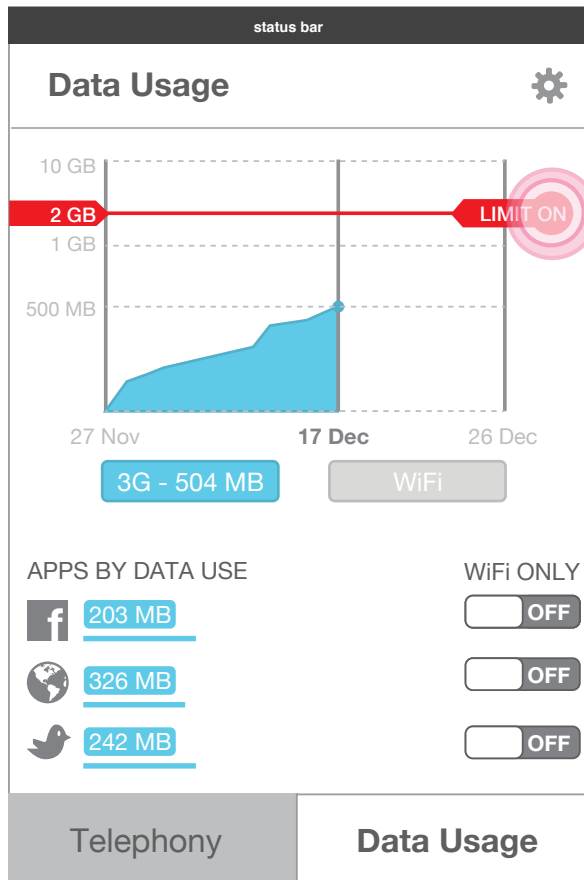
Tap one of the two data toggles to turn ON/OFF data visibility for each in graph and in app list.

### WiFi toggle OFF / 3G toggle ON

### 3G toggle OFF / WiFi toggle ON

If 3G is off, limit and 80% reminder line are greyed out and cannot be tapped to change settings.

# Data Usage Limit Adjustment



**Limit alert adjusted by tap and hold**  
If a limit alert is turned on, it can be adjusted via Tap and hold on tab.

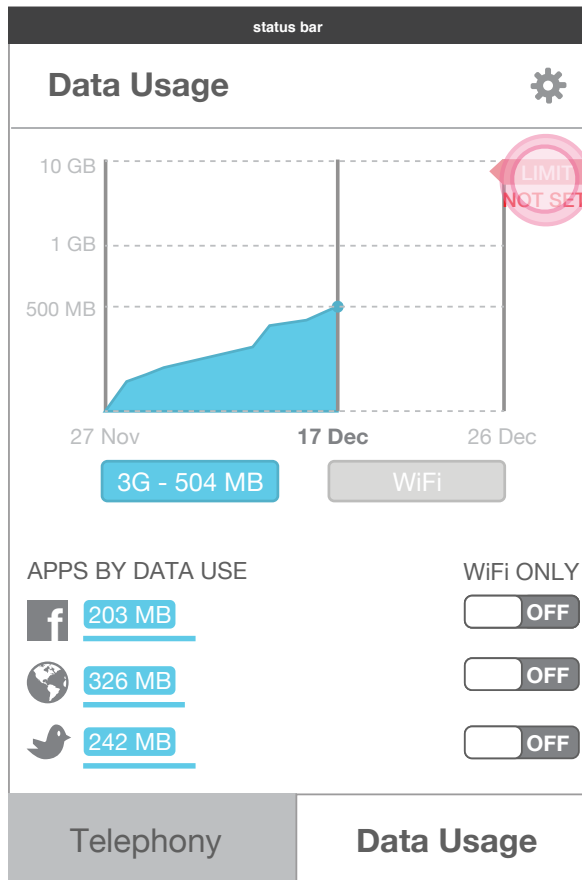
**Limit alert level adjusted by keypad**  
A keypad appears on top of Data Usage temporarily to set limit by typing in.

## Details

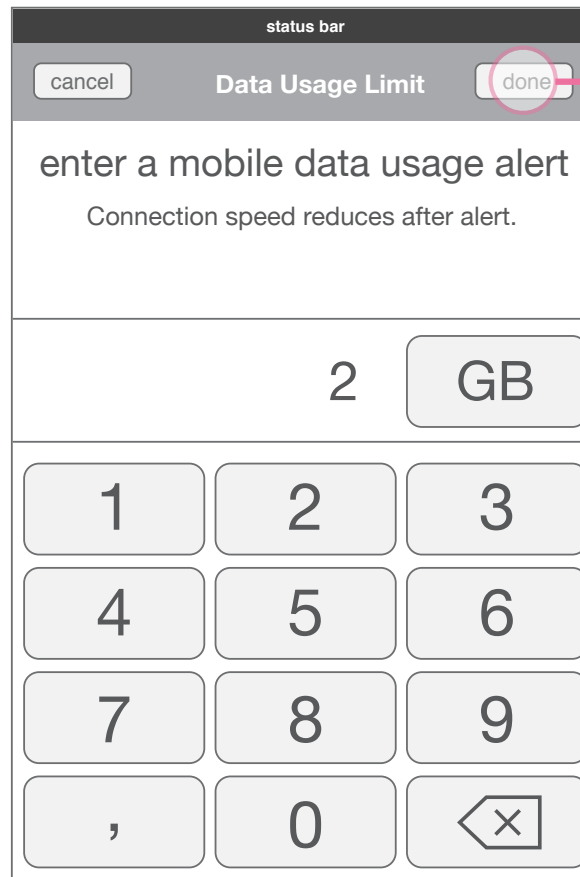
1 **GB/MB**  
Tap button to switch between MB and GB setting.

1

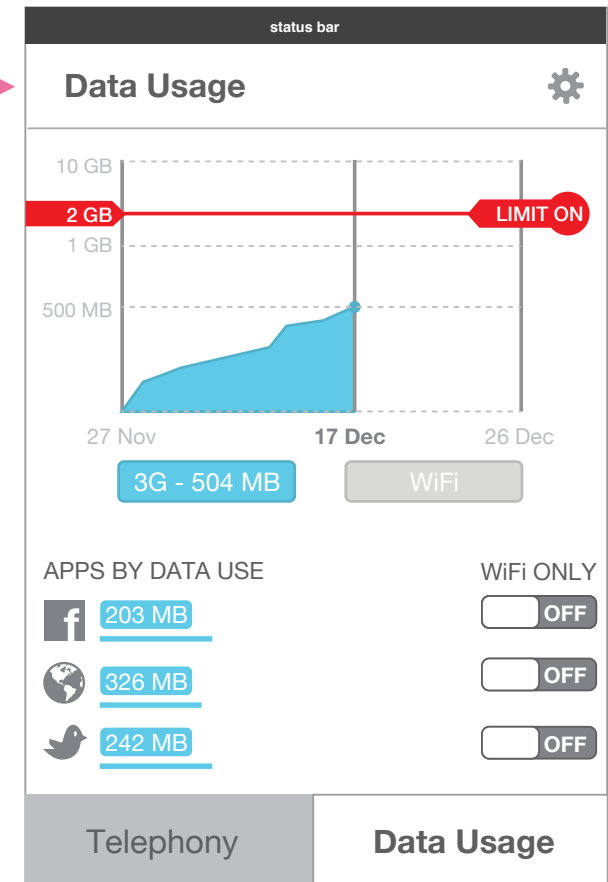
# Data Usage Limit Setting & Adjustment



**Not Set Alert limit can be turned ON**  
If a limit alert is not on, it can be turned on and adjusted via Tap and hold on Limit indicator.



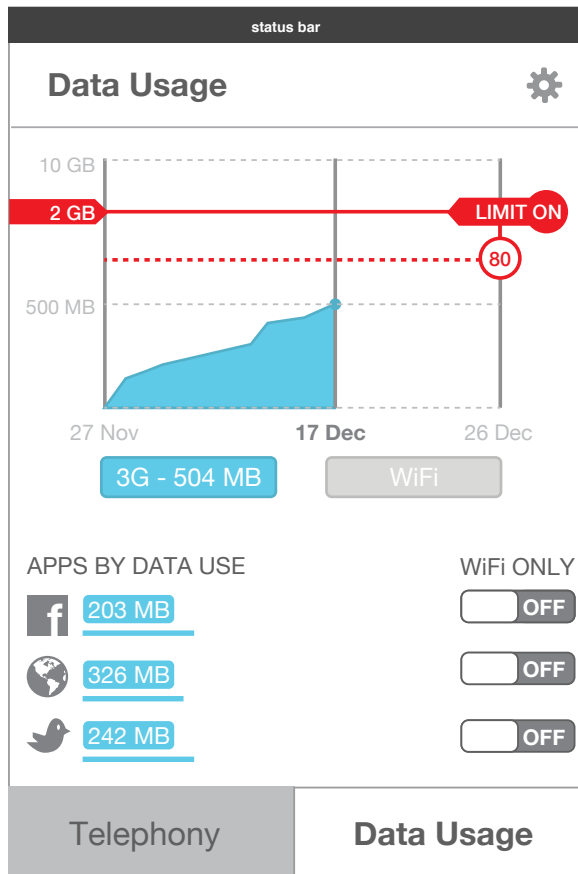
**Limit alert level adjusted by keypad**  
A keypad appears on top of Data Usage when a limit alert is not on, and it can be adjusted by typing in the limit level.



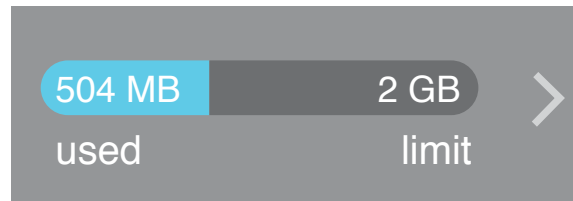
**Limit alert ON**  
When done is pressed on keypad, limit alert level moves to new set level.



# Data Usage Limit Behaviors

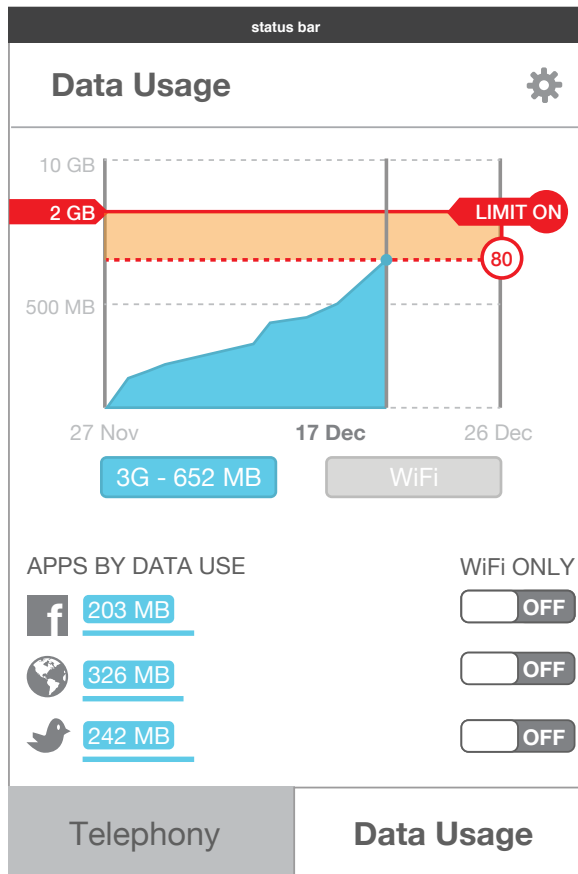


**Data Usage below 80% reminder line**  
When 3G data is below amount of reminder line, it maintains a color that is reflected also in the Data Module in Notification Center.



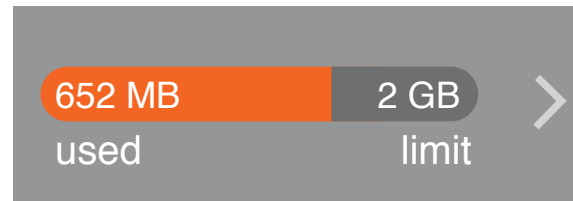
**Data Module with usage below 80% reminder**

# Data Usage Limit Behaviors



### Data Usage at or above 80% reminder

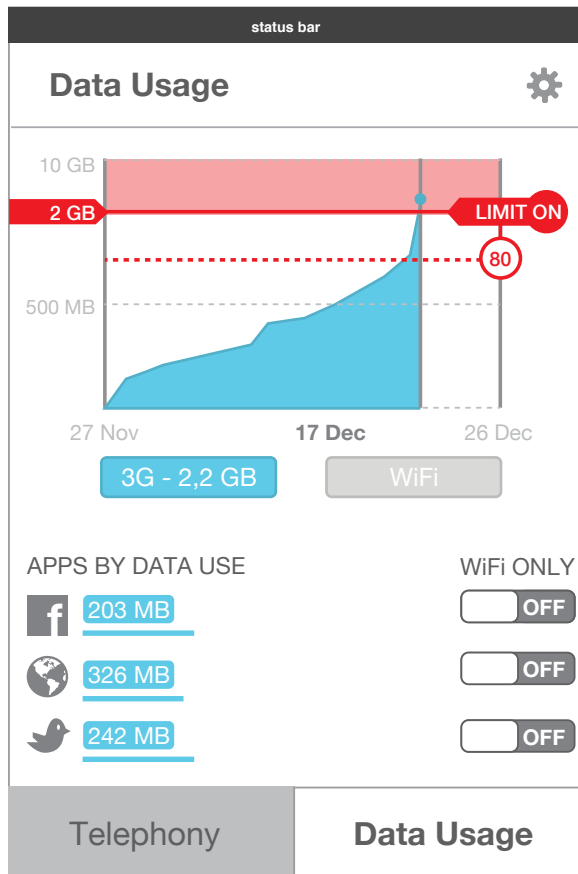
When 3G data is at or beyond the amount set by the 80% line, the graph background between 80% line and limit changes color.



