

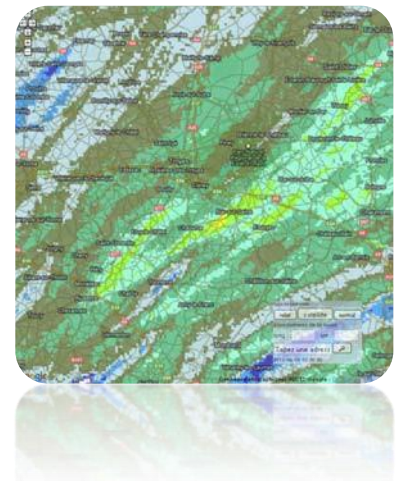
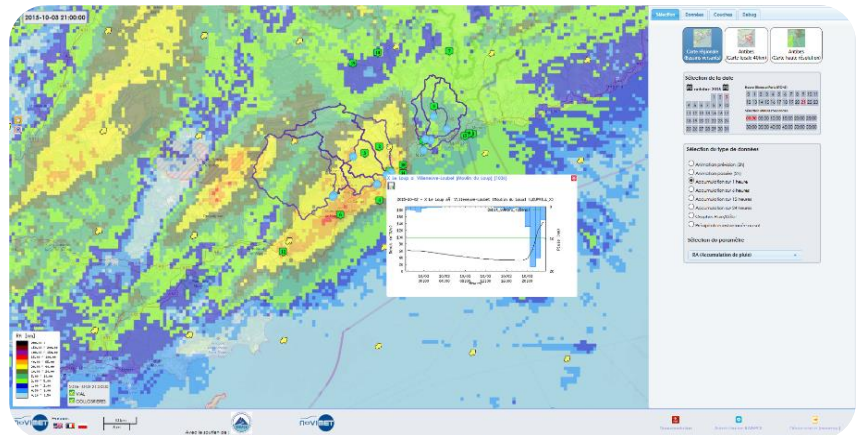
RAINPOL® is a user oriented real-time hydro-meteorological services platform. It furnishes highly accurate and precise precipitation information using polarimetric radar data.

FEATURES

- Precipitation mapping.
- Interpretation and follow-up of precipitation data on different land-size scales: from a small farm field to a water catchment of several thousand square kilometers.
- Web based application.
- Easy integration capabilities.
- Rain and flow alerts.

AVAILABLE SERVICES

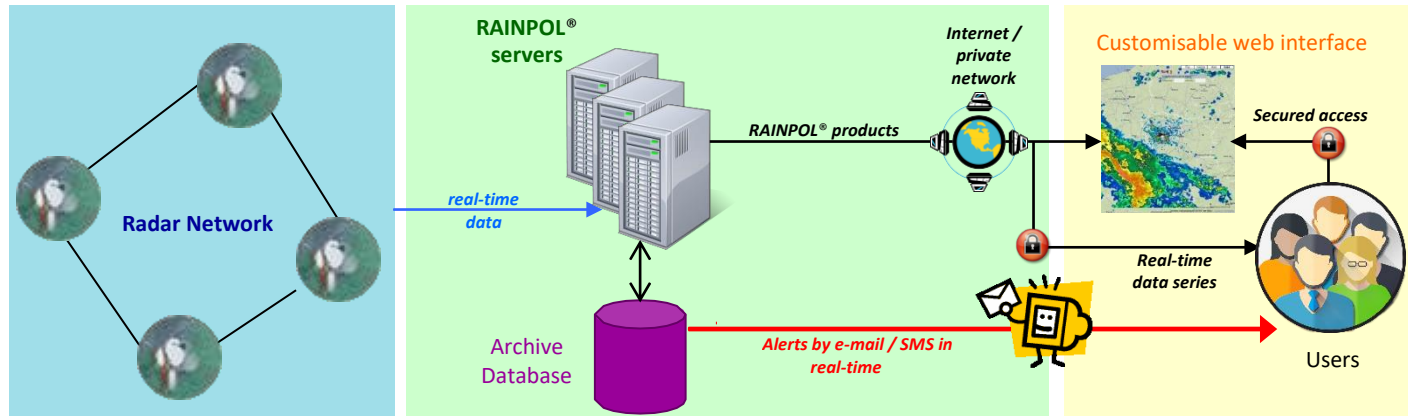
- Urban hydrology: territorial area management with accurate and customized precipitation information.
- Rural hydrology and natural risk management: large water catchments management and potential flood prevention.
- Agriculture: parcel management, plant diseases evaluation, chemical efficiency, irrigation control, agricultural works planning, hail anticipation and evaluation.
- Real-time Hydro Flow Model: automatic real time ingestion of radar data to the model.



