



Digiroad & TN-ITS

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How it works?



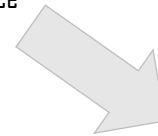
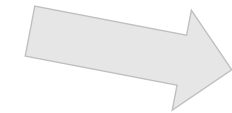
Software development: Karttakeskus Ltd.

Software maintenance: CGI

Digiroad operator: Dimenteq Ltd.

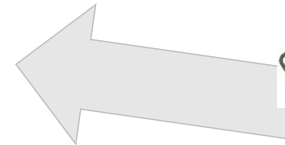
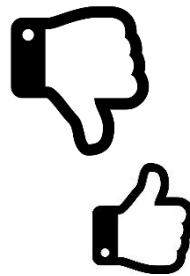


Inspire download service (file, WMS, WFS) & TN-ITS interface



Planning
Mapping
Civil engineering
Transportation services
Information services

Navigation!



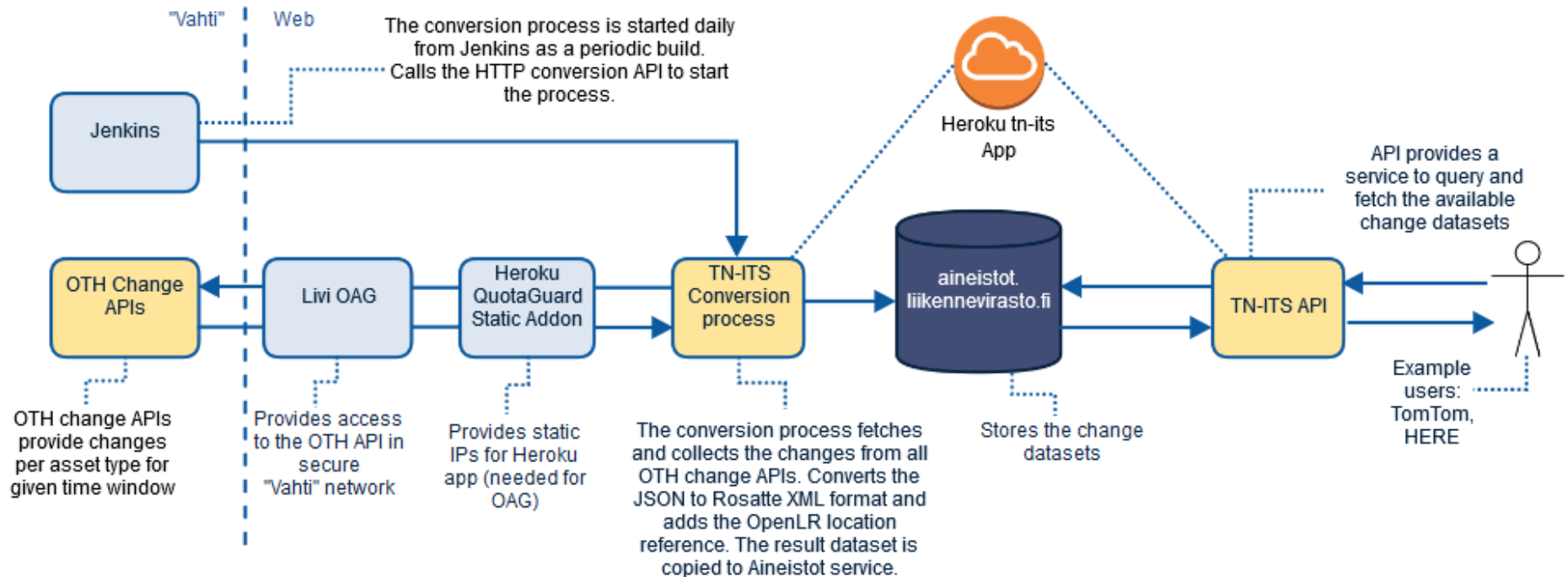


The Tech

	Attribute management	Geometry management	Download service (incl. TN-ITS)
Front-end	Web Browser (IE, Firefox or Chrome) Open layers 2	Web Browser (IE, Firefox or Chrome), with Citrix-plugin installed Esri ArcMap 10.3 Standard via Citrix	Oskari
Programming language	JavaScript	C#	JavaScript
Version & code management	Git & GitHub	Git & GitHub	Git & GitHub
Application server & Integrations & automation	Jenkins Geckoboard Google Analytics Continuos integration (CI) Rest & Json	Windows server 2012 ArcGIS Server 10.2 REST –interface FME Server	Geoserver FME Server Jenkins
Database	Oracle Database 11g Enterprise Edition - 64bit Scala	Oracle Database 11g Enterprise Edition - 64bit PL/SQL CORE TNS for Linux NLSRTL	Oracle Database 11g



The TN-ITS "extension"





Good practices

Open, open, open

- Open Data license: Creative commons BY 4.0 ([linkki!](#))
- Open source code: Github (<https://github.com/finnishtransportagency>)
- Open dialogue: Slack (<https://digiroadverkosto.slack.com/archives/general>), Webinars, seminars, ...

Agile methods

- Scrum or Kanban
- Task management and documentation: Jira, Confluence

Interaction with other datasets

- Open Streetmap to Digiroad
- Digiroad to Open Streetmap



Challenges

TN-ITS issues

- Generally, detecting the changes in the database was THE challenge
- Issues in the TN-ITS delivery:
 - Noise in the data
 - Minor changes in the geometry created false updates
 - Cyclingways and walkways also seemed to draw false updates
 - Speed limits "upside down": fixed
 - Road name and number, somehow troublesome to fetch

General Digiroad challenges

- "Valid from" & "valid to" information: currently not implemented in the system
- Implementing the "machine vision-field", how to collaborate?
- The feedback process and service (next slide)



Feedback

