

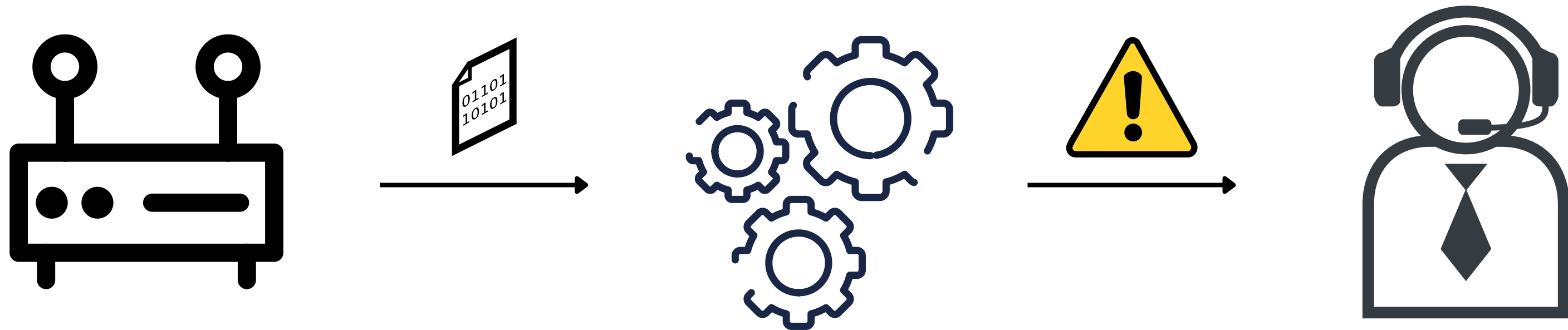


Data Fusion

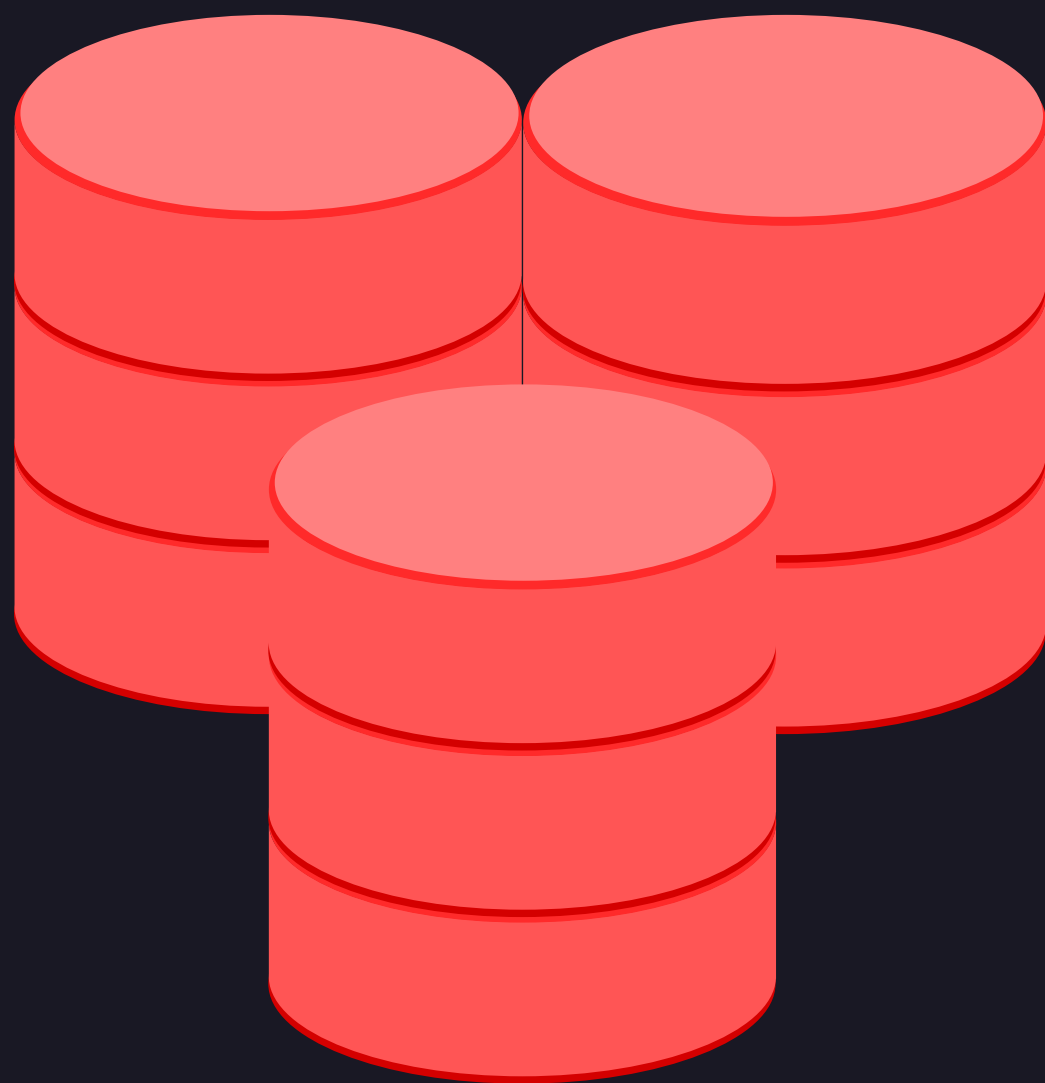
The Key to Reliable Threat Detection

Richard Plný