### Data Module with usage below 80% reminder

When 3G data is at or beyond the amount set by the 80% reminder, it changes color to match that in Data Usage graph.

# Data Usage Limit Behaviors



### Data Usage at or above limit set

When 3G data is at or beyond the amount set by the limit, the background above limit line changes color.

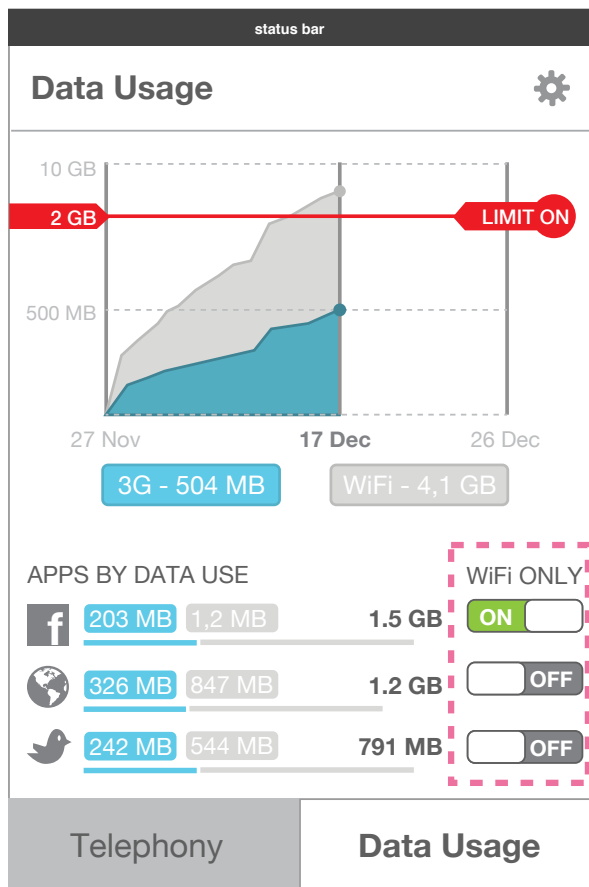


### Data Module with usage at limit alert set

When 3G data is at or beyond the amount set by the limit, it changes color to match that in the Data Usage graph.

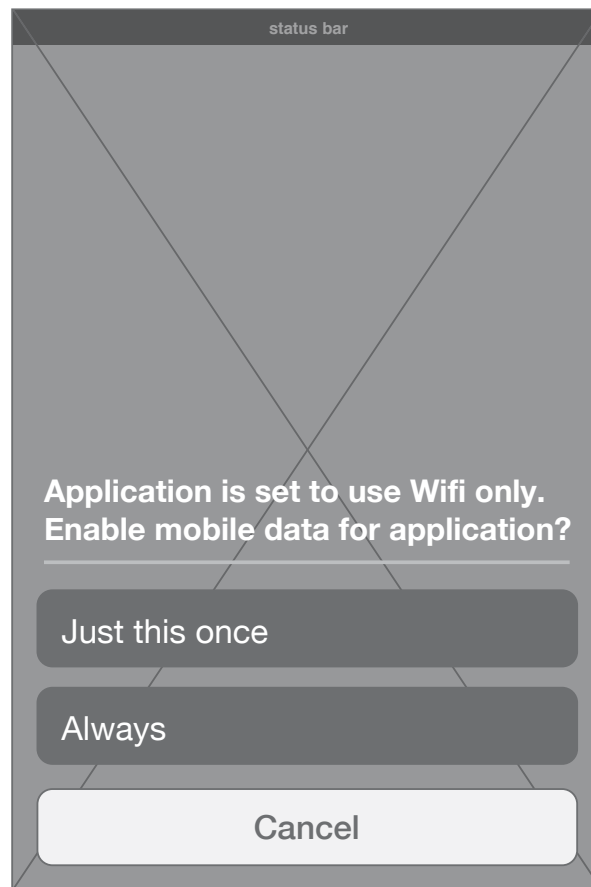
# Data Usage

## App Connection Management



### App Connection Toggle

Each app in list can be set either to connecting only via WiFi, or with either WiFi or 3G data.

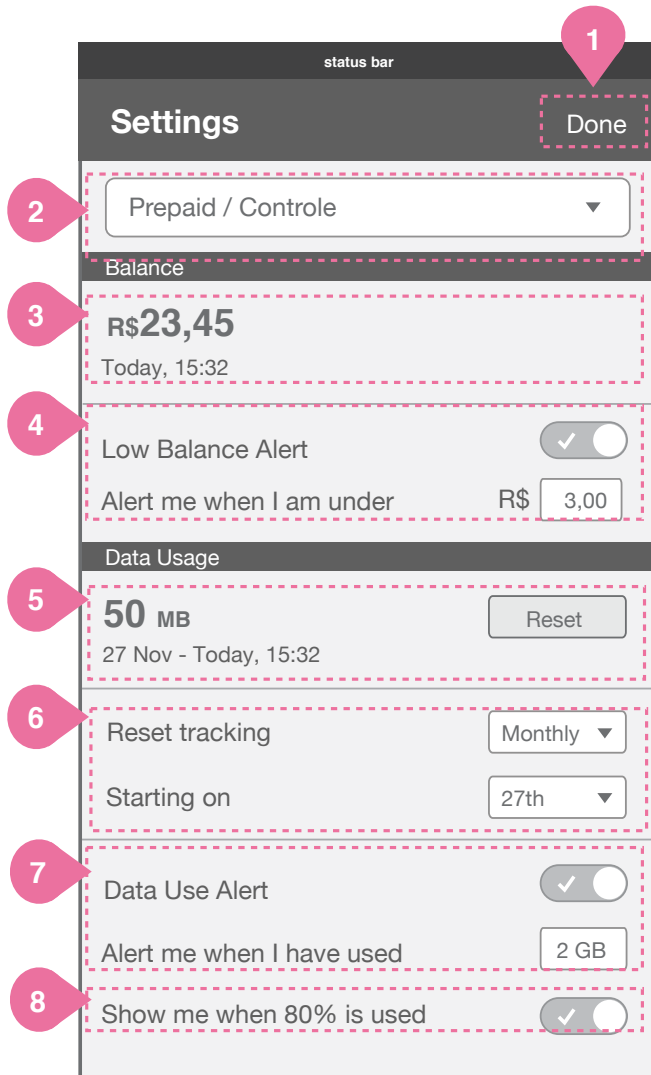


### Action Menu - WiFi only App behavior

When an app is set to WiFi only and a user is on 3G: the App opens in Offline mode, then once an action is clicked a prompt appears allowing user to change setting.

app settings

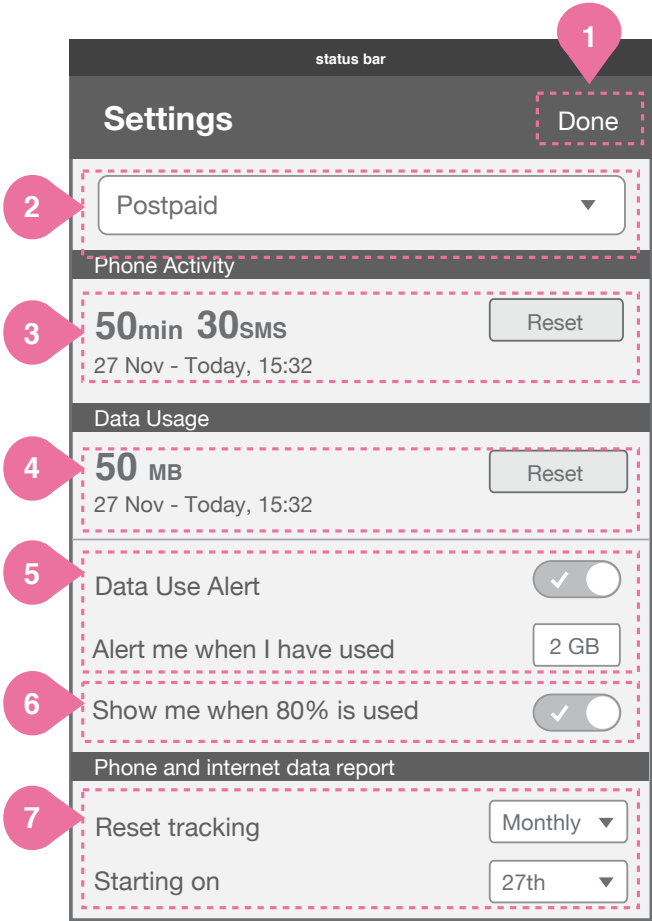
# Credit & Data Usage App Settings Overview - Prepaid view



## Details

- 1 Done Button**  
Returns user to last aspect of App they were on with setting updates applied.
- 2 Plan Type**  
Allows user to choose between plan types. Settings below change based on plan type selected.
- 3 Balance**  
This refers to the number last updated in App and Credit Module. This is not an active number, it is just a reference useful for user.
- 4 Low Balance Alert**  
Allows user to set an alert when balance is low. It can be switched on/off, and a limit amount typed in. By default this is set ON to R\$3.00
- 5 Total 3G Data Usage & Manual Reset**  
This number is the same number from the total 3G usage. The Reset button allows users to put the data counter back to zero.
- 6 Reset Tracking**  
Allows user to change tracking from Monthly, Weekly or Never to reset data usage counter automatically. Tracking resets on starting date set by user, unless Never reset is selected. Default is Monthly and starting on 1st of month.
- 7 Data Use Limit Alert**  
Allows user to set a limit reminder in the data module.
- 8 80% reminder**  
Allows user to set a reminder in the data module that data usage is at 80% of limit set.

# Credit & Data Usage App Settings Overview - Postpaid view

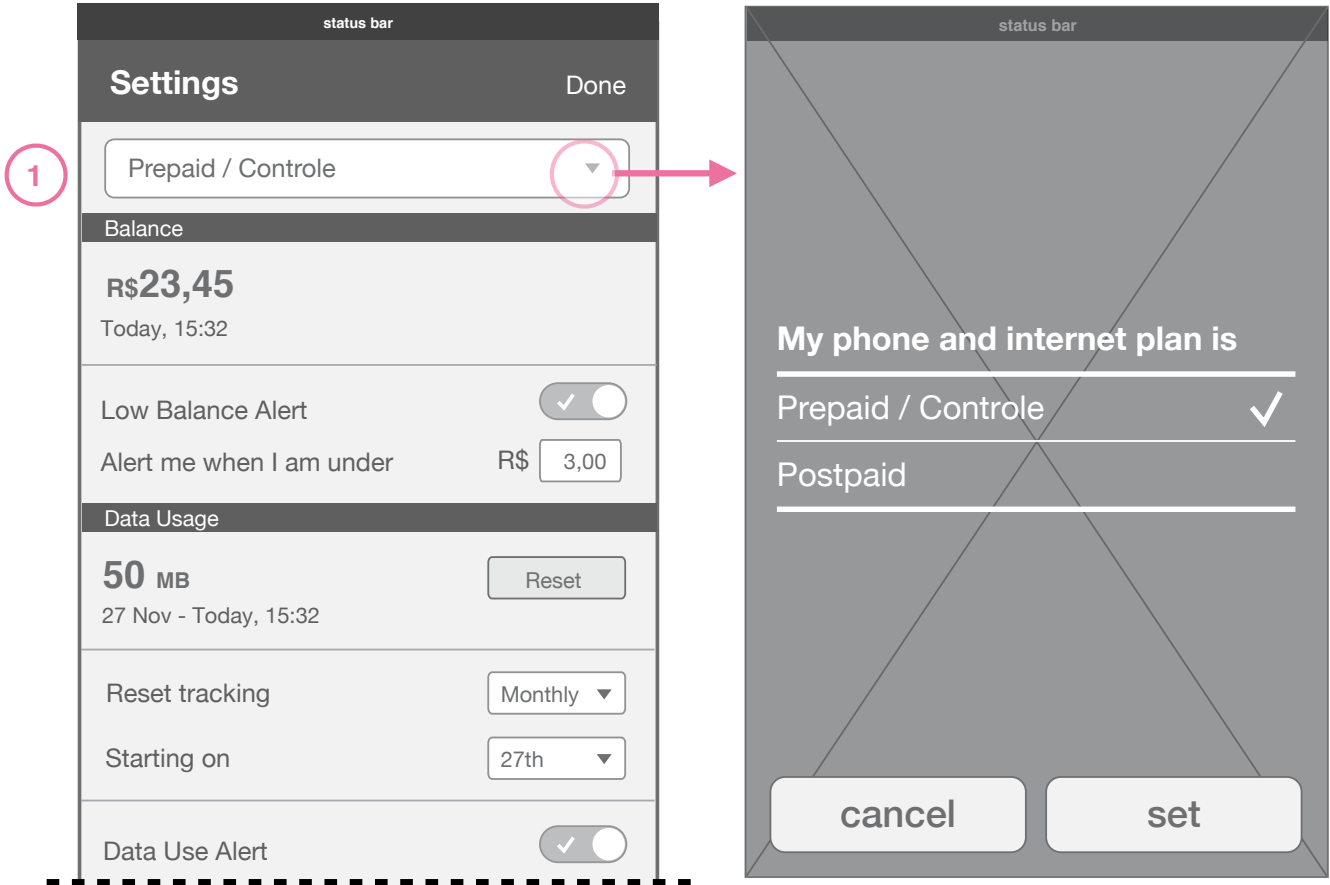


## Details

- 1 Done Button**  
Returns user to last aspect of App they were on with setting updates applied.
- 2 Plan Type**  
Allows user to choose between plan types. Settings below change based on plan type selected.
- 3 Phone Activity and Reset**  
Reports the amounts shown in the app, and allows user to reset this data to zero.
- 4 Total 3G Data Usage & Reset**  
This number is the same number from the total 3G usage. The Reset button allows users to put the data counter back to zero.
- 5 Data Use Limit Alert**  
Allows user to set a limit reminder in the data module.
- 6 80% reminder**  
Allows user to set a reminder in the data module that data usage is at 80% of limit set.
- 7 Reset Tracking**  
Allows user to change tracking of Phone Activity and Data Usage from Monthly, Weekly or Never. Tracking resets automatically on starting date set by user, unless Never reset is selected. Default is Monthly and starting on 1st of month.

