

# **Data Usage**

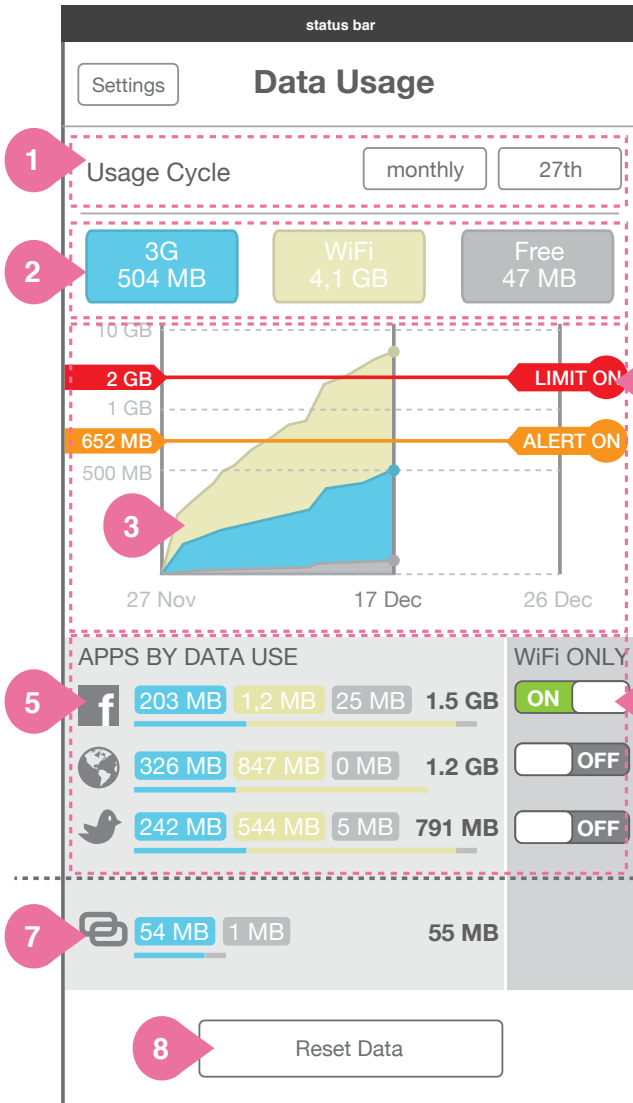
(aka. Data Consumption)

# Credit and Data Modules

## 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

# Data Usage Overview

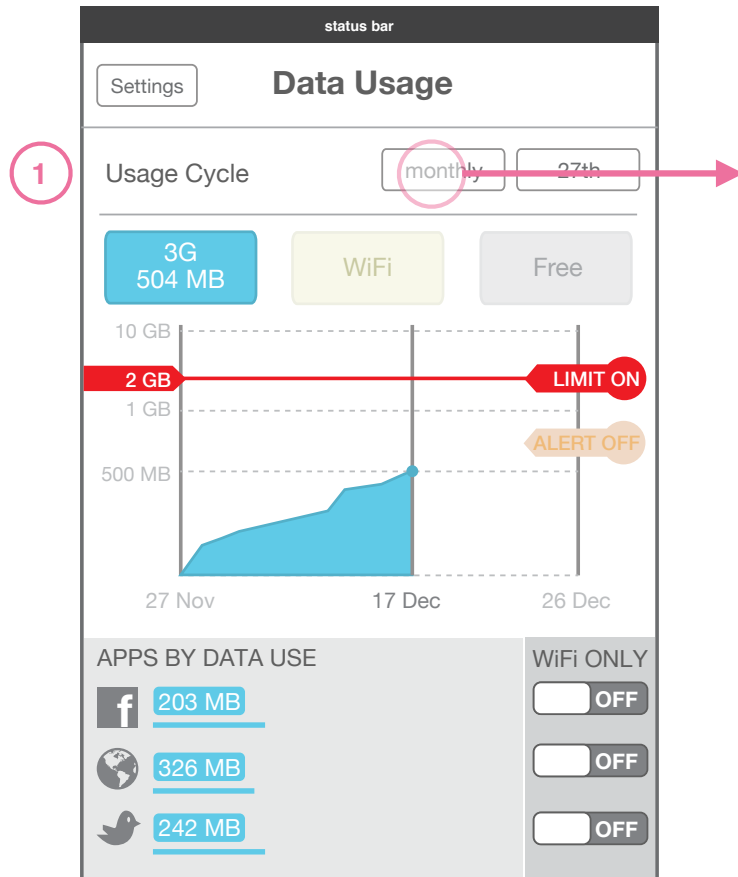


## Details

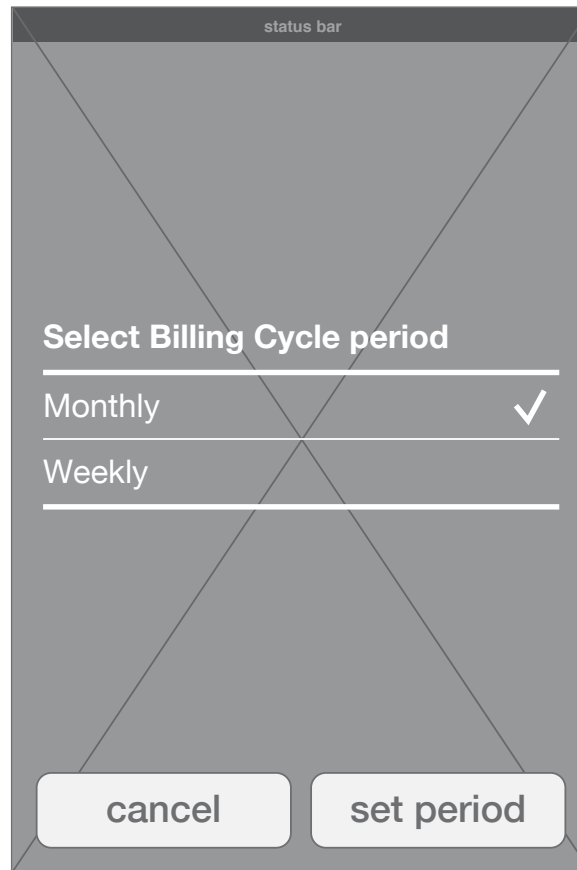
- Usage Cycle**  
Tap to set time scale and recurrence (day of month or week). Period is reflected in way graph axis is displayed.
- Data Toggles**  
Tap to toggle display. Interfaces not displayed in the chart are dimmed out. This toggle affect both the graph and the App Data List below.
- Graph**  
Graph displays data in time period and Data Toggles selected. Graph will scale and adjust automatically with sustained dragging up of limits and/or alerts. Graph and Data reset at the end of Usage Cycle set.
- Limit & Alert**  
Limit and Alert can be turned on or off. When on, they affect the state of the Graph and Data Module in Utility Tray. Drag up/down to adjust (an overlay with the figure will pop up) .Tap to turn on and off. Tap and hold to enter exact value
- App Data Use List**  
All data displayed in the list corresponds to the selected range and interfaces. Apps ordered by added (per toggled on interface) data consumption. longest bar defined by the app with biggest data usage in selected interface(s) and date range. Total only displayed when multiple are selected.
- App Connection Management**  
Apps can be set to using Wifi only. Default is OFF, so all apps can use WiFi and 3G data.
- Tethering Data Use**  
Tethering doesn't have wifi only option (makes no sense).
- Reset Statistics**  
Bottom of list has a button to reset all data in graph and apps to 0.