CESNET & Czech Technical University in Prague

Threat detection in high-speed networks



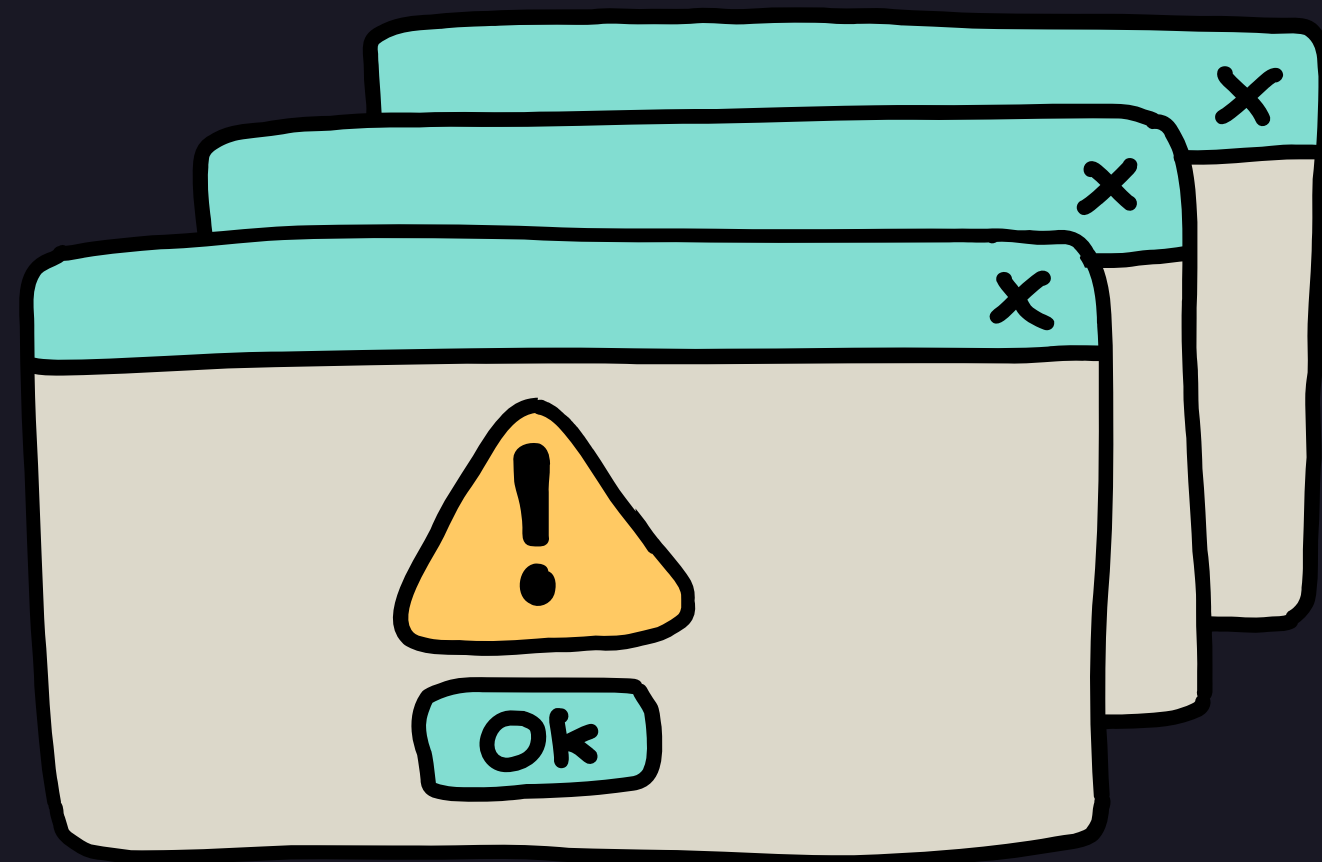
DATA



ALERT



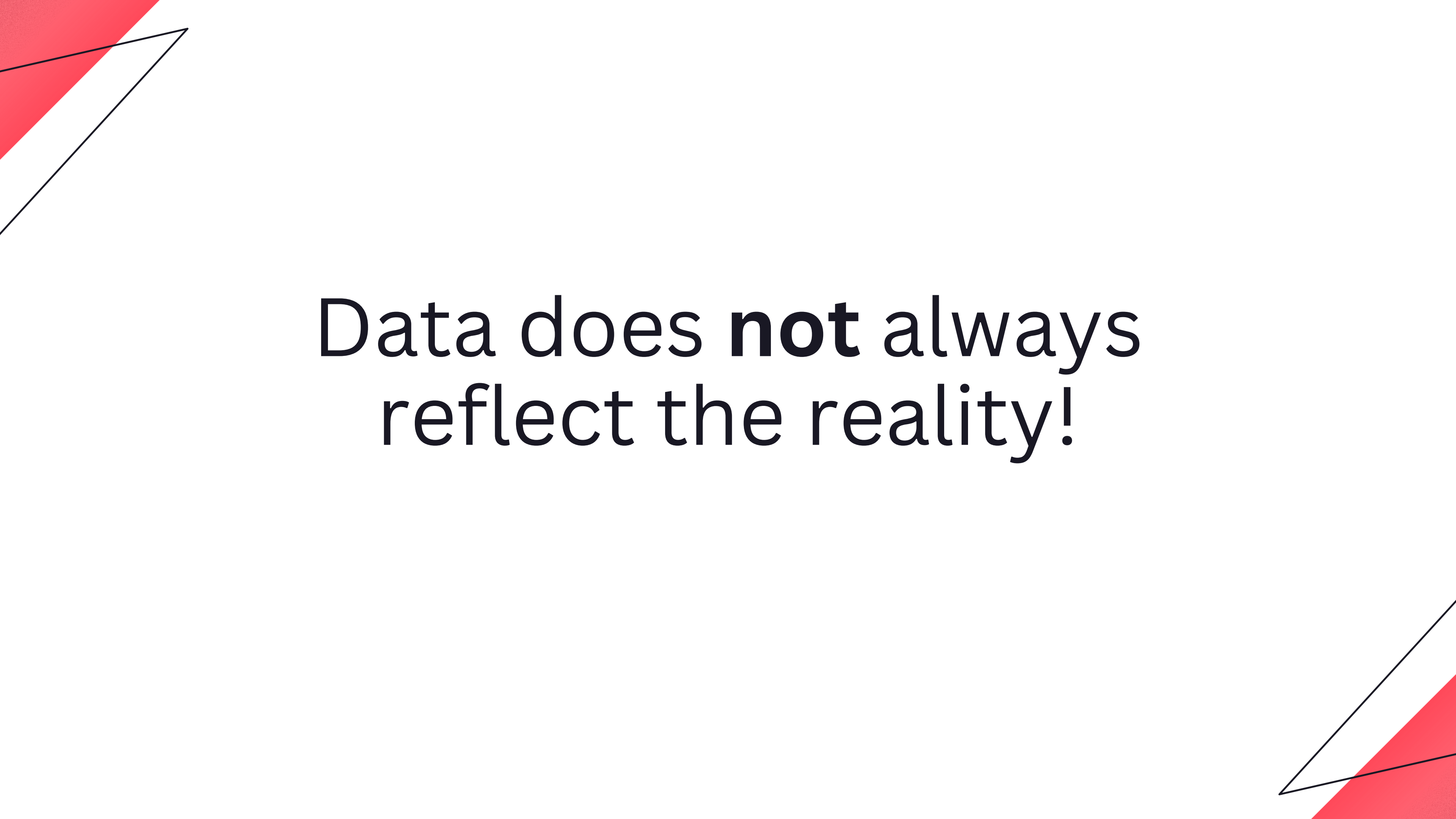
