

SMM ePlus

Last Gasp support

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1. Scope

This document describes Last Gasp feature in SMMePlus.

2. Reference

Document Reference:

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

3. System configuration

3.1. Last Gasp support

In SMMePlus settings, Last Gasp port has to be configured.

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

IP of internal LB used for concentrator spontaneous messages	10.0.1.36
Port to use for wakeup messages	58692
Port to use for last gasp messages	58693

3.2. Last Gasp configuration on concentrator

3.2.1. Spontaneous profile

It is needed to create a spontaneous profile having Last Gasp feature enabled.

It's possible to configure:

- Last Gasp spontaneous messages related to concentrators power on/off
- Last Gasp spontaneous messages related to meters reachability
-

The ip address and ports are taken from the settings of SMMePlus environments and cannot be changed.

The screenshot shows the 'Configuration' tab selected in the top navigation bar. On the left sidebar, under the 'Technical area' section, the 'Spontaneous profile' option is highlighted. In the main content area, the 'Add concentrator spontaneous' section is active. It includes a dropdown menu for 'Company' set to 'Collaudo'. A checkbox 'Add concentrator spontaneous' is checked. The 'Name' field contains 'Spontaneous_profile'. The 'Spontaneous messages IP address' field contains '10.0.1.36'. There are three checkboxes: 'Wakeup enabled', 'Last Gasp concentrator enabled' (with a note 'Enable this feature only if the firmware and hardware of concentrators support it'), and 'Last Gasp meter enabled' (with a note 'Enable this feature only if the firmware and hardware of concentrators support it'). A blue 'Add' button is located at the bottom right.

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.

It's important to select a profile having Last Gasp enabled only if the firmware of concentrators support it.

<input checked="" type="checkbox"/> Select spontaneous profile						
Name	Wakeup enabled	Ipaddress	Wakeup period min	Last Gasp enabled	Last Gasp port	
TestNoGaspEnabled	false	10.0.1.36	0	false	0	
testGaspEnabled	true	10.0.1.36	60	true	58693	
testGaspnoEnabled	false		0	false	0	
Last_Gasp_and_Wake_Up	true	10.0.1.36	60	true	58693	

Total items: 7 (Selected items: 1)

3.3. Last Gasp Events

3.3.1. Report

In “Spontaneous msgs” report, in “Field” category, it is possible to see and download the report about Last Gasp messages received from concentrators.

In “Spontaneous Meter msgs” report, in “Field” category, it is possible to see and download the report about Last Gasp messages received from concentrators.

The screenshot shows the e-distribuzione web interface with the 'Field' menu selected. On the left, there's a sidebar with icons for Admin, System, Technical area, Commercial area, and Report. The 'Report' icon is selected. In the main content area, under 'Devices', the 'Company' dropdown is set to 'Collaudo'. A list of reports is displayed, including 'Concentrators in field', 'Meters in field', 'Count meters by concentrator', 'Concentrator autodiscovery conflicts', 'Count Meters', 'Wake up', 'Concentrator autodiscovery repeater', 'Wake up per day', 'Removed concentrators', 'Spontaneous msgs' (which is highlighted with a yellow box), and 'Spontaneous Meter msgs' (which is also highlighted with a yellow box).

Concentrator spontaneous messages report

The screenshot shows a database query results page. At the top, there are search fields for 'name' and 'ipaddress' with the value 'NULL'. Below the search bar, there are navigation buttons for page number (1 of 1), orientation (Portrait/Landscape), and search functions (Find, Next). The title of the results table is 'Spontaneous concentrator messages'. The table has the following columns: concentrator name, ipaddress, spontmessagetype, port, last date local, last update utc, last update local, and message. There are two rows of data:

concentrator name	ipaddress	spontmessagetype	port	last date local	last update utc	last update local	message
GIALLOT01	192.168.129.133	LVC_POWER_OFF	58700	9/9/2020 6:28:12 AM	9/9/2020 6:28:12 AM	9/9/2020 6:28:12 AM	50487686775348654948484854484952
GIALLOT01	192.168.129.133	LVC_POWER_ON	58700	9/9/2020 6:25:12 AM	9/9/2020 6:25:12 AM	9/9/2020 6:25:12 AM	50487686775348654948484854484952

This report shows the information about last Last Gasp message received for each concentrator.

