Application Note
SLcodecs - revC

SENSING ◎ LABS
Remote sensor-to-Human ● ● ●

Introduction

In the current IoT ecosystem, to exploit a device, each system integrator, IoT platform or application developer will have to develop a specific codec for each version of device to be able to decode & encode data. Main constraints are:

- Device specification must be shelled to integrate device features into the data management system
- Long term maintenance must be operated to integrate new versions & features of device.

To avoid this recurrent development, Sensing Labs offers a unique and simple method for decoding uplink and encoding downlink messages by providing SLcodecs libraries that can be integrated into your system:

- SLCodecs is a 'state-less', which means it is a ping-pong process and no data is stored by the services. To a unique input, the system will give the same answer.
- SLcodecs are developped into node.js and can be integrated directly by calling node method, by calling an light http rest server, are a more integrated docker server.
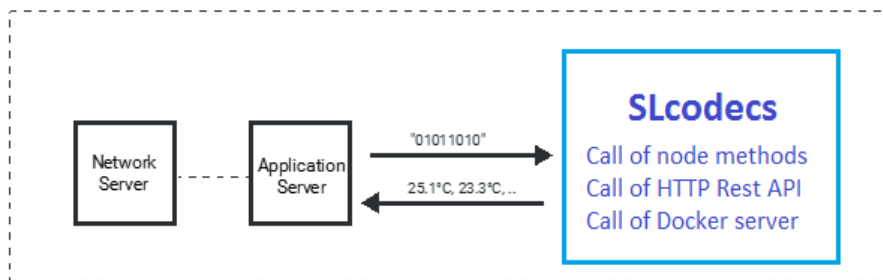
API Description

Method	Description
SenlabX descriptor	Return the description of Senlab'X' device type
decodeMessage(payload, port, timestamp)	Decode and return all data included into the message (parameters, measures, events with value & timestamp)
encodeRequest(id, parameter list)	Returns the encoded request (payload + port) matching the input parameters

SLCodecs HTTP API is accessible using the base URL http://{yourServerIP:port}/{deviceType}/

- {yourServerIP:port}: URL of the server where the SLcodecs has been deployed (default port is 8080)
- {deviceType}: Senlab's firmware type (SenlabM, SenlabT, SenlabH...)
    - The device "SenlabX" type is indicated onto the label of your device before the part Number

Please refers to http://sensing-labs.com/apis/slcodecs online API description for format details

➢ Exchanged data are in **json** format
➢ A demonstration SLcodec HTTP Rest instance is available here: http://codec.slbase.io

If you want to deploy SLcodecs libraries onto your own servers, please send an email to support@sensing-labs.com