**CAN WE TRUST
THE DATA?**



Transmission errors

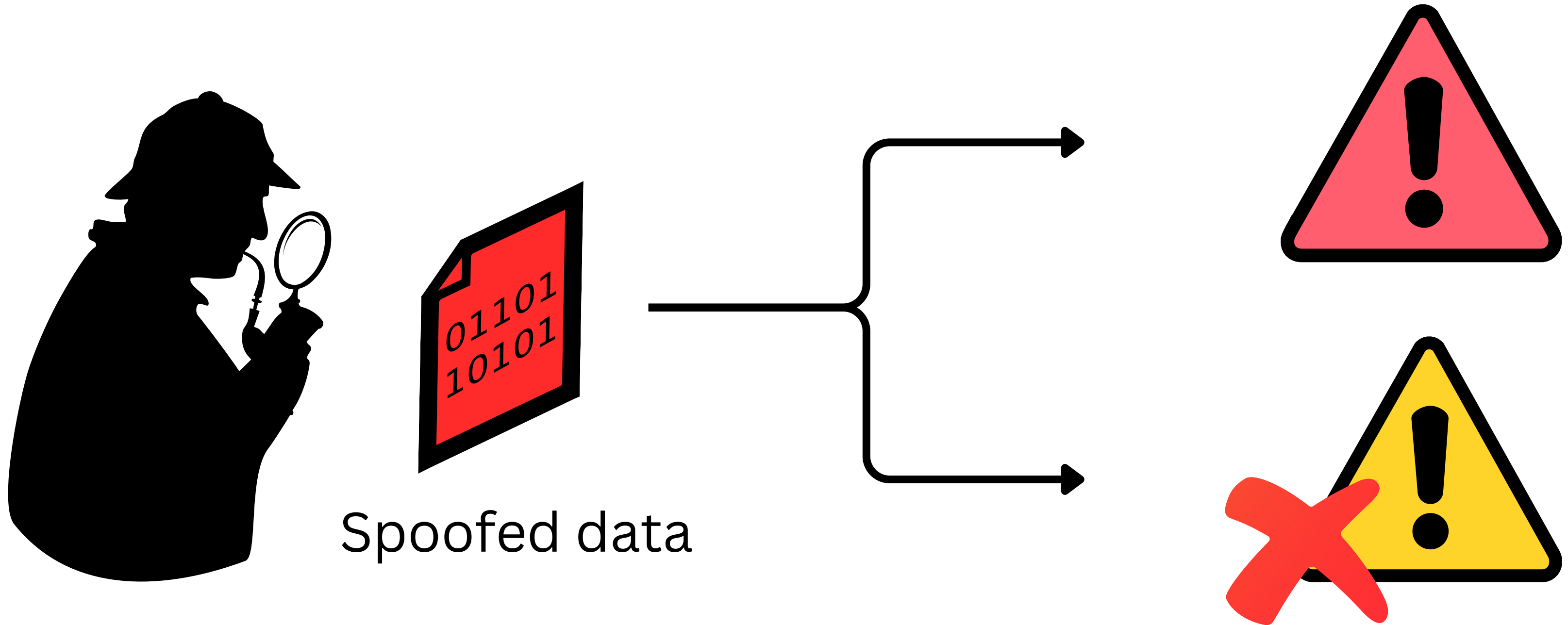
Spoofed data



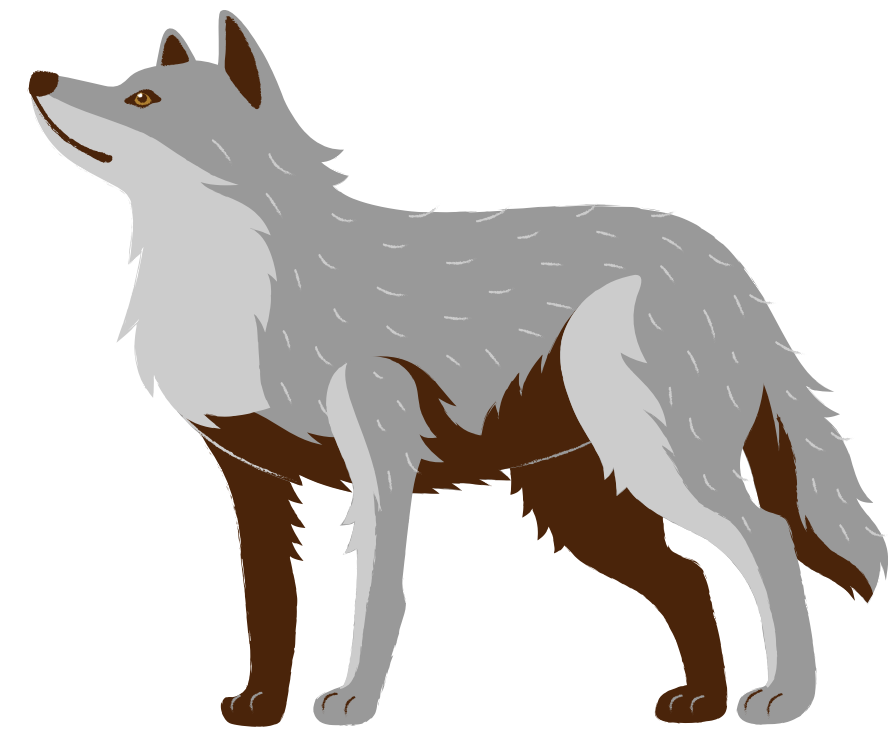