There are two records for each concentrator, one for LVC_POWER_OFF event and one for LVC_POWER_ON event.

Meter spontaneous messages report

Spontaneous meter messages

concentrator name	meter	ipaddress	spontmessagetype	port	last date local	last update utc	last update local	message
GIALLOT01	UAAEEDN11200129684	127.0.0.1	METER_REACHABILITY_KO	58692	2/23/2021 1:37:22 PM	2/23/2021 7:48:51 PM	2/23/2021 7:48:51 PM	01130018CFD8
GIALLOT01	UAAEEDN11200129684	127.0.0.1	METER_REACHABILITY_OK	58692	2/23/2021 1:37:22 PM	2/23/2021 5:51:11 PM	2/23/2021 7:51:11 PM	01130018CFD8

This report shows the information about last Last Gasp message received for each meter.

There are two records for each meter, one for METER_POWER_OFF and one for METER_POWER_ON event.

For each event, it is possible to see last time the message has been received.

3.3.2. CSV

Last Gasp events are appended to Low Priority Event csv file, named LPE_YYYY-mm-dd.csv.

A different file for each day is created.

The LPE files includes all events having a no-high priority, such as meter commissioning or meter reachability events.

Last Gasp event types are described in section **3.3.4 Cim Code**

```
LPE_2020-09-23.csv
1 concentrator;meter;pod;type;date;correlationid;severity;description;externalrequest;breakerstate
2 Concentrator0001541;::10.26.17.16;2020-09-23 15:11:46.000;;0;LVC_POWER_ON;---
3 ROSSOT01;::10.26.17.16;2020-09-23 15:12:46.000;;0;LVC_POWER_ON;---
4 ROSSOT01;::10.26.17.16;2020-09-23 15:13:46.000;;0;LVC_POWER_ON;---
5 ROSSOT01;::10.26.17.85;2020-09-23 15:17:31.000;;0;LVC_POWER_OFF;---
6 ROSSOT01;::10.26.17.85;2020-09-23 15:20:31.000;;0;LVC_POWER_OFF;---
7

LPE_2021-03-29.csv
1 concentrator;meter;pod;type;date;correlationid;severity;description;externalrequest;breakerstate
2 GIALLOT01;UAAEEDN10100027382;POD007;3.26.17.85;2021-03-29 17:43:49.220;;0;METER_REACHABILITY_KO;---
3 GIALLOT01;UAAEEDN10100005616;POD024;3.26.17.85;2021-03-29 17:43:49.204;;0;METER_REACHABILITY_KO;---
4 GIALLOT01;UAAEEDN10100027220;POD004;3.26.17.16;2021-03-29 17:43:49.235;;0;METER_REACHABILITY_OK;---
```

3.3.3. SMMePlus integration (external system)

When Last Gasp spontaneous messages are received by SMMePlus, specific events are generated and pushed on Event Hub queue dedicated to Low Priority Events (for production environment of San Paolo: we-eplus-sapro-integration-event-lp-saopaolo-eh).

Last Gasp event types are described in section **3.3.4 Cim Code**

3.3.4. CIM Code

These are the message codes for each event.

Event Type				
End Device Event Type	End Device Domain	End Device Sub-domain	End Device Event or Action	Description
10.26.17.85	Collector	Power	Failed	Concentrator Power OFF (Last Gasp spontaneous)
10.26.17.16	Collector	Power	Closed	Concentrator Power ON (Last Gasp spontaneous)
3.26.17.85	Power	Status	Failed	Meter Reachability KO (Last Gasp spontaneous)
3.26.17.16	Power	Status	Closed	Meter reachability OK (Last Gasp spontaneous)