# Credit & Data Usage App Settings

## Plan Type Setting



### Details

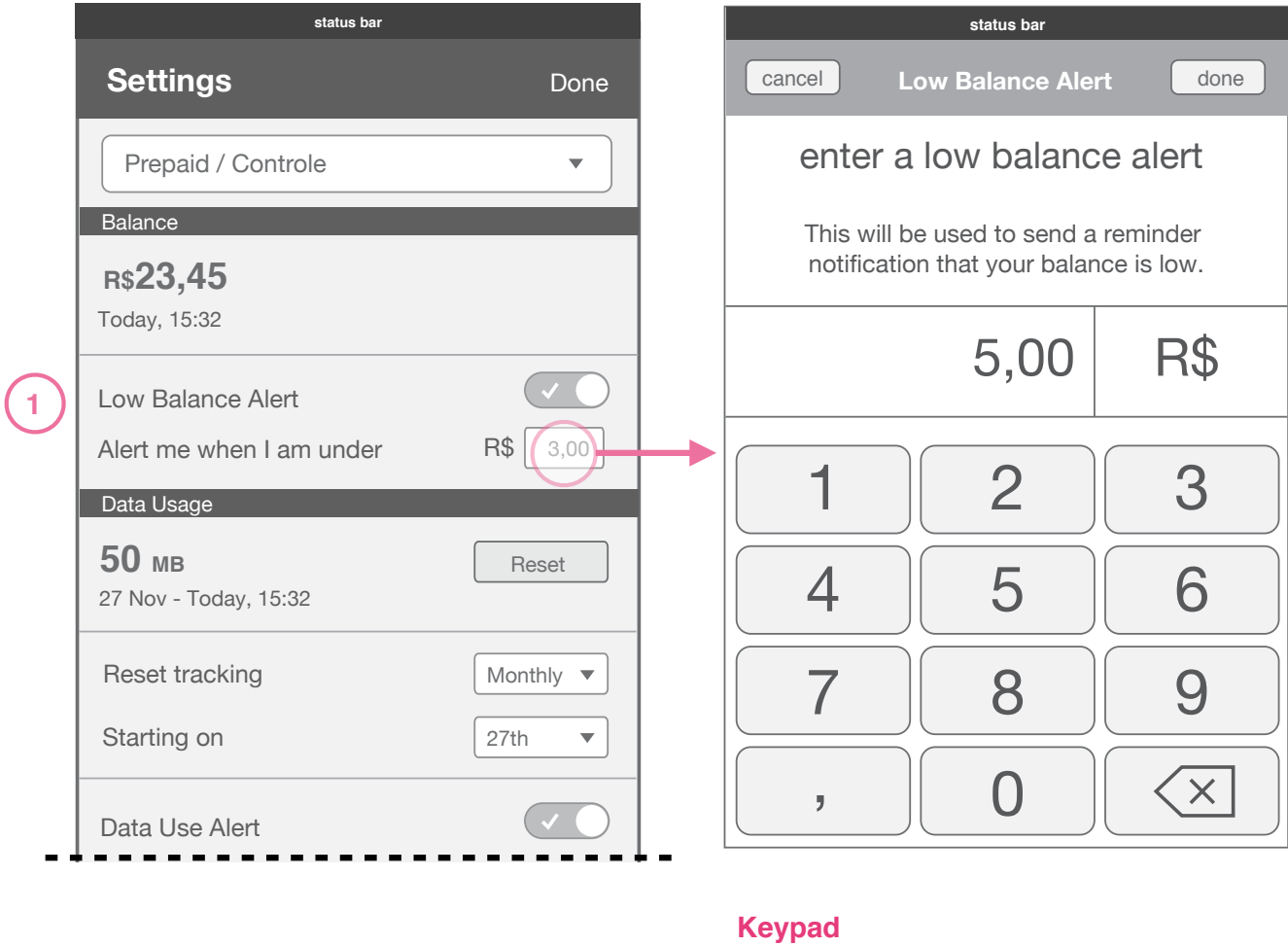
- 1 **Plan Type**  
To set the plan type, a user taps on box and selects either Prepaid or Postpaid. The rest of the settings are changes to reflect the selection.

List Prompt  
see building blocks document



# Credit & Data Usage App Settings

## Low Balance Alert Setting



### Details

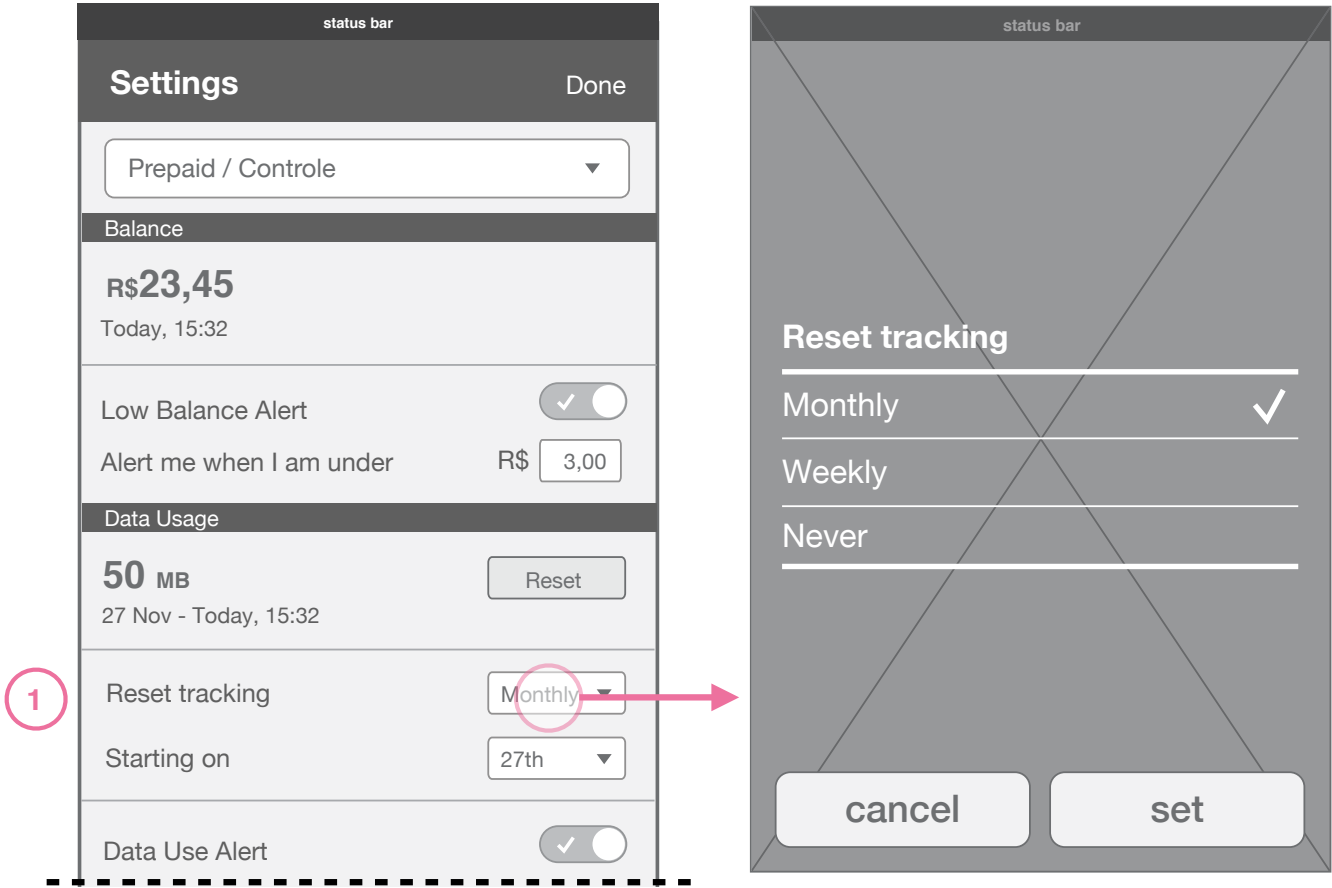
1 **Low Balance Alert Setting**  
To set a low balance alert, user taps on box and keypad come up for them to type in amount.

Default of low-balance alert to be set ON and at R\$ 3.00

Keypad

# Credit & Data Usage App Settings

## Billing/Usage Cycle Setting



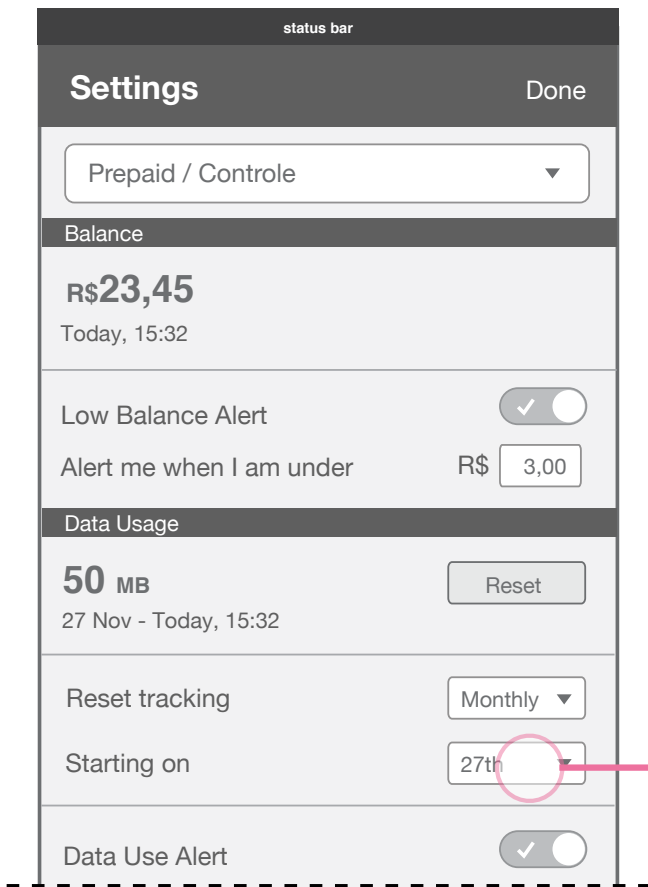
### Details

- 1 **Usage Cycle period**  
To set the data tracking period, a user taps on box and selects either Monthly, Weekly or Never. The data usage graph dates change to reflect the selection.

List Prompt  
see building blocks document

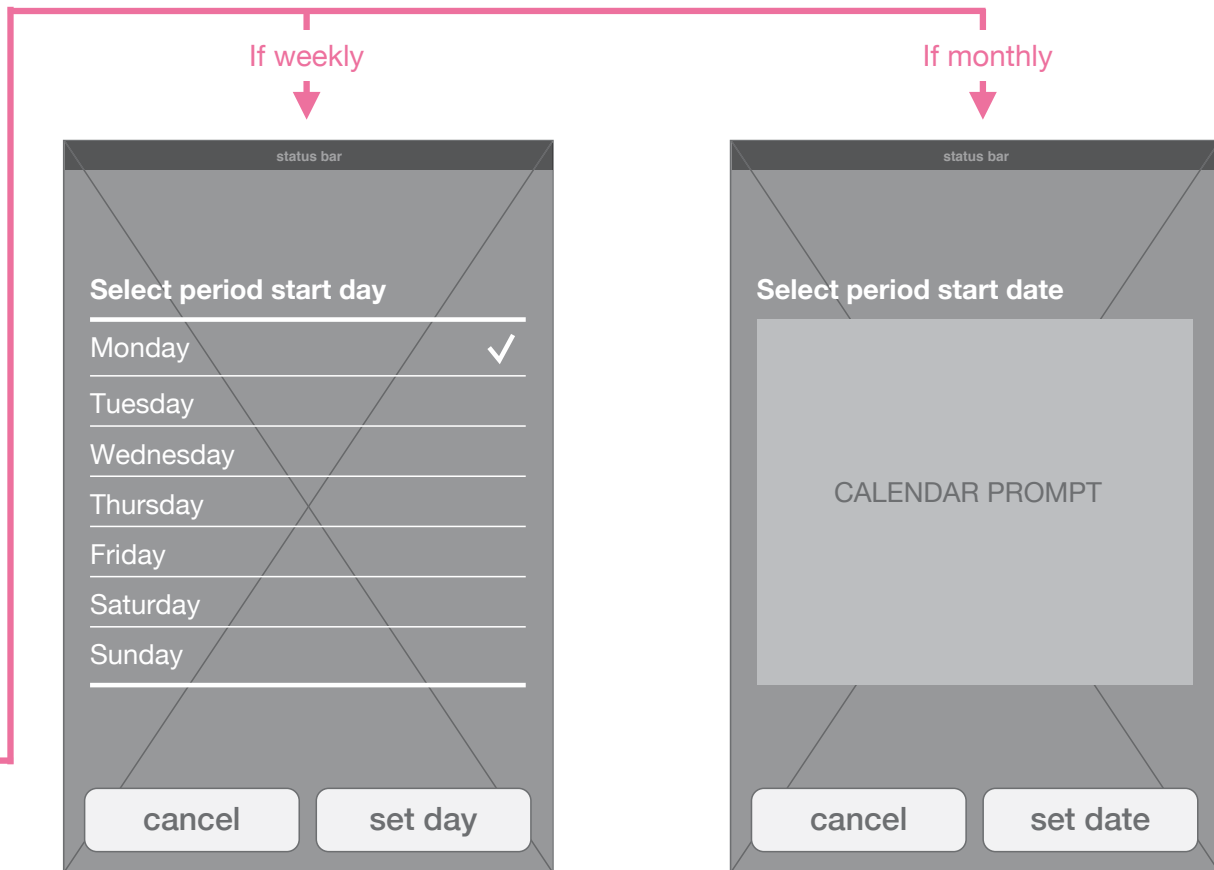
# Credit & Data Usage App Settings

## Billing/Usage Cycle Setting



### Data Usage period

To set the start date of the data tracking period, a user selects 'Start Date' and then based on Period is presented with a prompt. The graph in Data Usage changes based on selection.