# Data Usage

## Usage Cycle Settings



Data Usage



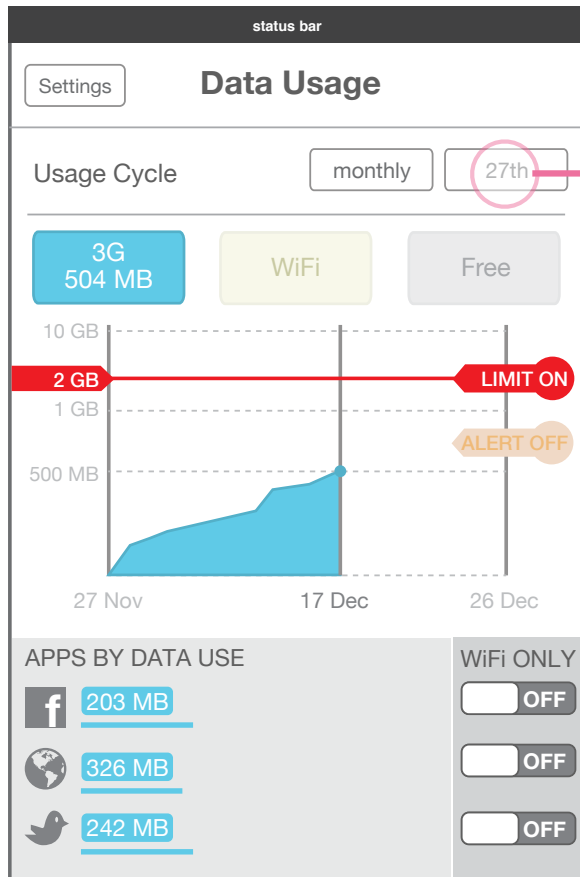
List Prompt  
see building blocks document

### Details

- 1 Usage Cycle period  
To set the data tracking period, a user taps on 'Period' and selects either Monthly or Weekly. The graph calendar changes to reflect the selection.

