



SMM ePlus

Last Gasp support

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1. Scope

This document describes **Wake up** feature in SMMePlus.

2. Reference

Document Reference:

Ref 1. SMM ePlus - Requirements - Integration v.2.4

3. System configuration

3.1. Wake up support

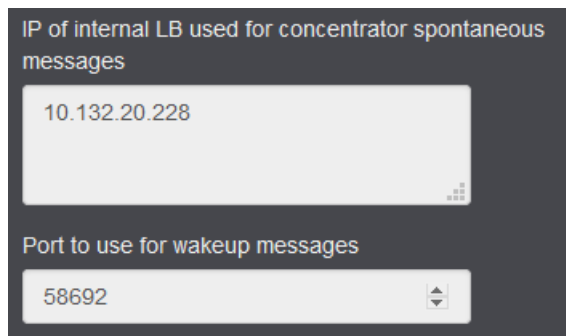
SMMePlus configures inside concentrators the wake up feature.

If the wake up feature is enabled, the concentrator periodically sends keep-alive messages to the system in order to keep the gprs connection alive.

If the concentrator can't reach the system (ip address not reachable, port not opened) the concentrator becomes unreachable until next wake up message succeeds.

In SMMePlus settings, Wake Ip port has to be configured.

The parameters below must be already evaluated by system administrator, because they refer to SMMePlus Listener service configuration.



The screenshot shows a configuration window with a dark background. At the top, the text "IP of internal LB used for concentrator spontaneous messages" is displayed in a light blue font. Below this text is a light gray rectangular input field containing the IP address "10.132.20.228". To the right of the input field, there are small, faint icons. Below the IP field, the text "Port to use for wakeup messages" is displayed in a light blue font. Below this text is a light gray rectangular input field containing the port number "58692". To the right of the port input field, there is a small icon of a vertical double-headed arrow.

3.2. Wake up configuration on concentrator

3.2.1. Spontaneous profile

It is needed to create a spontaneous profile having Wake up feature enabled.
The ip address and ports are taken from the settings of SMM ePlus environments and cannot be changed.

The screenshot shows the SMM ePlus - SMART METERS MANAGER interface. The left sidebar contains navigation links: Admin, System, Technical area, Commercial area, and Report. The main content area is divided into three sections: Configuration, Monitoring, and Operation. Under Configuration, there is a 'Concentrators installation' section with a 'Spontaneous profile' link. The 'Add concentrator spontaneous' form is displayed, featuring a 'Company' dropdown menu set to 'Chile'. The form includes fields for 'Name' (filled with 'profilo_wakeup'), 'Spontaneous messages IP address' (filled with '10.132.20.228'), 'Wakeup enabled' (checked), 'Wakeup port' (filled with '58692'), 'Wakeup period min' (empty), and 'Last Gasp enabled' (unchecked). A note states 'Last Gasp not configurable'. An 'Add' button is at the bottom right.

It's possible to fill the form, the fields with * are mandatory.
There are some constraints on the fields file:

Field	Field length	Field type
Name	Max lenght 50	alphanumeric
Wakeup enabled	true/false	bool
Wakeup port	Default value: 58692	Numeric (read only)
Wakeup ip	nn.nn.nn.nn	Ip address
Last Gasp enabled	true/false	bool
Last Gasp ip	nn.nn.nn.nn	Ip address

If the fields are filled with a wrong value their label is circled with a red line and a correct value is required.

Clicking then on the **Add** button the new Spontaneous Profile is inserted into the system

We summarize the current configuration in Chile in the production and UAT environment

Environment	Name	Ip Address	Port	Period time
Production	Wake up SMMePlus 10 min	10.132.20.228	58692	10
Production	Wake up SMMePlus 100 min	10.132.20.228	58692	100
UAT	smmeplus uat	10.132.20.229	58692	10

3.2.2. Concentrator configuration

During configuration process, it is needed to select the new spontaneous profile in order to write the configuration on the concentrator.

SMM ePlus - SMART METERS MANAGER

Configuration

Monitoring

Operation

Concentrator installation

Company

Chile

Upload installation file

Add Concentrator installation

Select concentrator

Serial number	Type	Manufacturer
16CEC50610036665	CERCO1	Ap System
16CEC50610036655	CERCO1	Ap System
16CEC50610036798	CERCO1	Ap System
16CEC50610040488	CERCO1	Ap System

Total items: 90

Select spontaneous profile

Name	Wake up enabled	Wakeup IP	Wakeup period min
Wake up SMMWeb COM	true	10.116.63.36	300
Wake up SMMePlus 10 min	true	10.132.20.228	10
Wake up SMMePlus 100 min	true	10.132.20.228	100

Total items: 3 (Selected items: 1)

