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Fingrid Datahub Oy / Marko Juslin   25.9.2024

Fingrid Datahub Measurement data continuous delivery WS II - 09/2024

Time   24.-25.9.2024 10:00–16:00, 9.00-15.00

Place   Fingrid Datahub Oy, Läkkisepäntie 23, Helsinki

Present   Marko Juslin   Fingrid Datahub Oy (cm)
            Laura Markkanen   Fingrid Datahub Oy
            Tuomas Aunola   Fingrid Datahub Oy
            Remco Nederpel   CGI NL
            Gerold Slagter   CGI NL
            Menno Muller   CGI NL
            Jan Loman   CGI Finland Oy (sec).
            Jussi Kolehmainen (Remote)   Caruna Oy
            Anssi Vanhatalo   Elenia Oyj
            Vesa Hulttinen   Hansen Technologies Finland Oy
            Pyry Suomala   Helen Oy
            Jami Kosunen   TietoEvry Oy
            Ville Kuusela (only second day)   Solteq Oyj
            Mikko Vähäsaari   Savon Voima Verkko Oy
            Lari Saarinen   Aidon Oy
            Elina Kontro   Landis+Gyr Oy
            Jaakko Kemppainen   Enerim Oy
            Lea Äyhynmäki (Remote, test part) Landis+Gyr Oy
            Lei Wang (Remote, test part)   Hansen Technologies Finland Oy
            Tero Toivola (Remote, test part) Helen Oy

Not present
            Jari Rusanen   Loiste Oy
            Otto Kuuranne   Fingrid ICT

Day 1

1   Workshop Introduction

Marko went through the agenda and gave a short introduction to the workshop.

Marko also went through the following topics in Finnish:

- Kielletyt kilpailun rajoitukset / Prohibited restrictions on competition

- Asiakastoimikuntia koskevia ohjeita / Instructions regarding customer commissions

- Ohjeistuksen noudattamisen varmistaminen / Ensuring compliance with instructions

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2 Onsite Sandbox Testing

Remco demoed testing in POC environment and helped market parties and vendors in testing.

Notes:

1. Delay caused by the internet may lead to longer response times
2. Need to consider a possible future scenario where a big DSOs use http/1.1 and reserves all the bandwidth/connections
3. The testing went well. Good numbers. 17k events per second.
   – ~10k events per second base load with CGI test driver.
   – ~7k events per second delivered by 5 individual sandbox testing participants.

3 Workshop August Recap

Marko went through recap of day 1 and 2 of previous workshop and the focus of the day 1 workshop.

4 Batch Interface Guidelines

Remco went through Batch Interface Guidelines.

Notes:

4. Discussion on the recommended batch size (500 – 2000 accounting points per message).
5. The current average is 80-100 accounting points per message.
6. DSOs and Fingrid should pay attention to batch sizes. Currently DSOs are not following the recommendations.
7. Would be good to have an example that shows when the end customer sees the data. Agreed to adjust the examples in the batch interface guidelines to include when measurement data is made available by the datahub.
8. Has the effect of netted accounting points been considered?
9. MDM systems of DSO would become very complex if they needed to group metering points for energy communities. Preferably Datahub should handle this. E.g. trigger the calculations once the data is complete rather than on receipt.
10. Concern that different MDM systems implement slightly different patterns.
11. Should Datahub be aware is accounting point's meter gen1 or gen2?

5 Workshop Batch Interface Guidelines

Group 1:
Frequency:

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- No strong opinion, fine with 2 to 5 hours cycle.
- Suppliers will receive more often data (e.g. a constant stream of batches).

Values / message:
- Fine with suggested values.
- Exceptions in case of smaller DSOs and corrections.

Missing readings for gen2 meters?
- Should not be a requirement, but not forbidden either.
- Any data that is not delivered within 6 hours should be considered missing.
- (although Datahub doesn't know that)

Special considerations:
- Energy communities handled by DH
- DH to calculate either when all data is there, but at least once a day.
- Also applies for Netting calculations.

12. Question about estimated values:
    – Answer: No distinction on quality

Group 2:

Frequency:
- No issues

Delivery of 0 values (missing readings):
- Optionally deliver 0 values, but only mandatory by the next day.