### List Prompt

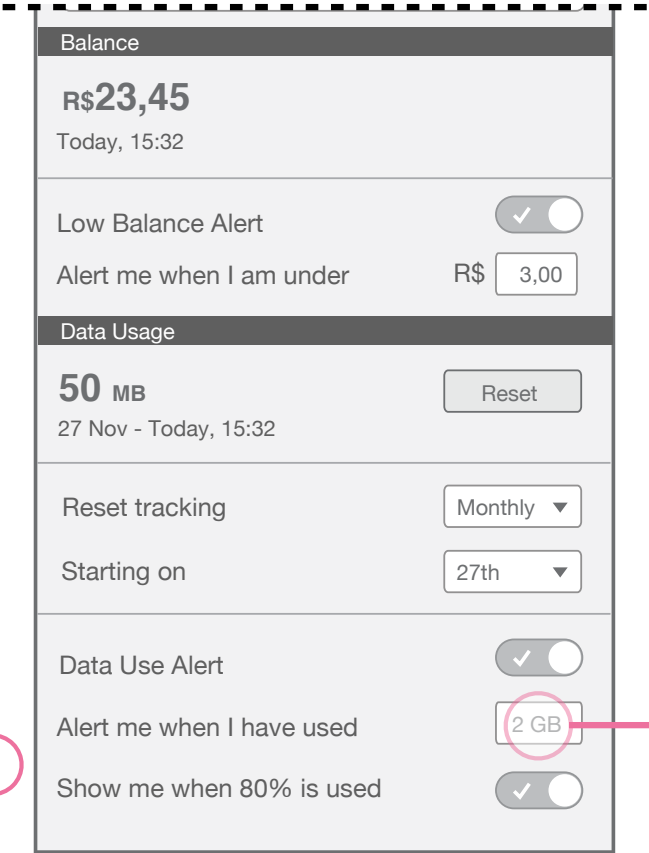
see building blocks document

### Calendar Prompt

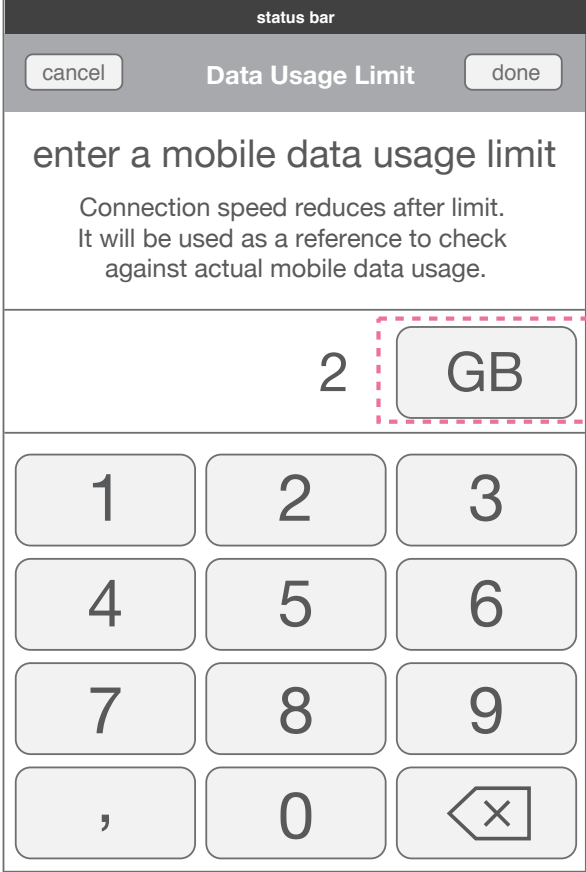
see building blocks document

# Credit & Data Usage App Settings

## 3G Data Usage Alert Setting



Settings View



Keypad

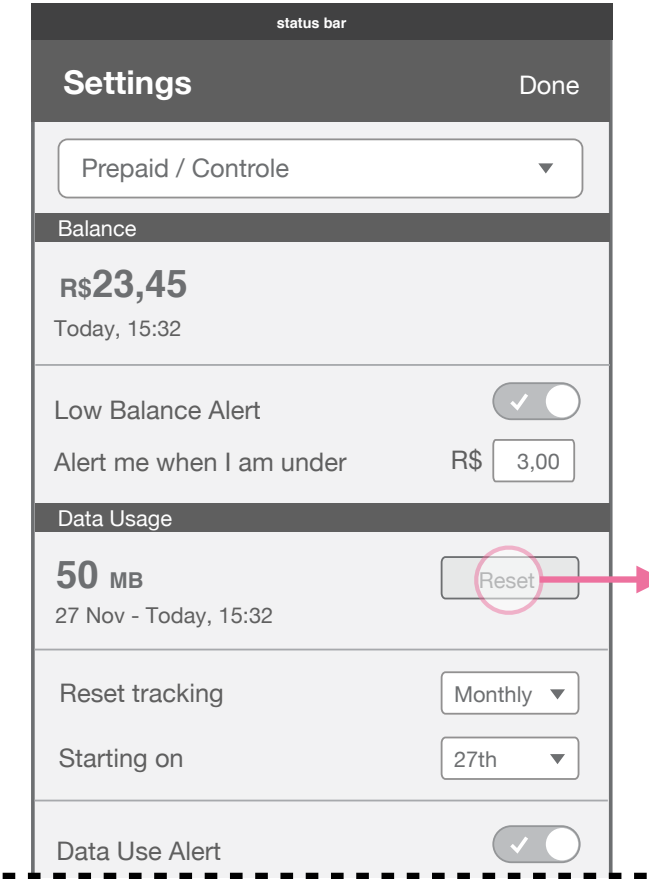
### Details

1 **Alert Amount Setting**  
To set an alert a user taps on box and a keypad come up for them to type in an amount. Alerts are set OFF by default.

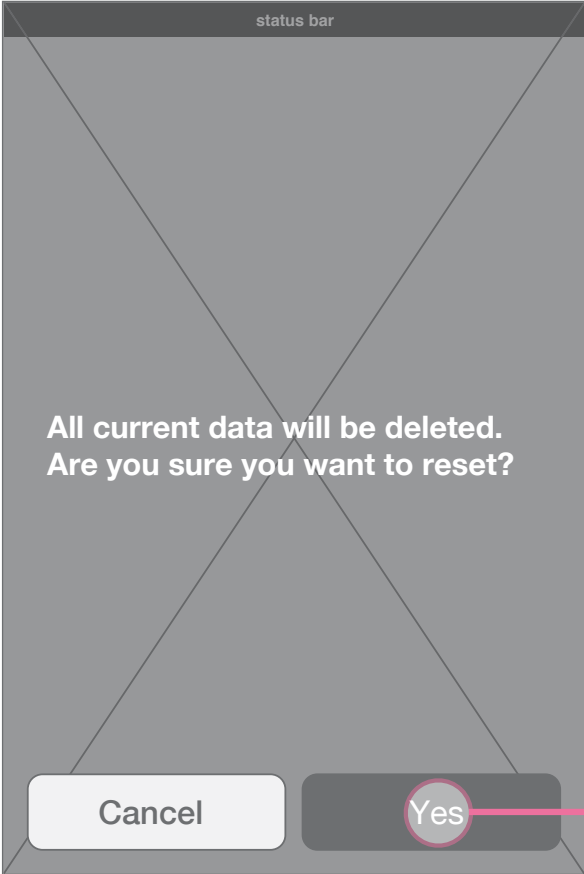
2 **GB/MB**  
Tap button to switch between MB and GB setting.

# Credit & Data Usage App Settings

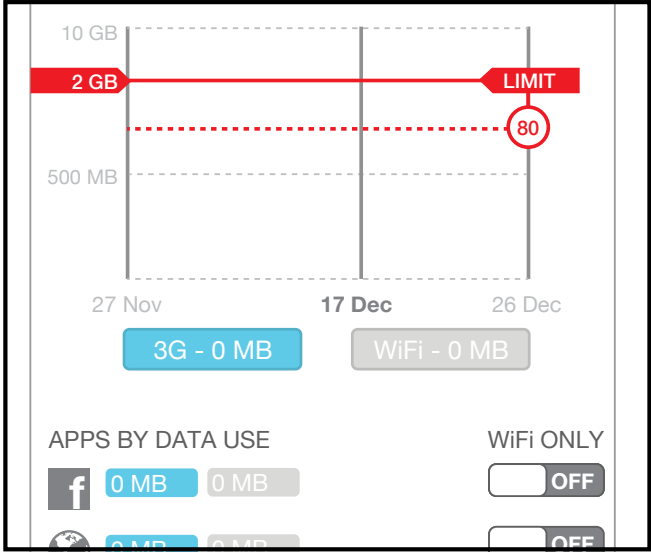
## Reset Data Usage Settings



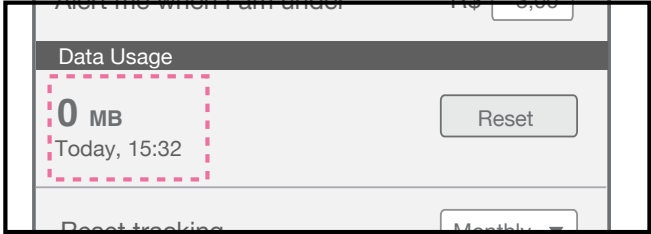
Settings View - Reset Pressed



Prompt to confirm deletion



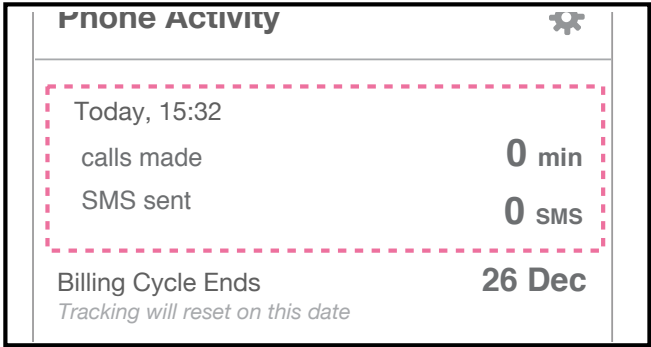
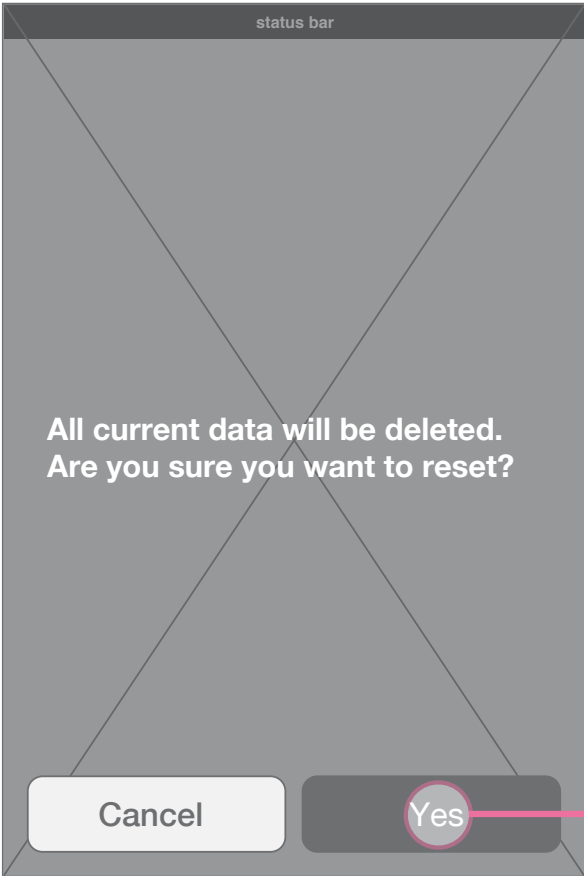
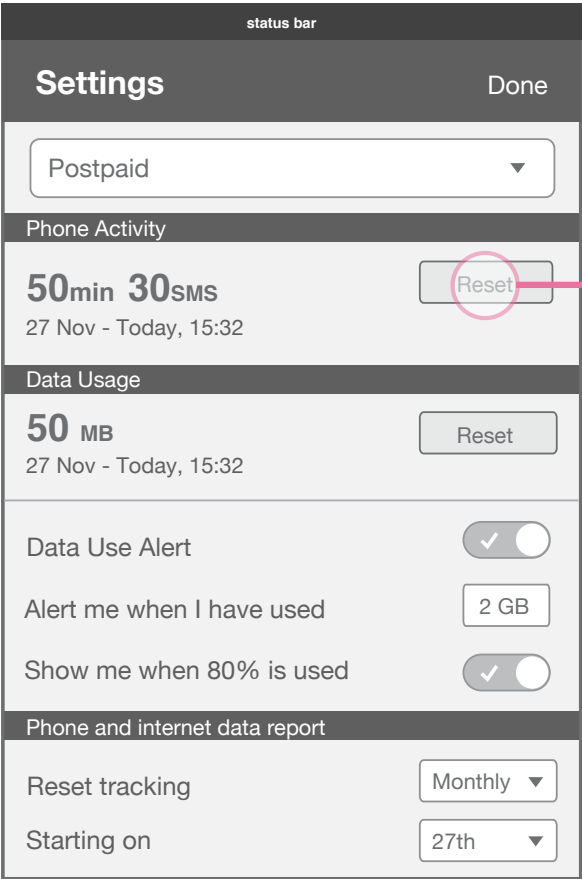
Data Usage View Reset



