



BellEquip Email-to-SMS Gateway User Manual

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BellEquip

Technik, die verbindet!

USER MANUAL
Email-to-SMS (e-2-s) Gateway

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This manual describes how to use the Email-2-SMS (e-2-s) Gateway v2. Generally, the e-2-s gateway is able to convert Emails to SMS. There are 2 working modes, which are able to work simultaneously:

- Email-Server mode

In this working mode, the e-2-s gateway acts like an email-server. The e-2-s gateway can be contacted from any email-client and get emails from the client. After getting the email, the e-2-s gateway evaluates the email-subject or/and the email-body and processes that information to create SMS, according to the user-specific configuration (details see points 5.1. and 5.2.).

- Email-Client mode

In this working mode, the e-2-s gateway collects emails from an existing mailbox (for example mailbox on MS Exchange server) via POP3 or POP3-SSL in definable intervals. After collecting the email, the e-2-s gateway evaluates the email-subject or/and the emailbody and processes that information to create SMS, according to the user-specific configuration (details see points 5.1. and 5.2.).

Additionally, the e-2-s gateway is able to convert SMS to Email.

It is also possible to send Heart-Beat SMS, to regularly monitor the e-2-s gateway itself, the sim-card and the provider.

It is possible to send Multipart-SMS with the e-2-s gateway.

The e-mail-subject and the email-body can be used for the analyses. The only requirement for using the email-body is, that the e-mail body needs to be in plain text, otherwise the e-2-s gateway is not able to analyse the text in the e-mail body.

Quick start

- Insert the SIM-card into Sim-slot 1.
- Connect the delivered antennas to port "ANT" & "DIV".
- Connect the power-supply to port "PWR".
- Connect your PC via Ethernet cable on port "ETH0".
- Change the network settings on your PC to 192.168.1.2 (255.255.255.0).
- The routing settings can be configured via WEB browser, using the following access parameters:

Address: <https://192.168.1.1>

Username: root

Password: P<last 8 digits of the serial number>h

- Enter the PIN of the SIM-card (in the e-2-s gateway menu “Configuration” → “Mobile WAN” → “PIN”). If the PIN is disabled, leave the field empty.
- If necessary, change the IP-address of the e-2-s gateway according to your local network (in the e-2-s gateway menu “Configuration” → “Ethernet” → “ETH0”).
- Choose the right pre-configuration for your use-case in the menu “Administration” → “Change Profile”:
 - o Profile: Standard (default) e-2-s gateway works via LAN, without 2G/3G/4G mobile-data-connection. The e-2-s gateway connects to the POP3 mailbox via the Ethernet/LAN.
 - o Profile: Alternative 1 e-2-s gateway connects to the POP3 mailbox via 2G/3G/4G mobile-connection of your SIM card. Attention, data-traffic of your SIM card must be activated.

The “Email to SMS” settings can be configured via WEB browser, using the following access parameters:

Address: <https://192.168.1.1:8000>

Username: root

Password: P<last 8 digits of the serial number>h

This page is also accessible using Port 80 at “Customization” → “Router Apps”

→ “Email To SMS Gateway”.

Global settings

Special characters like ü, €, &, ... can be read by the e-2-s gateway and also sending of SMS with special characters is supported (UTF-8 character-set).

The e-2-s gateway is able to send about 20 SMS per Minute. This value depends on some other circumstances as well (telco-provider, time for getting emails, ...).

2.1. Common settings

Configuration

Configure the different email2sms modes and adapt common configurations

>

Email to SMS Server Mode

>

Email to SMS Client Mode

>

SMS to Email Mode

>

Common Settings

2.1.1. Common admin and security settings

Common admin and security settings.

Enable Daemon

The daemon is responsible for Server Mode, Client Mode and Sms2EMail Mode. Only remaining functionality if the daemon gets disabled is sending SMS by REST API.

Enable Module: The e-2-s gateway functionality will be enabled if the checkbox is checked.

Auth Token	0 The 'Auth Token' is expected in the email subject if the token value is > 0. No SMSs will be sent if the auth token is missing in the email subject. Value 0 disables this feature.
------------	--

Auth Token: There can be a security token (4 numbers) within the email-subject, which will be checked by the e-2-s gateway. If this token is not present in the email-subject, the SMS will not be sent. If the field “Auth Token” is empty or set it to 0, the feature is deactivated and the e-2-s gateway will not check for a token in the email-subject. If the token is active (4 digits) then the feature works in both alarming modes (rule-based and keyword-based).