3.3. Wake Up Events

3.3.1. Report

The screenshot shows the SMM ePlus - SMART METERS MANAGER web application. The browser address bar displays the URL <https://smmeplus-web-sapro.enelint.globe>. The application header includes the Enel logo and the title "SMM ePlus - SMART METERS MANAGER". Below the header, there are three main navigation tabs: "Manufacturing", "Field", and "Monitoring". The "Field" tab is currently selected. On the left side, there is a sidebar menu with the following items: "Admin", "System", "Technical area", "Commercial area", and "Report". The "Report" item is highlighted. The main content area displays the "Devices" section, which includes a "Company" dropdown menu set to "Chile". Below this, there is a list of reports with checkboxes: "Concentrators in field", "Meters in field", "Count meters by concentrator", "Concentrator autodiscovery conflicts", "Count Meters", "Wake up", "Wake up per day", and "Concentrator autodiscovery repeater". The "Wake up" and "Wake up per day" items are highlighted with yellow underlines.

Wake up

This report shows first, last and total number of wakeup messages sent for each concentrator

Wake up messages

concentrator name	ipaddress	port	first wake up date utc	last wake up date utc	last wake up date local	wake up count
...	...	58692	8/30/2019 7:20:11 AM	9/24/2020 10:18:46 AM	9/24/2020 7:18:46 AM	5686
...	...	58692	8/23/2019 10:11:54 AM	3/13/2020 12:49:32 PM	3/13/2020 9:49:32 AM	2944
...	...	58692	8/23/2019 10:10:49 AM	9/24/2020 9:22:35 AM	9/24/2020 6:22:35 AM	5778
...	...	58692	8/22/2019 1:21:51 PM	9/24/2020 9:58:02 AM	9/24/2020 6:58:02 AM	5742
...	...	58692	8/22/2019 1:14:16 PM	9/24/2020 9:25:20 AM	9/24/2020 6:25:20 AM	5997
...	...	58692	8/22/2019 1:22:44 PM	9/24/2020 9:59:59 AM	9/24/2020 6:59:59 AM	5953
...	...	58692	8/22/2019 1:12:22 PM	9/24/2020 8:51:30 AM	9/24/2020 5:51:30 AM	5763
...	...	58692	8/22/2019 1:13:49 PM	9/24/2020 10:18:11 AM	9/24/2020 7:18:11 AM	5845
...	...	58692	8/22/2019 1:14:28 PM	9/24/2020 8:50:45 AM	9/24/2020 5:50:45 AM	5863
...	...	58692	8/22/2019 1:13:38 PM	9/24/2020 8:42:31 AM	9/24/2020 5:42:31 AM	5980
...	...	58692	8/22/2019 1:17:24 PM	9/24/2020 8:53:00 AM	9/24/2020 5:53:00 AM	5773
...	...	58692	8/23/2019 10:09:50 AM	9/24/2020 3:04:14 AM	9/24/2020 12:04:14 AM	5878
...	...	58692	8/23/2019 10:08:48 AM	9/24/2020 10:08:43 AM	9/24/2020 7:08:43 AM	5822
...	...	58692	8/23/2019 10:07:44 AM	9/24/2020 9:27:29 AM	9/24/2020 6:27:29 AM	5845
...	...	58692	8/23/2019 10:06:43 AM	9/24/2020 9:00:18 AM	9/24/2020 6:00:18 AM	5861

Wake up per day

In this report, next to total number of wake up messages, the count of daily message is shows for current day

Wake up messages per day

concentrator name	ipaddress	date	daily msg count	total msg count
...	...	9/23/2020 12:00:00 AM	14	5678
...	...	9/23/2020 12:00:00 AM	15	5771
...	...	9/23/2020 12:00:00 AM	14	5734
...	...	9/23/2020 12:00:00 AM	15	5990
...	...	9/23/2020 12:00:00 AM	14	5945
...	...	9/23/2020 12:00:00 AM	14	5756
...	...	9/23/2020 12:00:00 AM	15	5837
...	...	9/23/2020 12:00:00 AM	17	5856
...	...	9/23/2020 12:00:00 AM	15	5973
...	...	9/23/2020 12:00:00 AM	14	5765
...	...	9/23/2020 12:00:00 AM	15	5874
...	...	9/23/2020 12:00:00 AM	14	5814
...	...	9/23/2020 12:00:00 AM	15	5838
...	...	9/23/2020 12:00:00 AM	15	5854

3.4. Concentrator behavior

Concentrator behavior:

1. The wake up messages are sent with a fixed time interval (example 1 sample every 10/100 minutes).
2. If the electric network gets an outage and comes back ON, the concentrator is restarted and immediately sends first wake up message.
3. If a wake up message fails in reaching the service, the concentrator becomes unreachable, and another task "RETRY TASK" starts and executes some retries in order to check GPRS connection.
Current configuration is: 3 retries, with an interval of 60 seconds. If all attempts fail, the RETRY TASK waits 30 minutes and restarts again.
4. If one of the attempts reaches the service, the RETRY TASK is stopped and wake up are sent based on default interval (10/100 min)