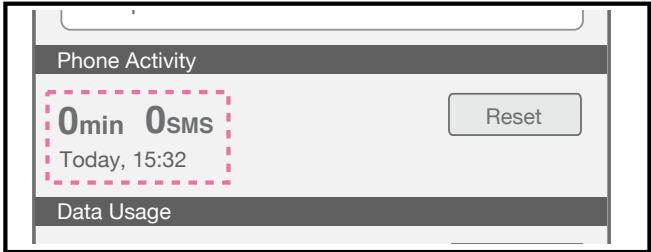
Settings View Reset

# Credit & Data Usage App Settings

## Reset Phone Activity Settings



Phone Activity View Reset



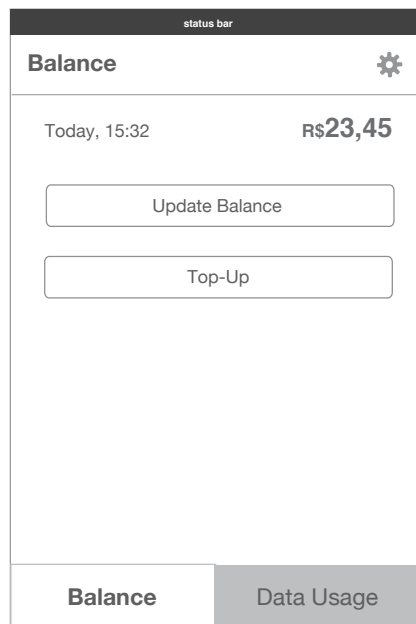
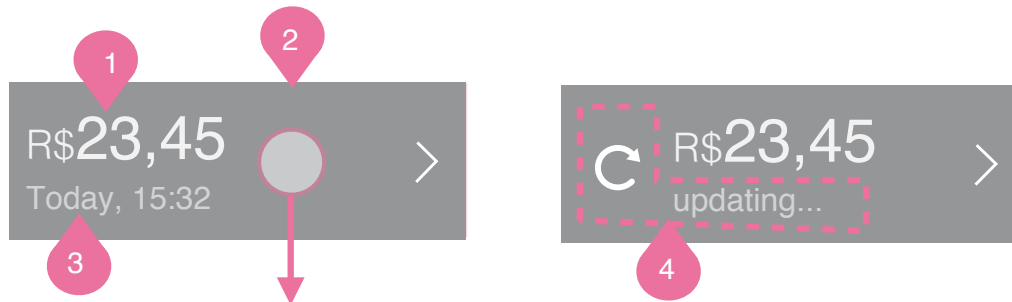
Settings View Reset

Prompt to confirm deletion

credit and data modules

# Credit Module Overview - Prepaid

## Behavior Details



## 2 Detailed Balance View in App

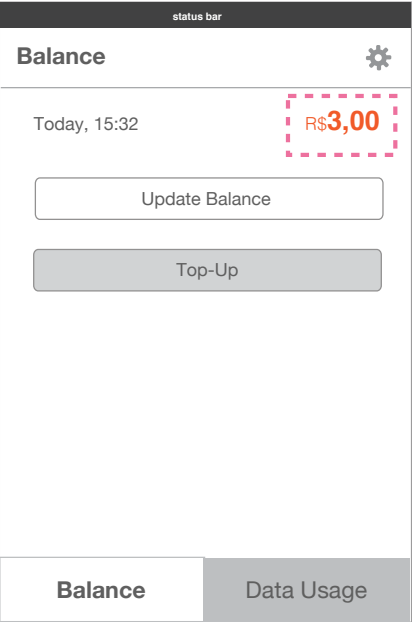
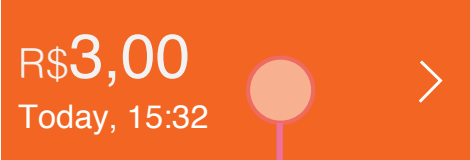
- 1 Credit counter**  
Counter *decreases* showing the user how much money they have spent since their last top-up.  
The counter updates automatically every time the tray is pulled down and every hour unless it has already updated in the past 2 minutes.
- 2 Tapping on Credit Module**  
Tapping on anywhere in the credit module opens the app and sends a user to the detailed balance view.
- 3 Timestamp**  
Timestamp shows the time of the last successful refresh of the credit counter.
- 4 Refreshing credit counter**  
The rotating icon appears only when the module is refreshing. The timestamp is substituted by an 'updating' text.



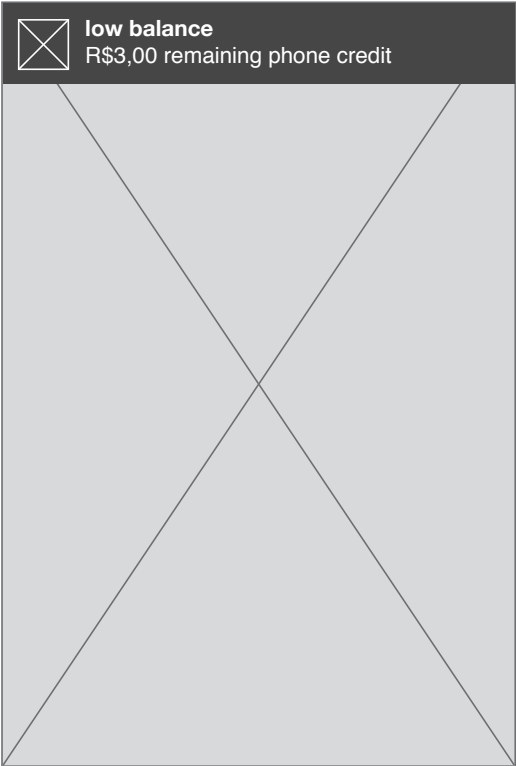
# Credit Module

## Prepaid scenarios

### Low Balance Warning



3 Detail Balance view



2 Low Balance Notification

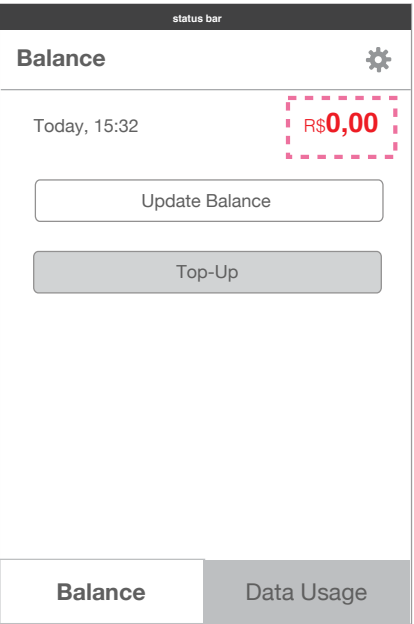
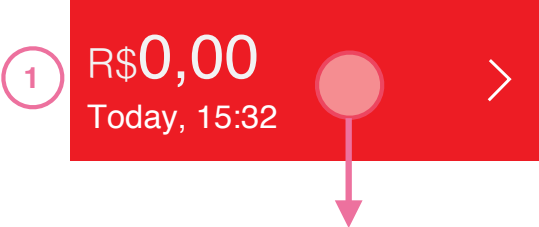
### Low Balance Alerts

- 1 When prepaid balance is running low: The background of Credit Module changes color to warn the user.
- 2 A Passive Notification is sent.
- 3 **Low Balance Threshold Amount**  
The low balance alert should appear at a level set by the user in settings. By default though, it should be set at R\$3,00.

# Credit Module

## Prepaid scenarios

### No Balance Warning



3 Detail Balance view



2 No Balance Notification

### No Balance Warnings

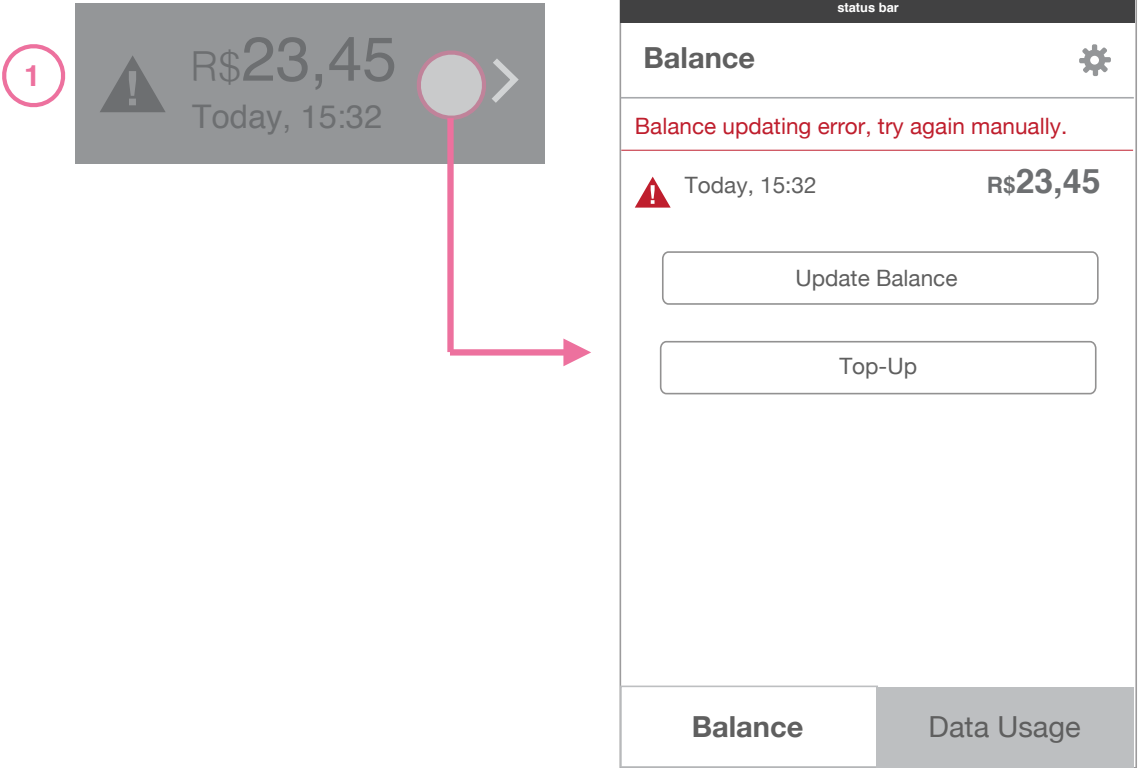
When prepaid balance is finished:

- 1 The background of Credit Module changes color to warn the user.
- 2 A prompt is presented to the user to alert them and to give the option of top-up. (vivo top-up icon to appear in prompt)
- 3 If a user opens the app, the balance view shows the 0 balance number in red.

# Credit Module

## Prepaid scenarios

### Refresh Error



Detailed Balance View in App

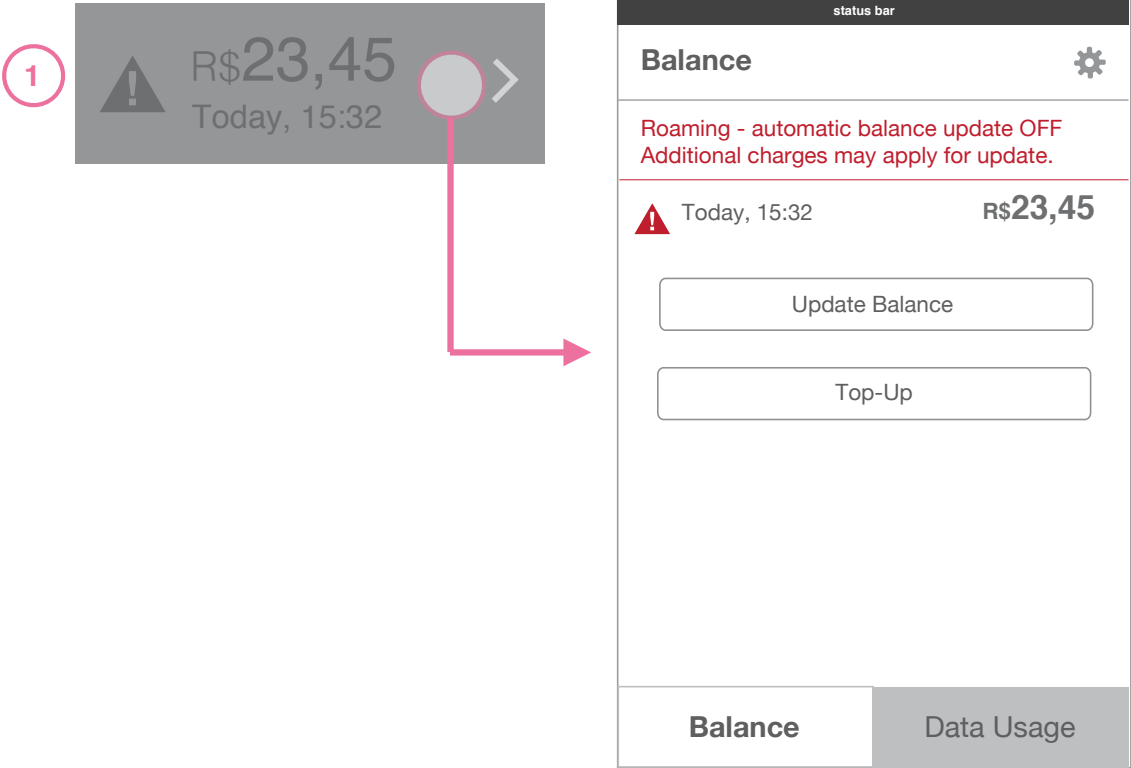
**Refresh Error**  
1 If an error occurs during manual refresh, an alert icon slide in from the side, and the credit counter goes to a grey or darker state to indicate it is not updated.

Tapping on the credit module sends a user to the Detailed Balance View where an alert is shown with text explaining why there is an alert.

