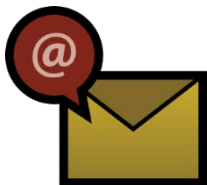

Conducting Preliminary Research





Preliminary Research for Usage Notifications

Step Action

- 1 Determine device's billing cycle end date by either:
 - Looking on device's bill from Verizon Wireless.
 - Generating view of Device Usage Report that includes Billing Cycle End Date.
- 2 Establish normal usage patterns to help you identify abnormal usage using the following three reports:

Examine this Report

To

Device Usage Report

Determine daily byte count for individual lines of service

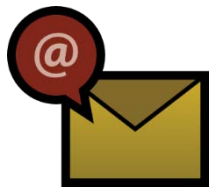
Device Reports > Device Usage Report [?](#)

[Generate Report](#) [Reset](#)

[Export](#) [Print](#)

No. of Result: 11 Show per page [<](#) Page of 1 [>](#) System Default [Edit View](#) [Create View](#)

Device Identifier	Usage Date	Usage(KB)	Billing Cycle End Date	MDN/MSISDN	IP Address	SMS Usage
09613612010	7/10/2013	2.67	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/9/2013	2.72	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/8/2013	3.00	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/7/2013	3.00	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/6/2013	2.72	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/5/2013	3.00	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/4/2013	2.72	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/3/2013	3.00	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/2/2013	2.52	8/1/2013	9083077180	10.226.22.10	0
09613612010	7/1/2013	0.00	8/1/2013	9083077180	10.226.22.10	0
09613612010	6/30/2013	0.00	8/1/2013	9083077180	10.226.22.10	0



Preliminary Research for Usage Notifications

Step Action

2 (Cont'd)

Examine this Report

To

Aggregated Device Usage Report

Obtain sums of usage over defined time period. Eliminates having to add daily usage from Device Usage Report. Specify date ranges that coincide with time period setting of notification: Daily, Weekly or Monthly.

Device Reports > Aggregated Device Usage Report [?](#)

Account * **Device Identifier *** **Start Date *** **End Date ***

MDN/MSISDN **Device Group** **IP Address**

City **State** **Sub Customer** **Geo Locale**

Richard Group

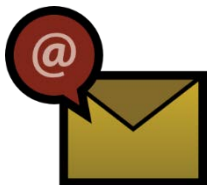
Advanced Search

Generate Report **Reset**

Export **Print**

No. of Result: 3 Show per page of 1 **Edit View** **Create View**

Device Identifier	MDN/MSISDN	Usage Date	Usage(KB)	Device Group	Billing Cycle End Date	Service Plan
09102885820	7322895551	6/1/2013 - 6/30/2013	1,192.63	High Usage Group	8/1/2013	T Plan 1
09611822348	9083077232	6/1/2013 - 6/30/2013	216.01	High Usage Group	8/1/2013	T Plan 1
09613612010	9083077180	6/1/2013 - 6/30/2013	815.37	Low Usage Group	8/1/2013	T Plan 2



Preliminary Research for Usage Notifications

Step

Action

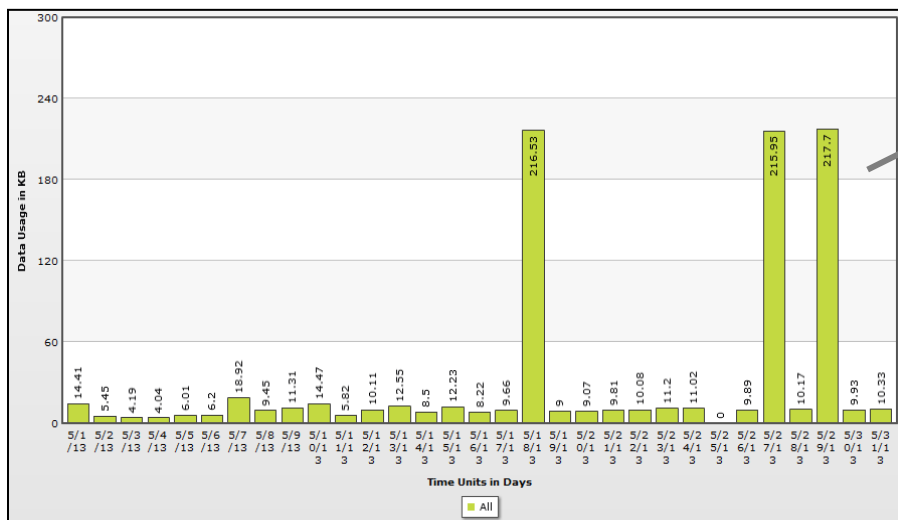
2 (Cont'd)

Examine this Report

To

Graphical Data Usage Chart

Get a quick visual of device/device group usage patterns.



This chart displays usage for a single device over a 30-day period. It clearly shows that on 5/18/13, 5/27/13 and 5/29/13, very large spikes of over 200KB in traffic occurred. The spikes are likely abnormal conditions, where usage notifications would be useful.