

An example of modeling (continued)

The regional road traffic information system and the “reference” system presented in the organizational diagrams are fixed features.

The road traffic information system includes data collection, production, presentation and dissemination functions relating to travel conditions.

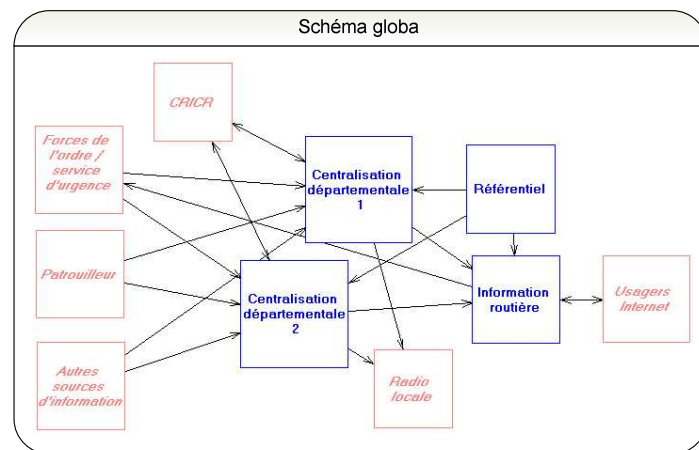
The “reference” system enables the management of “reference” data, which roughly correspond to formats that must be respected so that data may be exchanged and understood. It includes “repository” updating and dissemination functions linked to subscribed services.

The departmental system centralizing event information handles the following activities :

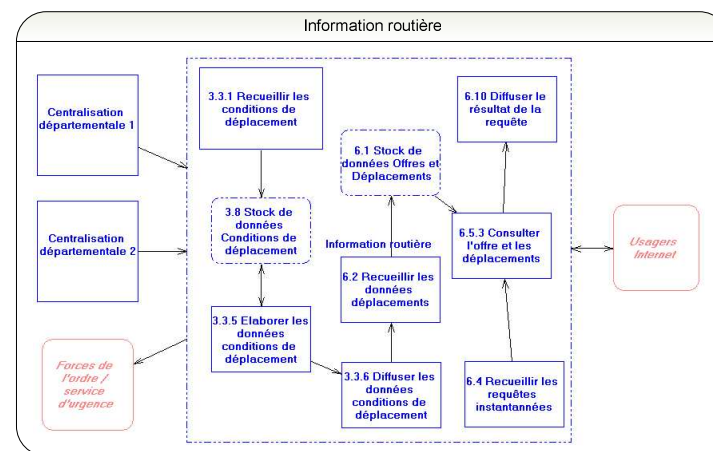
- ▶ the identification and classification of events (local, regional or national scale)
- ▶ the production of event data (data formatting according to the addressee)
- ▶ dissemination of event data.

Within this context, the links between the patrol officer and the departmental centralized information system require sufficient means out in the field enabling this centralization, through data input and validation functions.

On the other hand, the links between the police forces and the two different centralization levels may prove redundant. Questions highlighted by such diagrams relate to organizational choices and suggested procedures.



Modelling of the target system using OSCAR



Functions of the “road traffic information” sub-system.

How ACTIF helped – statements from

Pierre SAMSONOFF, Deputy manager of the Brittany MoT office (DRE Bretagne)
Patrick LEWEURS, Head of Infrastructure and Transport – Côtes D’Armor Council (Conseil Général Côtes d’Armor)

The teams of SETEC ITS and CERTU worked on the project from February to May 2005. The diagnosis report was issued at the end of May 2005.

For Mr SAMSONOFF, Deputy manager of the Brittany MoT office (DRE Bretagne) “the use of ACTIF, based on the desire to look into the issue of broadcasting road traffic information (through a dedicated radio station or not), enabled other strategic questions to be put forward and notably the following: how does knowledge of events on “THE” road network circulate amongst actors with varied competence (in every sense of the term)?