Admin Email	you@yourdomain.com Email address that should receive admin related notifications like SMS errors or log file rotations.
Notify of SMS Errors	☒ Admin Email address gets notified in case of an SMS error.
Send Log Files	☒ Send log files to the admin email address.
SMTP Configuration	Configure Email SMTP Server General Email (SMTP) configuration is necessary for sending out emails

Admin Email:

Email address, where the information about failure in SMS sending will be sent to. The e-2-s gateway will try 3 times to send the SMS. If the third try also fails, e-2-s gateway will send an email to the predefined Email address (defined in the field “SMS-Error email”).

Leave the field empty to deactivate the feature.

Note: If the used SMS-receive-telephone-number is wrong, the e-2-s gateway is not able to detect this situation and so there will no SMSError-email be sent. The e-2-s gateway is only able to detect problems in the communication with the telco-provider!

Notify of SMS Errors:

Enable if you wish to get notified of SMS error. Notification will be sent to Admin Email

Send LogFiles:

Admin Email address, receives the history log files.

The history-log-file will be created automatically and it stores every

SMS-activity which will be done by the e-2-s gateway.

The file will be sent automatically, if it reaches 60 kilobytes in size.

The file will reside in the gateway (/var/data/email2sms/history.log) until it reaches the file size limit – then it will be sent to the given email address. Leave the field empty to deactivate the feature (in this case, the log file resides on the e-2-s gateways file system and will get reset when the file reaches 60 kilobytes in size).

SMTP Configuration:

To be able to send out emails, you need to configure a SMTPServer. By using the link “Configure Email SMTP Server” you will be redirected to the page for entering the SMTP-Server information. Alternatively, you can access these settings using the menu “Configuration” → “Services” → “SMTP”.

2.1.2. Sender settings

The e-2-s gateway is able to analyse the email-subject and the email-body.

Email-body only works, if the email-body is in plain text format, otherwise the e-2-s gateway can't analyse the text. In the following settings you can define, if you want to use the email-subject or the email-body for analysis. Also, the maximum SMS length can be defined.

Sender Settings.	
Subject Parsing Enabled	☒ Decide whether to scan email subject.
Body Parsing Enabled	☒ Decide whether to scan email body.
Max individual SMS (Multipart)	3 Maximum individual SMS parts of a multipart SMS (between 1 and 9). Each individual part can be up to 140 chars (depending on encoding)

Subject Parsing Enabled:

Activate this checkbox, if you want to analyse the email subject

Body Parsing Enabled:

Activate this checkbox, if you want to analyse the email body

Max individual SMS (Multipart):

The value for the maximum parts of the Multipart SMS. The value must be between 1 and 9. Each single SMS-part has a maximum of 140 characters. So the maximum length of a multipart-SMS is 1260 characters!

Attention: Multipart uses multiple SMS! Keep in mind, when calculating the sim-contract and the SMS cost!

2.1.3. Heartbeat message settings

The e-2-s gateway is able to send periodic SMS (heartbeat SMS) to one recipient number, to check that the device is still powered up and working correctly.

Settings for heartbeat messages.

Enable Heartbeat Messages

☒

If enabled a heartbeat SMS gets sent in the specified interval, to verify that the email2sms services are still running.

Heartbeat Interval

daily

Hour of Day

... 8 [0-23]

Hours [0-23]

Minute of Hour

... 15 [0-59]

Minutes [0-59]

Mobile Number

... +4366412345678

SMS Text

... insert heartbeat message text

Heartbeat Interval:

Heartbeat Interval:	It is possible to send heartbeat SMS periodically: • daily • weekly • monthly
Hour of Day & Minute of Hour:	Define the time for receiving heartbeat SMS.
Day of Week / Month:	Define the day-of-week / day-of-month for receiving heartbeat SMS.
Mobile Number:	Define the recipient number for heartbeat SMS.
SMS Text:	Define the text for heartbeat SMS.

System-Time of e2s:

The current system-time of e-2-s gateway can be seen under “Status” → “General” → “System Information” → “Time”.