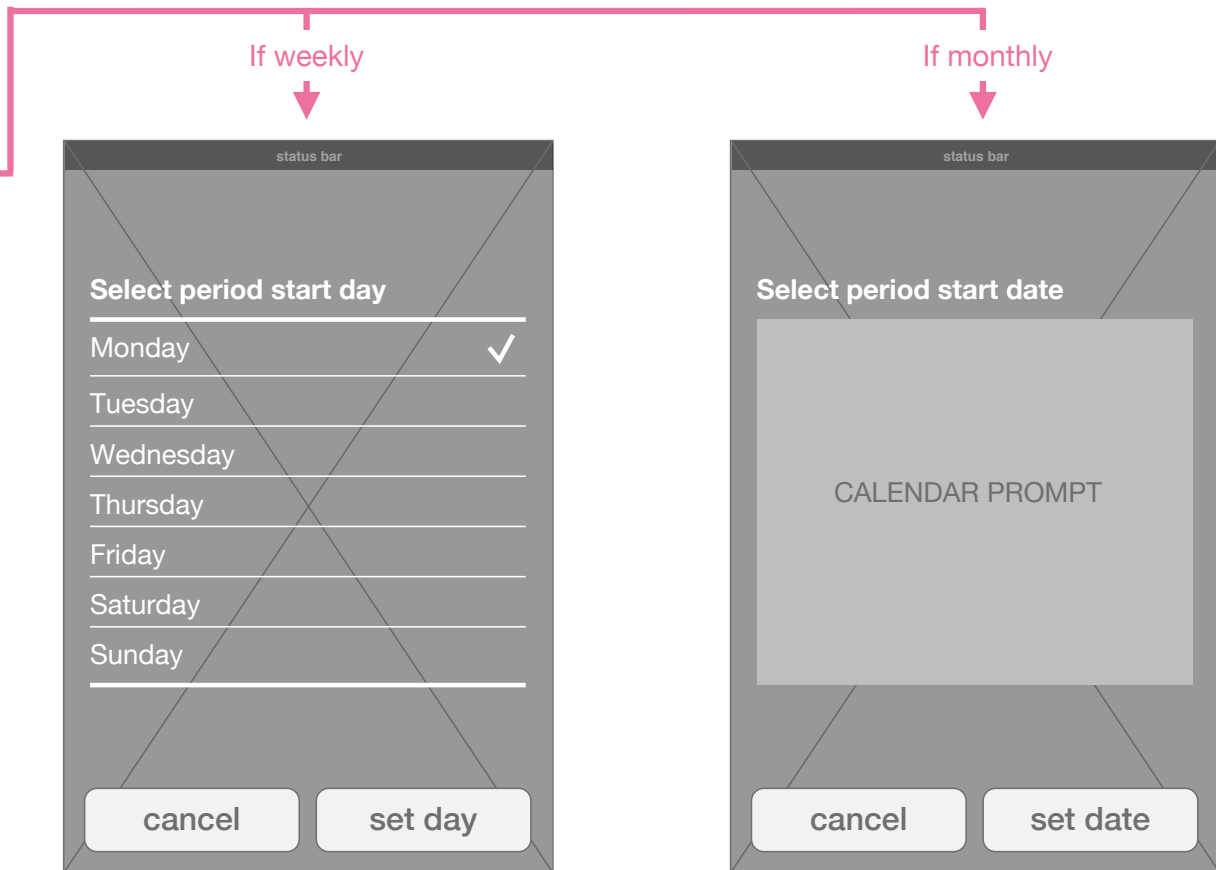
# Data Usage

## Usage Cycle Settings



### 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 changes based on selection,



### List Prompt

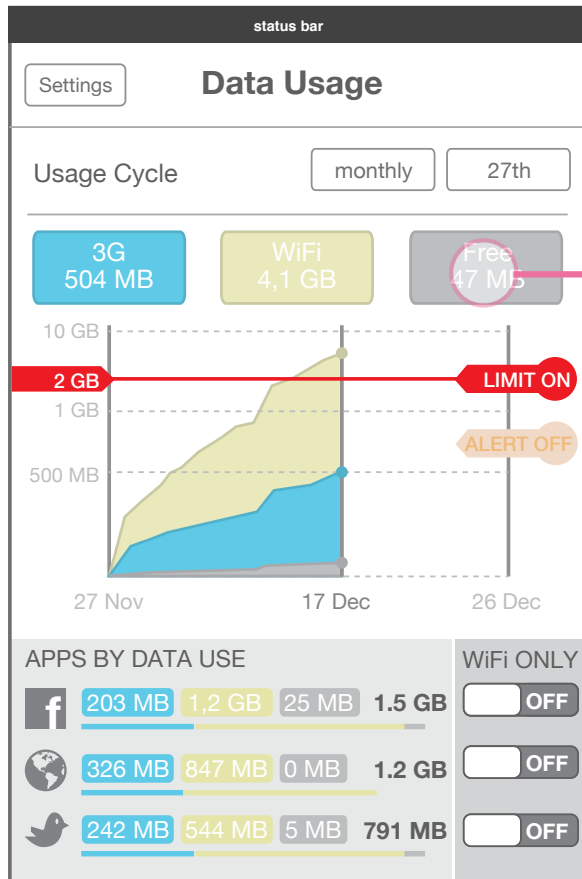
see building blocks document

### Calendar Prompt

see building blocks document

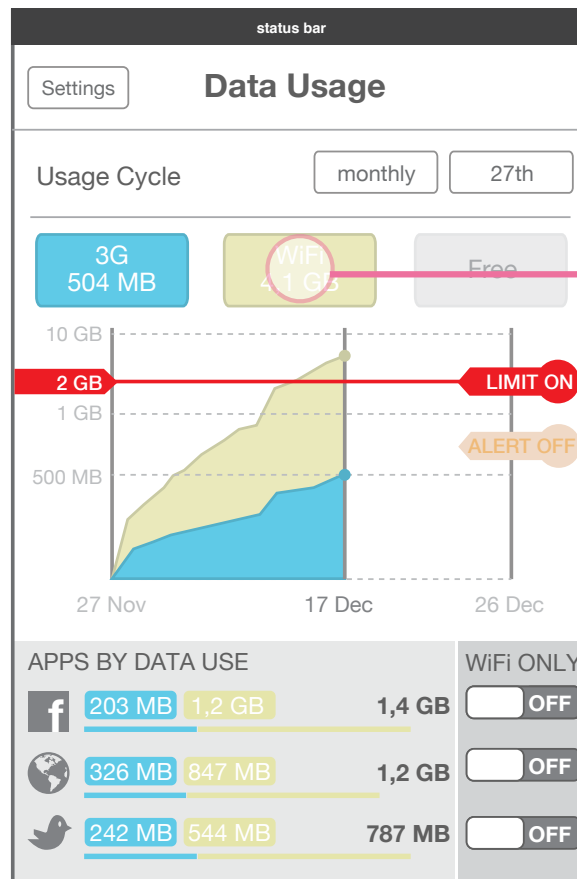
# Data Usage

## Data Toggles

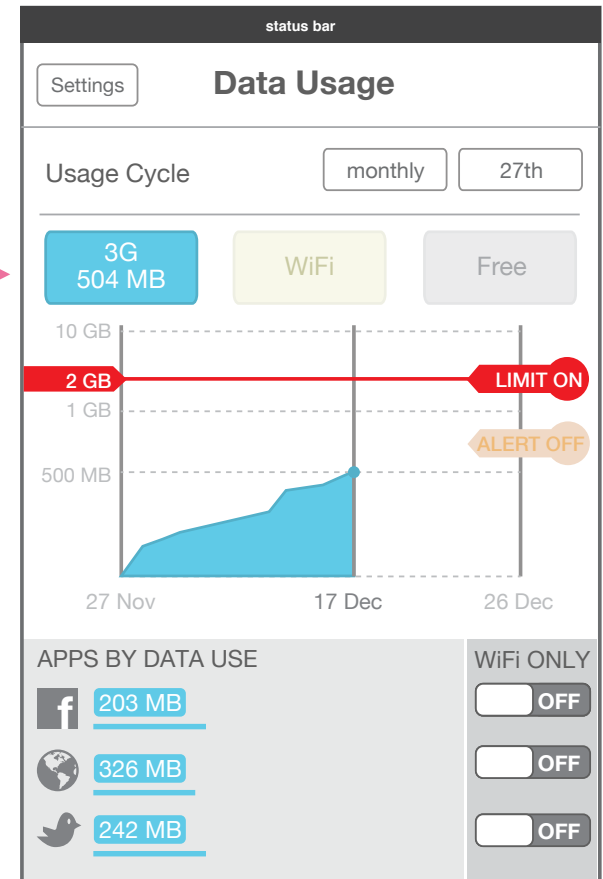


### All toggles ON

Tap one of the top three data toggles to turn ON/OFF data visibility for each.