Then rapidly appeared the notion that events have a varied reach and impact depending on their nature and that it is the

stratification of these impacts that dictates the organizations required and their functioning. This inevitably leads to the issue of more or less formalized “partnerships” to be established between the different road traffic actors in order to maximize exchange between these actors that may be hampered by various issues.”

Monsieur LEWEURS concludes: “Within the scope of this road traffic information project in Brittany, ACTIF enabled different possible scenarios to be developed and ensured that they were comprehensible. The methodology also highlighted important initial questions whilst underlining impacts in terms of organization within a changing institutional context”.

Project: Set up a regional service providing traffic information for road users in Brittany

Challenge: Offer homogeneous and high-quality information on road traffic conditions and risks

How ACTIF helped: it proposed a profession-based reference framework for analyzing practices and identifying solutions

The local context

At the beginning of this project, the transport division of the Côtes d’Armor council (Conseil Général) stated that it wished to see the creation of a service for road users, providing real time information on traffic conditions throughout the Brittany road network and on possible incidents deteriorating the level of service:

- ▶ planned events (road works, public events)
- ▶ traffic conditions (weather conditions, congestion)
- ▶ unplanned incidents (e.g. accidents)

It led to the joint signature of a memorandum of understanding, formalizing the collaboration of the nine project partners. The project fixed the following objectives:

- ▶ increase and improve the collection of data relating to the road network, network practicability, traffic, journey forecasting, event management
- ▶ set up organizational and technical means enabling all available information to be collected, shared and potentially processed,
- ▶ study means of disseminating this information.

This service could have taken the form of a dedicated regional radio station.

Under the guidance of the Côtes d’Armor council and the Brittany division of the Ministry of Transport (DRE Bretagne), the four councils of the region of Brittany (“Conseils Généraux”) and local and regional MoT offices (DDE, DRE) collaborated in order to reflect upon ways of improving road traffic information. This initiative was launched in 2004 with the CETE de l’Ouest (a technical agency of the MoT) as project manager.

The convenient timing with the prefiguration work of the Inter-departmental Division for Roads, within the context of MoT decentralization, enabled questions to be put forward in terms of organization, responsibility and means.

The use of ACTIF

At the request of the CETE, the regional MoT office (DRE) and the Côtes d’Armor council, the ACTIF methodology, its model and tools were used in the initial project phases, in order to structure the overall approach.

The ACTIF teams (SETEC ITS and CERTU) assisted the project manager in:

- ▶ clearly identifying the project’s scope (both geographic and functional: network concerned, type of information to be targeted)
- ▶ establishing a diagnosis of existing practices and systems,
- ▶ clarifying and re-expressing expectations and requirements,
- ▶ modeling different possible scenarios in terms of organization and functioning.

This enabled fundamental principles to be established, certain choices to be made and facilitated discussion regarding the pilot study.

A project?

The ACTIF team can provide help with your projects and pilot studies.

Contacts :
 Yannick DENIS (CERTU)
 Tel : 04 72 74 59 46

Jean-François JANIN (DGMT)
 Tel : 01 40 81 82 69

Éric LOUETTE (DGMT)
 Tel : 01 40 81 81 36

<http://www.its-actif.org/>

Project scope

A consensus regarding the project's scope was reached quite quickly and concerned the following points :

- ▶ actors involved: the four councils of the region concerned, the four local MoT offices (DDE), the regional MoT office (DRE) and the recently formed Interdepartmental Division for Roads,
- ▶ geographic scope: the region of Brittany (refer to map opposite),
- ▶ road network concerned: the roads remaining under the responsibility of the State following decentralization ("routes nationales") and the principal secondary road network,
- ▶ information concerned: data on events likely to cause disruptions on the main road network (forecast data concerning road works or planned events and incident data such as accidents or congestion).