The e-2-s gateway can synchronize its own system-time with external NTP-servers, which can be configured under “Configuration” → “Services” → “NTP” → “Synchronize clock with NTP server”. Automatic switching for Daylight-Saving-Time is implemented in the e-2-s gateway.

2.2. Email to SMS: Server Mode

Configuration

Configure the different email2sms modes and adapt common configurations

> ● Email to SMS Server Mode

> ● Email to SMS Client Mode

> ● SMS to Email Mode

> ● Common Settings

Settings for the e-2-s gateway to act like an email-server.

The e-2-s gateway can be contacted from any email-client via SMTP protocol and get emails from the client. After getting the email, the e-2-s gateway evaluates the email-subject or/and the email-body and processes that information to create SMS or additionally forward these emails.

▼ ● Email to SMS Server Mode

In Email Server Mode the Email-to-SMS-Gateway acts like an SMTP server at the given port.
The **email-sender-address** in your email-client needs to be in the format: **e2s@e2s.sms**
The **email-recipient-address** in your email-client needs to be in one of the following formats:
a) Dynamic SMS Recipient: Email subject/body will get sent to the given number in the email-recipient- address, which needs to be in the form of **+4367612345678@e2s.sms**.
b) Static SMS Recipient: If Keyword-Based- or Rule-Based-Alarming should be used, the email-recipient- address needs to be in the form of ***@e2s.sms**.

Enable Server Mode ☒

Server Port
The Port the SMTP server should get exposed.

Enable Debug Mode ☐

Enable Server Mode:

The Email-Server functionality will be enabled if the checkbox is checked. We recommend using the Email-Server-Mode in your internal network only. Using Email-Server-Mode on a public IP-network requires the activation of the Email-2-SMS Gateway firewall.

Email Server Port:

The IP-port, on which the e-2-s gateway listens for incoming SMTP connections from email-clients.

Email Server Debug Enabled:

If enabled, more detailed information can be found in the system-log of the e-2-s gateway ("Status" → "System Log"). Enable this feature only in case of communication problems with the email-client.

Emails will be forwarded via Email, if the domain of the email-recipient-address does not contain **@e2s.sms**.

Enable SMTP Forwarder Mode ☒

Enable SMS in Forwarder Mode ☒
Keyword- and Rule-Based-Alarming will be used additionally to send SMS for forwarded emails.

SMTP Configuration [Configure Email SMTP Server](#)
General Email (SMTP) configuration is necessary for sending out emails.
current server: mail.gmx.net

Enable SMTP Forwarder Mode:

The Forwarder Mode functionality will be enabled if the checkbox is checked. Emails will be forwarded via encrypted Email, if the domain of the email-recipient-address does not contain @e2s.sms.

The sender-email-address in your email-client has to be exactly the same, as the email-address configured under "Configuration" → "Services" → "SMTP" -> "Own Email Address". The Emails can be forwarded to multiple recipients, if your mail server does not have any restrictions regarding that (Spam-, Loopback- & Serverrestrictions). Email-Attachments are forwarded as well.

Enable SMS in Forwarder Mode:

If enabled, you can send forwarded Emails additionally via SMS to multiple recipients. This will be done according to the settings under the section "Alarming" → "Keyword- and Rule-Based-Alarming".

SMTP Configuration:

General Email (SMTP) configuration is necessary for sending out emails. To be able to send out emails, you need to configure a SMTP-Server. By using the link "Configure Email SMTP Server" you will be redirected to the page for entering the SMTP-Server

information. Alternatively, you can access these settings using the menu "Configuration" → "Services" → "SMTP".

The e-2-s gateway can not only get emails, but also send emails for the following 4 reasons:

- Send alarm emails, if the e-2-s gateway was not able to send out an alarm SMS
- Send log-file emails with the historic SMS-sending activities
- Convert SMS to email
- Forward emails (for example, from unsecure port 25 to a secure protocol like TLS/SSL)

2.2.1. Configure email-settings of your device (PLC) in "Server Mode"

Email-FROM:

The email-sender-address in your email-client (for example PLC) needs to be in the following format: e2s@e2s.at

Email-TO:

