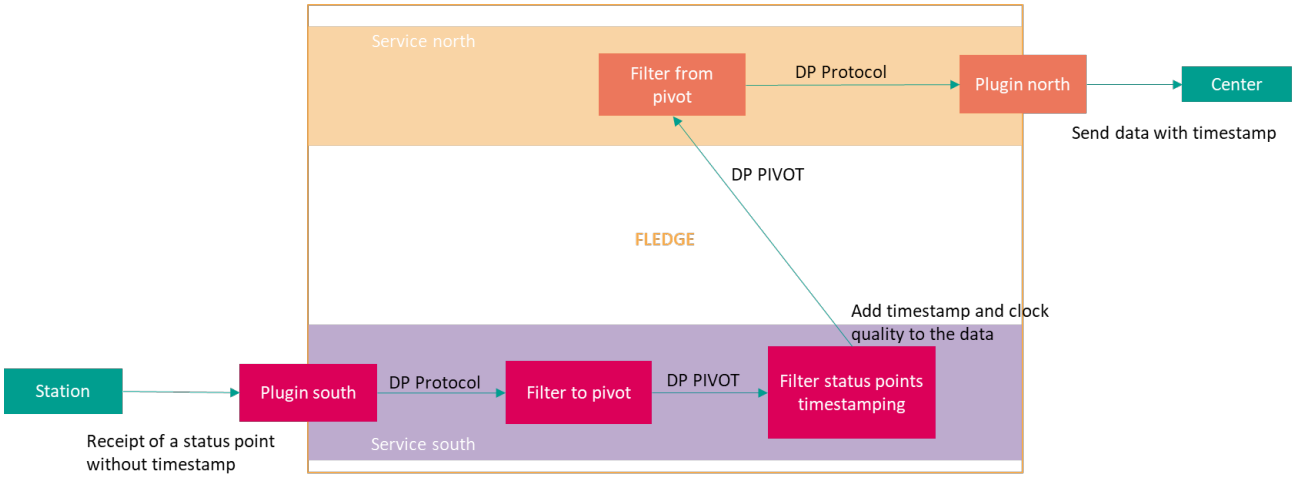
Status points timestamping

Module description

The timestamping of status point is always done at the source, by the station. If a status point does not have a timestamp, it is automatically timestamped in the gateway.

Status points received following a general interrogation have no timestamp.

In the case of a status point without timestamp, it is the gateway that will timestamp the status point.



Configuration

The module requires no configuration.

Processing is conditioned by the presence of *PIVOT.GTIS.SpsTyp* or *PIVOT.GTIS.DpsTyp* in incoming data.

Filtering rules

R1 : Add a timestamp to status point received with a null timestamp (dictionary **t** missing or **t.*SecondSinceEpoch*** *missing or* **t.*SecondSinceEpoch*** *is 0)*.

R2 : Add a timestamp to status point received following a general interrogation.

Data processing

This filter plugin expects readings to be a pivot model status points datapoints.

Input

The data read from the pivot format is :

- For single status point data type :
  - *PIVOT.GTIS.SpsTyp.t.SecondSinceEpoch*
- For double status point data type :
  - *PIVOT.GTIS.DpsTyp.t.SecondSinceEpoch*

Output

The data written in pivot format is :

- For single status point data type :
  - *PIVOT.GTIS.SpsTyp.t.SecondSinceEpoch* is set to current gateway timestamp
  - *PIVOT.GTIS.SpsTyp.t.FractionOfSecond* is set the fraction of the current gateway second
  - *PIVOT.GTIS.TmOrg.stVal* is set to "substituted"
  - *PIVOT.GTIS.TmValidity.stVal* is set to "valid"
- For double status point data type :

    - *PIVOT.GTIS.DpsTyp.t.SecondSinceEpoch* is set to current gateway timestamp
    - *PIVOT.GTIS.DpsTyp.t.FractionOfSecond* is set the fraction of the current gateway second
    - *PIVOT.GTIS.TmOrg.stVal* is set to "substituted"
    - *PIVOT.GTIS.TmValidity.stVal* is set to "valid"

If the timestamp of the gateway is unreliable then:

For single status point data type :

- *PIVOT.GTIS.SpsTyp.t.TimeQuality.clockFailure* is set to "true"
- *PIVOT.GTIS.TmValidity.stVal* is set to "invalid"

For double status point data type :

- *PIVOT.GTIS.DpsTyp.t.TimeQuality.clockFailure* is set to "true"
- *PIVOT.GTIS.TmValidity.stVal* is set to "invalid"

If the timestamp of the gateway is is not synchronized with the external UTC time then:

For single status point data type :

- *PIVOT.GTIS.SpsTyp.t.TimeQuality.clockNotSynchronized* is set to "true"
- *PIVOT.GTIS.TmValidity.stVal* is set to "invalid"

For double status point data type :

- *PIVOT.GTIS.DpsTyp.t.TimeQuality.clockNotSynchronized* is set to "true"
- *PIVOT.GTIS.TmValidity.stVal* is set to "invalid"