twig

TWIG Point user manual

YZ9640-01-EN

Table of Contents

Service description

TWIG Point SP is a turn-key SaaS package of cloud services to manage and monitor TWIG lone worker alarm devices. The service provider model allows you to create accounts your customers.

The provided service features are listed here below. The services provided depend on your subscription.

- Alarms monitoring and tracking
- Device configuration and management over-the-air
- Wireless update of device firmware
- World-wide device location indoors and outdoors
- Event management and exporting to excel
- Management of on screen messages
- Site planning and geocoding of beacons
- API for full access to services from your system
- Alert management
- Geofences
- Management of VoIP call settings
- Message and event management

TWIG Point SaaS	All Inclusive	Utility	API+	Free
Alarms monitoring Turn-key service for alarms monitoring and tracking of TWIG personal alarm devices. Compatible with TWIG Point Netloc and SRD3 hybrid indoor outdoor location.	x			
Remote configuration Turn-key over-the-air device management. Mobile data usage 3 kB per configuration data set typical.	x	x	x	x
Wireless firmware update Firmware Over-The-Air - enables the device manufacturer to deliver the wireless update for their devices	x	x	x	x
Global hybrid location Turn-key world-wide WiFi + cellular service for public space location	x	x		
On-site hybrid location Service for hybrid on-site location (TWIG SRD + Wi-Fi + BLE)	x	x		
Site planning and beacon management Tool for managing customer sites: Import customer site maps and floor plans. Easily geocode on site maps TWIG SRD devices: beacons, tags and doors sensors and WiFi base stations, BLE beacons.	x	x		
AGNSS Turn-key AGNSS (Assisted GNSS) service for faster and more reliable position acquisition. Mobile data usage 0.6 MB per month typical.	x	x	x	x
API REST JSON API + Web programming interface.	Fullest	Full (no RTT)	Full (no RTT)	Basic
Device management	x	x	x	x
Account management	x	x	x	x

Subscription model

You can select between 4 subscription options: All inclusive, Utility, API+ and Free.

The services included in you subscription are listed here below. Subscription can differ between accounts but all devices in one account have same subscription.

All inclusive subscription includes all TWIG Point services activated on all added devices and is a turn-key comprehensive solution for alarms monitoring.

With All inclusive subscription you can receive, monitor and handle all your alarms in one unifying platform.

With Utility subscription you get all TWIG Point services and limited device monitoring functions without a user interface.

API+ subscription includes remote configuration, wireless firmware update (FOTA) and assisted GNSS and will suit you if you don't need hybrid location and user interface for monitoring but would like to utilize monitoring functionalities through your own system.

Free subscription includes remote configuration, FOTA and assisted GNSS and is sufficient if you don't need to manage and monitor alarms.
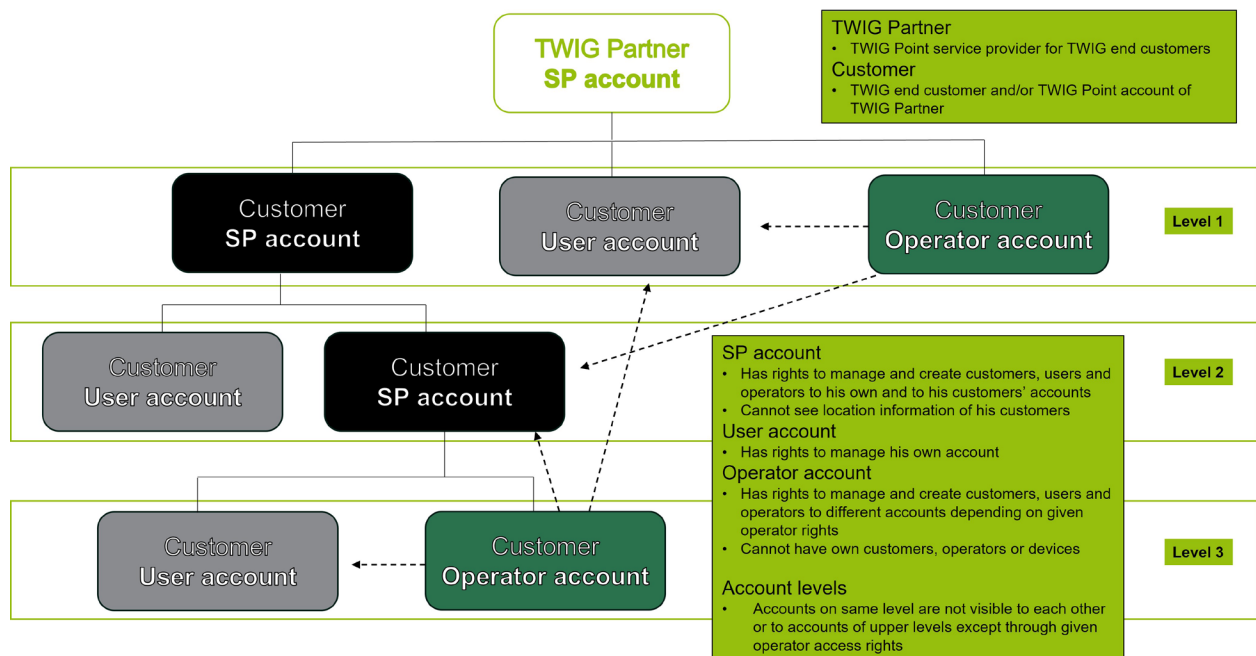
Account creation