The email-recipient-address in your email-client (for example PLC) needs to be in one of the following formats:

a) Dynamic SMS Recipient: Email subject/body will get sent to the given number in the email-recipient-address, which needs to be in the form of +4367612345678@e2s.at . Chose this version, if you want to push the sms-recipient-number dynamically to the e-2-s gateway, already within the Email-TO address.

b) Static SMS Recipient: If Keyword-Based- or Rule-Based-Alarming should be used, the email-recipient-address needs to be in the form of e2s@e2s.at . Chose this version, if you want to use the smsrecipient-number from the phone-book using “Rule based alarming” or “Keyword Based Alarming” – see point 5

Example email-settings from any email-client (PLC, ...):

Email Settings	
NAME	VALUE
SMTP Server	192.168.1.1
SMTP Port	25
Authentication	☐
Secure TLS mode	☐
Username	
Password	
Importance	Normal ▾
FROM	e2s@e2s.at
Subject	Subject, which will be converted to SMS...
TO	+4367612345678@e2s.at

2.3. Email to SMS: Client Mode

Configuration

Configure the different email2sms modes and adapt common configurations

> ● Email to SMS Server Mode

> ● Email to SMS Client Mode

> ● SMS to Email Mode

> ● Common Settings

In this working mode, the e-2-s gateway collects emails from an existing mailbox (for example mailbox on MS Exchange server) via POP3 or POP3-SSL in definable intervals. After collecting the email, the e-2-s gateway evaluates the email-subject or/and the email-body and processes that information to create SMS.

Settings for the email account, where e-2-s gateway gets emails from:

▼

Email to SMS Client Mode

In Email Client Mode the router collects emails from an external POP3 server and sends SMSs after analysing the subject.

Enable Client Mode

☒

Email Server Protocol

POP3

▼

Email Server URL

pop.server.com

Email Server Port

110

Email Username

username@server.com

Email Password

👁

Retrieval Interval

60

Interval in seconds for fetching emails from the server.

Email-Error SMS number

SMS number that gets notified in case of Email errors. An empty SMS number field disables this feature.

Email-Error threshold

3

The threshold value defines how many consecutive errors can occur before the SMS alarming should get triggered (max 10). The value 0 disables this feature.

Enable Client Mode:

The Email-Client functionality will be enabled, if the checkbox is checked.

If disabled, no emails will be collected from the mailbox.

Server Protocol:

Defines the protocol of the connection to your email server:

POP3: unsecured plain text connection

POP3-SSL: ssl secured connection

Email Server URL: The URL of your email server.

Email Server Port: The used port of your email server.

Email Username:

The username to log into the email server.

Email Password:

The password to log into the email server.

To initially set or change the password, type a new password in the input field. The password will not be visible in the input field after saving with “Apply” button.

Retrieval Interval:

Polling interval for the POP3 Mailbox, to define how often the emails will be collected.

Important:

If you use a huge number of emails together with a lot of recipients, you have to set a higher interval. The minimum interval is 30 seconds.

Email-Error SMS number:

This phone-number gets notified via SMS, in case of problems with getting the emails from the email-server. If this field is empty, the feature will be disabled.

Email-Error threshold:

This value defines how many email-errors need to occur, before the SMS alarming will be triggered. Value “0” disables the feature.

2.4. SMS to Email Mode

Configuration

Configure the different email2sms modes and adapt common configurations

> ● Email to SMS Server Mode

> ● Email to SMS Client Mode

> ● SMS to Email Mode

> ● Common Settings

In some applications, it might be necessary to convert incoming SMS to Email. For example, if you want to provide TAN-SMS to a group of people via Email.

▼ ● SMS to Email Mode

In SMS Mode the router receives SMS and sends emails after analysing the SMS.

Enable SMS Mode

SMS to Email

you@yourdomain.com

Email address that should receive message texts of incoming SMSs. An empty field disables this feature.

Dynamic recipient parsing

If this field is enabled the SMS text will be scanned for an email address. This email address will then get the SMS text mailed.

SMTP Configuration

[Configure Email SMTP Server](#)

General Email (SMTP) configuration is necessary for sending out emails

SMS to Email:

Email address, where the information about incoming SMS will be sent to. The email contains the full content of the SMS and the sender-mobile-number (within the email-subject and the emailbody). Leave the field empty, to deactivate the feature.

