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#### THE LIGHTNING INFORMATION AS PART OF THE RISK PREVENTION MARKET

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### 1. INTRODUCTION

The presentation will describe the development of new lightning risk prevention services aiming to make dedicated information available to a larger base of users.

# 2. CONTEXT OF THE MARKET

Météorage, operator of the French Lightning Detection Network, has offered lightning information services in Europe to a large range of customers for 25 years.

The activity of Météorage is mainly based on a B to B business model focusing on utility network operators, industries, insurances, Oil & Gas, telecom, Met services, transportation, civil engineering, civil security ...

Météorage proposes a large range of solutions to cover all the stages of the lightning risk prevention:

- To evaluate the risk : lightning statistics and density
- To be warned : alarm, display
- To diagnose: records, reports, survey

Météorage lightning risk prevention solutions targeted to industrial and professional are based on different rules:

- Customized services dedicated to different types of usage
- Each product must be proposed with different options to fulfill the need of the end users
- Secure the information transmission as the safety of the customer is concerned
- Continuity of service 24h/24, 7d/7

The data policy implemented by Météorage was not to release free services and to stick with an economic model based on the high value of the information provided to the users. Most of the services were sold by subscription.

### 3. NEW ORIENTATION

Since 2010, Météorage wanted to widen its market and decided to explore a way to facilitate the dissemination of lightning information without affecting its professional market.

Two directions were selected to implement these new developments and address a new community of end users.

The first one is to provide free "real time" information in such a manner to open the market without impacting the core of the professional business. Moreover such an offer should become a link to lead the user to pay for the services. The response of Météorage is the creation of the Visiofoudre® application.

The second orientation is to open a new route for the distribution policy offering "low cost" products with a different level of information, a simple standard packaging and a specific transmission of the information. In order to compensate for the low price per user, these services should be dedicated to a large group of subscribers in order to reduce the cost of production and sale administration. The first application had been implemented with the French Federation of Camp Sites (FNHPA).

### 4. Visiofoudre® application

Until 2009 the only information freely available on Météorage Web site was an image of the full French territory with a display of the last 24 hours but delayed by 2 hours. All other products with more accuracy had to be paid.

The general public was able to access real time information paying 1.80€ for 3 minutes. This service

is displaying a window of French territory with a 4x zoom capability.

However it was not possible to know wether there was some lightning activity before paying and accessing to the service.

Therefore in 2010, applying its data policy, Météorage developed the Visiofoudre service on its Internet Home Page.



The principle is to divide the French territory in administrative department (about 100) and to highlight the concerned department when there are strokes detected. This functionality is triggered with the first stroke. An update is done every 5 minutes.

The color code of these areas changes as a function of the lightning activity. The thresholds are calculated for each department based on lightning density analysis over the past years.

Having this information, the cybernaut knows if there is any interest to go to the paid service. He can access this functionality by clicking on the concerned department.

Moreover we had on Météorage home page a "Visiofoudre" tag to be inserted into any external Website.



This service is dedicated to very different kind of end users such as storm chasers, lightning groups, SOHO, general public, private met website, and so on...

We received a good welcome from the community and Visiofoudre tag had been integrated within a lot of Web home pages, generating numbers of comments in different forums with a significant increase of the number of visit to Météorage Web site.

# 5. Camp Site Alarm

In 2010, Météorage had more than 300 customers subscribing to the "Alarm" service paying about 2,000€ per year. Most of these users were from industries, utility networks, telecommunication, transportation, civil engineering, and entertainment resorts.

In summer 2010, Météorage associated with Météo-France (the French Met office) proposed to the FNHPA, a combined met service. It includes 4 days weather forecast and real time lightning alarm.

The challenge was to be able to serve a high number of subscribers with a dedicated service at a low price per user, about  $100 \in$  per camping.

To fulfill this constraint, we had to develop new tools to automate the different processes: order management, production, tests, delivery and invoicing.

A beta test had been implemented during the summer 2010 with more than 200 camp sites in South West and South East of France.



As soon as there is lightning activity close to the camp site, an alarm message is automatically sent to the owner. This message is transmitted on the manager's cell phone by SMS and also by mail. Using this information the camp manager can apply specific procedures such as stopping activity around swimming pools, warning the campers, etc...

While the camp is under alarm, the manager can access to a visualization of its camp area showing in real time the progression of the lightning activity. This allows to appreciate the context and to adapt the procedure.



When the lightning activity stops, a message of "End of Alarm" is sent to the camp site in order to recover normal activities.

In 2011, more than 600 camp sites were joining the service and more than 1000 are expected in 2012.

This new approach generated a very good impact on mass media with a large coverage in national and regional news papers, a large number of news on different web sites, interviews on Radio and TV.

In addition Civil Security authorities were supporting this project.

# 6. Conclusion

Both of these new developments are facilitating the dissemination of lightning information addressing a much larger community of users.

Such an approach contributes to the lightning risk prevention for a better safety of the people.