How to reduce false positives when filtering your customer data?

H3A automaton overview.

Introduction

- Filtering customer data against watchlists and sanctions lists typically produces far too many false positives. This is specially true for large banks having huge volumes of clients.
- The teams responsible for processing alerts therefore spend most of their time processing false positives.
- In the end, this results in a considerable waste of time and money at the level of a banking group.
- This is the reason why HIDLO has developed H3A, an automaton allowing to automatically detect and delete at least 80% of false positives.

Some key figures on alerts manual handling

For a full time alert manager (7 hours a day)

3	minutes on average to qualify an alert
150	alerts per day processed by an alert manager including false positives
3000	alerts processed monthly by an alert manager including false positives

If we consider that **on average 90% of alerts will be false**, an FTE will spend approximately **6 hours a day to process false alerts.**

It is reasonable to think that this time could be better spent.

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The ways to reduce false positives

Three main ways to reduce false positives

1 **Reduce number of people in the lists.**
This imply that the risk policy is the same for all business lines of the bank or to manage several versions of lists which will make the system more complicated.

2 **Detect and remove false positives upstream the loading of the alerts in the alerts database.**
This is the nominal way that H3A is working.

3 **Detect and remove false positives downstream the loading of the alerts in the alerts database.**
*This is the usual way of how works a RPA.*

Advantages of solution 2:
- avoids cluttering the alert database with amounts of false alerts.
- Stabilizes the performance of the alert management application because the database volume increases more slowly
- Allows the alerts managers to focus on the relevant alerts.
- Reduces globally the time spent qualifying alerts.
- False positives deleted upstream are no longer alerts as such because they are not loaded in the alerts database. It is as if these alerts had not been produced.
- All deleted alerts are stored in a separate file that can be viewed at any time => audit trail for alerts automatically removed.

Note that it is obviously possible to combine the possibilities 1 and 2 or 1 and 3.

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H3A overview

How works the H3A automaton ?
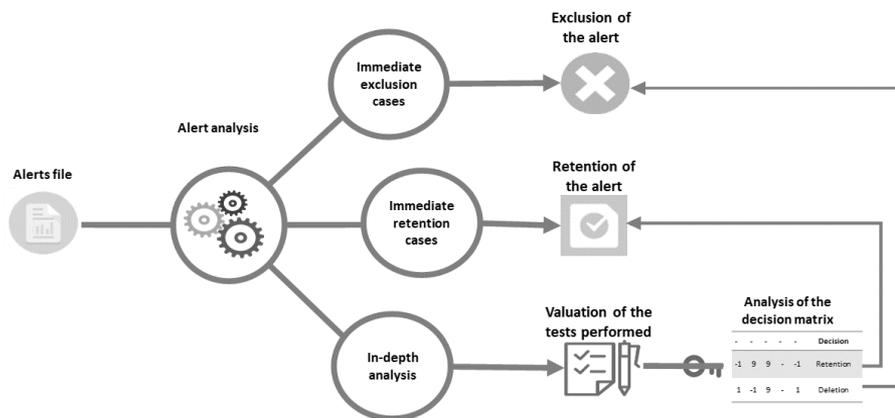
H3A integrates a dozen cases of immediate exclusion cases and immediate retention cases of alerts. These cases can be activated or deactivated according to the choice of the business line.

New cases of immediate exclusion or immediate retention can be integrated.

when an alert does not meet a immediate exclusion case, nor an immediate retention case, then the in-depth analysis function decides the fate of the alert.

The in-depth analysis function is based on:

- Distance calculation algorithms
- Phonetic algorithms
- An alphabets transliteration function
- Consistency tests on customer and list data
- A decision matrix that can be configured manually and / or automatically via a supervised learning module, **the H3A-SL module**.

Each alert excluded by H3A is kept in a file with its reason for rejection, thus allowing perfect traceability of rejection.

H3A also incorporates a function to highlight the most sensitive and relevant alerts (high probability of having a TRUE POSITIVE).

H3A easily integrates into the existing filtering device.