Dynamic recipient parsing:

If this checkbox is enabled, the SMS text will be scanned for an email address (word containing the “@” sign). If a valid email address will be found within the SMS, the email will be sent to this email-address too. Write the sign “@” into the field “SMS to Email”, if you want to use dynamic recipient parsing only.

SMTP Configuration:

To be able to send out emails, you need to configure a SMTPServer.

By using the link “Configure Email SMTP Server” you will be redirected to the page for entering the SMTP-Server information. Alternatively, you can access these settings using the menu “Configuration” → “Services” → “SMTP”.

Recipients

In the recipients tab you find a list, which acts as a phone-book.

Recipients

Configure recipients for use in recipient groups.

Recipient Search

Recipient Nr.	Name	Phone Number
1	Guenter Privat	06760791373
2	Guenter Firma	+436643333996
3	Stefan Privat	+436645356862
4	Stefan Firma	+436643333955
5	Martin Firma	+436643333999
6	Florian Preyner	+436607349077
7	Jacqueline Privat	+436644184414

Recipients:

Enter the name and the phone-number of the different SMS recipients.

Format of the number needs to be with international code: +4366412345678.

These defined recipients can be used in the "Rule Based Alarming" and "Keyword Based Alarming" configuration-pages.

API Users (HTTP-Rest)

API Users

Configure api users for access of the public api layer.

API User Search

Name	API Key	Expiration
prtg	C978BFACD22C02E10EED574184AD9668DC445...	dd.mm.yyyy hh:MM

Before using the http-rest API, you need to add an API-User for your application.

The according API-keys will be generated automatically when saving the settings.

It is recommended, to use a separate user for each client-application.

Your client application can use the following 2 different authentication modes:

4.1. Authentication via Link

Red Parts need to be adapted.

[https://192.168.1.1:8000/api/sms/key?](https://192.168.1.1:8000/api/sms/key?to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445946)

[to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445946](https://192.168.1.1:8000/api/sms/key?to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445946)

Programming example in CURL:

curl -X GET -location

4.3. Implementation PRTG

The e-2-s gateway also supports the implementation in PRTG via http-rest API.

First, there needs to be an API Key/User in e-2-s gateway (see point 4).

Secondly, select „Konfiguration“ → „Systemverwaltung“ → „Versand von Benachrichtigungen aufrufen“ and at „Versand per SMS“ configure following points:
Follow the steps from point

Versand per SMS

Konfigurationsmodus ☐ SMS-Versand deaktivieren
☐ Wählen Sie einen SMS-Dienstleister aus der Liste aus
☒ Geben Sie die URL eines nicht in der Liste enthalten Dienstleisters ein

Benutzerdefinierte URL https://192.168.0.97:8000/api/sms/key?to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445

HTTP-Authentifizierung ☒ HTTP-Standard-Authentifizierung nicht verwenden (Standard)
☐ HTTP-Standard-Authentifizierung verwenden

Benutzerdefinierte SNI ☐ SNI nicht senden (Standard)
☒ SNI senden

Zeichenkodierung für SMS ☒ ANSI-Codepage des lokalen Systems (Standard)
☐ UTF-8
☐ UTF-16

Virtueller Host (SNI) prtg

Maximale Länge des Texts 160

SMS-Einstellungen testen SMS-Einstellungen testen

4.1. "Authentication via Link" to configure the entry „Benutzerdefinierte URL“.

In PRTG, numbers and texts within this link, will be replaced by the following macros:

Recipient number: %SMSNUMBER

SMS text: %SMSTEXT

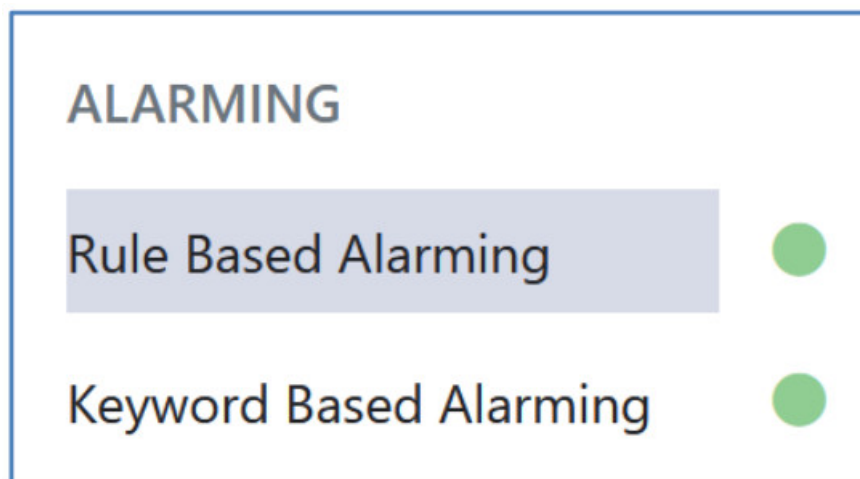
Example URL:

<https://192.168.1.1:8000/api/sms/key?>

[to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445946](https://192.168.1.1:8000/api/sms/key?to=%SMSNUMBER&text=%SMSTEXT&api_user=prtg&api_key=C978BFACD22C02E10EED574184AD9668DC445946)

You can check the functionality of dispatching SMS via the button „SMS-Einstellungen testen“.

Alarming



5.1 Rule based alarming

Rule-Based-Alarming is recommended for alarming to single, or only a few telephone numbers. In this method the telephone-number of the recipient and also the SMS-text can be a part of the email subject. For Rule-Based-Alarming it is necessary, to be able to create your own email subject. If your system can only send predefined emails, it's recommended to use KeywordBased-Alarming (see point 5).

Rule Based Alarming

Configure rule based alarmings.

Enable Rule Based Alarming
☐

Recipient 1

☐ default

Recipient 2

☐ default

Recipient 3

☐ default

...

Recipient 9

☐ default

Recipient 10

☐ default

Enable Rule Based Alarming:

The Rule-Based-Alarming functionality will be enabled if the checkbox is checked.

If disabled, the email-subjects of incoming emails will not be checked against the rules of Rule-based-alarming.

Recipient:

The recipient, to which a SMS will be sent if the rule matches. The recipient can be deleted by pressing the [x] Button next to the input field. Add recipients as described adding them to the recipient's directory. Afterwards select here the recipient.

default:

Marks the current recipient as default recipient. There can be more than one default recipients at the same time. The default recipient will be chosen, if there is no recipient defined in the email subject.

Text 1
☐ default

Text 2
☐ default

...

Text 9
☐ default

Text 10
☐ default

Text 1-10:

The predefined SMS texts 1-10, which can be used for the rules (T1 – T10).

default:

Marks the current text as default text. The default text will be chosen, if there is no text defined in the email subject. There can only one default text at the same time.

5.1.1. Email Subject Definition

The email subject defines the recipient and the text of the SMS.

Keep in mind: In "Email Server Mode", the recipient number can already be defined, using the email-recipient-address in your email-client, for example +43676123456@e2s.at.

There are 2 working-methods of the Rule-Based-Alarming: static and dynamic In the static mode you can define recipients that are pre-configured (see 5.1) by inserting R(number, ...) where number refers to a configured recipient.

You can define a text which is configured in the settings (see 5.1) by its number Tnumber.

If you don't include any recipient definition in the email subject then the SMS will be sent to all configured default recipients.

If you don't include any text definition in the email subject then the SMS will contain the configured default text.

In the dynamic mode you can use a text TDtext and a recipient RD(phonenummer) in your email-subject that doesn't have to be configured in the settings.

Both methods are working parallel and can be used together.

Marker Definition	Name	Description	Required
Annnn	Auth Token	nnnn ... 4 digits	yes if not 0
R(n[,n]*)	Recipient List	n[,n]* ... 1 or more of the configured recipients (1-10)	no
Tn	Text number	n ... number of configured SMS text	no
RD(n)	Dynamic Recipient Input	n ... a single phone number	no
TDx*	Dynamic Text input	x* ... text characters of the SMS text (max 150 chars)	no

Legend:

* ... repeat

[] ... optional

5.1.2. Valid email subject examples

static:

• A1234 R(1,2) T	send text 1 to recipients 1 and 2 if auth token is 1234
• A1234 R(4) T5	send text 5 to recipient 4 if auth token is 1234
• A1234 R(1,2)	send default text to recipient 1 and 2 if auth token is 1234
• R(1,2)	send default text to recipient 1 and 2 if auth token is 0
• A1234 T3	send text 3 to default recipients if auth token is 1234
• A1234	send default text to default recipients if auth token is 1234
• any	send default text to default recipients if auth token is 0

dynamic:

- A1234 RD(+43123456) TDhello world send „hello world “ to +43123456 if auth token is 1234
- ANY RD(+43123456) TDhello world send „hello world “ to +43123456 if auth token is 0

static & dynamic:

- ANY R(1) TDhello world send „hello world “ to recipient 1 if auth token is 0

5.2 Keyword Based Alarming

Keyword-Based-Alarming is recommended for alarming to a group of telephone numbers.