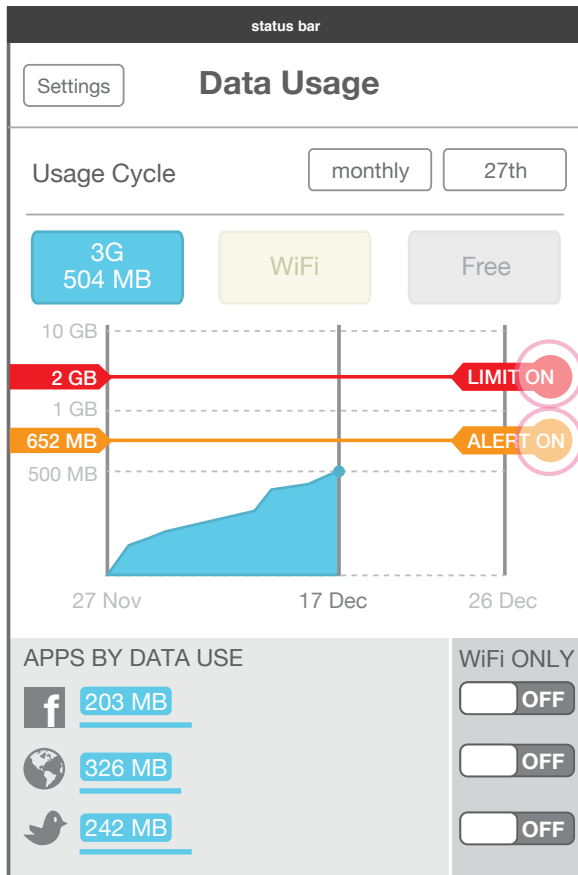


### 3G and WiFi toggles ON

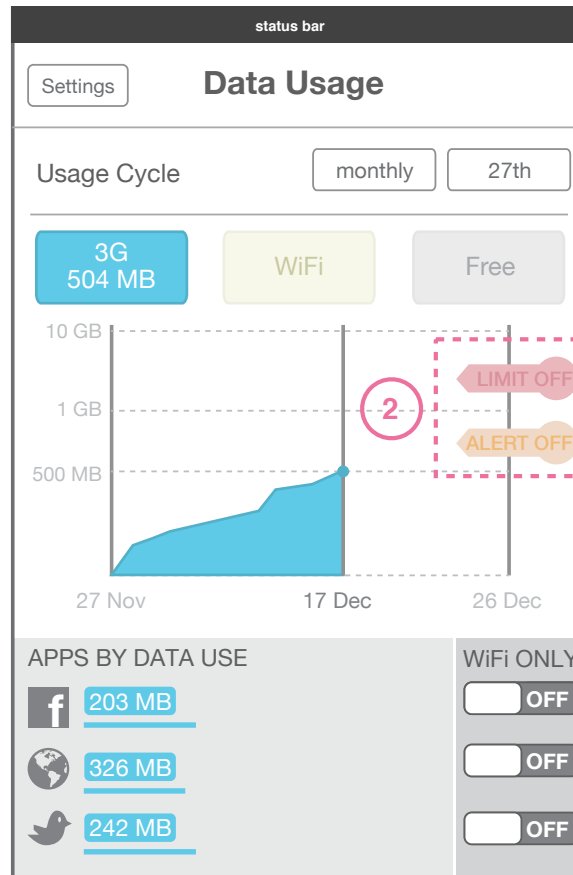


### 3G toggle ON

# Data Usage Limit & Alert ON/OFF



Data Usage with limit and alert ON



Data Usage with limit and alert OFF

## Details

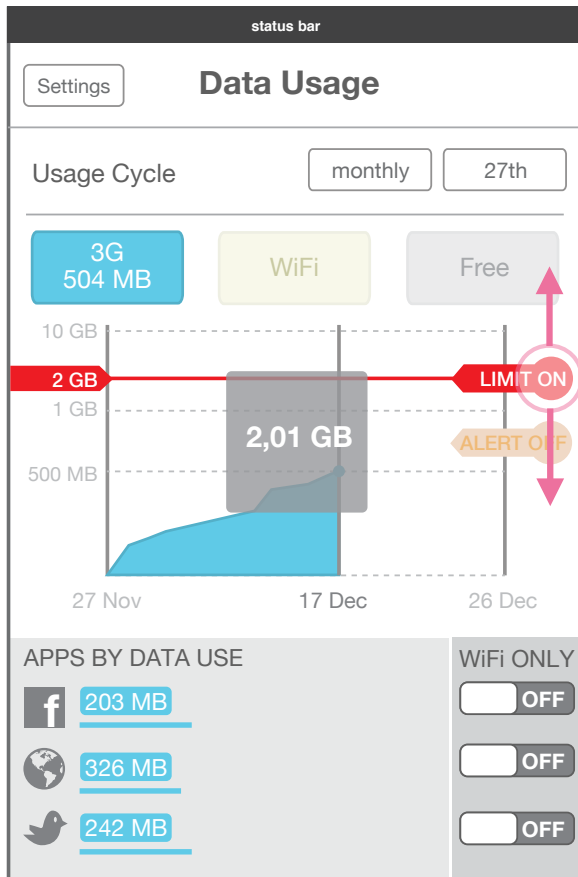
### Limit and Alert ON

When limit or alert are ON, they show a line across the graph and a number to the side that indicate the point at which the limit or alert are set.

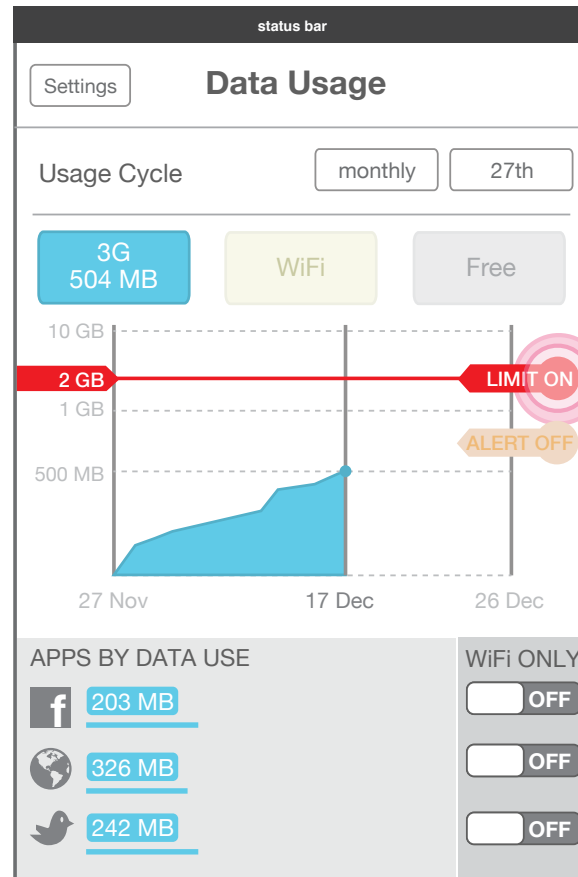
1 To toggle ON/OFF the limit or the alert, tap each.