TWIG Partner SP accounts are created from request by TWIG support (support@twigcom.com). For customer and user account creation, please contact your TWIG service provider.

An automatic mail is sent to email of new account. This account email includes a link for account registration. The registration link remains valid for 7 days and must be renewed if registration is attempted after its expiration. A new registration link can be requested by adding your account email to https://twigpoint.com/users/confirmation/new.

Account types and access rights

TWIG Point accounts are available at the service provider, user or operator accounts. Account types can have different access rights.

Service provider account

- Has rights to manage and create customers, users and operators to his own and to his customers' accounts

- Cannot see location information of his customers.

User account

- Has rights to manage his own account.

Operator account

- Has rights to manage and create customers, users and operators to different accounts depending on given operator rights.

- Cannot have own customers, operators or devices.

- Operator access rights: Monitor, Device Manager, Site, Remote Configurator, Invoice, Full, Monitor Live (only for live situation, no history or tracking).

Account visibility

Accounts on same level are not visible to each other or to accounts of upper levels except through given operator access rights.

Account overview

The front page of your account is divided in sections. The upper section displays links to services and functions. The middle section displays your account information. As service provider you can view your customer's account information by selecting your customer. You can for example check your customer's subscription and amount of used service units.

Through Accesses you can give your operators accesses to manage services in your customer account.

Adding customers

With service provider account you can add customers to your service provider account. Click Customers > Add customer > Add email address of your customer > Add Company > Click Add

Invoicing

TWIG Point services are invoiced according to the services used. The invoice ID lists the monthly services used by you and your customers. You can download the monthly service use in excel and csv formats.

SMS credits

The displayed negative amount of SMS credits is the amount of SMS to be invoiced.

How to login?

Activate your TWIG Point SP account by following the instructions sent to your account e-mail. Log in to your TWIG Point account with your account email and password you created in the registration process. We recommend using TWIG Point with recent updates of Google Chrome and Firefox.

Preparing your device

- Prepare your TWIG device by switching off the PIN query of your SIM card (e.g. by placing it in a mobile phone).

- Insert your SIM card into your TWIG device. Switch on the device and wait until the GSM/3G symbol is displayed.

- Ensure your SIM Card is Data SIM enabling the GPRS connection to TWIG Point.

- The very first GPRS communication between your device and TWIG Point is opened with SMS messages (2-3 messages/ device).

- Ensure your SIM card's mobile phone subscription allows sending of SMS messages to a UK phone number used by TWIG Point.

Adding new device

- Click the link Add device to fill in the information.

- Give your device a name.

- Add your device phone number.

- Add MPTP ID and IMEI numbers of your device.