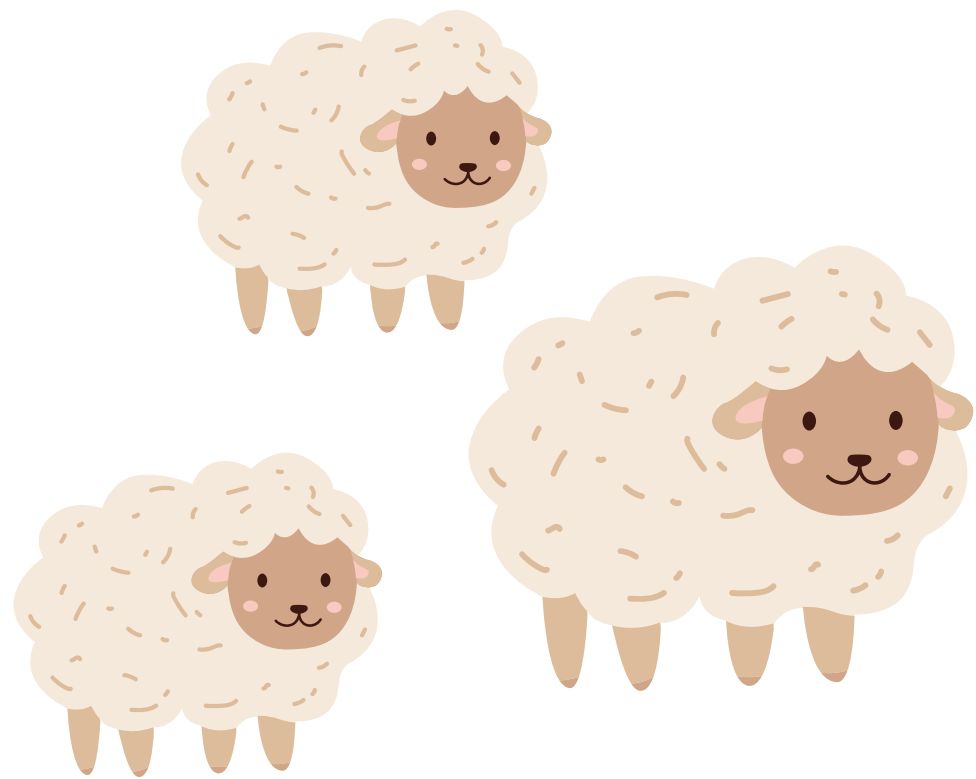
The image features a white background with two red geometric shapes in the corners. In the top-left corner, there is a red triangle with a black outline. In the bottom-right corner, there is a red triangle with a black outline. The text is centered in the middle of the page.