Period:
- OK, but not mandated.
- E.g. recover: ASAP.

Values / message
- Corrections

Communities
- Datahub concern.

Supplier perspective
- No issues with smaller chunks.

- Discussion on legislation:

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Minutes   4 (9)

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o   delivered to datahub or available to customers (the latter was agreed in the group discussion).
- When is the DSO compliant and when is Datahub compliant. And to whom is that reported?

Group 3

Frequency:
- 2- 4 hours – preferably faster from a DSO perspective
- MDM side:
  o   No big problems expected for the new interval. Typically a configuration interval.
- Meter systems:
  o   Export from metering systems and import in MDM might be more costly when done more often.
- Data needs to be available within 6 hours. Meters should gather the data at least every 3 hours.
- DSOs might have a contract with the collection provider to collect the data only every 6 hours. In this case, they will always be too late.

Special consideration:
- Like group 2: should be Datahub's concern. Especially looking into the future where communities might be across DSOs.

6   Conclusion - Batch Interface

Notes:

13. Guidelines are ok, but Datahub should handle the energy community calculations. i.e. no special processing for DSOs.

7   Survey

Marko introduced the survey in Finnish.

Notes:

14. Introduction: Clarification is needed for the interpretation of the decree.
15. It is important that survey respondents understand what they are answering. Too much text in the survey?
16. Introduction: Let's point out to the respondents that this change is important to think about and the change has consequences.
17. Introduction: Introduction is not too long.
18. There is a conflict of interpretation between the introduction and the rest of the survey. Introduction should be updated.
19. There should be a similar open question for DSOs as suppliers and service providers have.
20. Addition to the 2nd question of DSOs:" according to section B"

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21. Is it possible to add pictures to the survey which would help respondents to understand the time line of change better?
22. Has the removal of the batch interface been described?
23. Question 1 for suppliers and service providers requires clarification.
24. Question 4 for suppliers and service providers requires clarification. What does the "new interface" mean?
25. Should there be a new question "What do they use it for, or do they even have a need for it?" be added for suppliers and service providers?
    – Current questions include the idea of the suggested new question.
    – Second question shall be made mandatory.
26. Fingrid contact person should be added to the query in case survey respondent has questions.
27. The survey could be mentioned in the Datahub webinars.

8   Wrap up

9   Ending of day 1

Meeting ended at 15:49

Day 2

10   Survey discussion continues

28. It was discussed whether the supplier and service provider questions need to be clarified or changed.

    • Question 2: How does your chosen option support the business?

    • Question 1 option a: Will be divided into two parts: point B and point "new" B

29. Should the example of point B be improved? Different systems have delays, so all readings of one DSO are not sent at once.

11   Agenda

Remco went through the agenda of the day.

12   Onsite Sandbox Testing

PoC1 environment will be available until Friday 27.9.2024 EOD.

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13 Tell & Share

30. Remco went through the PoC status and conclusions and test results.
31. Reaching good numbers. 50k reached but not consistently. To be investigated.
32. Easy to ramp up to 50k.
33. Duplicate check is very expensive (performance wise). Looking into it still.
34. Token verification is still to be done.

14 Recap Day 1 / Focus Day 2

Remco went through the recap of day 1 and focus of day 2

35. Question: Energy community is Datahub's problem now?
    – Answer: Community calculation triggers will be changed in Datahub, so DSOs
      don't need to do the grouping for energy communities.

15 Time Series Event Channel MVP

Remco introduced the event time series channel MVP.

36. Question: Can gen1 meters be sent via event channel?
    – Answer: Yes but requires splitting into individual readings.

37. Question: What reference information will be in the negative acknowledgement?
    – Answer: Reference to the time series id and accounting point. Positive acknowl-
      edgement contains reference to a message that can be found from audit log, but
      not useful for DSOs.

16 Workshop Time Series Event Channel

Remco introduces the topics for the breakout sessions.

Group 1:
Communities:
- Datahub will take care of energy community calculation triggering so DSOs
  don't need to do the grouping for energy communities.

Acknowledgements:
- Separate acknowledgement process for event and batch channel
- The related event unique identifiers (mrIDs) included in the positive acknowl-
  edgement (heavy solution)
    o Other option. No positive acknowledgements. Assuming delivered ok
      unless negative ack.