H3A Key performance indicator
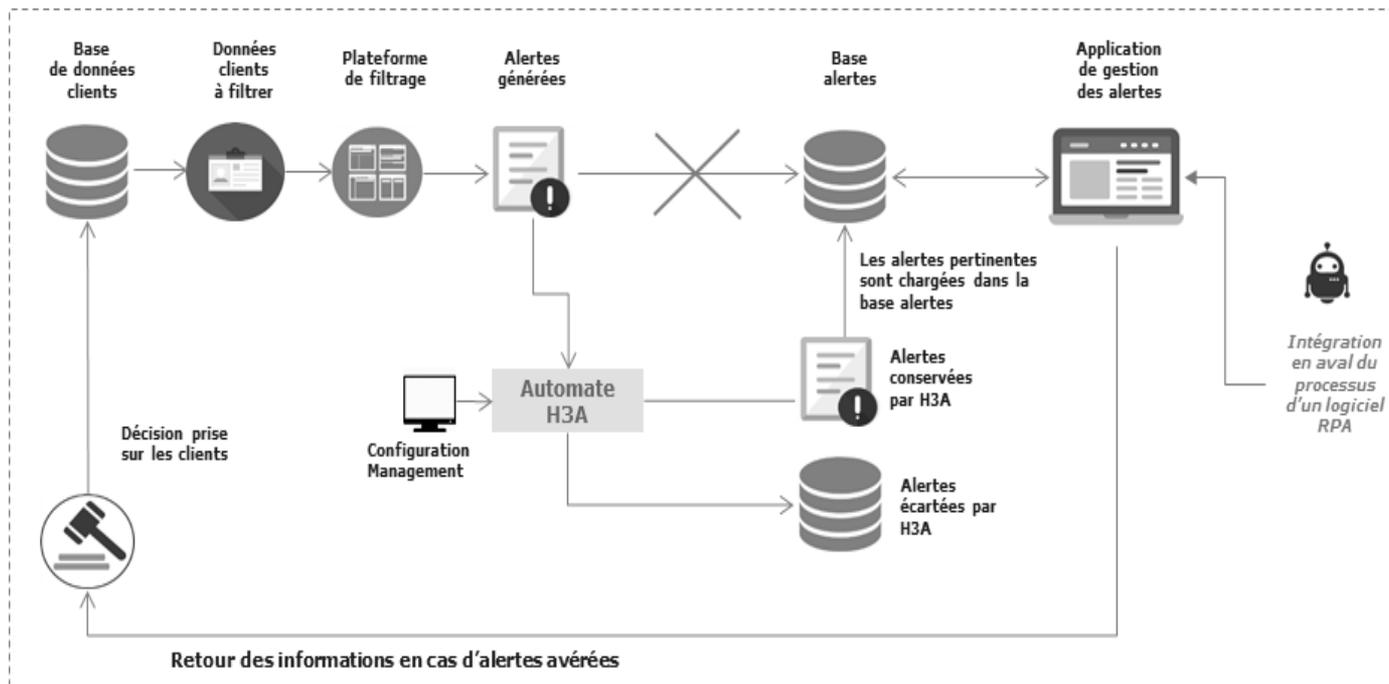
Average false positive suppression rate	Number of hits processed per minute	Traceability of rejected hits
80%	10 000	100%

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H3A principle of integration

What is the H3A-SL module ?

H3A-SL is an optional module allowing to update the H3A decision matrix through a machine learning process.

The principle is as follows:

1. H3A-SL uses an extraction of alerts qualified as TRUE or FALSE by alert managers over a period of several months. This extraction constitutes a knowledge base.

2. H3A-SL applies the various controls of the in-depth analysis phase of H3A on each of the qualified alerts contained in the knowledge database.

3. A statistical analysis phase allows to highlight the conditions met when the alerts are qualified as TRUE and when they are qualified as FALSE.

4. At the end, H3A-SL proposes new entries in the decision matrix to be validated by the user to become effective.

H3A-SL enables the implementation of a **continuous improvement process** thanks to its ability to enrich the H3A decision matrix over time.

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A presentation of our solutions can be done on demand.

To contact us: HIDLO SAS

Franck.martin@hidlo.net
Grégoire.vallantin@hidlo.net

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Thank you.