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ARCHITECTURE

RAINPOL® platform is composed of processing and database servers. They typically receive external on-line data from a single radar or a radar network in real-time.



The output products can be processed in real-time to be sent to customers automatically or on demand from the web interface. All customers have a secured access to RAINPOL® interface through a customized account. The interface is based on Open Street Maps™.

OUTPUT PRODUCTS

The primary function of RAINPOL® is the generation and distribution of 3rd-level products, mapped on a cartesian-grid at ground level. According to the application targeted, more products are proposed and provided on demand.

Standard products are:

- Rain / snow / hail accumulation (5min, 1hr, 24hr ...).
- Precipitation nowcasting (motion vectors of rain patterns, animation of forecasted rain maps up to 2-hr lead time).

RAINPOL® makes it possible to distribute “digital rain gauges” with the following features:

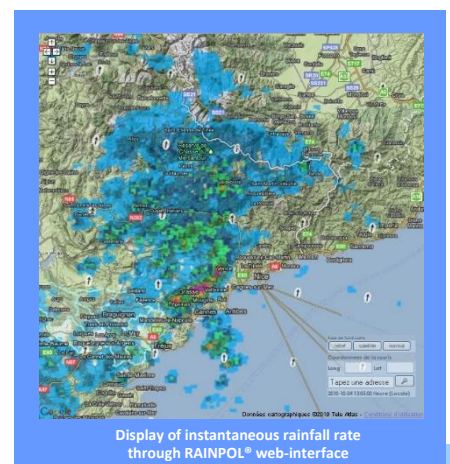
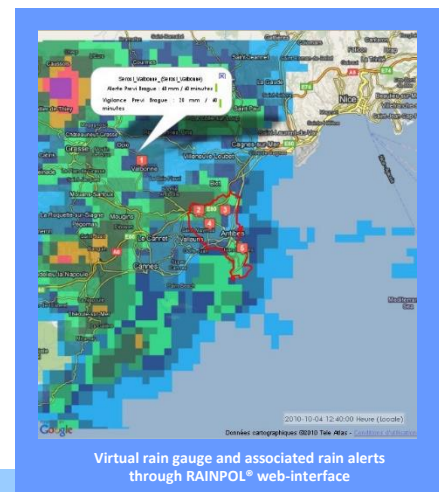
- More precise than a physical rain gauge.
- Locatable at any point of the NOVIMET service coverage, urban area, cultivated area, forest and / or mountainous area, lake area, maritime area...
- Distinguishing the type of precipitation, rain, snow or hail.
- Also providing a two-hour anticipation of the precipitation.

Each digital rain gauge may be associated to an alert (by sms, email ...) configurable by the customer according to vulnerability criteria defined by him, i.e. threshold upon past or anticipated integrated rainfall over a defined time interval.

RAINPOL® may host a rainfall-runoff hydrological model provided by NOVIMET (the GRD™ model under license of IRSTEA) or by the user. In both cases, the flood forecast is issued from an executable of the hydro model assimilating the rainfall data provided by the platform.

DISTRIBUTION OF PRODUCTS

The products are binary data and/or bitmap images. Their formats can be configured by the RAINPOL® operator according to the customer demand. They are typically pushed on secured FTP server for the customer usage.



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