Class Diagram0 2022/03/03

pkg

payloads appserver

down_command_payload

- confirmed : boolean
- f_port : bit - data : byte
- + JoinEventPayload.to_json() : void

PingPayload

- gateway_id : stringping_id : string
- + PingPayload.to_json(): void

JoinEventPayload

- application_id : stringdevice_name : string
- dev_eui : long
- devAddr : byte
- rx_info : byte
- tx_info : byte
- dr : byte - published_at : timestamp
- + JoinEventPayload.to_json() : void

packets_per_modulation

- modulation : int
- count : int
- + PacketsPerModulation.to_json(): void

packets_per_status

- OK : int
- + PacketsPerStatus.to_json() : void

- frequency : long modulation : string
- loRaModulationInfo : string
- power : int board : int
- antenna : int
- timing : stringdelayTimingInfo : int
- context : string
- + TxInfo.to_json() : void

packets_per_frequency

+ PacketsPerFrequency.to_json(): void

rx_info

- gateway_id : string time : timestamp
- time_since_gps_epoch : timestamp- rssi : int
- loRaSNR : int
- channel : int
- rfChain : int
- board : int
- antenna : int
- location: location - fineTimestampType : timestamp
- context : string uplinkID : string - crcStatus : string
- + RxInfo.to_json() : void

lora_modulation

- bandwidth : int
- spreading_factor : int code_rate : string
- polarizationInversion: boolean
- + LoraModulation.to_json() : void

payloads edgenode

conn_payload

- gateway_id : string
- + EchoPayload.to_json() : void

tx_ack_item_payload

- + TxAckItemPayload.to_json() : void

tx_ack_payload

- gateway_id : string
- token : string items : [] item
- downlink_id : string
- + TxAckPayload.to_json() : void

up_payload

- phyPayload : phy_payload
- tx_info : tx_info - rx info : rx info
- + UpPayload.to_json() : void

down_payload

- gateway_id : string
- state : string
- + ConPayload.to_json() : voi

echo_payload

- ping_id : string

- tx_info : tx_info

phy_payload : phy_payload

+ DownPayload.to json(): void

DownItem

+ DownItem.to_json() : void

- phyPayload : phy_payload

- txInfo : tx_info - token : string - downlink_id : string

- items : [] downItem gateway_id : string

+ DownItem.to_json() : void

stats_payload

- id_gateway : stringip : long
- time : timestamp - configVersion : int
- rxPacketsReceived : int
- rxPacketsReceivedOK : int
- txPacketsReceived : int - txPacketsEmitted : int
- statsID : string
- location : location
- + Metadata.to_json(): void + StatsPayload.to_json() : void

Metadata

- metadata : Metadata + Metadata.to_json() : void
- mac_layer

JoinAccpetMacPayload

- app_nonce : string
- net_ID : string - dev_addr : long
- DL_settings : string
- rx_delay : rx_infoCF_list : string
- nwk_SKey : string
- app_SKey : string
- + JoinAccpetMacPayload.to_json(): void

PhyPayload

+ PhyPayload.to_json(): void MavPayload

- fhdr : FHDR
- fPort : byte
- frmPayload : bytesjoinEUI : long
- devEUI : long
- devNonce : int
- bytes : int
- + MacPayload.to_json() : void

MacCommandPayload

- battery : int margin : int
- chIndex : int
- freq : int maxDR : int - minDR : int
- + MacCommandPayload.to_json() : void

MacCommandItem

- cid : int
- payload : phy_payload
- + MacCommandItemto_json(): void

FCTRL

- adrAckReq : byte
- ack : byte
- classB : byte
- fPending : byte fOptsLen : byte
- + FCTRL.to_json(): void + FCTRL.get_string() : void

+ FCTRL.get_byte() : void

- + Frame.to_json() : void

MHDR

- mType : byte
 major : string

+ MHDR.to_json() : void **FHDR**

- devAddr : byte
- fCtrl : byte
- fCnt : byte fOpts : byte
- + FHDR.to_json(): void

- WatchdogData
- humidity : int - temperature : int - battery : int
- + WatchdogData.to_json() : void + encode_datavoid(): void

DownlinkConfigurationPayload

- timetoreceive : int
- + DownlinkConfPayload.to_json(): void