2 Limit and Alert ON  
When limit or alert are OFF, the line and set number disappear and the toggles fade.

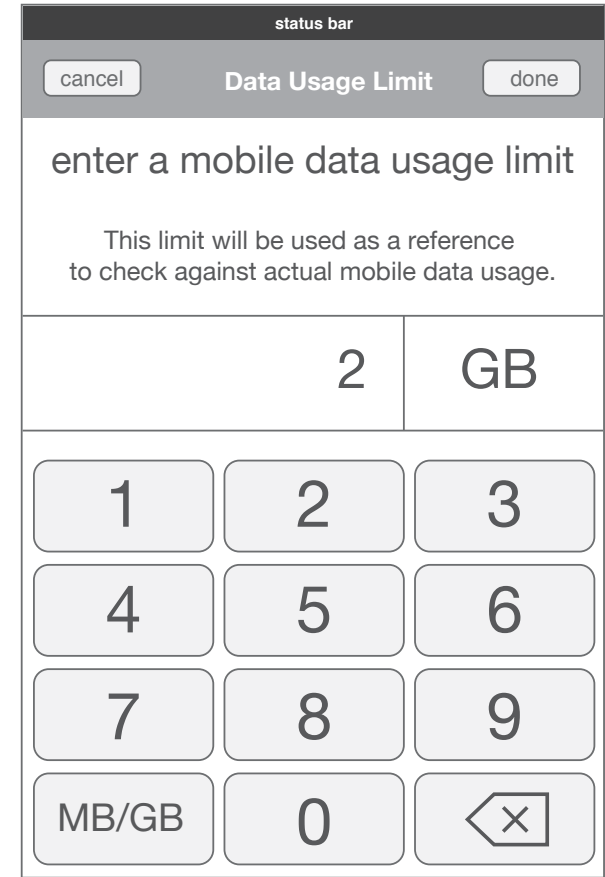
# Data Usage Limit & Alert Adjustment



**Limit being dynamically adjusted**  
 Drag Limit or Alert tabs to adjust dynamically. When this occurs, a grey window appears to indicate level clearly. Graph scales down or up depending on where limit is dragged to.



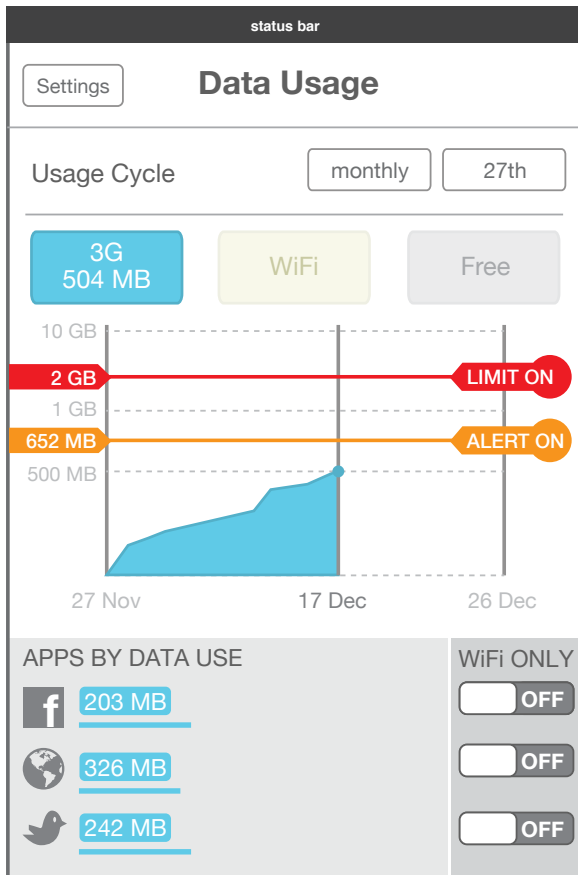
**Limit adjusted by keypad**  
 Tap and hold Limit or Alert tab to adjust level with keypad.



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



# Data Usage Limit & Alert Behaviors



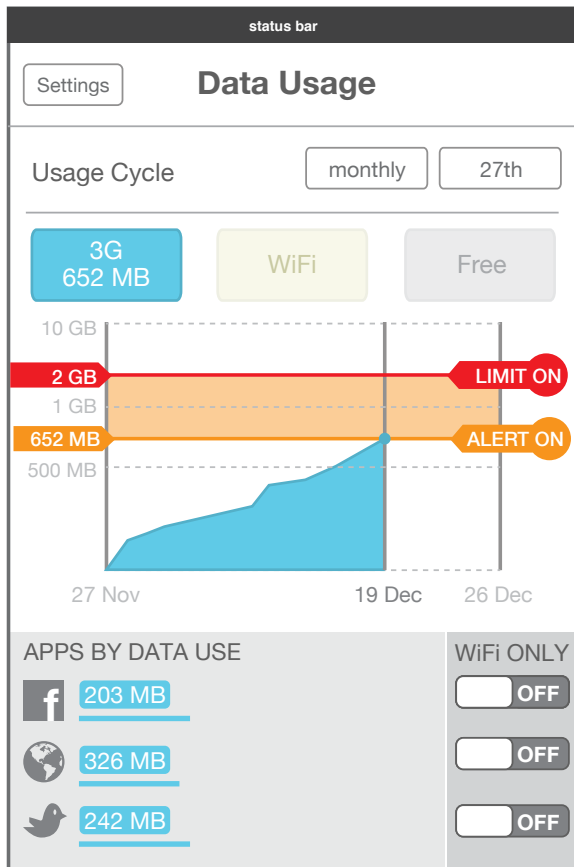
## Data Usage below alert set

When 3G data is below amount of alert, it maintains a color that is reflected also in the data Module in Utility tray.



