

PROCEDURE FOR INCLUDING EPN STATIONS IN EPOS

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Available from the M³G-Bureau at <https://gnss-metadata.eu/site/guidelines>
Questions and comments are welcome at C.Bruyninx@oma.be.

Updates:

May 6, 2021: Align with revisited handling of EPOS metadata in M³G

August 5, 2020: Added clarifications based on user feedback

Feb. 28, 2019: Refinement

Feb. 19, 2018: Revision of “Data Supplier/OC” terminology.

Feb. 2, 2018: Revision of “Data Center/Node” and “Agency” terminology.

Jan. 29, 2018:

- Improved consistency of terminology with other EPOS documents:

- removed IPR and replaced it by ‘has full ownership rights to the data and/or it has full rights to distribute them or to allow their distribution by a third party’ (similar to what is mentioned in Data Supplier Letter).
- Corrected use of “Data Node/Center” terminology.

- Clarified step 1 of the procedure.

July 17, 2017: Creation

Intended for:

This document describes the procedure to be followed by the **Station Owners** wishing to integrate EPN stations in EPOS.

If the Station Owner wishes to also include non-EPN stations in EPOS, then, for the non-EPN stations we refer to “Procedure for Including GNSS Stations in EPOS”.

Terminology:

Data Supplier (=Station Owner): The EPOS Data Supplier is the agency owning the GNSS station and having the **legal rights to distribute the data of the GNSS station**. The Data Supplier signs the **EPOS-GNSS Data Supplier Letter** and is responsible for the data flow of the GNSS station to EPOS.

Operational Centre (OC): The Operational Centre **maintains the GNSS station metadata** (e.g. site log) within EPOS. The EPOS-GNSS Data Supplier Letter indicates in Annex B the name of the agency acting as Operational Centre. Mostly, the Data Supplier itself acts as Operational Centre.

For more information, see the EPOS-specific glossary at <https://gnss-metadata.eu/site/glossary?page=epos>

Unless otherwise specified, all electronic messages should be sent to the M³G-Bureau at m3g@oma.be.

Procedure:

1. Responsibilities

Data Supplier:

Make sure your agency is the station owner, having the legal rights to distribute the data of the GNSS station, and allowed to sign the *EPOS-GNSS Data Supplier Letter*, available from https://gnss-metadata.eu/Guidelines/EPOS-GNSS_Supplier_Letter.docx.

The responsibilities of the Data Supplier are outlined in Section 3.1 of the "*Guidelines for EPOS-GNSS Stations, Data Suppliers, and Operational Centres*".

Operational centre:

Make sure your agency, or another agency, is capable of filling the responsibilities of the Operational Centre as outlined in Section 3.2 "*Guidelines for EPOS-GNSS Stations, Data Suppliers, and Operational Centres*".

2. Station List

Prepare the list of the GNSS stations that your agency wishes to include in EPOS. Use the RINEX 3 9-character identification code(s) consisting of a 4-char station ID, followed by "00" and the 3-char ISO country code. The 9-char code will be used for all future reference to your stations (data and documentation) and will uniquely identify each station.

3. EPOS-GNSS Data Supplier Letter

If your agency already proposed GNSS stations to EPOS before and it already provided an *EPOS Data Supplier Letter* to the M³G-bureau, then update the Annexes A, B, and C of that letter to include the additional stations your agency wishes to integrate in EPOS and send the Annexes to the M³G-bureau. Proceed to section 4. "Metadata verification in M³G".

If your agency has not yet provided an *EPOS-GNSS Data Supplier Letter*, then download the EPOS-GNSS Data Supplier Letter (from https://gnss-metadata.eu/Guidelines/EPOS-GNSS_Supplier_Letter.docx) and complete it, including Annex A, B, and C.

Include

- a) in the first page: a list of the co-owned stations,
- b) in Annex A: a list of all the stations,
- c) in Annex B: for each station, the Operational Centre that will maintain the station metadata in M³G (Operational Centre column),
- d) in Annex C: the EPOS Data Nodes that are allowed to redistribute your data.
 - If the distribution of the station data is not restricted to one (or more) specific EPOS data nodes, then leave this table empty.
 - If the node restriction depends on the station (e.g. EPN or non-EPN stations), then use multiple lines and explain the restrictions for the different sets of stations.

Do not forget to fill in the date on all Annexes!

Before signing the Data Supplier Letter, send it to m3g@oma.be and wait for feedback. Once the letter is approved by the M³G-bureau, sign it. Email the signed document to the M³G-bureau (m3g@oma.be) and, if the signature is not digital, send the original to

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4. Metadata verification in M³G

Upon reception of the EPOS-GNSS Data Supplier Letter (or the updated Annexes in the case of additional stations), the M³G-bureau will

- Verify the consistency of the station site logs with respect to the information provided in the EPOS-GNSS data supplier letter, e.g.
 - The Responsible Agency in section 12 of the site log corresponds to the Station Owner that signed the EPOS-GNSS data supplier letter.
 - The EPN Operational Centre already managing the EPN site log in M³G is the same Operational Centre(s) as mentioned in the EPOS-GNSS data supplier letter.
- In case of inconsistencies between the EPN station metadata already stored in M³G and the information provided in the EPOS-GNSS data supplier letter, the M³G-Bureau will iterate with the contact person of the Operational Centre(s) indicated in the EPOS-GNSS Data Supplier Letter to correct the inconsistencies.
- Set up the Data Owner as EPOS-GNSS data provider in M³G.

5. Status of the EPN station(s) in EPOS

Once the station metadata in M³G has been verified and corrected (if necessary), M³G will automatically propose the EPN station(s) to EPOS and send the station metadata to the EPOS-GNSS Data Gateway (<http://gnssdata-epos.oca.eu/>).

The M³G-bureau will switch the status of the station(s) from “Proposed to EPOS” to “Included in EPOS” as soon as a relevant number of RINEX data becomes discoverable at the EPOS-GNSS Data Gateway:

- For active stations (which have a receiver and antenna installed): minimally 4 weeks of recent RINEX data must be discoverable.
- For inactive stations (which have temporarily no receiver or antenna installed), decommissioned stations (which will never track again), or stations temporarily unable to submit data: Minimally 3 years of RINEX data over the full station history must be discoverable.

The status of a station within the EPOS network is available on-line from the M³G web page: <https://gnss-metadata.eu/site/stations?StationSearchModel%5BvalidMetadata%5D=1>