In this method, it is only necessary to find a match between a keyword in the email subject and the predefined keyword in the group settings. For the Keyword-Based-Alarming it's NOT necessary to define your own email subject. You only need to know one keyword from your email subject.

Keyword Based Alarming

Configure keyword based alarmings. Define groups of Recipients that get triggered by configurable keywords.

Enable Keyword Based Alarming ☒

Enable Keyword Based Alarming:

The Keyword-Based-Alarming functionality will be enabled if the checkbox is checked.

If disabled, the email-subjects of incoming emails will not be checked against the keywords, which are defined in the groups of Keyword-based-alarming (see point 5.2.1.).

5.2.1. Group overview

Groups

Group Nr.	Name	Keywords
1	Serverraum TemperaturAlarm HWG-STE	HWG-STE-BELL
2	Stellen Testgruppe	Stellen
3	Guenther	Günther, Isambellos
4	Sicherungsprotokoll BELLEQUIP	Sicherungsprotokoll
5	Raubertest ## - Jedes Email wird versandt	
6	a2s test	a2s

It is possible to define 20 different keyword-groups, with 5 keywords for each group.

If the email-subject contains one of these keywords, the subject (its first 160 characters) will be sent as SMS to the recipients of this particular group. If the auth token is configured as a 4-digit number then the auth token must part of the email. If the auth token is configured as 0, only the keyword has to match.

5.2.2. Group Settings 1-20

By clicking on the group-line, you are entering the detailed settings for each individual keywordgroup:

Group

Configure keyword based alarming. Recipients of this group will get triggered on finding the keywords in the email.

Group Name

Serverraum TemperaturAlarm HWG-STE

Keywords

HWG-STE-BELL

... keyword2

... keyword3

... keyword4

... keyword5

Enter keywords or phrases. '##' describes an ignored part within a word or phrase.

Assigned Recipients (5/15)

Günther Privat

×

Guenther Firma

×

Stefan Privat

×

Stefan Firma

×

Mario Diemer Privat

×

Available Recipients

Filter available recipients

×

< Martin Firma

< Florian Preyer

< Jacqueline Privat

< Christoph Privat

< Christoph Firma

Group Name:

The name of the group, which will be shown at the overview-page. It does not have any effect on the functionality.

Keywords 1-5:

Define the keywords that needs to be within the email-subject or body.

The keyword is case sensitive!

It is possible to use ## as wildcard for 1 or more characters. So, it is also possible to separate 2 words by ## in

one keyword.

If you want to convert all incoming emails into SMS (without any keywordchecking), then you can use only ## as the keyword.

If all keywords are empty, the group is deactivated and no SMS will be sent.

Recipient 1-15:

On the left side of the page “Assigned Recipients”, the SMS-recipients will be defined. The recipients can be selected from the list of “Available Recipients” on the right side of the page, via drag-and-drop. The “Available Recipients” list matches the entries of the phone-book (main-menu “Recipients”). The recipients can be deleted by pressing the |x| button or via drag-and-drop.

Status

6.1. SysLog

For reasons of problem-diagnosis, it might be helpful to have a look into the recent SysLog. Choose how many SysLog lines you want to see and refresh the page manually by using the “Refresh” button.

