INFOGRAPHIC

The Court of Authentication

How Callsign uses machine learning fusion to deliver secure & seamless customer journeys.

An authentication request works in a similar way to a criminal trial. Evidence of the user's identity is gathered and presented to an impartial judge who assesses the evidence and decides the request's fate.

In our IDA platform, evidence is gathered from a wide variety of sources, ranging from behavioral biometrics to contextual insights. Our Machine Learning models then provide specialist advice on how to interpret the evidence.

We then assess the advice in its totality (through a process called fusion), allowing our decisioning module to determine a robust final judgement

THE EVIDENCE

Intelligence Engine

In any trial, the first stage is gathering evidence. Police will swab the crime scene for DNA, check CCTV records etc. We gather evidence from a wide variety of sources, ranging from authentication factors to modalities and contextual insights.

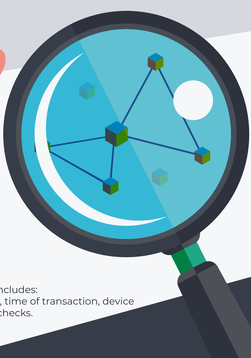
Authentication Factors

1. **Knowledge** something you know
2. **Possession** something you have
3. **Inherence** something you are
4. **Location** (Emerging factor) somewhere you are

Modalities

Modalities are the data input used for authentication, be it biometric (behavioral or facial recognition), knowledge based (passwords and PINs) or other.

We can integrate with existing authentication modalities, as well as provide innovative PSD2 compliant proprietary solutions, such as our Safe Swipe capability



Contextual Data

We also collect broad categories of contextual data that our Machine Learning (ML) models can learn as "normal" for either an individual, or a population.

Authentication attempts that lie outside of the recognized normal can be identified as higher risk and treated in an appropriate manner.

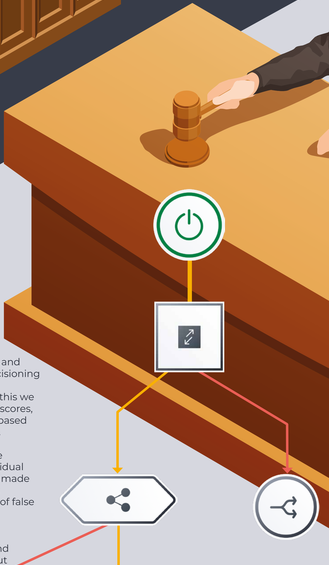
The type of contextual data that we collect includes: Geographic location, device interaction data, time of transaction, device integrity info, telco data and malware & bot checks.

EXPERT ADVICE

Machine Learning AI

Our Machine Learning (ML) models provide our decisioning module with expert advice on how to interpret the evidence. To do this we assign a risk score to each modality, asking:

Given what's observed about this individual's data (for each specific modality), what is the probability that this new authentication attempt is genuine?



JUDGEMENT

Ensembling & Decisioning

With the evidence gathered and assessed it's time for the decisioning module to to determine the appropriate outcome. To do this we fuse the individual modality scores, to provide one overall score based on all the available evidence.

By assessing all the evidence both as a whole and as individual modalities, decisions can be made in a clear, logical, and robust way. This minimizes the risk of false convictions and conflicting decisions.

Meaning fraud is reduced and your users can get on without unnecessary friction.

Find out more: programs.callsign.com/court-of-authentication-webinar