

\*\*\* Multi Protocol Packet Forwarder for Lora Gateway \*\*\*

Version: 3.0.0

\*\*\* Lora concentrator HAL library version info \*\*\*

Version: 5.0.1; Options: ftdi;

\*\*\*

INFO: Little endian host

INFO: found global configuration file /var/config/lora/global\_conf.json, parsing it

INFO: /var/config/lora/global\_conf.json does contain a JSON object named SX1301\_conf, parsing SX1301 parameters

INFO: lorawan\_public 1, clksrc 0

INFO: no configuration for LBT

INFO: antenna\_gain 0 dBi

INFO: Configuring TX LUT with 16 indexes

INFO: radio 0 enabled (type SX1257), center frequency 867500000, RSSI offset -166.000000, tx enabled 1

INFO: radio 1 enabled (type SX1257), center frequency 868500000, RSSI offset -166.000000, tx enabled 0

INFO: Lora multi-SF channel 0> radio 1, IF -400000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 1> radio 1, IF -200000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 2> radio 1, IF 0 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 3> radio 0, IF -400000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 4> radio 0, IF -200000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 5> radio 0, IF 0 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 6> radio 0, IF 200000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora multi-SF channel 7> radio 0, IF 400000 Hz, 125 kHz bw, SF 7 to 12

INFO: Lora std channel> radio 1, IF -200000 Hz, 250000 Hz bw, SF 7

INFO: FSK channel> radio 1, IF 300000 Hz, 125000 Hz bw, 50000 bps datarate

INFO: /var/config/lora/global\_conf.json does contain a JSON object named gateway\_conf, parsing gateway parameters

INFO: Found 1 servers in array.

INFO: Server 0 configured to "router.eu.thethings.network"

INFO: downstream keep-alive interval is configured to 10 seconds

INFO: statistics display interval is configured to 30 seconds

INFO: upstream PUSH\_DATA time-out is configured to 100 ms

INFO: packets received with a valid CRC will be forwarded

INFO: packets received with a CRC error will NOT be forwarded

INFO: packets received with no CRC will NOT be forwarded

INFO: GPS is disabled

INFO: Upstream data is enabled

INFO: Downstream data is enabled

INFO: Ghoststream data is disabled

INFO: Radiostream data is enabled

INFO: Statusstream data is enabled

INFO: Beacon is disabled

INFO: Monitor is disabled

INFO: Packet logger is disabled

INFO: Flush output after statistic is disabled

INFO: Flush after each line of output is disabled

INFO: Platform configured to "MultiTech"

INFO: found local configuration file /var/config/lora/local\_conf.json, parsing it

INFO: redefined parameters will overwrite global parameters

INFO: /var/config/lora/local\_conf.json does not contain a JSON object named SX1301\_conf

INFO: /var/config/lora/local\_conf.json does contain a JSON object named gateway\_conf, parsing gateway parameters

INFO: gateway MAC address is configured to 008000000000C4F5

INFO: Found 1 servers in array.

INFO: Server 0 configured to "bridge.eu.thethings.network"

INFO: packets received with a valid CRC will be forwarded

INFO: packets received with a CRC error will NOT be forwarded

INFO: packets received with no CRC will NOT be forwarded

INFO: GPS is disabled

INFO: Upstream data is enabled

INFO: Downstream data is enabled

INFO: Ghoststream data is disabled

INFO: Radiostream data is enabled

INFO: Statusstream data is enabled

INFO: Beacon is disabled

INFO: Monitor is disabled

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INFO: Packet logger is disabled
INFO: Flush output after statistic is disabled
INFO: Flush after each line of output is enabled
INFO: Contact email configured to "matthias.krebs@fhnw.ch"
INFO: Description configured to "FHNW Campus Windisch 5/6-1"
INFO: [Transports] Initializing protocol for 1 servers
INFO: [TTN] server "bridge.eu.thethings.network" connected
INFO: [main] Starting the concentrator
INFO: [main] concentrator started, radio packets can now be received.
INFO: JIT thread activated.
INFO: [up] Thread activated for all servers.

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:713062Âµs) - drift=-553482394Âµs
INFO: Enabling GPS mode for concentrator's counter.

INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 12 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 12 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)

##### 2017-05-17 10:37:45 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 2
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 2 (42 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 2 (0 bytes)
# TX errors: 0
# TX rejected (collision packet): 0.00% (req:2, rej:0)
# TX rejected (collision beacon): 0.00% (req:2, rej:0)
# TX rejected (too late): 0.00% (req:2, rej:0)
# TX rejected (too early): 0.00% (req:2, rej:0)
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 12 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 14 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:712189Âµs) - drift=-873Âµs
INFO: Enabling GPS mode for concentrator's counter.
```

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##### 2017-05-17 10:38:15 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 2
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# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 2 (37 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 2 (0 bytes)
# TX errors: 0
# TX rejected (collision packet): 0.00% (req:2, rej:0)
# TX rejected (collision beacon): 0.00% (req:2, rej:0)
# TX rejected (too late): 0.00% (req:2, rej:0)
# TX rejected (too early): 0.00% (req:2, rej:0)
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

##### 2017-05-17 10:38:45 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:711316Âµs) - drift=-873Âµs
INFO: Enabling GPS mode for concentrator's counter.

##### 2017-05-17 10:39:15 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
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# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 12 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)
```

```
##### 2017-05-17 10:39:45 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 1 (0 bytes)
# TX errors: 0
# TX rejected (collision packet): 0.00% (req:1, rej:0)
# TX rejected (collision beacon): 0.00% (req:1, rej:0)
# TX rejected (too late): 0.00% (req:1, rej:0)
# TX rejected (too early): 0.00% (req:1, rej:0)
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:710443Âµs) - drift=-873Âµs
INFO: Enabling GPS mode for concentrator's counter.
```

```
##### 2017-05-17 10:40:15 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
```

```
##### 2017-05-17 10:40:46 GMT #####
```

```
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 0.00%, CRC_FAIL: 100.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:709566µs) - drift=-877µs
INFO: Enabling GPS mode for concentrator's counter.
```

```
##### 2017-05-17 10:41:16 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
```

```
##### 2017-05-17 10:41:46 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
```

```
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:708691Âµs) - drift=-875Âµs
INFO: Enabling GPS mode for concentrator's counter.

##### 2017-05-17 10:42:16 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"

##### 2017-05-17 10:42:46 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:707811Âµs) - drift=-880Âµs
INFO: Enabling GPS mode for concentrator's counter.

##### 2017-05-17 10:43:16 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
```

```
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
```

```
##### 2017-05-17 10:43:46 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
```

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INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sxl301 time offset=(1495017432s:706916Âµs) - drift=-895Âµs
INFO: Enabling GPS mode for concentrator's counter.
```