# Credit Module

## Prepaid scenarios

### Roaming



Detailed Balance View in App

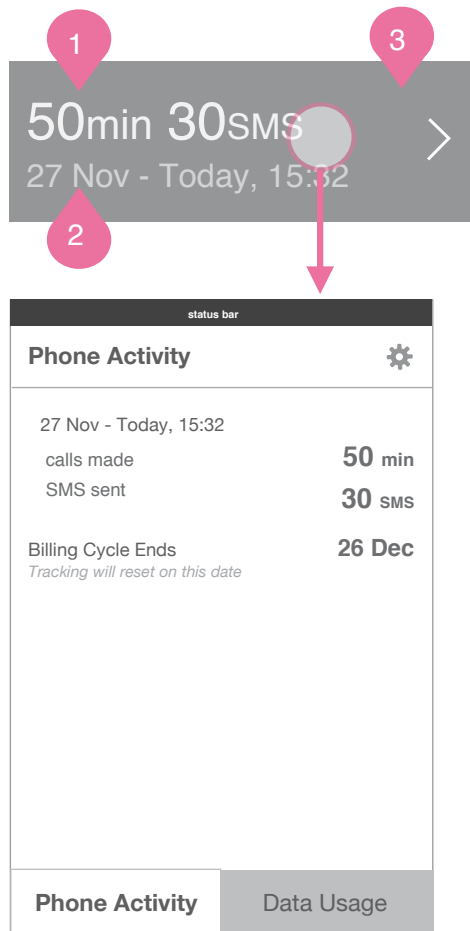
### Refresh Error

1 If a user is roaming, the automatic update is disabled. When a user pulls down on the notification center, an alert icon appears to the side of the credit counter and the credit counter goes to a grey or darker state to indicate it is not updated.

Tapping on the credit module sends a user to the Detailed Balance View where an alert is shown with text explaining why there is an alert.

# Credit Module Overview - Postpaid

## Behavior Details

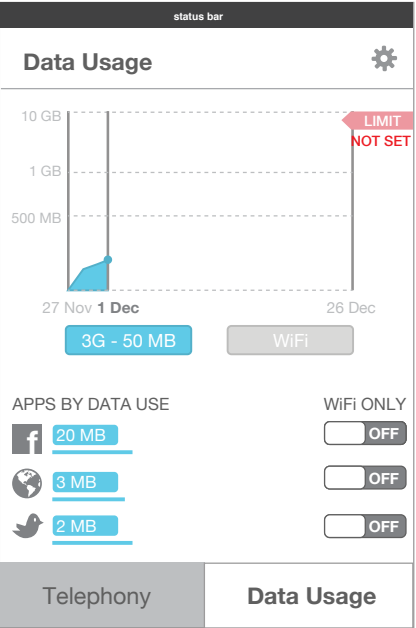
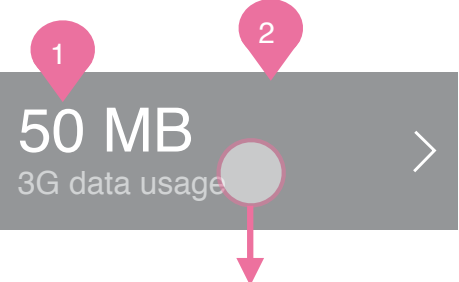


- 1 **Outgoing Calls and SMS sent**  
Counter for all outgoing calls and SMS sent within postpaid billing period set.
- 2 **Timestamp**  
Timestamp shows the billing/usage period of the calls and sms shown, and the time of the last SMS or Call made (the time the counter was last updated).
- 3 **Detailed Phone Activity App View**  
Tapping on the Credit Module sends the user to the Telephony view in the app.

- 3 **Detailed Phone Activity App View**

# Data Module Overview - no limit set

## Behavior Details . no limit set

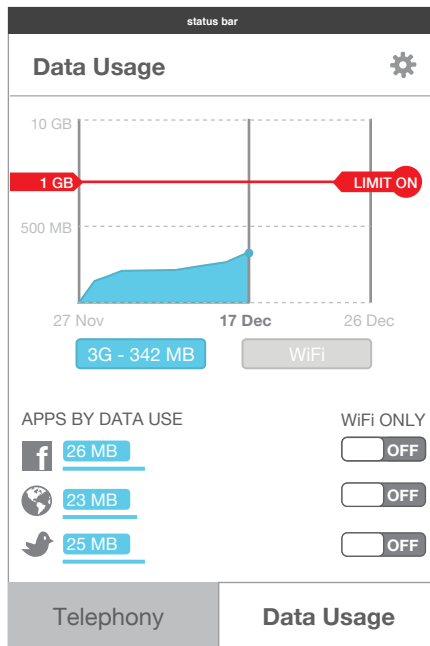
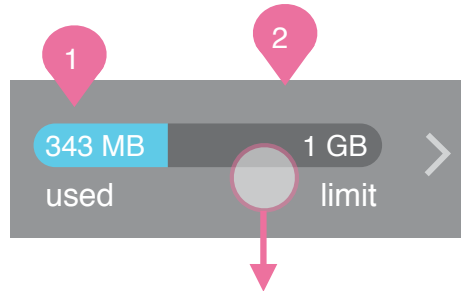


- 1 **Mobile data counter**  
Counter of total 3G data used increases.
- 2 **Data Usage details**  
Tapping on module sends a user to the Data Usage detailed view in the app.

## 2 Data Usage view

# Data Module Overview - with limit set

## Behavior Details . limit set



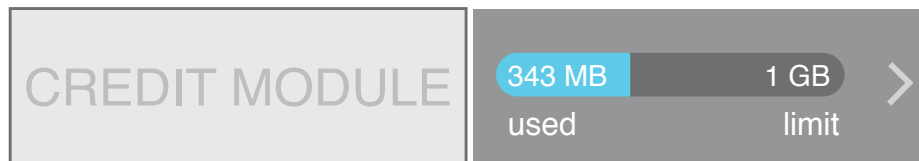
## 2 Data Usage view

- 1 Mobile data counter**  
With limit set, module looks like a bar. Counter and graph of total 3G data used increases towards limit.
- 2 Data Usage details**  
Tapping on module sends a user to the Data Usage detailed view in the app.

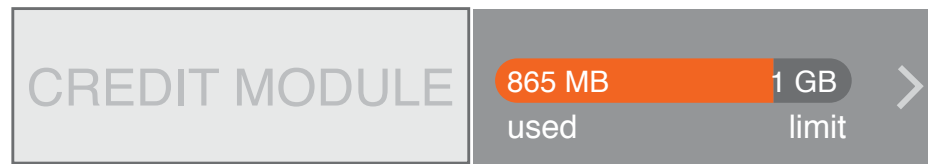
# Data Module

## States with limit set

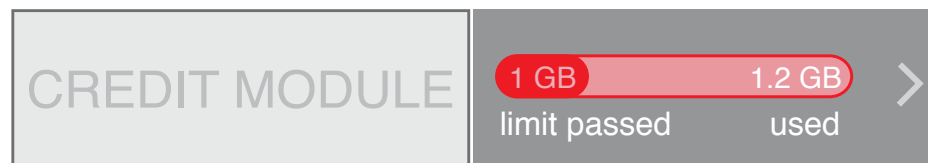
### Behavior Details . limit set



**Mobile data counter**  
reports total 3G and reminds user of limit they set.



**Close to limit**  
chart changes color to alert user they are close to limit.

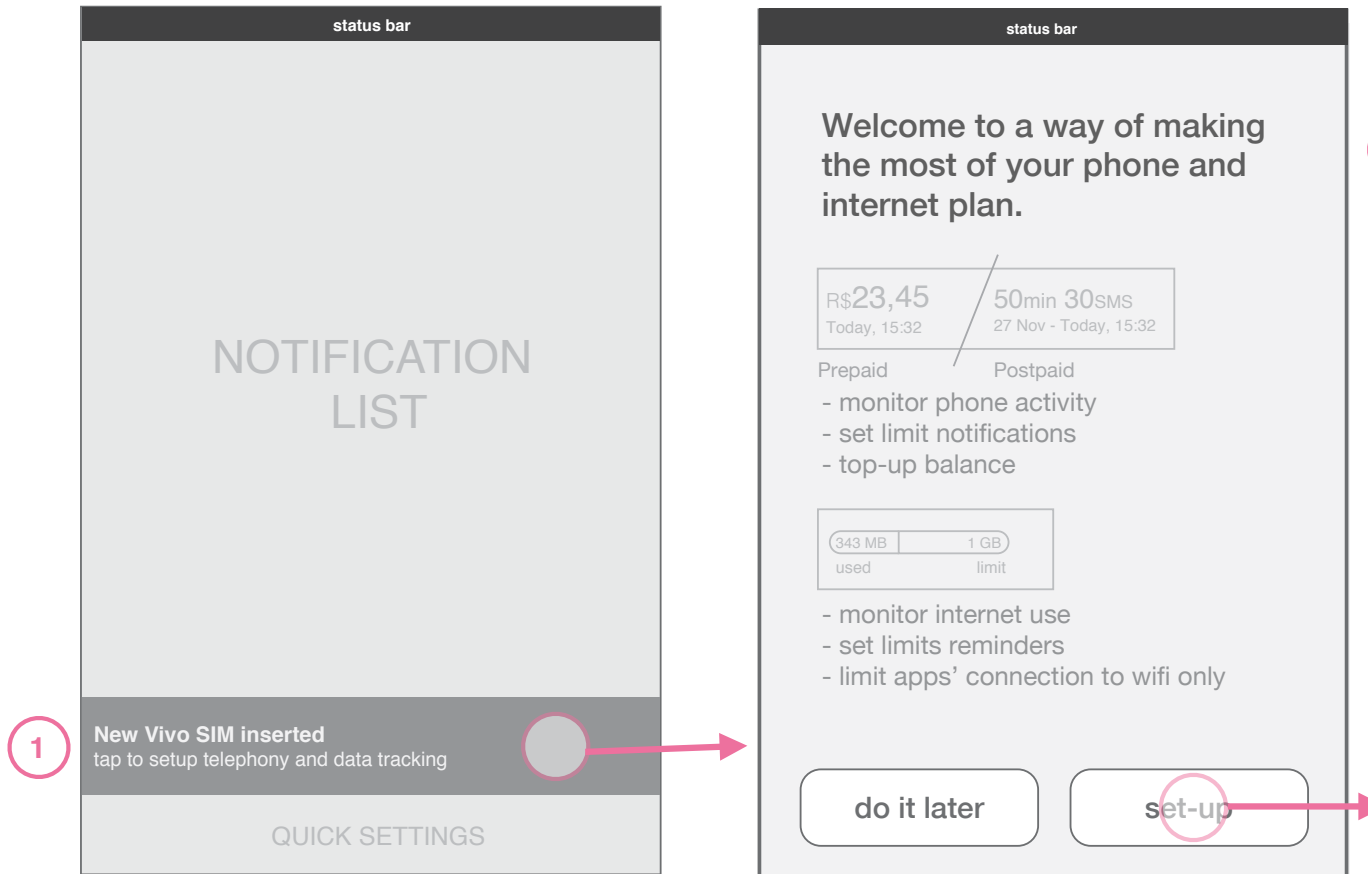


**Limit Reached**  
changes color and numbers of limit and usage flip to alert user they have reached passed limit.



first time set-up

# First Time Set-up From Notification Center



1st time Notification Center is revealed, or first time Credit & Data Usage App is opened.

Credit & Data Usage App 1st time set-up

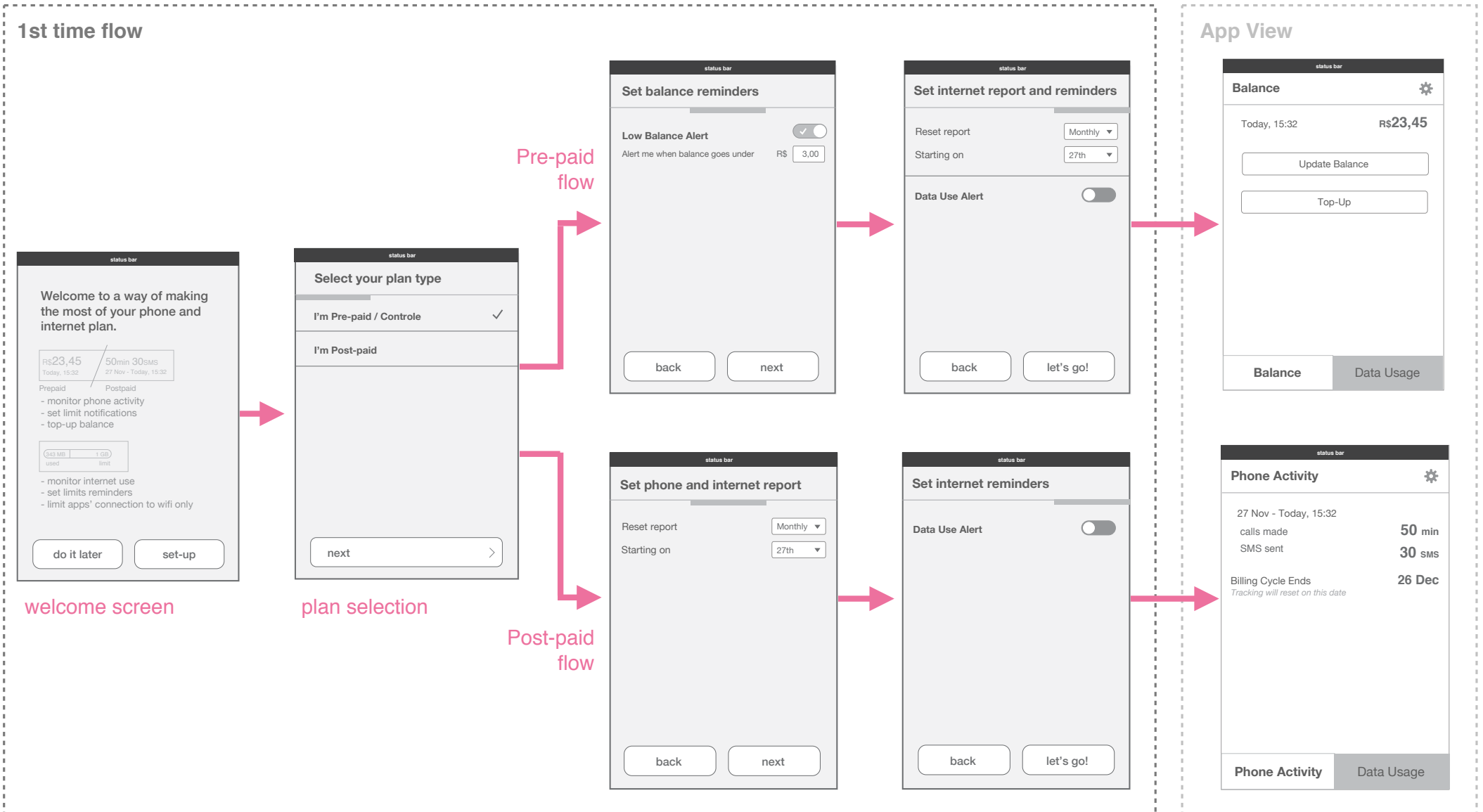
## Details

### Credit and Data Module

1 The first time the notification center is revealed, the Credit and Data Module is inoperative, and shows a message explaining that it needs to be set-up. Tapping on the message opens the Credit & Data Usage App in the first time set-up flow.