## Data Module with usage below alert

# Data Usage Limit & Alert Behaviors



## Data Usage below at alert set

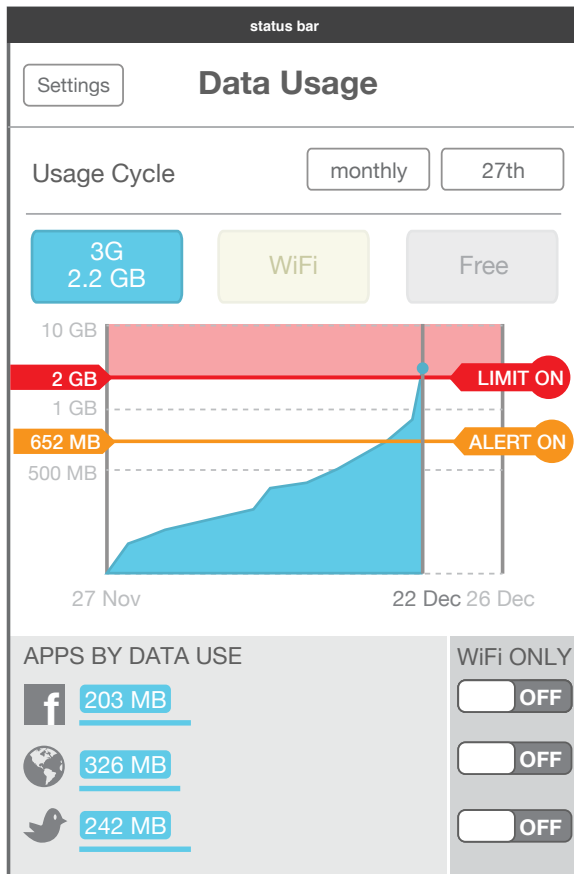
When 3G data is at or beyond the amount set by the alert, the graph background between alert and limit changes color.



## Data Module with usage below alert

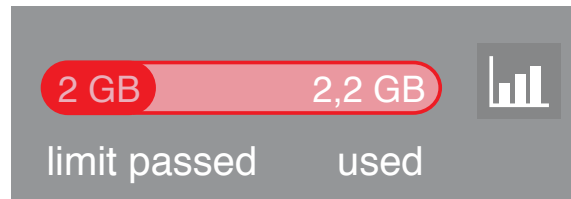
When 3G data is at or beyond the amount set by the alert, it changes color to match that in Data Usage graph.