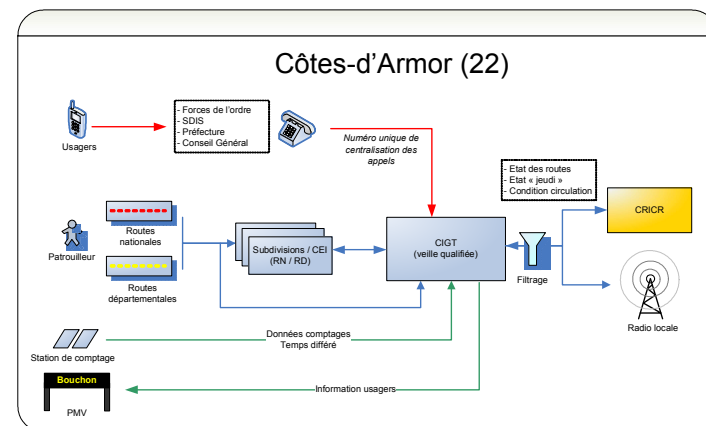


Région Bretagne

The diagnosis of the existing situation

A study of the existing situation was carried out through a questionnaire sent to the different services. A comparison of existing practices and the logical functional model provided by ACTIF enabled the following points to be highlighted :

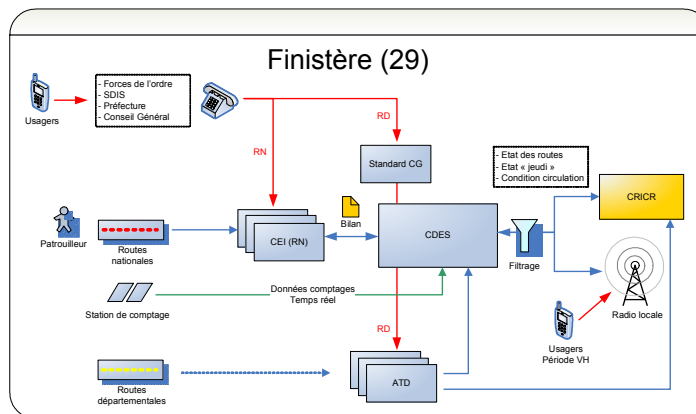
- ▶ **the production of road traffic information** relies on methods and means that vary considerably between French counties (known as "départements") and main and secondary road operators. There is currently no organized coordination between these different actors.
- ▶ **data collection** currently depends on individuals. There are few computerized instruction manuals and officers work in a culture that focuses more on intervention aspects than information (the end of an incident is frequently not reported),
- ▶ **the forwarding and exchange of information:** the forwarding of information from out in the field (patrol officers, emergency services and the police forces) to a centralized control centre is practically systematized in each "département" through the use of a single telephone



Organisation des Côtes-d'Armor

number. For main roads ("routes nationales"), information is systematically centralized in real time in only two "départements". For secondary roads ("routes départementales"), information is only forwarded to the road operator's headquarters for major traffic disruptions. Data exchange between "départements" does not exist. In addition there are no formal and clear procedures or standards for the forwarding of information to the Regional Centre for Road Traffic Information and Coordination (CRICR). The exchange of information is therefore uncertain and heterogeneous.

▶ **information dissemination:** the broadcasting of information by FM radio has proved to have positive effects, however there are currently no rules relating to the actual presentation of such information to users or the media. There are few dynamic road signs (VMS) outside the Dor Breizh network (Rennes and its suburbs) and IT devices in the Côtes d'Armor (VMS on the RN12 and wrong way driving alert system on the RD767). The dissemination of information through web sites is increasing.



Organisation du Finistère

Partners' requirements and expectations

Based on this diagnosis, the requirements and expectations of the various partners were more clearly identified and categorized so as to distinguish issues to be dealt with homogeneously at a regional level and others where the principle of autonomy should prevail.