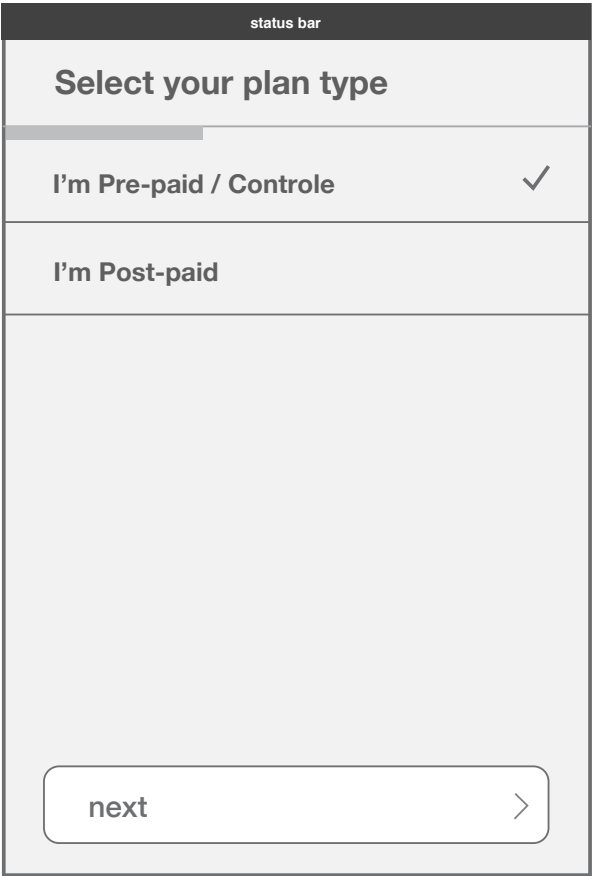
If the Credit Module does not get set-up, this message is always shown when the Notification Center is revealed.

# First Time Set-up Flows

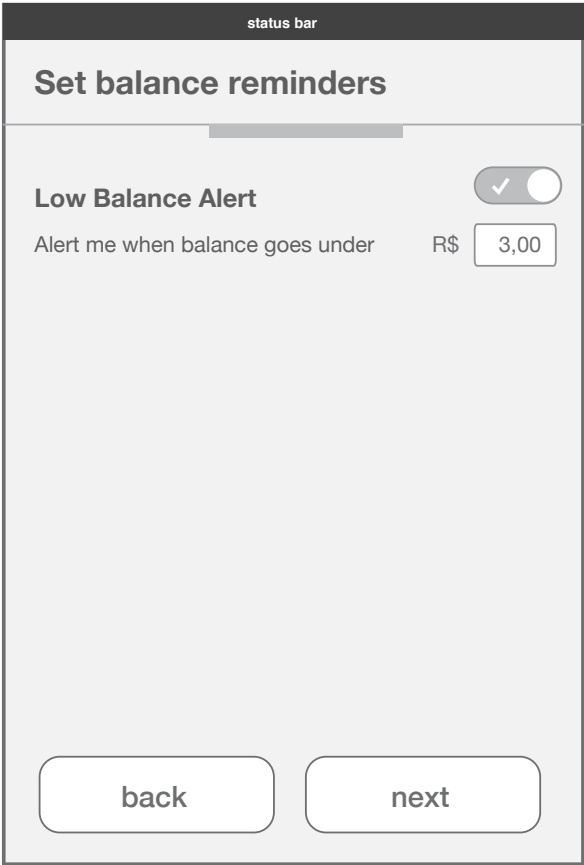


# First Time Set-up

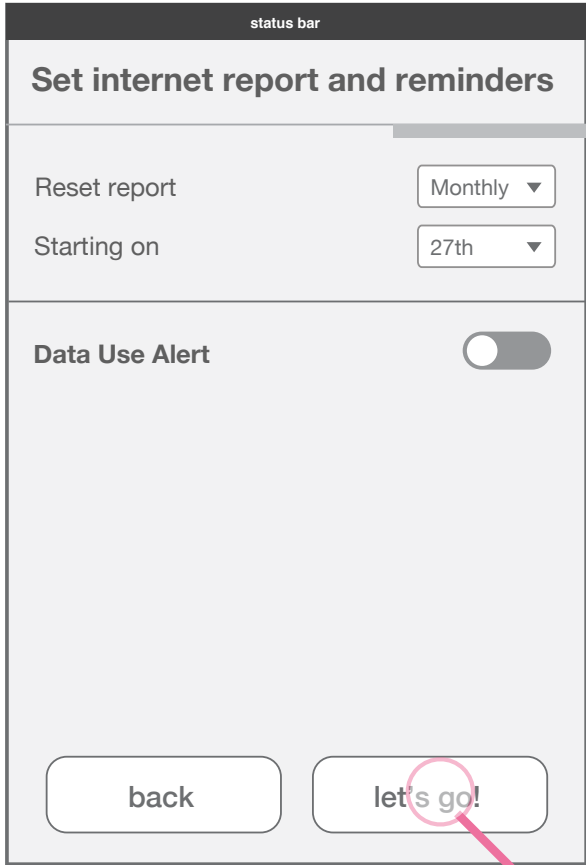
## Prepaid flow



Select plan type



Set balance reminders



Set data use reminders

go to detail balance view in app

# First Time Set-up

## Postpaid flow

status bar

### Select your plan type

I'm Pre-paid / Controle

I'm Post-paid ✓

next >

Select plan type



status bar

### Set phone and internet report

Reset report Monthly ▾

Starting on 27th ▾

back next

Set report reset and starting data



status bar

### Set internet reminders

Data Use Alert

back let's go!

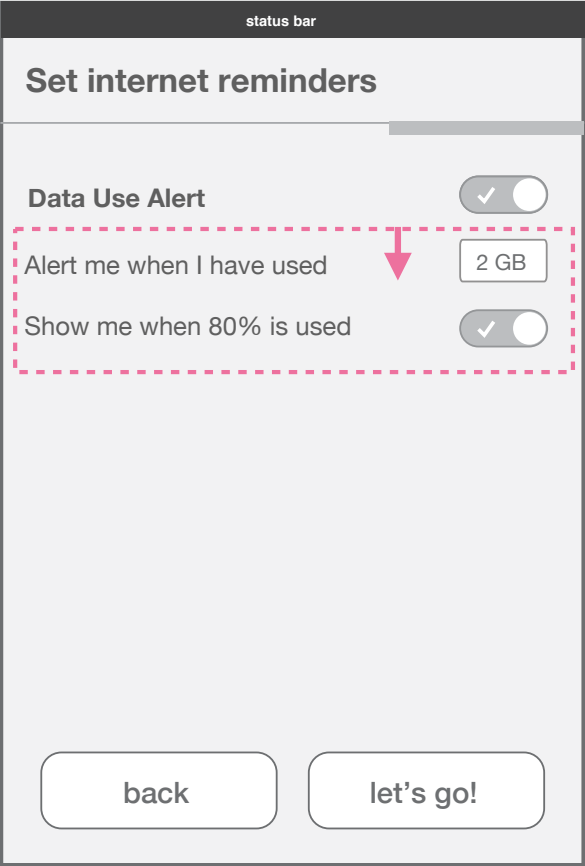
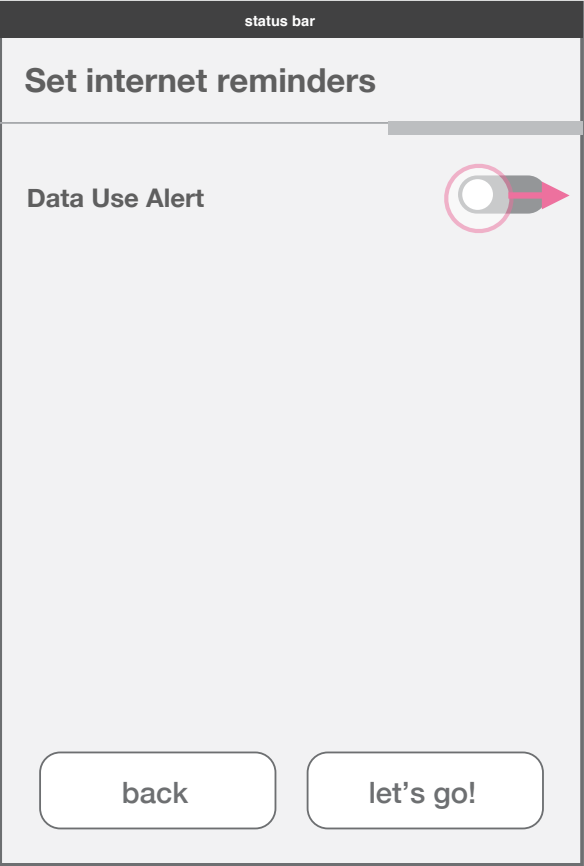
Set data use reminders



go to phone activity view in app

# First Time Set-up

## Data Use Alert reveal animation



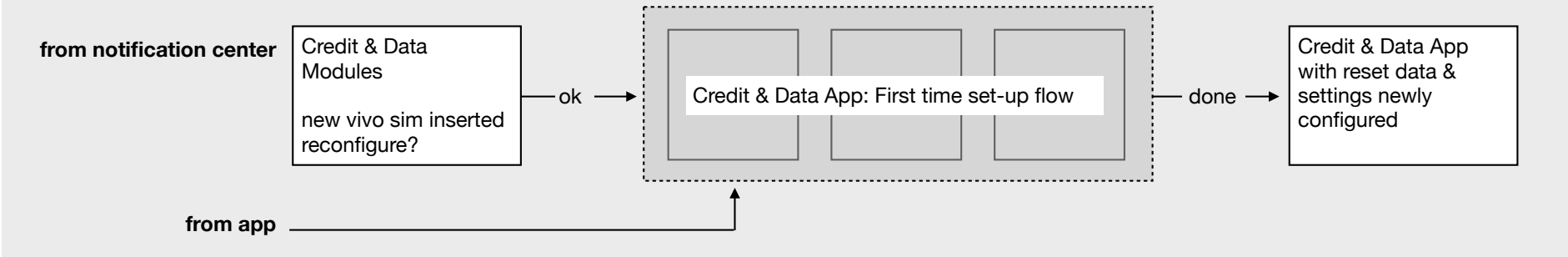
**Turning On Data Use Alert**  
Reveals the controls of alert level and 80% reminder control.

sim change scenarios

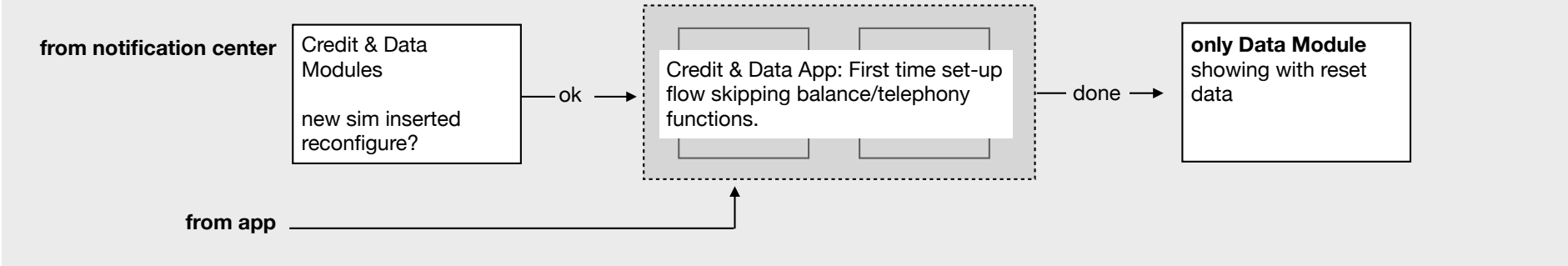
# Credit and Data Modules & App

## SIM change scenario flows

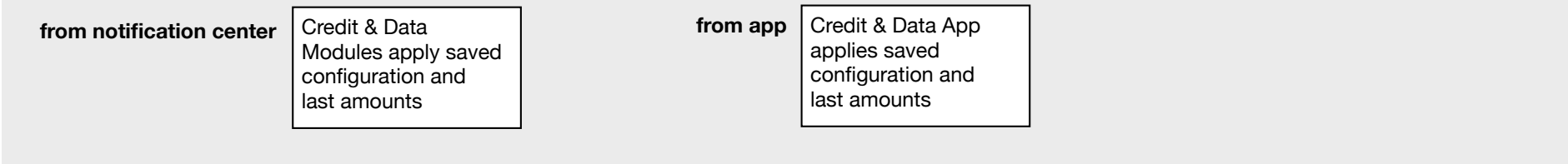
user inserts new **vivo** SIM card



user inserts new **non-vivo** SIM card



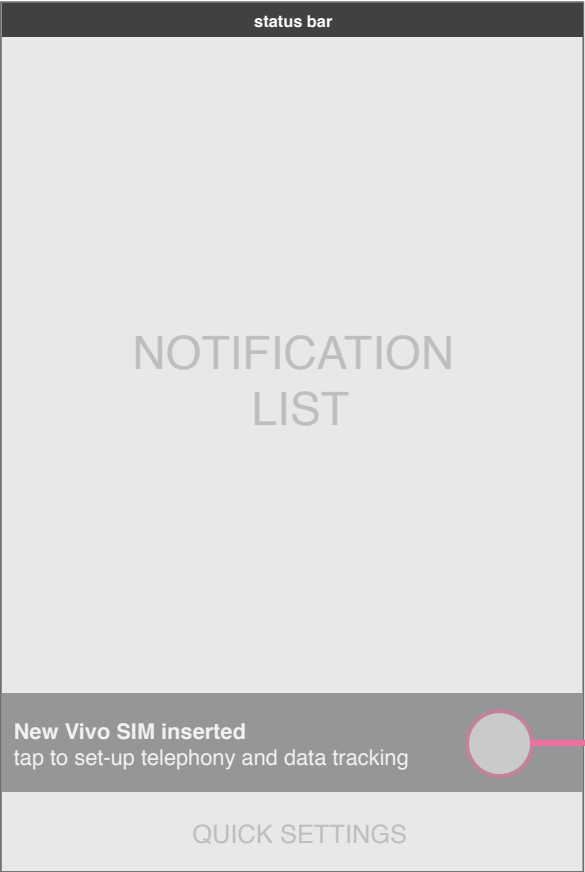
user inserts **already configured** SIM card