Data does **not** always
reflect the reality!

Threat not recognized



The Boy Who Cried Wolf





SECURITY BREACH

Without ever knowing it!



WHAT CAN WE DO?

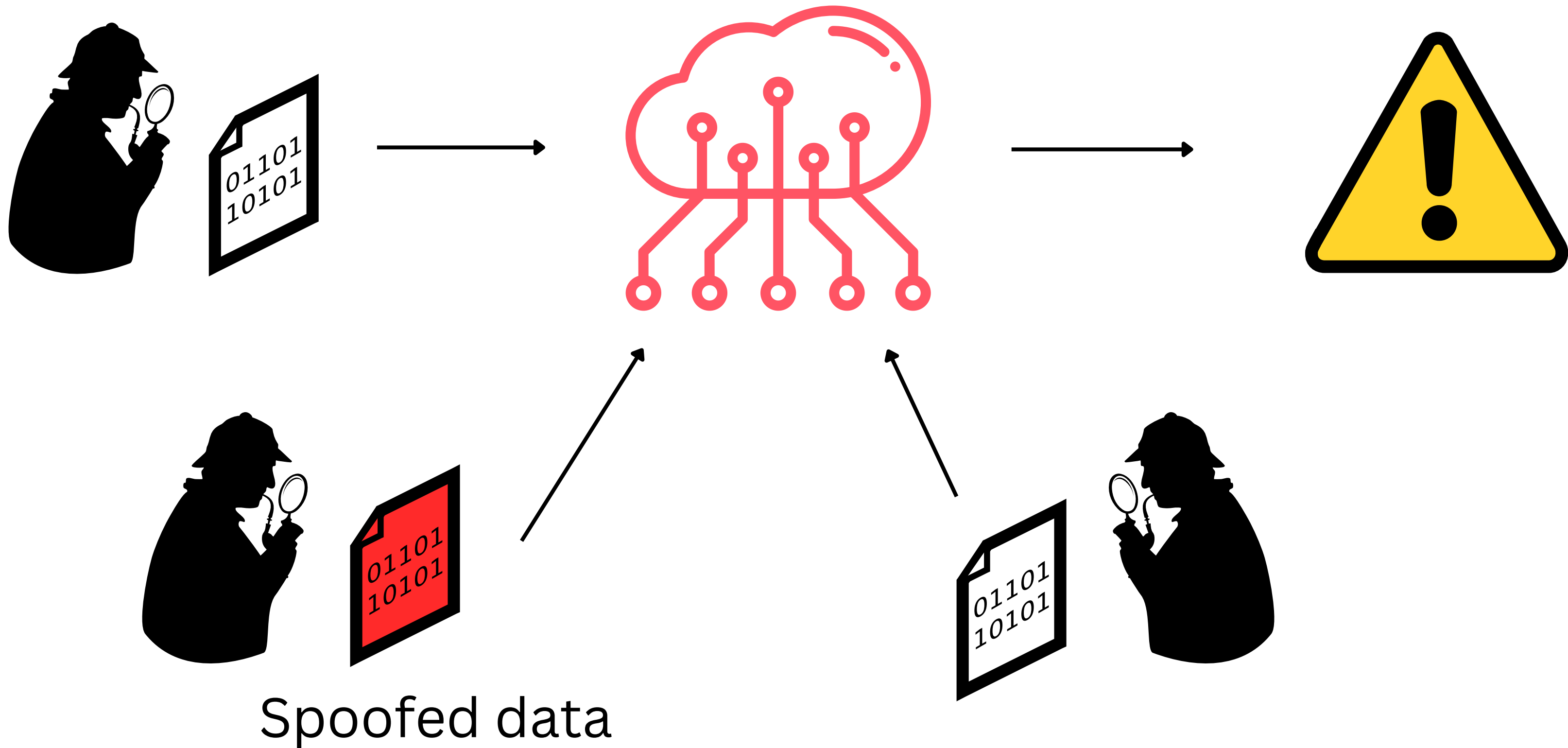


Data Fusion

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The **group** is stronger
than the individual!