Three fundamental requirements in terms of information systems were therefore highlighted:

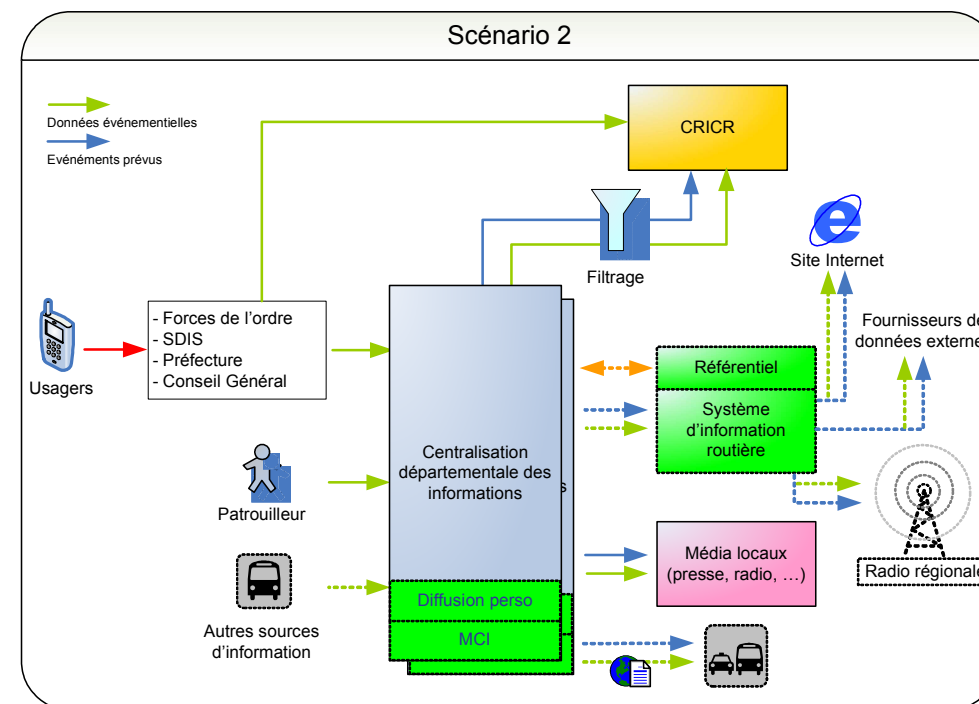
- ▶ the need for an upgrading of the organizations responsible for the collection and centralization of information, notably by increasing the number of information sources and defining a "reference fleet" (minimum and consistent sources of information: patrol officers, equipped public transport vehicles), guaranteeing the reliability of the information collected.
- ▶ The need for a road traffic information system at a regional level, enabling all information on road traffic conditions in Brittany to be centralized. The creation of a road traffic information platform will enable the information available to operators of road networks in Brittany to be centralized, will provide them with a comprehensive view of current or planned traffic conditions and enable users to have a single and coherent view of this information.

- ▶ The need for common reference documents describing a common structure for the description of events (location, type, level of certainty.....°). The cartography reference document is an example.

On the other hand, aspects relating to incident management and intervention out in the field are entirely linked to the future allocation of activities amongst local services (DDE and Conseils Généraux) and regional services. Similarly, the need to modify the geographic dissemination of information in order to target specific users is not dealt with at a regional level. Dissemination methods must remain flexible and adapted to network operators.

The common reference document and the consolidation platform for road traffic information therefore constitute two tools around which road managers will freely and autonomously define their strategy for data collection, handling and dissemination. Each operator will develop its own rules relating to pre and post-information filtering and centralization.

An example of functional modeling



Description générale du scénario

These flexible aspects were presented through scenarios which each propose a different organizational and functional architecture.

The creation of centralization systems within each "département" of the Brittany region, at the initiative of the Conseils Généraux, is therefore put forward as an option amongst the possible scenarios. Discussion amongst the partners has shown the benefits of functional modelling of this scenario. The identification of interfaces with data collection organizations and with the regional road traffic information system enabled the necessary means to be identified their adequacy to be verified in terms of user services.