Distribution:

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- Supplier should be able to decide the frequency. Technical capabilities may not be on a level that allow high frequency.

Traceability:
- Maybe daily report on completeness measurement data (transition)
- Note: Missing data reminders already automated this time

Frontend:
- Dashboard on event processing
- Report/screen for reading date versus processing time
  - < 1 hour (X%)
  - < 3 hours (y%),
  - < 6 hours (z %)
  - < 24 hours (w %)
  - < X days (100%)

Group 2:

Communities:
- Datahub will take care of energy community calculation triggering so DSOs don't need to do the grouping for energy communities.

Acknowledgements:
- add external message id in event format
- provide insight in acks (1-99%)

Distribution:
- Not a problem for the DSO's. Although group 2 acknowledges the mvp is not optimal for retailers and third parties. But requirements to make it better is best provided by these market roles.

Traceability:
- External id to negative acknowledgements
- Positive acknowledgements not needed or adding mrid and external id to the acknowledgements
- Daily report to confirm daily data is processed (not preferred)
- Datahub needs a recovery plan to ensure all events are processed properly

Frontend:
- Dashboard metrics for number of events received. Not for MVP.
- Compliance report. Not for MVP.

Group 3:

Communities:
- Question: What does the "not supported" mean?
  - No thoughts about enforcing. Causes more calculations to be triggered i.e.
- Community readings should be allowed to report via event channel

Acknowledgements:
- No changes to the guideline
- How to recognize value changes if the event is lost? Missing value report will not cover this.

Distribution:

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Traceability:
- How long Datahub stores information about individual events? Should defined.
- What reference data will be in the negative acknowledgement?
  - Reference to the unique event identifier (mrID)
- What reference data will be in the positive acknowledgement?
  - All solutions would introduce a lot of overhead. It is preferred to trust Datahub in handling all the events and communicate rejections when not successful.

Frontend:
- SQP refresh rate to be in line with the new decree
- Not MVP: Retrieve Time Series screen to have default period that show current date data
- Not MVP: Event numbers report per DSO

Questions:

38. Should we have the gen1/gen2 information in Datahub?
   - No. DSOs do not want to handle the information in CIS and MDM systems. Information not needed to send the data to datahub.
   - Can be recognized from meter type.

Next Steps:

- Validation rules will be discussed later. Probably no workshop needed.

- Groups are not aligned on how the handle the positive acknowledgement flow for the processed measurement data. Remco will create a decision tree to help decide on what information is required in a positive acknowledgement.

- 1st full week of October decision tree delivered to workgroup

- 1st full week of October publish the survey

- 2nd full week of October first technical interface specification delivered to workgroup

- Separate session to go through the survey results

17   Conclusion – Day 2

The second day was about getting familiar with the specific consequences of have an interface supporting the continuous measurement data delivery with a timeseries event channel. From a minimal viable product perspective, the focus areas where introduced which were then discussed by the breakout groups to determine more specific requirements.

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Focus Areas where:
- Communities
- Acknowledgements
- Distribution
- Traceability
- Frontend

Conclusion per Area was
- [Communities] Like with the batch interface discussions it was agreed on that DSOs shouldn't be troubled with the complexity of delivering the measurement data for communities. Datahub should be changed to process the measurement data for a community when its complete.
- [Acknowledgements] No clear conclusion on what should be reported back to the DSO when events have successfully been processed by the Datahub. To get to an agreement a decision matrix will be provided to determine if and what kind of information is required in case of successful processing of the measurement data.
- [Distribution] For MVP it is ok to leave it as-is. Survey should provide insight if retailers/ third parties would like to see it changed.
- [Traceability] An optional attribute should be added to the event which allows a DSO to provide their own internal reference identification. This id can then also be returned in a rejection which enables some DSOs to relate the rejection to their internal systems.
- [Frontend] No new functionality required for the MVP. Dashboards/reports might be needed to help a DSO proof compliancy.

Next steps
- Updated version of the batch interface guidelines to reflect the outcome of day one discussions.
- Decision tree to help come to a conclusion what information is required when an event is successfully processed.
- Update on the survey to clarify the introduction.

18   Next meetings

Placeholder for a workshop: 26th of November

19   Ending of day 2

The meeting ended at 13:54.