- Select your device type from the list (Neo, One, Easy…).

- Select your GPRS operator from the list or add your own GPRS operator by selecting Custom - Enter custom GPRS settings and fill in the requested information.

- Click Add.

Your device will reboot in few minutes and open the GPRS connection to TWIG Point. A lightning symbol is displayed on

My devices page, when connection has been created succesfully.

Note! If you want to add a device that has already been in GPRS connection with another system, follow the instructions related to Adding an already connected device.

- A phone number is needed for SMS communication and for opening of the GPRS connection between your device and TWIG Point.

- MPTP ID will be created automatically, if your device has not been used in another system earlier.

- IMEI code will be read automatically from your device.

- If you are adding TWIG Bracer, please refer to TWIG Bracer Getting Started Guide.

- If you cannot find your operator from the list, ask TWIG Support (support@twigcom.com) to add it to the list of operators.

- Do not tick International Roaming Block when using Multi-roaming SIM or when you need to use device abroad. If International Roaming Block is ticked, GPRS connection is disabled when roaming outside home network.

- Click Edit if you want to change device identification information later.

Adding an already connected device

Note! If your device has already been in GPRS connection with another system, follow the instructions here below. If you wish to connect your device to TWIG Point by using SMS messages, refer to the instructions in chapter Adding new device.

- Click the link Add device to fill in the information.

- Give your device a name.

- Add your device phone number (it is not necessary if you add the MPTP code instead).

- Add your device MPTP ID. Attention! MPTP ID must be the same as it was in the system where your device was connected earlier.

- Add the IMEI code printed on the type label of your device.

- Click Add.

- If your device has been in GPRS connection with another system, you don't need to select the device type and the GPRS operator.

Managing devices

By clicking My devices you get a real-time device status of all devices in your account at one glance. You can manage each device by clicking the links or symbols related to your device.

- Click your device name to check your device status (activity, battery status, selected services, MPTP ID, IMEI or online connection).

- Click the Owner to get the list of devices related to one owner.

- The subscription column displays your subscription.

- Check your device's IMEI by moving your mouse on the device image.

- Check your device FW version by moving your mouse on the green HW symbol.

Access your device settings by clicking the cog symbol.

Green cog symbol visualizes actual settings uploaded in device.

Yellow cog symbolizes settings modified in TWIG Point but not yet written into device.

Red cog means settings differ from those in TWIG Point and have been edited elsewhere.

- Blinking online lightning symbol is displayed when device is online. By moving your mouse on the online symbol, the time left for next connection is displayed.

Device configuration

All devices added to the system can be configured remotely. Remote configuration is possible when your device is turned on and has GPRS connection to TWIG Point.

Device settings are configured with TWIG Point Remote Configurator. You can access remote configurator e.g. by clicking the green cog on your device list. Detailed information concerning device configuration is available in TWIG Configuration Guide.

Your changed device settings are displayed with yellow background color until settings are written to device. The By clicking the green triangle, you select the setting in your device differing from the setting you have selected in TWIG Point.

Settings are saved to device by clicking Write to device. To write the changes faster to the device, reboot your device manually or select Open GPRS Connection. After settings have been written to device successfully, click Reboot device or reboot device manually to activate the changed settings. Ensure your device is turned on when you configure it remotely!

Alarms monitoring

To be able to monitor alarms, change the Server URL to gprs.twigpoint.com. Configure the device settings in TWIG Point Remote Configurator.

- Click Connections > IP Servers > IP Servers Default > Server URL > Edit > change URL to gprs.twigpoint.com > Write to Device > Reboot device.

Only selected devices are visible on map.

Select the device you want to monitor by ticking the box on the left. Your device's location information is displayed below its name.

Select the action to do by clicking the function button:

- Locate (View the latest location of your device)

- View events (Select the events and set the timeline)

- Configure (Configure device settings remotely)

- Upload alert procedure (Upload your file for wanted alert procedure details)

- Track (Set tracking rules for device tracking)

- Manage OSM (Create preprogrammed on screen messages and rules for their sending to device)

- View map locations (View locations on map)

- Call (Make VoIP calls)

Building a new site

- Build your own site by clicking My Sites > Add site.

