PEACELAND

LEMONNIER Alexandre

MOLLARD Emmanuel

OUESLATI Mehdi

SIMONIN Victor

TECHNICAL & BUSINESS CONSTRAINTS FOR STATISTICS' DATASTORAGE

Statistics should reliably encompass any piece of data
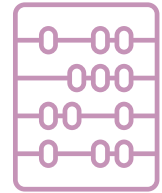
Consistency

Statistics may come from every corner of Peaceland asynchronously

Partition Tolerance

It is fine if the database is **temporarily unavailable** to external requests.

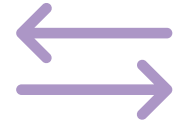Statistics will probably involve heavy data aggregation

Column Oriented

APACHE HBASE

FAST:
FAST ALERT
SIGNAL TELLER

Speed

Every second a soul is troubled is a second without peace.

And that's *unacceptable*.

Reactivity

Peacewatchers must be able to fetch data quickly, which involves keeping **an AP database**.

Coherence

Since peacewatchers may produce reports based on slightly not-up-to-date information, and since those reports may have immediate consequences, the reports that trigger alerts are also **prioritized** by the system.

SCYLLA

PREVIOUS MISTAKES ON THE FAILED ATTEMPT

Hired data-scientists instead of data-engineers

(*Tsk,* they weren't even from Epita)

Used either SQL, or non-CP, or a centralized database for their statistics.

Kept using an interpreted language after the POC.

Bad architecture for the volume of data, no streams...

No AP database for day-to-day activities.
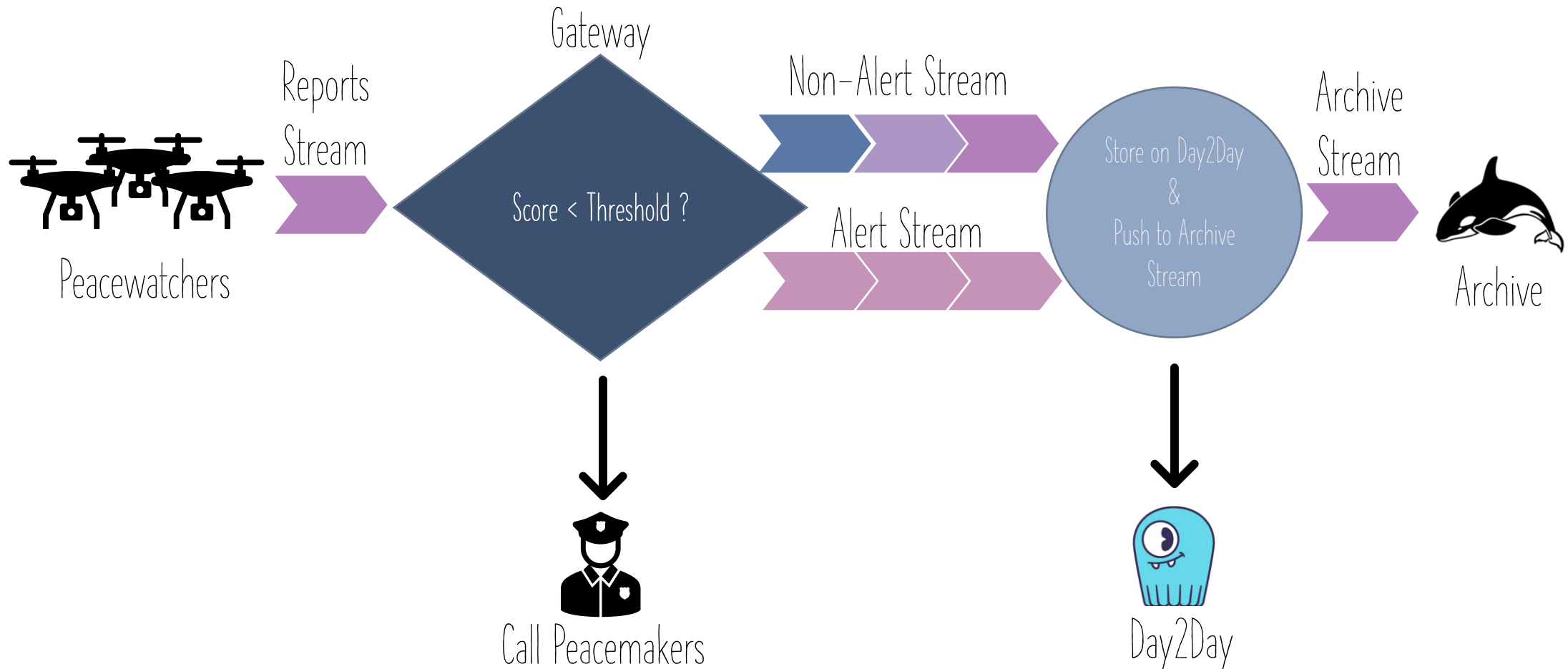
TECHNICAL INFORMATION TO ADD TO THE REPORT

Timestamp of the scan

Unique Identifiers for citizens *(to avoid collisions)*

False positive handling *(can we call peacemakers on a false positive?)*

Peace score delta *(score of the action rather than that of the person)*

OUR SOLUTION'S ARCHITECTURE

ANY QUESTIONS ?

?