
Best Practices for Creating Usage Notifications

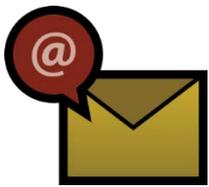


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Introducing Notifications

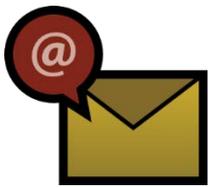




Notifications Overview

Notifications monitor your M2M devices and alert you to exceptions

- Usage
 - *Tell me when a device has crossed a usage threshold I have set.*
 - *Inform me when devices on a shared plan have reached a certain percentage of their usage allowance.*
 - *Send me a message and suspend a device that exhibits rogue behavior.*
- Service provisioning actions
 - *Email me when a device is taken out of service by either suspension or deactivation.*
 - *Confirm when certain lines of service are activated.*
- Changes to connectivity, state, or value
 - *Let me know when a device may have been moved from its deployed location.*
 - *Tell me when a device disconnects abnormally.*



About This Tutorial

Purpose

This tutorial will walk through how to set up a usage notification. It includes the preliminary steps to take before creating this type of notification.

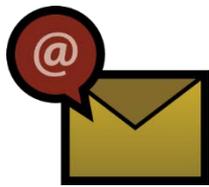
Before You Begin

You must:

- Have a My Business or Verizon Enterprise Center login.
- Be a registered user of the M2M Management Center with an administrative role.
- Be proficient in using the M2M Management Center.
- Save an email address for every potential notification recipient in M2M Management Center contact records.

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

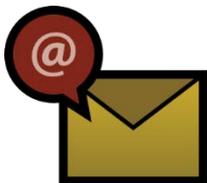
Device Reports > Device Usage Report [?](#)

[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

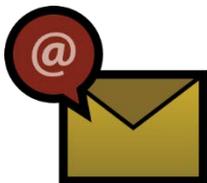
Advanced Search

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

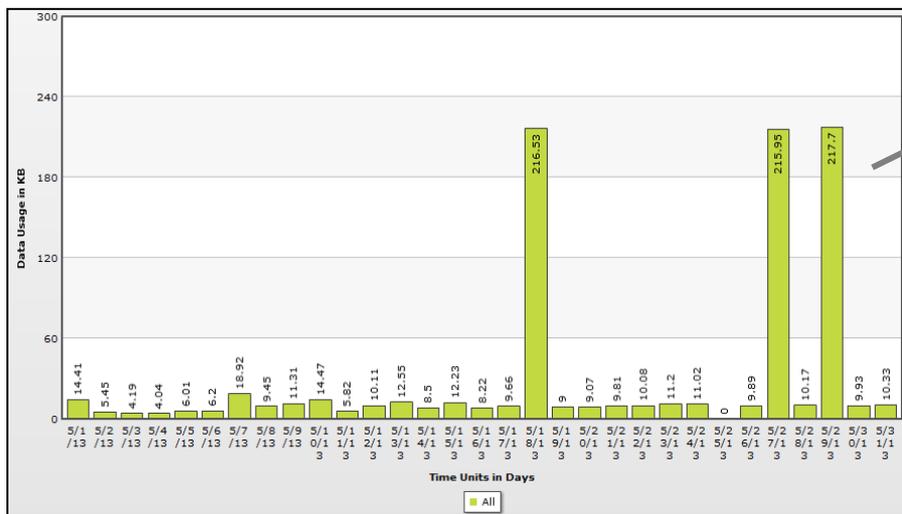
2 (Cont'd)

Examine this Report

To

Graphical Data Usage Chart

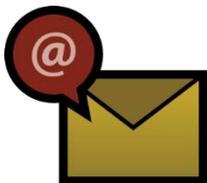
Get a quick visual of device/device group usage patterns.



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.

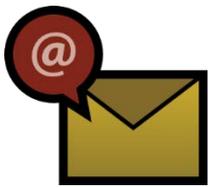
Setting Up Notifications





Tasks for Creating Usage Notifications

Task	Required/Optional
Build device groups	Optional
Build notification groups	Required
Create notifications	Required



Build a Device Group

With a device group, you can optionally group lines of service that exhibit similar characteristics or that you want to monitor together.

Scenario: You have a group of devices on a 200KB/month service plan. You group these devices by service plan so you can create a usage notification that triggers when usage is at 75% of the plan's allowance for the month.

