



Digitransit goes real-time in medium sized cities

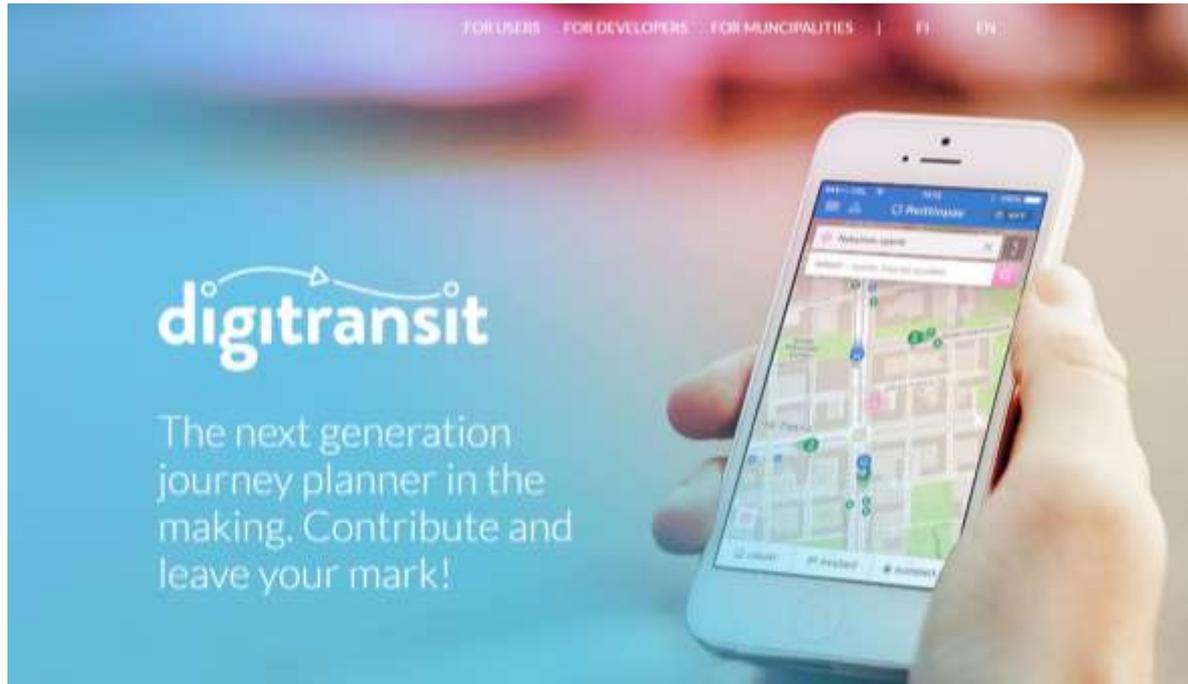
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Digitransit



Digitransit Journey Planner



- The new Digitransit is used in the HSL Helsinki area, FTA Finnish nationwide journey planner and in medium sized cities.
- One of the goals is to provide real-time information



Realtime Pilot Project Partners



Realtime Pilot Project Partners

Finnish Transport Agency

- The Finnish Transport Agency enables smooth, efficient and safe travel and transport. It is responsible for Finland's roads, railways and waterways and for the development of Finland's transport system.

HSL

- Helsinki Region Transport (HSL) is a joint local authority whose member municipalities are Helsinki, Espoo, Vantaa, Kauniainen, Kerava, Kirkkonummi and Sipoo

TVV LMJ Oy

- TVV lippu- ja maksujärjestelmä Oy is an IT services and procurement company jointly owned by municipalities and the state. The company operates the public transport authorities' integrated ticketing and payment systems in over 20 urban regions in Finland.

Pilot cities in the project

- Medium sized cities participating in the realtime pilot were City of Lahti, City of Oulu and City of Jyväskylä. Initially also Lappeenranta and Joensuu expressed their interest in participation
- Rail information from FTA's own services was used



Pilot Cities

- Oulu
- Jyväskylä
- Lahti
- Joensuu
- Lappeenranta

Population

198 804

137 392

119 438

75 557

72 868





The Background for the Realtime Pilot



The Background

- **Medium sized cities have renewed their ticketing systems and are planning to tender new realtime systems.**
- **Medium sized cities are piloting realtime information systems with various vendors.**
- **FTA wanted to help the cities and at the same time boost the availability of realtime information**
- **Looking from the nation wide journey planner and the Digitransit software development perspective, ideally we would like to receive the realtime information in same format/quality from all cities**
- **Help medium sized cities to validate their realtime interfaces, the specifications and the data quality.**
- **What does the realtime data mean?**



The Realtime Pilot



Study and Guidelines

- **Project evaluated and integrated available realtime information from the participating pilot cities and helped to setup realtime pipeline to the city's Digitransit journey planner**
- **Outcome of the project was a study and guidelines that would help future development**
 - **Both Digitransit and realtime systems implemented in each medium sized city**
- **Example of the scenarios analyzed in the study**
 - **Data Validation is done centralized**
 - **Data validation is done at the source**
 - **Data validation is bought from a third party service provider**
 - **Hybrid model of these**



Suggestions from the Project

Suggestion 1: GTFS-RT -format

GTFS-RT is one of the defacto standards and is suitable for passenger information systems. Its format and data elements are easier to understand compared to SIRI. In addition quite wide current use of GTFS-RT has led to larger number of developers familiar with it.

Suggestion 2: GTFS-format in Rail

GTFS should be used also in the rail traffic in addition to current Kalkati.net format. The availability of rail realtime information should be more open and easier to get.

Suggestion 3: Dataformat contents

Examples of realtime data specifications, how to name the data in the feed and minimum data element requirements

Suggestion 4: Data validation

There is a need to make national decision where data is validated. We believe it is not enough to validate data only at the source in a distributed model. We suggest further exploring the centralized method.

Suggestion 5: Minimum information

Parties responsible producing realtime information, should include in their plans the minimum data elements described in the study, which would lead to more unified format and easier use.



Summary



Conclusion

- Project helped various parties to better understand what realtime information means in more technical detail.
- Hopefully participating medium sized cities got guidelines what to lookfor and how to specify realtime interfaces in their future public tenders
- Guidelines, examples of information messages
- Action point suggestions for the future, for example clarifying the responsibilities between the parties
- The resulting study is published by the Finnish Transport Agency

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