Application Note: Using SiteManager SMS-Wakeup

This document guides you through the configuration of a SiteManager 2x29 with 3G/GPRS regarding the SMS-Wakeup feature.

With SiteManager **release 4.3a (build 10405)**, it is possible to wake up the 3G/GPRS interface on the SiteManager 2x29(3G) by sending a SMS (Short Text message) to the 3G/GPRS card's mobile number. When using this feature, the 3G/GPRS interface on SM2x29 will automatically disconnect after a set time to reduce idle data traffic.

The document consists of standard instructions that may not fit your particular solution. Please visit our support website for additional information <u>www.secomea.com</u>

Version: 2.0a, 2010 (applicable to SiteManager version 4.3a)

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1. Prerequisites

The following are prerequisites for this document:

- SiteManager 2029 or SiteManager 2129 with firmware 4.3a build 10405. Earlier firmware versions are not covered by this document.
- Operation via GateManager version 4.3. Earlier versions will not show the SiteManagers until they are woken up by the SMS. All Secomea's hosted servers are version 4.3 or newer.
- PC-Card (PCMCIA) 3G/GPRS card ordered separately. Most known PC-Cards for 3G/GPRS are supported but an acceptance list is available at the Secomea website. We recommend that you order the PC-Card Card from Secomea (part number 26865).
- A mobile data subscription with SMS service. Note that the PC-Card from Secomea is not locked to any specific provider, and accepts standard size SIM cards.
- LinkManager (6041) software version 4.3 build 10352 or later. If you like all features described in this document you need to upgrade to the latest release. Features like "Show All" and "<SMS>" will not show in the LM Console if you are using older versions.

1.1. Need to know

- Instructions described here are recommendations that have been verified. Other settings or configurations might work also.
- System is not hot-plug and you need to reboot the SiteManager after inserting the PC-Card card.
- Changes to the SMS-Wakeup parameter will need a reboot.

1.2. Enable / Disable SMS-Wakeup

SMS-Wakeup is disabled by clearing the SMS Wakeup field on UPLINK2 configuration page.

1.3. Restrictions

In case UPLINK (wired connection) is to be used, you must make sure that the UPLINK2 (PC-Card) interface has higher priority then UPLINK. If this is not the case - then the GateManager connection will use the UPLINK interface unless UPLINK is disconnected (unplugged). The following example will ensure that the UPLINK2 gets priority over UPLINK.



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2. Configuring SiteManager 2x29[3G]

2.1. UPLINK (Ethernet connection):

To be certain that the system will work in all situations you should set $\ensuremath{\text{UPLINK Priority}}$ to Second (1):

SiteManager secomea		5
System GateMan	nager Routing Maintenance Status Log Help	
System Info • G	eneral Time + DEV1 + <mark>UPLINK</mark> + UPLINK2 + Serial	
	UPLINK	
	UPLINK (default) is up.	
Mode:	рнср 💌	
IP Address:	172,16.15.164	
Subnet Mask:	255, 255, 255, 0	
Default Gateway:	172.16.15.1	
Ethernet Settings:	Autonegotiation	
Priority:	Second V	
Probe Interval A:	10 seconds	
Probe Interval B:	60 seconds	
Probe Hosts:		
	ISP Settings for PPPoE	
User Name:		

Figure 1 – UPLINK settings

2.2. UPLINK2 (3G/GPRS connection)

Set **UPLINK2 Priority** to **First (1)**, do not set any **Probe Hosts (2)**, and configure the 3G/GPRS settings according to the information from the Mobile Internet Service Provider (ISP).

To enable the SMS-Wakeup you just have to configure the **SMS Wakeup (3)** field with the 3G/GPRS card's mobile number – in this example the mobile subscription has the calling number +4511223344 (no spaces and including the country code (ex. +45 for DK))

SiteManager secomea		5
	ager Routing Maintenance Status Log Help	
System Info + Ge	eneral Time • DEV1 • UPLINK • UPLINK2 • Serial	
	UPLINK2	
	UPLINK2 (default) is up.	
IP Address:	2.105.213.230	
Subnet Mask:	255.255.255.255	
Default Gateway:	10.64.64.65	
Priority:	First (2)	
Probe Interval A:	10 seconds	
Probe Interval B:	0 seconds	
Probe Hosts:		
SIM PIN Code:		3
APN:	internet	
SMS Wakeup:	+4511223344	
Init String:		
User Name:		
Password:		
	Save Disconnect	

Figure 2 – UPLINK2 settings

Save your changes. If the bottom of the page shows a **Reboot** button you need to reboot to make the SMS-Wakeup take effect.

No further configuration is needed.



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3. Nice to know

3.1. The Activation Process - Summary

When setting up the SMS Wakeup system it will need to be activated initially.

Step 1 is to configure the mobile settings and set a valid mobile number in the SMS-Wakeup field.

Step 2 is to reboot the SiteManager and as soon as the system gets a GateManager connection the SMS-Wakeup is active.