```
##### 2017-05-17 10:44:16 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 0
# CRC_OK: 0.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
```

INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"

##### 2017-05-17 10:44:46 GMT #####

### [UPSTREAM] ###

# RF packets received by concentrator: 1  
# CRC\_OK: 100.00%, CRC\_FAIL: 0.00%, NO\_CRC: 0.00%  
# RF packets forwarded: 1 (21 bytes)  
# PUSH\_DATA datagrams sent: 0 (0 bytes)  
# PUSH\_DATA acknowledged: 0.00%

### [DOWNSTREAM] ###

# PULL\_DATA sent: 0 (0.00% acknowledged)  
# PULL\_RESP(onse) datagrams received: 0 (0 bytes)  
# RF packets sent to concentrator: 0 (0 bytes)  
# TX errors: 0

### BEACON IS DISABLED!

### [JIT] ###

# INFO: JIT queue contains 0 packets.  
# INFO: JIT queue contains 0 beacons.

### GPS IS DISABLED!

### [PERFORMANCE] ###

# Upstream radio packet quality: 100.00%.  
# Semtech status report send.

##### END #####

INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...

INFO: host/sx1301 time offset=(1495017432s:706041 $\mu$ s) - drift=-875 $\mu$ s

INFO: Enabling GPS mode for concentrator's counter.

##### 2017-05-17 10:45:16 GMT #####

### [UPSTREAM] ###

# RF packets received by concentrator: 1  
# CRC\_OK: 0.00%, CRC\_FAIL: 100.00%, NO\_CRC: 0.00%  
# RF packets forwarded: 0 (0 bytes)  
# PUSH\_DATA datagrams sent: 0 (0 bytes)  
# PUSH\_DATA acknowledged: 0.00%

### [DOWNSTREAM] ###

# PULL\_DATA sent: 0 (0.00% acknowledged)  
# PULL\_RESP(onse) datagrams received: 0 (0 bytes)  
# RF packets sent to concentrator: 0 (0 bytes)  
# TX errors: 0

### BEACON IS DISABLED!

### [JIT] ###

# INFO: JIT queue contains 0 packets.  
# INFO: JIT queue contains 0 beacons.

### GPS IS DISABLED!

### [PERFORMANCE] ###

# Upstream radio packet quality: 0.00%.  
# Semtech status report send.

##### END #####

INFO: [status] TTN send status success

##### 2017-05-17 10:45:46 GMT #####

### [UPSTREAM] ###

# RF packets received by concentrator: 0  
# CRC\_OK: 0.00%, CRC\_FAIL: 0.00%, NO\_CRC: 0.00%  
# RF packets forwarded: 0 (0 bytes)  
# PUSH\_DATA datagrams sent: 0 (0 bytes)  
# PUSH\_DATA acknowledged: 0.00%

### [DOWNSTREAM] ###

# PULL\_DATA sent: 0 (0.00% acknowledged)  
# PULL\_RESP(onse) datagrams received: 0 (0 bytes)  
# RF packets sent to concentrator: 0 (0 bytes)  
# TX errors: 0

### BEACON IS DISABLED!

### [JIT] ###

# INFO: JIT queue contains 0 packets.



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# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:705181Âµs) - drift=-860Âµs
INFO: Enabling GPS mode for concentrator's counter.

##### 2017-05-17 10:46:16 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 0.00%, CRC_FAIL: 100.00%, NO_CRC: 0.00%
# RF packets forwarded: 0 (0 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 0.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"

##### 2017-05-17 10:46:46 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 12 bytes
INFO: tx_start_delay=1495 (1495.500000) - (1497, bw_delay=1.500000, notch_delay=0.000000)

INFO: Disabling GPS mode for concentrator's counter...
INFO: host/sx1301 time offset=(1495017432s:704306Âµs) - drift=-875Âµs
INFO: Enabling GPS mode for concentrator's counter.
```

```
##### 2017-05-17 10:47:17 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 2
# CRC_OK: 50.00%, CRC_FAIL: 50.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (21 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 1 (0 bytes)
# TX errors: 0
# TX rejected (collision packet): 0.00% (req:1, rej:0)
# TX rejected (collision beacon): 0.00% (req:1, rej:0)
# TX rejected (too late): 0.00% (req:1, rej:0)
# TX rejected (too early): 0.00% (req:1, rej:0)
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 50.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success
INFO: [up] TTN lora packet send to server "bridge.eu.thethings.network"
INFO: [down] TTN received downlink with payload
INFO: [TTN] downlink 33 bytes

##### 2017-05-17 10:47:47 GMT #####
### [UPSTREAM] ###
# RF packets received by concentrator: 1
# CRC_OK: 100.00%, CRC_FAIL: 0.00%, NO_CRC: 0.00%
# RF packets forwarded: 1 (23 bytes)
# PUSH_DATA datagrams sent: 0 (0 bytes)
# PUSH_DATA acknowledged: 0.00%
### [DOWNSTREAM] ###
# PULL_DATA sent: 0 (0.00% acknowledged)
# PULL_RESP(onse) datagrams received: 0 (0 bytes)
# RF packets sent to concentrator: 0 (0 bytes)
# TX errors: 0
# TX rejected (collision packet): 0.00% (req:1, rej:0)
# TX rejected (collision beacon): 0.00% (req:1, rej:0)
# TX rejected (too late): 0.00% (req:1, rej:0)
# TX rejected (too early): 0.00% (req:1, rej:0)
### BEACON IS DISABLED!
### [JIT] ###
# INFO: JIT queue contains 0 packets.
# INFO: JIT queue contains 0 beacons.
### GPS IS DISABLED!
### [PERFORMANCE] ###
# Upstream radio packet quality: 100.00%.
# Semtech status report send.
##### END #####
INFO: [status] TTN send status success

INFO: Disabling GPS mode for concentrator's counter...
```