



## CT2 with integrated VoIP softphone

Curatech has more than 30 years expertise in design, production of personal alarm systems and wireless applications.

The latest release (available Q2 2022) supports a softphone integration to make VoIP calls through a SIP-account.

## Speak/listen calls over VoIP.

### SIP account:

To use VoIP to make speak/listen calls over IP, the user needs a SIP-account. This SIP-account can be an account on any PBX which is compatible with standard SIP (RFC 3261).

This SIP account needs to be configured in the CT2. The CT2 takes care of registering through a so called CT2 VoIP Gateway.

The SIP registration can be persistent (always registered) or only be active during an alarm. This can be configured in the CT2.

### CT2 VoIP gateway:

The CT2 VoIP gateway is the SIP/VoIP extension which takes care of the SIP registration. The CT2 will provide all parameters to setup the SIP registration and keep the registration alive as long as the CT2 needs the connection. The CT2 can be configured with 3 CT2 VoIP Gateways. The CT2 will try to connect on any available gateway configured.

The VoIP gateway needs no configuration concerning SIP registrations, all parameters and settings will be provided by the CT2. Curatech has a gateway available in the cloud. When the CT2 VoIP Gateway is installed local, then a fixed IP address can be configured.

### VoIP calls:

When a VoIP call is setup, the actual Voice call will NOT go through the CT2 VoIP gateway, but will go directly from CT2 to the caller (or PBX).

### Keep-alive:

In case a CT2 is behind a router or firewall, a keep-alive interval can be set to keep the outgoing UDP port opened for incoming calls.

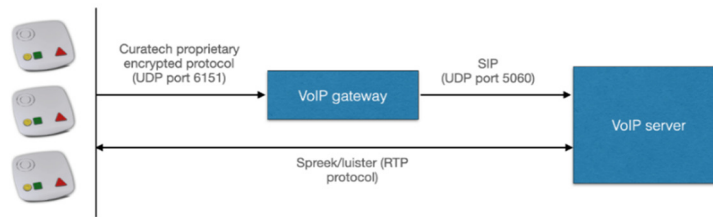
### CT2 Specifications SIP/VoIP intergration

- Gateway parameters:
  - Max configurable gateways: 3;
  - Address (URL or IP);
  - Gateway (cloud): *gw2.curatech.nl*;
  - Port number to gateway: fixed on 6151;
  - Port type: UDP;
- Configurable SIP parameters:
  - Display name;
  - User (extension) name;
  - Authentication name;
  - Authentication password;
- Configurable PBX parameters:
  - IP address (URL or IP);
  - Port number;
  - Registration timeout;
  - Keep-alive interval;
- Voice CODEC: G711U (PCMU);
- Proprietary encrypted protocol between CT2 and CT2 VoIP Gateway.

### CT2 VoIP Gateway specifications

- SIP stack Libre release 0.6.1 by Creytiv (RFC 3261) under BSD license;
- SIP commands supported:
  - ACK, BYE, INVITE, REGISTER;
- Fixed keep-alive to registered PBX;
- WEB interface (<http://80>/<https://443>) for:
  - Configure IP address (**Raspberry PI ONLY**);
  - Install update releases;
  - Monitoring SIP registrations;
- Available for:
  - Raspberry PI 3 & 4;
  - Debian 11 / Ubuntu 22 Linux distribution.

## Schematic overview



## Configuration page CT2

This configuration page is available through the CT2 Client Tool.



The screenshot shows the configuration page for the CT2 VoIP Gateway. It is divided into two main sections: "VoIP gateways" and "SIP settings".

**VoIP gateways:**

- VoIP gateway 1: first.gateway.com
- VoIP gateway 2: second.gateway.com
- VoIP gateway 3: gw2.curatech.nl

**SIP settings:**

- Display name: Someone
- Authentication name: SecretName
- User (extension) name: 12345678
- Authentication password: SecretPassword
- PBX IP address: my.pbx.com
- PBX IP portnumber: 5060
- Registration timeout: 300 seconds
- Keep-alive interval: 20 seconds

## Raspberry PI installation

The CT2 VoIP Gateway is available through a pre compiled PI image which can be installed with the Raspberry PI Imager tool. After installation, the CT2 VoIP Gateway will start automatically. Default username is "admin", default password is "voipgateway".



## Debian / Ubuntu package installation

The CT2 VoIP Gateway package can be installed with the Debian package manager "dpkg":

```
sudo dpkg -i voipgateway_amd64_v1.x.x.dep
```

After installation, the CT2 VoIP Gateway will start automatically and will be monitored by "systemd".

The VoIP gateway website is accessible through port 80/443.

Default username is "admin", default password is "voipgateway".