# Data Usage Limit & Alert Behaviors



## Data Usage below at limit set

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

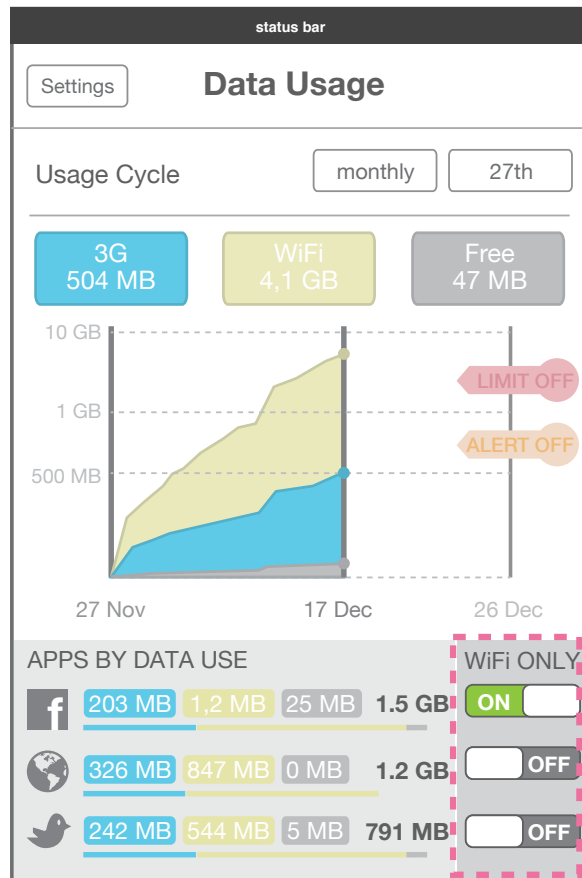


## Data Module with usage at limit set

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



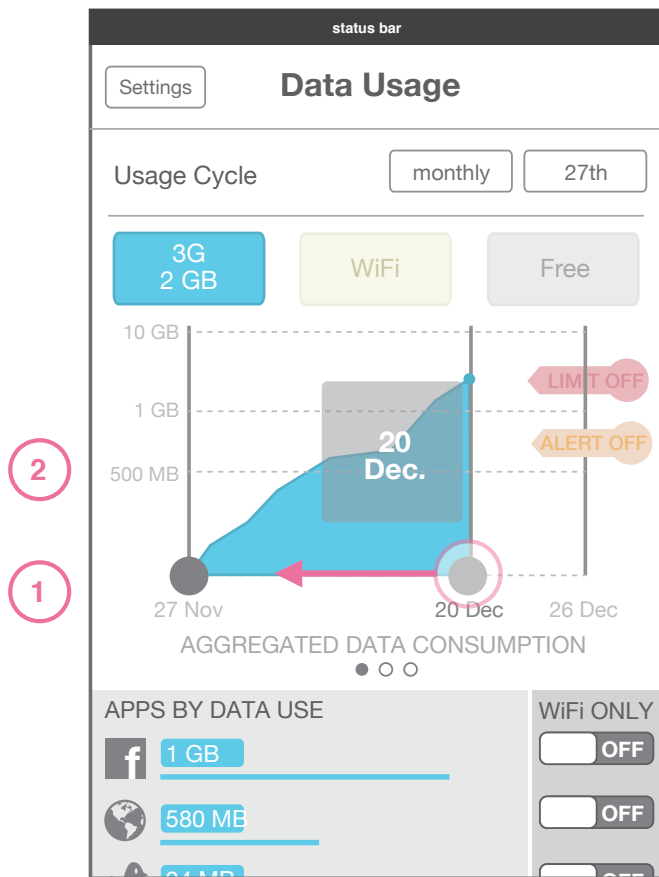
### App Connection Toggle

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

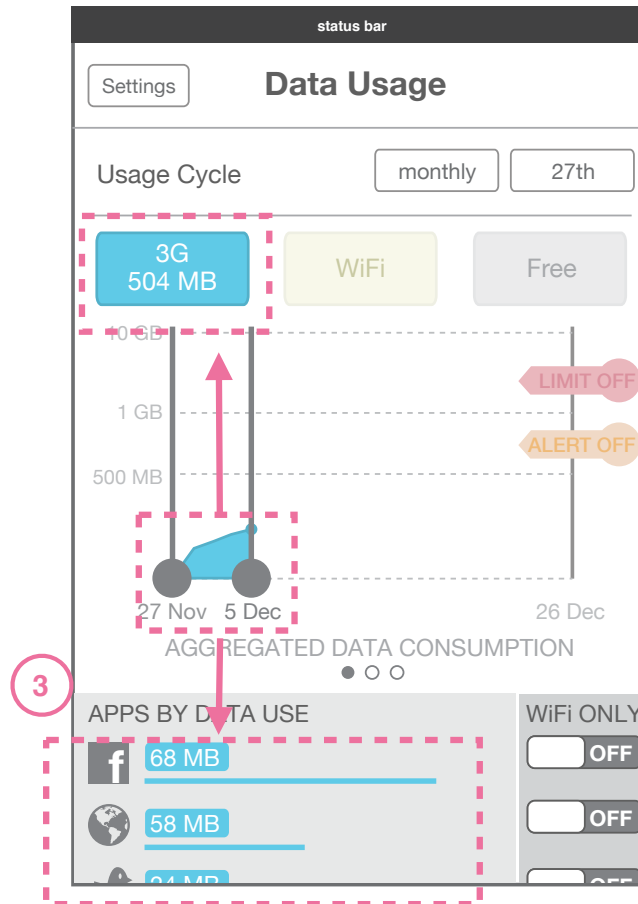
# Appendix

## V2 features

# Data Usage Period Dragging



Data Usage period adjustment



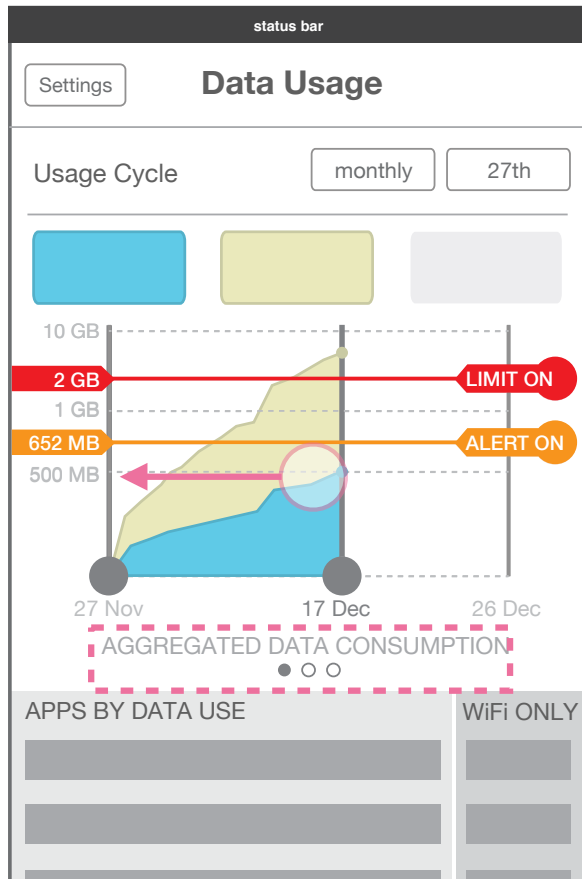
Data Usage after period adjustment

## Details

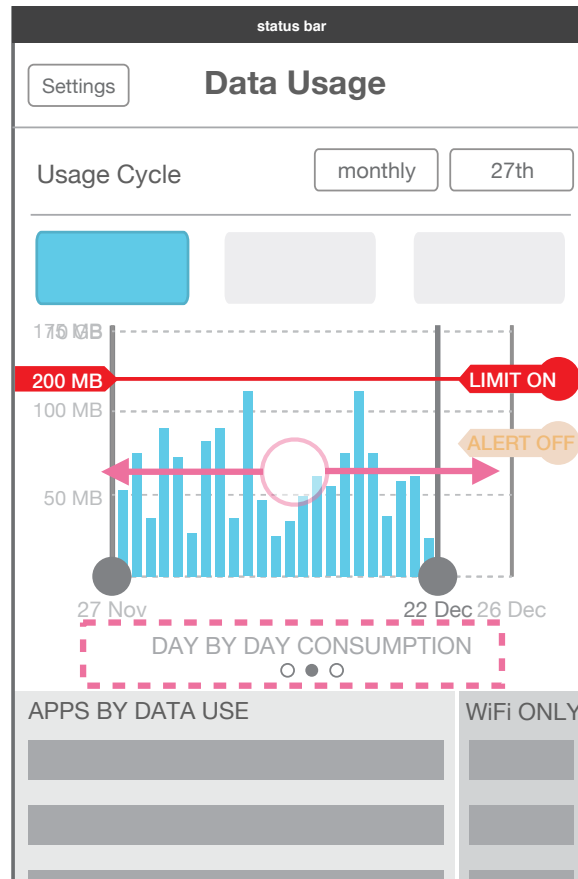
- 1 **Period View Adjustment with Date Line**  
To see data only in a portion of the period, (if a user wants to investigate a certain week) the date lines on the graph can be dragged.
- 2 **Date Line Overlay**  
During dragging an overlay appears to clarify the date which is being set by the date line being dragged.
- 3 **Data Adjustment**  
When date line is released after adjustment, data in apps list and main toggle re-adjust to reflect new period selected.