- Select the owner of your site. If you want to get the hybrid location on your site, select Enabled.

- Give your site a name and write a description if needed.

- Add your site or floor plan in common image format (e.g. png or jpeg) by clicking Add map.

- Tick In use if you allow the use of your site beacons.

- By zooming Max/Min you can limit the display size of your site map.

- Generally access rights to your site are based on your TWIG Point account rights.You can give more access rights to your site by clicking Accesses.

- WiFi MAC/ID need to be given in capital letters separed with colon (:).

- Add as many sites as you have floors on your site. Add new floor as subsite and your floor image to every subsite.

Geocoding of beacons

Geocode your beacons to every floor by clicking Add Beacon on your site.

- If you want your beacon to be used for the hybrid location, select Enabled.

- Name your beacon.

- WiFi MAC/ID need to be given in capital letters separed with colon (:).

- Select the wanted range of your beacon signal.

- Select your beacon type.

- Drag your beacon to wanted place on the map.

- Note! Sites including maps or beacons cannot be deleted. Clear your site of beacons and maps and then delete it.

Wireless update of device firmware

You can update your device firmware remotely. A new firmware update is displayed with yellow colour on your device list or with red Upgrade Firmware button on your device page.

Firmware upgrade starts by clicking the button Upgrade Firmware.

How to locate devices?

TWIG device can be located by

1.   Clicking My Monitor > Locate

2.   Launching SOS cycle including hybrid location configured in SOS event or

3.   Tracking device by My Monitor > Track > Add new tracking > Continuous hybrid tracking > Add

All three locating options using hybrid location in TWIG Point Monitor are described in the following chapters.

What is hybrid location?

The hybrid location for indoor and outdoor positioning of TWIG device is available for All inclusive and Utility subscriptions. Hybrid location is using the available location options depending on your device's compatibility: GNSS satellite positioning, cellular network or on-site SRD, Wi-Fi and BLE beacons.

The hybrid location provided is universal: the most accurate location method is automatically used. Devices can be located by using available public signals or custom on-site signals. Hybrid location using public signals is based on signals from GNSS satellites, cellular network and available Wi-Fi base stations. Hybrid location using also signals from on-site Wi-Fi, Bluetooth or SRD beacons improves location options on the site area.
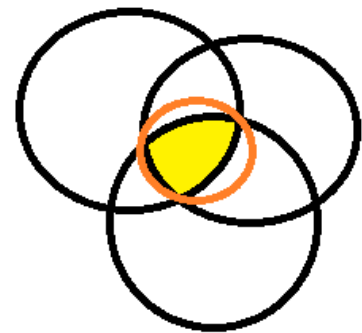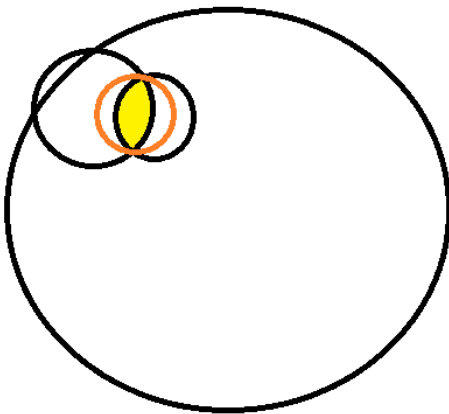
Indoor location

To ensure the most accurate indoor positioning of the TWIG personal alarm device, including floor-level indication, on-site beacons can be installed to enhance public signals. Already existing Wi-Fi base stations can be used, as well as any combination of new Wi-Fi base stations, BLE beacons, and TWIG SRD beacons.

How does it work?

Communication between TWIG device and the ARC is possible with TWIG MPTP using GPRS/IP and SMS. To get the hybrid location, the TWIG device first waits for the location report from TWIG Point hybrid location service before sending the MPTP command to central station.