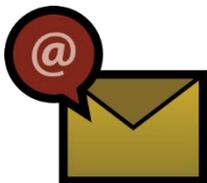
To create a device group:

Step Action

1 Search for and display devices you want to group in the Device List.

2 Select devices and choose the Assign to Device Group action.

Identifier	MDN/MSISDN	IP Address	Device Status	Device Group	Connected	Service Plan	Activation Date	Billing Cycle End Date
	8583549293	10.224.48.1	ACTIVE	High Usage Plan	(((●)))	77773	6/6/2012 12:50:20 PM	6/23/2014
<input checked="" type="checkbox"/> View Info	A1000017625298 8588928930	10.224.48.28	ACTIVE	High Usage Plan	✘	77773	8/18/2011 9:26:24 AM	6/23/2014
<input checked="" type="checkbox"/> View Info	A0000002FF7841 8588995381	10.224.48.29	ACTIVE	High Usage Plan	✘	77773	3/14/2011 6:04:01 PM	6/23/2014
<input checked="" type="checkbox"/> View Info	99000021323990 8589978851	10.224.48.7	ACTIVE	High Usage Plan	✘	77773	11/19/2011 11:37:37 AM	6/23/2014



Build a Device Group

Step

Action

3 From the Device Group Name control, select Add New Device Group.

4 Provide a name for the group and save it.

Assign To Device Group ?

Selected Devices



Select an existing Device Group from the drop down OR create a new device group by selecting "Add New Device Group" and entering the Device Group Name and Description in the fields below.

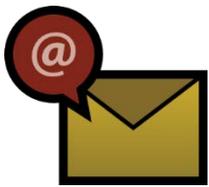
Device Group Name *

--Add New Device Group--

Device Group Name

Device Group Description

5 Click OK to confirm your request to group devices.

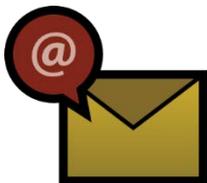


Build a Notification Group

- Notification groups consist of M2M Management Center contacts and non-M2M Management Center users known as “Alerts Only” contacts.
- Each contact record must have an email address.
- Alerts are sent to all members of notification group.
- Notification Group is required input when creating a notification.

To create a notification group:

Step	Action
1	Go to Admin > Notification Group Setup
2	Select Account and click Add New
3	Name the group
4	Select contacts and the way to notify them
	To add an “Alerts Only” contact, choose Add New Contact, enter required information, then select the contact for the notification group



Build a Notification Group

Step Action

5 When the group is complete, click Save

Admin > Notification Group Setup ?

Account* Notification Group Name* Active:

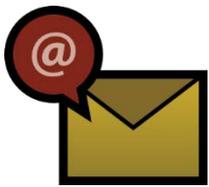
Description

Contact	Notification Method	Check/Uncheck all	Options
XXXXXXXXXXXX	E-Mail	<input checked="" type="checkbox"/>	Remove
XXXXXXXXXXXX	E-Mail	<input checked="" type="checkbox"/>	Remove
XXXXXXXXXXXX	E-Mail	<input checked="" type="checkbox"/>	Remove

Contact* Notification Method*

Learning from Examples





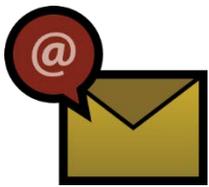
Create a Daily Usage Notification

Scenario: You want to create a notification to alert you when any M2M device exceeds 200KB of usage in a day.

Note: This example does not require you to group devices.

To create a daily usage notification:

Step	Action
1	Go to Admin > Notification Setup
2	Select Account and click Submit
3	Click Add New
4	Working from bottom-up on the Add New Notification screen, select Usage as the Alarm Category and Usage as the Alarm Type
5	Set alarm criteria of: <ul style="list-style-type: none">• >• 200• DAILY
6	Select [Your Device Group] and [Your Notification Group]



Create a Daily Usage Notification

Step Action

7 Provide a meaningful name, such as Exceed 200KB Daily for All Devices

Add New Notification ?

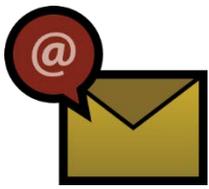
Alarm Name: *
 Enabled *

Notification Group: *

Device Group: *

Alarm Category: * **Alarm Type: ***

Alarm Criteria: *
 KB

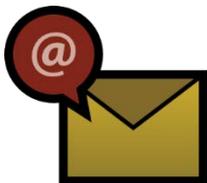


Create a Monthly Usage Notification

Scenario: Based on knowledge of your service plans, you want to create a notification that alerts you when any M2M device in a service plan-based group reaches 50% of its monthly usage allowance. This example shows a 50% alarm for a device with a 10MB per month service plan.

To create a monthly usage notification:

Step	Action
1	Go to Admin > Notification Setup
2	Select Account and click Submit
3	Click Add New
4	Working from bottom-up on the Add New Notification screen, select Usage as the Alarm Category and Usage as the Alarm Type
5	Set alarm criteria of: <ul style="list-style-type: none">• >• 5000• MONTHLY



Create a Monthly Usage Notification

Step	Action
6	Select [Your Device Group] and [Your Notification Group]
7	Provide a meaningful name, such as 50 Percent Utilization

Add New Notification ?