# Credit and Data Modules & App

## User inserts new vivo SIM card



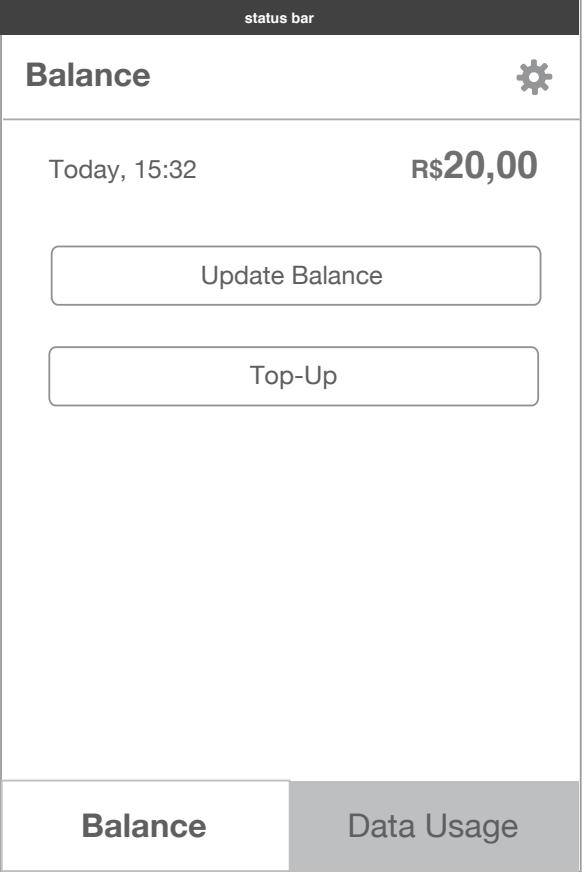
### Notification Center

When a new vivo sim is inserted, the credit and data usage modules change to notify the user that they should alter the settings to activate the modules.



### First time set-up Flow

Tapping on OK sends a user to the App set-up flow detailed later. If a user does not tap on OK, the notification will remain in tray.

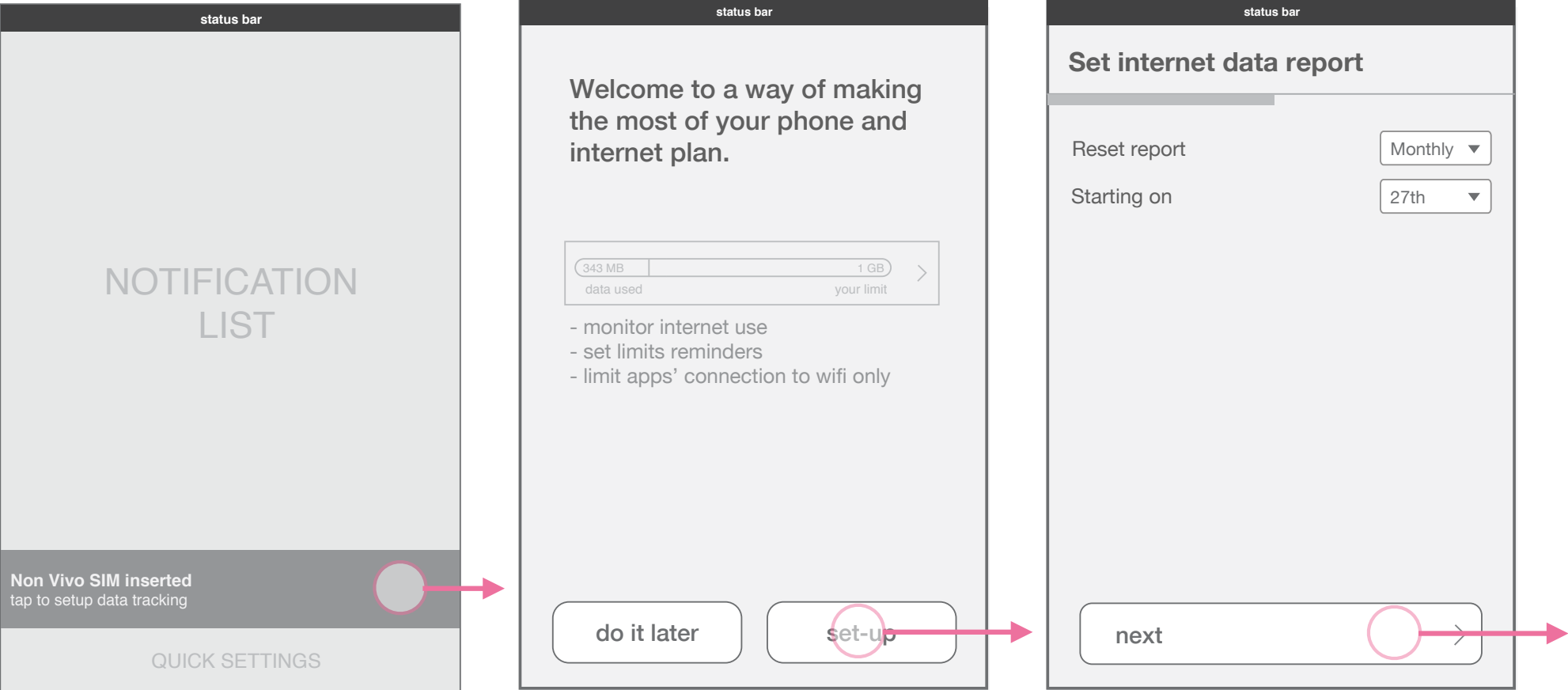


### Credit and Data Usage App

Once the set-up flow is done, it goes to the app to show the active settings and performs an automatic balance check.

# Credit and Data Modules & App

## User inserts new non-vivo SIM card



### Notification Center

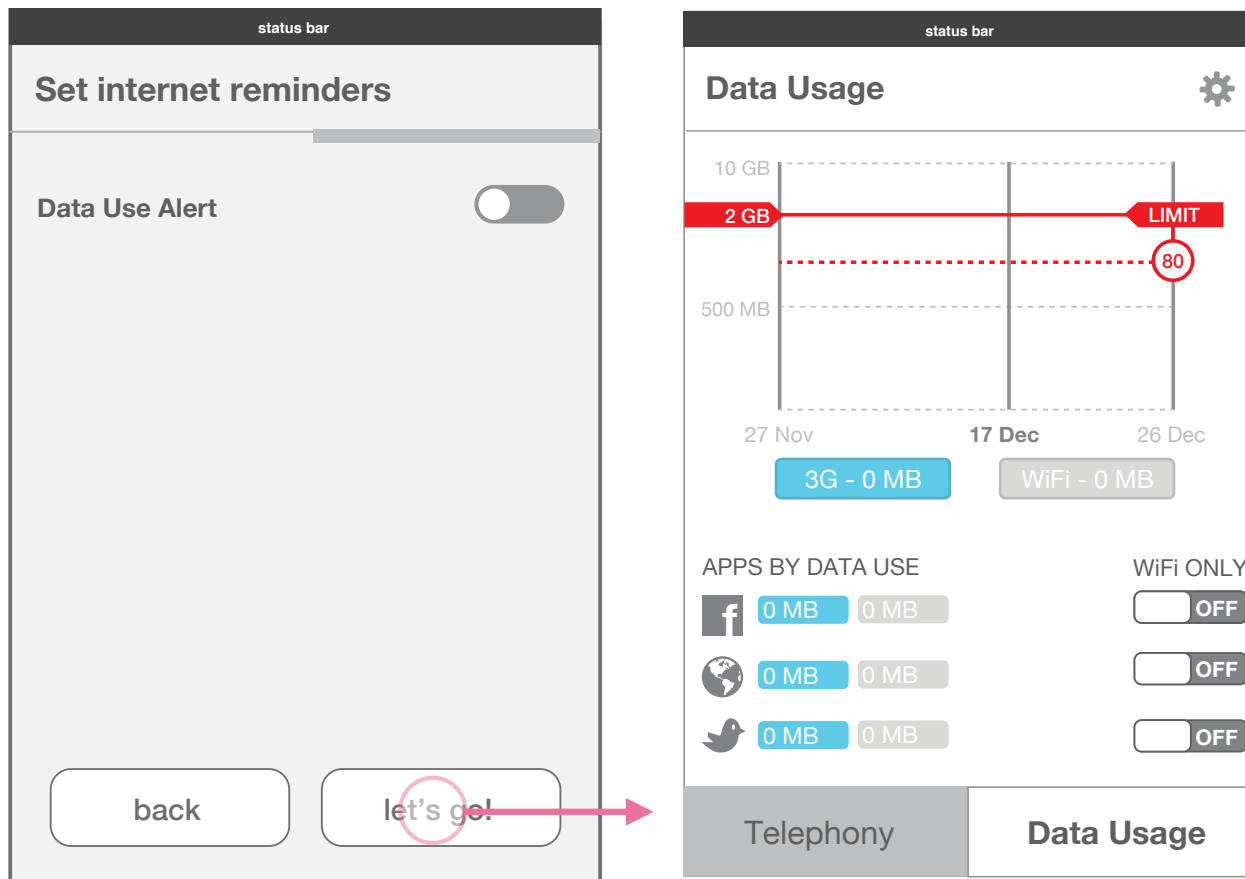
When a non-vivo sim is inserted, the credit and data usage modules change to notify the user that they should need to set-up the modules.

### First time set-up flow

A user goes through an altered set-up flow that has no plan choice, no balance and phone activity settings.

# Credit and Data Modules & App

## User inserts new non-vivo SIM card



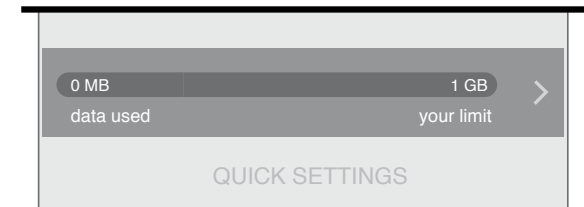
### Details

The user can select to either set a data use alert or not. Based on that selection the view of the module changes.

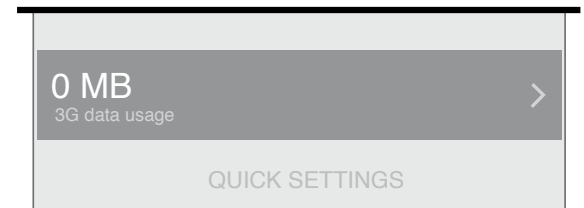
The data module in each case extends to fill the entire length of the utility tray.

Tapping on the module sends a user to the detailed Data Usage view in the app.

### data module with data use alert set

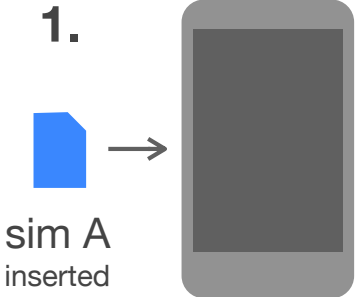


### data module with no data use alert

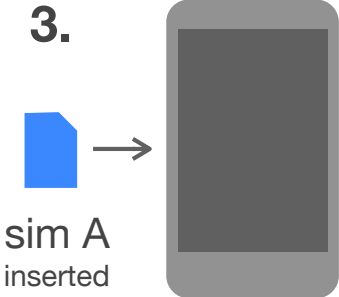
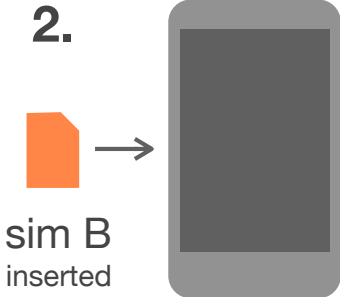


# Credit and Data Modules & App

## User inserts already configured SIM card



**Credit and Data Module & App configured by user to plan.**



**Sim recognized by phone.**  
Credit and Data Module & App automatically configured and data continues from when sim was taken out.

### Details

When a sim card that has been configured previously by the user is inserted into the phone, the phone should recognize it and set the credit and data module back to the state it was left at when removed from phone.

**thanks.**