The hybrid location accuracy depends on the set transmission range of heard beacons, the location of the personal alarm device in the moment of position measurement and amount of signals received from several nearby beacons. The hybrid location accuracy is the operation radius of set beacon range. When several beacons are heard, the device location is about inside the orange circle.

GNSS

SRD +Wi-Fi + BLE

TWIG Point

2G/3G

2

3

Measurements

Measurement reports

4

Hybrid location

Hybrid location request

Hybrid location

1

5

ARC / operator

Configure alerts including hybrid location?

Getting hybrid location requires configuration of some device settings. When device is connected to TWIG Point, the information for IP server and device ID are automatically added to device settings.

TWIG personal alarm device using beacons need to be configured for hybrid location by enabling the scanning of SRD and BLE beacons and Wi-Fi base stations.

TWIG Beacon SRD scanning is configured by following settings Short Range Devices (SRD) > TWIG Beacon > TWIG Beacon Location enabled > Edit > On.

BLE beacon scanning is configured by following settings Wi-Fi and BLE locations > BLE beacon scan enabled > Edit > On.

Wi-Fi beacon scanning is configured by following settings Wi-Fi and BLE locations > Wi-Fi beacon scan enabled > Edit > On.

To activate hybrid location in your device settings, select the SOS Event type MPTP Universal location.

Tracking

- To create rules for area tracking, click Track in your monitor.

- Click Add new tracking

- Select the wanted tracking type: Continuous hybrid tracking, Time specific tracking, Geofence or Realtime tracking.

- Set Interval time for your tracking and click Add.

- Define prohibited areas, working zones etc.

- View tracking information on event report and export.

Geofence

With geofence function you can create virtual borders to your site and get alerts when your geofence tracking rules are met.

- Start creating a new Geofence by clicking My settings > Geofences > Create new.

- Zoom the map to select your site or place where you want to create your geofencing area.

- Give your polygon a name

- Click the Draw a polygon image on map to start to create your own polygon.

- Click the place on map where you want to draw the borders of your geofencing.

- Give your polygon a name and click Add.

Geofences use in tracking

- To create rules for area tracking, click Track in your monitor.

- Click Add new tracking

- Select Geofence as tracking type.

- Set Interval time for your tracking.

- Select the polygon to use for your geofencing.

- Select action you want to follow.

MPTP communication via Wi-Fi

- For MPTP communication over Wi-Fi you need to configure GPRS to SOS event phone number and assistance SMS phone number fields. Note! Device has to be connected to Wi-Fi network first. See instructions described below. If message transfer over Wi-Fi is not succesful, messages are sent via cellular network instead Wi-Fi.

TWIG Point as Alarm receiving centre (ARC)

- SOS event phone number = GPRS

- Assistance SMS phone number = GPRS

- Select Connections > Wi-Fi > WiFi mode = ON.

- As network selection, Add SSID, Passphrase and Authentication type manually for all Wi-Fi networks you use for Wi-Fi communication.

- Click IP Servers to configure ID and default server settings.

- Write settings to device and reboot your device to update settings to device.

- Your device is now ready for Wi-Fi communication.

VoIP calls (calls over Wi-Fi)

To be able to make Voice over IP calls via Wi-Fi network you need a VoIP account from a VoIP provider for softphone or a client program. Use your selected client program to register your TWIG device and VoIP account to SIP server. We recommend and support MicroSIP for VoIP calls with TWIG devices but you may use any other available softphone.

With TWIG Point All inclusive subscription you get SIP server, VoIP numbers, passwords, names and SIP server name for your VoIP account registration. This paragraph explains how to use TWIG Point SIP server for VoIP calls with MicroSIP softphone.

When signed in to your TWIG Point account, go to My settings and select VoIP Settings. In VoIP Settings you can find your VoIP account number, password, display name and SIP server. You have also 5 additional VoIP numbers available for devices.

Event management

In your monitor, select your device by ticking the box and click View events.

- Select wanted events by clicking the displayed events.

- Set the timeline of your events.

- Confirm your selection by clicking Apply.

Export your events by clicking Export.

API use

For TWIG Point use from your own system please refer to TWIG Point JSON API getting started guide YZ9620.