Alarm Name: *
50 Percent Utilization Enabled *

Notification Group: *
Your Notification Group

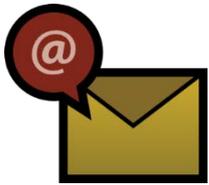
Device Group: *
Your Device Group

Alarm Category: * Usage **Alarm Type: *** Usage

Alarm Criteria: *
> 5000 KB MONTHLY

Managing Notifications





Receive Notifications

- M2M Management Center issues notification alerts to notification group members.
- Email sample:

```
Dear Customer
An alert has been triggered for a device on your account. Detailed information
is listed below:

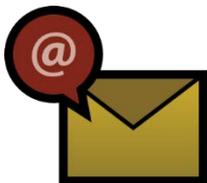
-----

Device Identifier: 09613612010
MDN/MSISDN: 9083077180
Usage in KB>200.0 DAILY (Usage in KB=213.41 on device 09613612010)
Alert Date: 6/12/2013 2:00:35 AM

-----

The alert may be acknowledged via the Notification Log page of the Device
Management Portal.
```

- M2M Management Center logs each alert in the Notification Log.
- Notifications can be acknowledged in the Notification Log.
- M2M Management Center sends each alert up to four times if no recipient acknowledges the notification.



Acknowledge Notifications

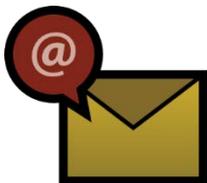
To acknowledge a notification:

Step	Action
1	Go to Logs > Notification Log
2	Look for the notification you want to acknowledge
3	Click Acknowledge link; Indicator changes from red to yellow

Status	Account	Notification	Notification Group	Date Sent	Ack Date	Device	# of Notifications	Options
●	XXXXXXXXXX	Usage in KB>1000.0 DAILY (Usage in KB=1627.19 on device 09102885820)	XXXXXXXXXX	7/3/2013 6:30:04 PM	7/8/2013 4:20:48 PM	09102885820	4	
●	XXXXXXXXXX	Usage in KB>200.0 DAILY (Usage in KB=1627.19 on device 09102885820)	XXXXXXXXXX	7/3/2013 6:30:01 PM		09102885820	4	Acknowledge

Notification indicator:
Red = Unacknowledged
Yellow = Acknowledged

Acknowledge link



Manage Notifications

- Edit and Delete links found in “Options” column of Notification lookup grid.
- “Not. Group” column includes hyperlink to modify group associated with alert.
- To deactivate a notification without deleting it entirely, edit the notification and uncheck Enabled control to disable alert.

Green checkmark means notification is active
Red X means notification is disabled

Notification Group links allow you to modify group membership

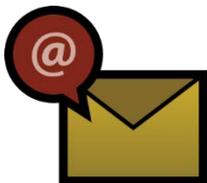
Enabled	Alarm Name	Description	Device Group	Not. Group	Options
✗	Abnormal Disconnect	Abnormal Disconnect	All Devices	New Group	Edit Delete
✓	Exceed 200KB Daily for All Devices	Usage in KB > 200 DAILY	All Devices	New Group	Edit Delete

Edit link leads to Edit Notification screen

Delete removes alert entirely

Finding More Information





More Information About Notifications

Machine to Machine Management Center

Dashboard Device List Device Reports Graphical Analysis Admin Logs **Support**

Support

Customer Support Contact

You can contact customer support at any time by calling 800-922-0204.

Press 4 For Technical Support, then press 5 for M2M.

Email inquiries are not available at this time.

M2M Management Center Help

[Click here](#) to access information on common frequently asked questions, technical details features.



Search

- M2M Management Center Help Home
- ▶ Getting Started
- ▶ How to...
- ▶ Screen Property Details
- ▶ Technical Details
- Frequently Asked Questions

M2M Management Center Help Home

Navigate using the links below, the menu to the left, or the Search field above the menu.

 Getting Started	 How to...?
<ul style="list-style-type: none">Accessing the M2M Management CenterTutorial: Introduction to the M2M Management CenterTutorial: Best Practices for Usage NotificationsSuggestions on Setting UpMore...	<ul style="list-style-type: none">Acknowledge AlertsFind Devices and View Information<ul style="list-style-type: none">Find Devices by FilteringSelect from Device ListDisplay Device DetailsExport Device DataWork with Devices<ul style="list-style-type: none">Organize Devices into GroupsGive Devices Names and Other AttributesUpdate Devices in BulkProvision or Change ServiceRun ReportsCreate a Data Usage Trending ChartRetrieve Files from the Download CenterCustomize Your M2M Management Center<ul style="list-style-type: none">Configure DashboardsCustomize the Device List and Reports with ViewsAdminister the System<ul style="list-style-type: none">Manage ContactsSet Up Notifications (Alerts)Monitor System ActivityAssign Labels to Custom FieldsSet Device Identifier Display FormatSet Display Time ZonesContact Customer Support

Reference Pages

- Definitions of Fields and Properties in Screens
- Background and Technical Info

Troubleshooting

- Frequently Asked Questions
- Error Message Look-up
- Contact Customer Support

Use the Support tab to learn more

- Customer Support Contact information
- M2M Management Center Help Pages include
 - Tips on setting up the system
 - Step-by-step instructions for common tasks
 - Technical details and troubleshooting help