Threat recognized



Data Fusion

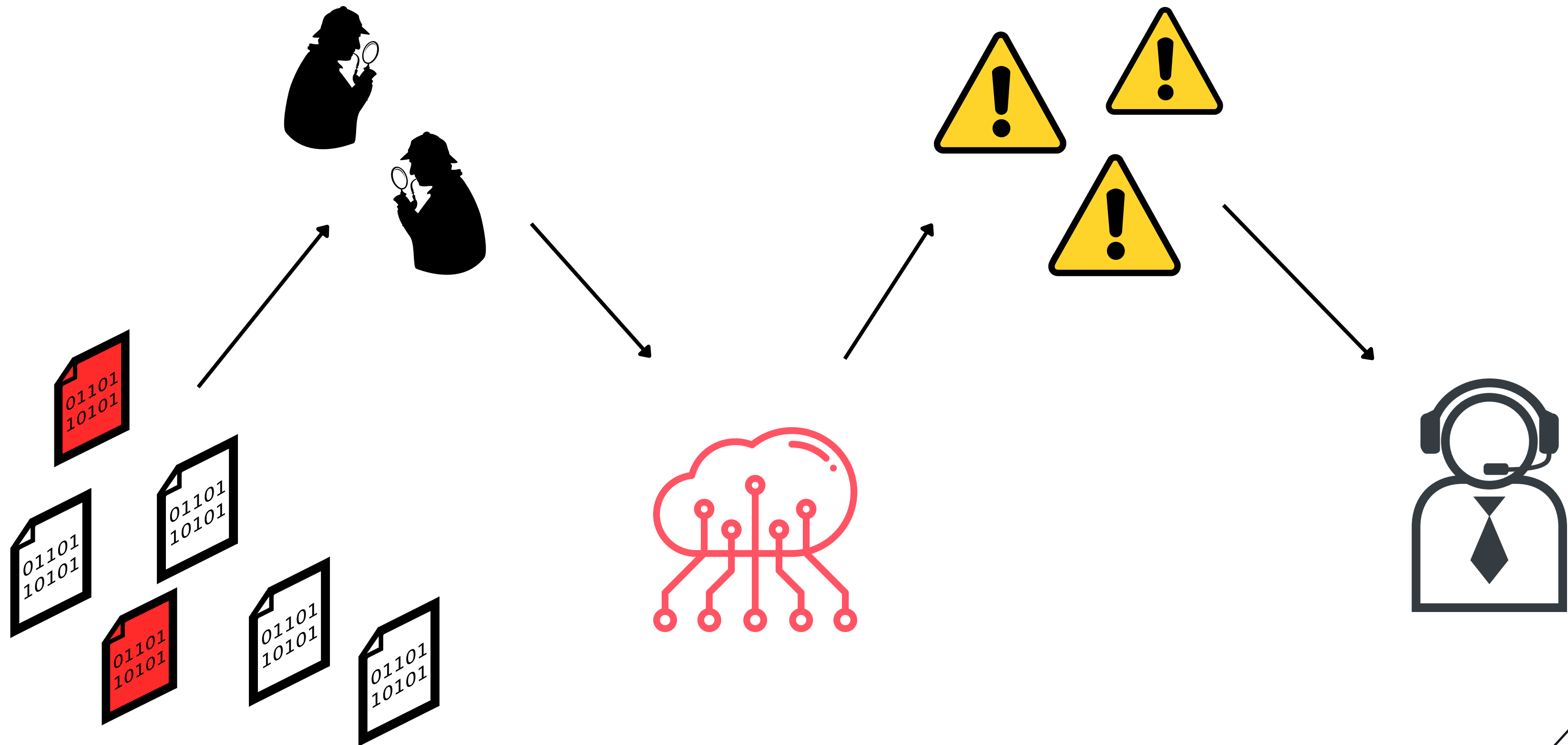


$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



010	0101001
010	1111101
101	0101010
0100100101001	
1110101111101	
0100100101001	

Reliable threat detection





DECRYPTO

CRYPTOMALWARE DETECTOR

3 data sources

Millions of detections / day

Only **10** false positives / day

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**Data fusion can make
our networks safer!**

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**Thank you
for
your attention**