The screenshot shows the Email2SMS Gateway web interface. On the left is a sidebar menu with sections: ROOT (Logout), CONFIGURATION (Global Settings, Recipients, API Users), ALARMING (Rule Based Alarming, Keyword Based Alarming), and STATUS (Syslog, Return). The 'Syslog' option is selected. The main content area is titled 'Syslog' and shows 'Showing the last 50 lines syslog lines.' with a 'Refresh' button. The log output displays various system messages, including version information, server status, and alarm configurations.

```
2022-02-10 18:49:13 root[1152]: Trial of Trust Secure Portal version 1.5.2
2022-02-10 18:49:13 dnsmasq[1158]: started, version 2.85 cachesize 150
2022-02-10 18:49:13 dnsmasq[1158]: no servers found in /etc/resolv.conf, will retry
2022-02-10 18:49:13 dnsmasq[1158]: cleared cache
2022-02-10 18:49:13 sshd[1169]: Server listening on 0.0.0.0 port 22.
2022-02-10 18:49:13 sshd[1169]: Server listening on :: port 22.
2022-02-10 18:49:13 email2sms: Current module db schema version: 5
2022-02-10 18:49:14 email2sms[1210]: module started
2022-02-10 18:49:14 email2sms[1210]: [] version 7.0.0-RC6 (2021-09-14)
2022-02-10 18:49:14 email2sms[1210]: [] Heartbeat API enabled
2022-02-10 18:49:14 email2sms[1210]: [] Starting SMS 2 Mail Mode.
2022-02-10 18:49:14 email2sms[1210]: [] Starting Email Server Mode.
2022-02-10 18:49:14 email2sms[1210]: [] Starting Email Client Mode
2022-02-10 18:49:14 email2sms[1210]: [] Rule based alarming enabled
2022-02-10 18:49:14 email2sms[1210]: [] Group based alarming enabled
```

6.2. Return

Via “Return” button you can enter the Web-UI, which is containing all necessary routing functionality and further settings (SIM-card, Ethernet, VPN, ...) of your e-2-s gateway.

SIM card switching (failure safety redundancy)

For reasons of high availability and redundancy, you can use both SIM slots of your e-2-s gateway.

If the default SIM-card loses registration/connection to the cellular network, the second SIM card gets active.

Therefore, you have to enable the feature “Switch to other SIM card when connection fails” in “Configuration” → “Mobile WAN”:

☒ **Switch to other SIM card when connection fails**

It might make sense for your application, to think about switching back to the default SIM card, after a certain timeout.

☒ Switch to default SIM card after timeout		
Initial Timeout	600	min
Subsequent Timeout *	60	min
Additive Constant *	5	min

Initial Timeout:

Time that the router waits before the first attempt to switch back to the default SIM card (from 1 to 10000 minutes).

Subsequent Timeout:

Time that the router waits after an unsuccessful attempt to switch back to the default SIM card (from 1 to 10000 minutes).

Additive Constant:

Time that the router waits for any further attempts to revert to the default SIM card. This time is the sum of the time specified in the "Subsequent Timeout" and the time specified in this parameter (from 1 to 10000 minutes).

Additional interfaces for sending SMS

Besides the functionality of converting emails to SMS and using the http-rest-API, there are some other possibilities to trigger the sending of SMS.

The following interfaces are provided:

8.1. SMS via Webinterface

For testing purpose (to try if your SIM card is able to send SMS) it is the best to use the Web-GUI of e-2-s gateway.

This can be done at the main-menu under "Administration" → "Send SMS".

8.2. SMS via Telnet- or SSH-session

It is possible to use a simple command inside a Telnet- or SSH-Session for sending SMS. A description can be downloaded here:

https://download.bellequip.at/Anleitung_SMS_over_IP_Telnet_e2s_eng.pdf

8.3. SMS via AT-commands over TCP-session

It is possible to use AT-commands over TCP-session for sending SMS.

A description can be found here:

http://download.bellequip.at/SMS_AT_commands_over_TCP_session.pdf

8.4. SMS via AT-commands over virtual COM interface

A very similar way to point 8.3. is to use AT-commands over virtual COM interface.

A description can be found here:

http://download.bellequip.at/SMS_AT_commands_over_TCP_session_virtual_COM.pdf



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Documents / Resources



[BellEquiq Email-to-SMS Gateway](#) [pdf] User Manual
e-2-s-version-2, Email-to-SMS, Email-to-SMS Gateway, Gateway

References

- [!\[\]\(a724a4a68298d6dff85fe378e838a60a_img.jpg\) BellEquip GmbH Österreich – Technik, die verbindet!](#)
- [!\[\]\(e45f0f4def98e1246d9487bb157beff5_img.jpg\) BellEquip GmbH Österreich – Technik, die verbindet!](#)