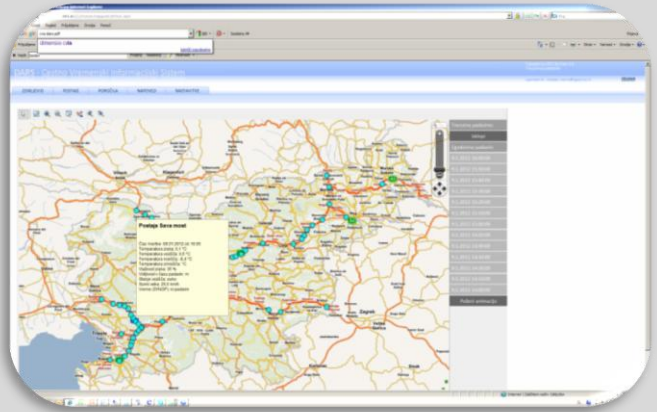


Road Weather Information System RWIS

Road Weather Information System Support Road Maintenances

Road Weather Information System (RWIS) integrates weather dataflow from field sensors to database, and was established to provide information on road surface and weather conditions needed for roadway maintenance operations. RWIS technology collects current weather data from road weather stations along highways, precipitation data from meteorological radar, and weather forecast from ARSO - Slovenian Environmental Agency. All these data are accessed through a nicely designed web application. Last version of RWIS produced by CGS plus is upgraded with road weather forecast using METRo - an open source software for Modelling of the Environment and Temperature of Roads. RWIS is mostly used in winter, typically for monitoring snow and ice, but it is also used in other seasons for monitoring heavy rain, strong wind, flooding or visibility. WIS enables maintenance and operations personnel to monitor changing weather conditions in real time. While all data are stored in an archive, it is also possible to look back at past weather and road conditions. Road operators can use also advanced reporting tools to prepare monthly and yearly documentations.



Customer

DARS - Motorway company in the Republic of Slovenia and DRSC - Slovenian Roads Agency

Benefits

Getting right information about present and forecasted weather conditions saves lives and money

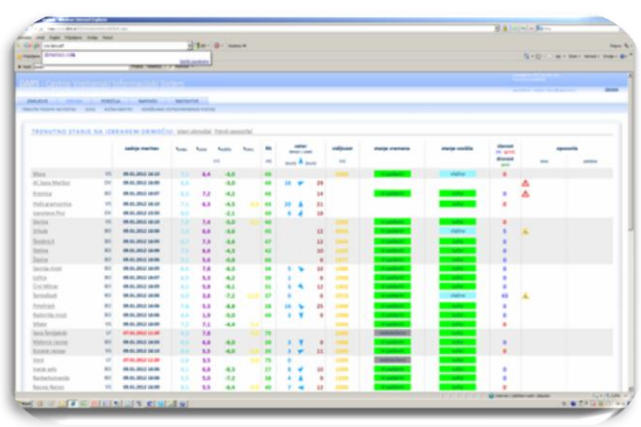
Used Technologies

MS SQL 2008, MS .NET Services, MS ASP.NET, Autodesk MapGuide Enterprise

Implementation Time

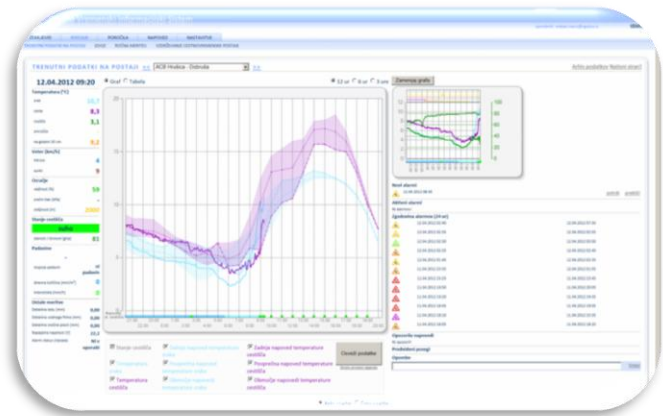
One to three months depend on size and complexity of existing system

Road Weather Information System



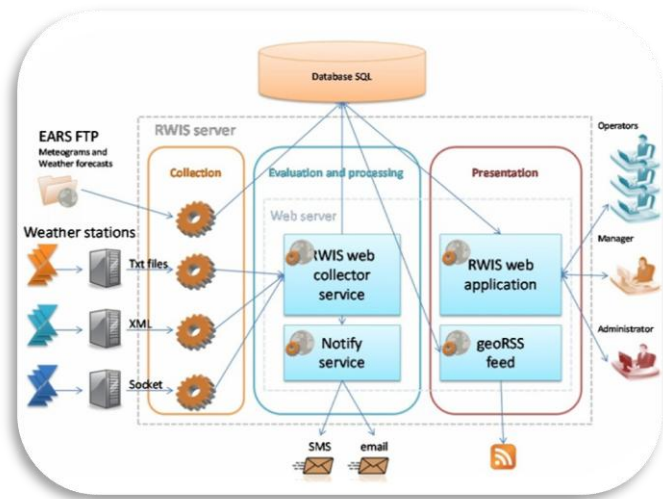
Main Page with Present Weather and Road Information

Data from all road weather stations are stored in a central database. Main RWIS web page allows users fast access to air and road temperature, humidity, wind speed, visibility, and other information. Present and confirmed warnings can also be found on the main page



Weather and Road Forecast

Detailed information shows weather measurements for last 24 hours and prediction for next 12 hours. METRO model is used for modelling road weather forecast and to provide prediction of road conditions. RWIS is fully integrated with meteorological forecast prepared by National Meteorological Agency which sends different forecast products from INCA meteorological forecast.



RWIS Architecture

RWIS collects data from different weather stations (Vaisala, Boschung, Luft etc.) and creates a central database for online and historical usage. Different types of web services allows fast access to weather data through a web application. Warnings are send by SMS and mail to end users responsible for road maintenance.