# Data Usage

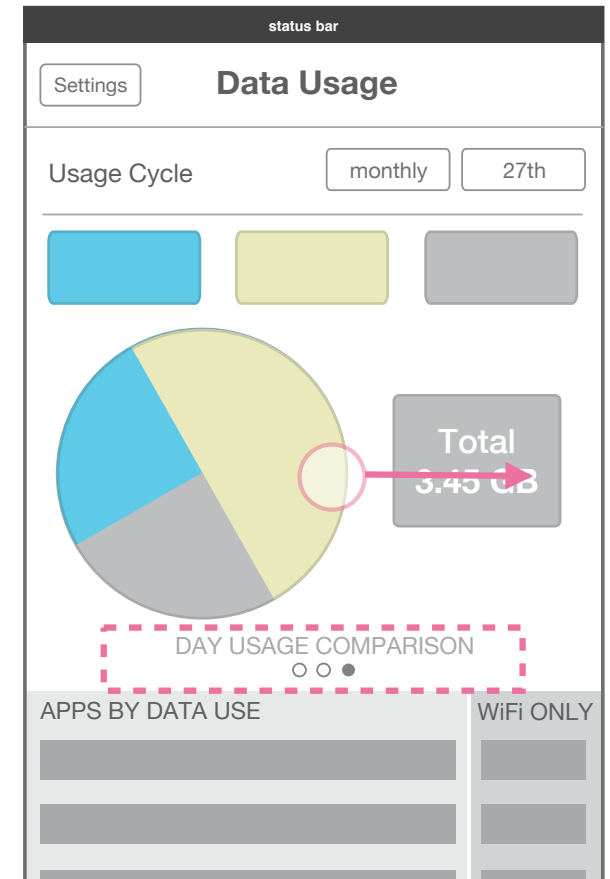
## Other information



**Aggregated Data Consumption**  
Swipe left to move to other screens.

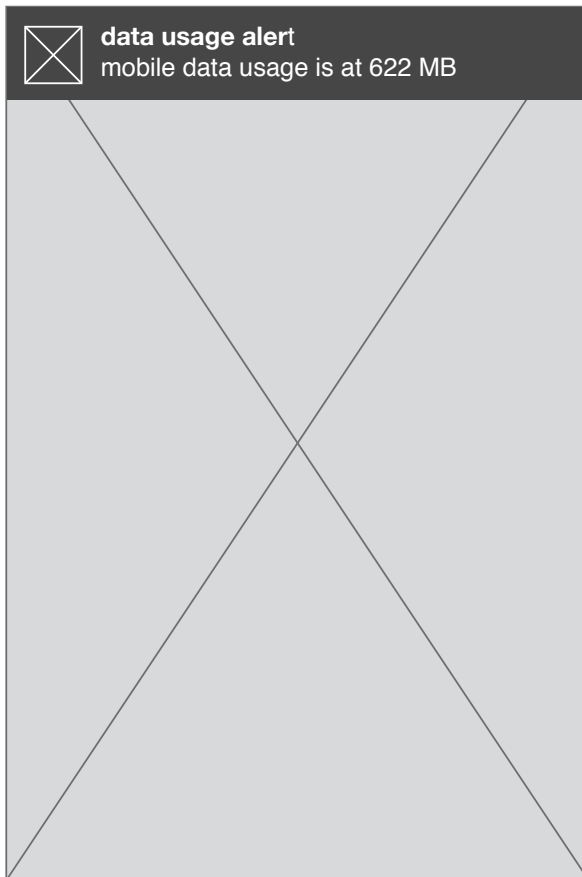


**Day by Day Consumption**  
Shows consumption per day, and allows user to set a daily limit and alert. By default these are OFF.



**Data Usage Comparison**  
Shows comparison of total usage.

# Data Usage Limit & Alert Behaviors



1. Notification of Alert level reached

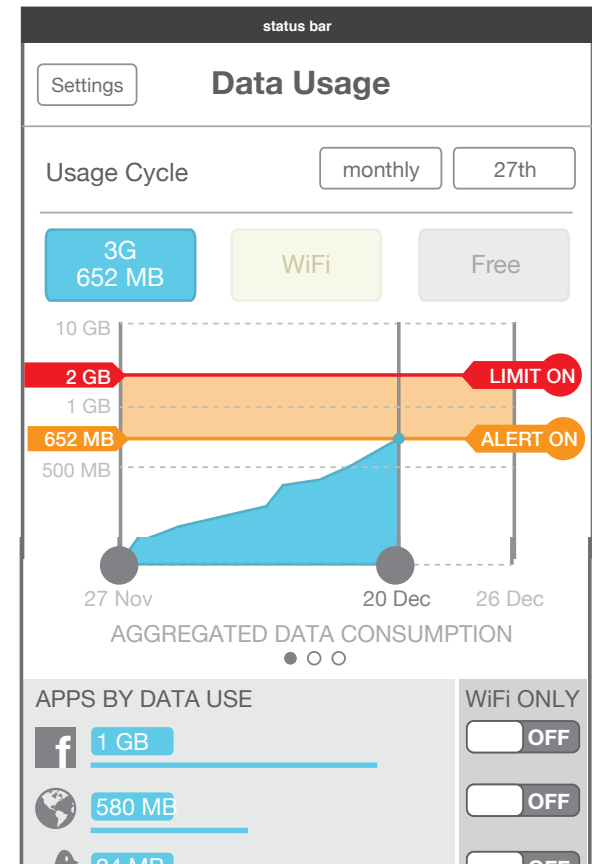


2. Data Module in Utility Tray

### Alert Notifications

When alert level of 3G data usage is reached:

1. a notification is sent
2. the data module state changes color.
3. In the data Usage settings, the area between alert and limit changes color to match data module state.



3. Alert level reached in Data Usage



# Data Usage Limit & Alert Behaviors



2. Prompt when limit is reached, see building blocks

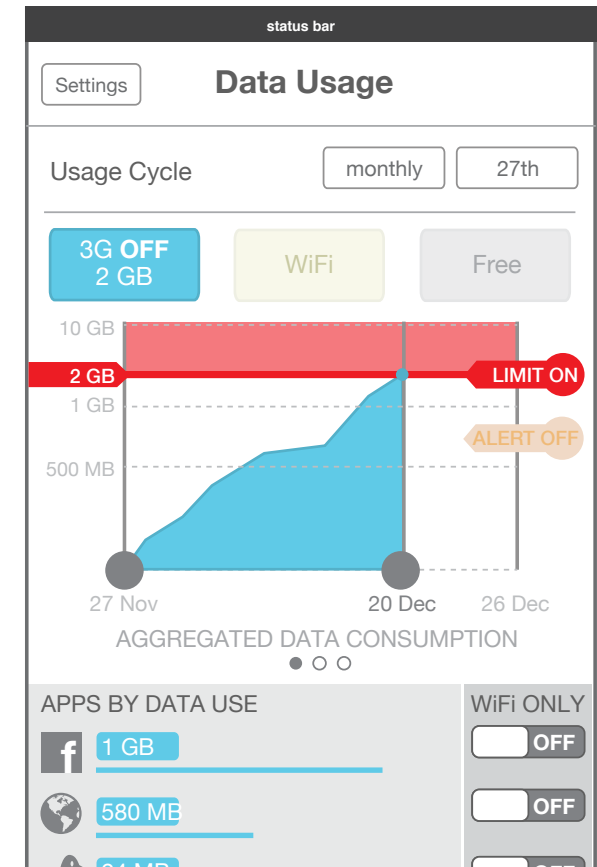


3. Data Module in Utility Tray

## Limit Notifications

When limit level of 3G data usage is reached:

1. 3G is turned off
2. a prompt is sent
3. the Data Module state changes color and text added to indicate that tapping on it can allow user to reset the limit.
4. In the Data Usage settings, the area between after limit changes color to match data module state, and it is made clear that 3G is turned off.



4. Limit level reached in Data Usage