3.2. UPLINK2 disconnect timeout

As soon as the Activation Process (see above) is a success, the system will start a countdown timer. The countdown timeout is default set to 30 minutes. If the SiteManager has not been accessed by a LinkManager within this interval UPLINK2 will disconnect.

The timer is reset whenever there is data traffic between a LinkManager and the SiteManager, but the UPLINK2 will never disconnect while a LinkManager is connected. So if you disconnect the LinkManager after 15 minutes of idle time, the UPLINK2 will remain connected for another 15 minutes. If you disconnect LinkManager after more than 30 minutes of idle time, the UPLINK2 will disconnect after 1-2 minutes.

3.3. SMS Wakeup field optional elements

In the SMS Wakeup field in the SiteManager, you can append a secret code to the mobile number. This code must be included in the body of the SMS message for the wakeup to happen. This is a plain text separated for the mobile number with a slash, e.g.

+4511223344/hi132

Here, the mobile number is +4511223344 and to activate the 3G/GPRS connection the SMS must contain the text "hi132".

You can also control the timeout setting with the "t=" option, e.g. extending the previous example:

+4511223344/hi132;t=5

Here, the timeout is changed from the default 30 minutes to 5 minutes.

If the SMS contains a '?' question mark, a reply SMS will be sent to the sender of the SMS (if combined with a secret code, the question mark can be before or after the secret code, e.g. "hi132?")

Note: This feature requires that the mobile provider's Service Center Address (mobile number) has been specified with the "c=" option, e.g.

+4511223344;t=5;c=+4544332211

Here, the SCA is set to +4544332211.

This function depends on the service provider.

More information can be found in the online help on the SiteManager.

3.4. Show <SMS> in LinkManager Console

The LinkManager Console can show a <SMS> string that when you click on it, will prompt a message showing what mobile number to send the SMS-

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wakeup message to. This comes in handy when you have a lot of SiteManager's with different mobile numbers:

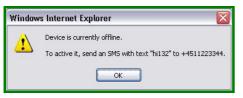


Figure 3 – Ex. SMS-Wakeup prompt.

3.4.1. How to configure SiteManager for <SMS> wakeup prompt

First you have to set the %W option in the **Master Name Format** on the SiteManager. Launch the WEB GUI of the SiteManager and select the **Gate-Manager (1) > General (2)** menu. Type **%W** as shown below:

SiteManager secomea	_ • h
System GateManager	Routing Maintenance Status Log Help
GateManager Info 🔸 General 🔸 Age	nts • Device Relays • Server Relays • Web Proxy • Status
2 GateManager ci	General
Remote Management: Go To Appliance:	Enabled 💌 Automatic Login 💌
Appliance Name:	SM2029-Europe[3G]
GateManager Address: * Activation Code:	0172 AM OF 0 79
Activation Code: Preferred Protocol:	Automatic
Web-proxy Address: Web-proxy Account:	3
Web-proxy Password: Keep-Alive Interval:	0 seconds
Fallback Heartbeat Period:	30 minutes
Master Name Format:	{%N %D %S} - %W
Agent Name Format:	{%n %s} (%m){ - %t}
Relay Name Format:	{%n %s} (%m) - %f{:%p} > %t

Figure 4 – GateManager > General settings

3.4.2. LinkManager and <SMS> wakeup prompt

When the %W option is configured on the SiteManager you will see the <SMS> text in the LinkManager Console, but only when the SiteManager is disconnected (RED).

As default the LinkManager will only show domains that contain devices that are online, like this:

LinkManager secomea			ch
	Logout Services (ROOT.SEC	Sniffer Refresh	
□ ROOT		** SM2029-	Europe[3G] - <i><connect all=""></connect></i>
Expand all Show all			

Figure 5 – LinkManager Console when SiteManager is online (Green)

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When using the SMS Wakeup feature, however, the SiteManager would most often be offline/disconnected. (i.e. the 3G/GPRS has closed down the connection as result of the idle timeout). Subsequently the domain of the SiteManager would not be shown, unless other online devices exist in the same domain.

To include domains with offline devices in the LinkManager Console - press the **Show all (1)** button:

LinkManager secomea	ch (h	
Logout Services Sniffer Refresh ROOT.SECOMEA		
E → test	No connected devices in this domain	
Expand all Show all		

Figure 6 – LinkManager Console, press the Show all button

Select the Domain (1) in the left-hand site window and the SiteManager including the <SMS> test will show in the right-hand site window.

Click on the <SMS> text (2) and the SMS-prompt will show.

LinkManager secomea		(h)	
Logout Servic	es Sniffer Re DOT.SECOMEA	fresh	
B ROOT B → customer B → demo gmaudit lager B → SECOMEA sim D → test	2	✓ SM2029-Europe[3G] - <sms></sms>	
Expand all Figure 7 – LinkManager Console – showing	the SMS-prompt.	Windows Internet Explorer Device is currently offline. To active it, send an SMS with text "hi1	32" to +4511223344.



4. Notices

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