### 

## Greater transparency for maximum confidence

Veriff's fraud prevention layer works in the background to stop bad actors in their tracks.



### Prevent multi-accounting

Automatically prevent the same users from opening multiple accounts, requesting multiple loans or abusing sign-up bonuses with Veriff's Velocity Abuse feature.



### Agile fraud protection

Fraud trends change faster than code. Veriff's technology can create rules based on data points that either send verification sessions to manual review or decline them.



### Leverage Veriff's data

Build your own advanced and flexible anti-fraud flow based on device and network data points.



## 1. Device & network fingerprinting

Our comprehensive profile of raw data grants us free rein over exactly which pieces of information we decide to use and how.





### 2. Crosslinking

Our fraud engine ingests thousands of data points and compares them to historical session data to identify any fraud patterns and trends.



### 3. Risk labels

Warning labels are generated to note potentially suspicious behavior in a verification session, like the use of a VPN or the user's document country being from a different time zone than their device network.



### 4. Face blocklisiting

The blocklist functions as a separate, customerspecific set of data, where Veriff can add endusers based on the extracted face embeddings. All incoming faces will be checked against that database and if there is a match, the session will be automatically declined.

### Contact us at sales@veriff.com



# Veriff's device and network fingerprinting solution

Technical Overview



## Robust fraud detection technology

Veriff's Device and Network Fingerprinting technology has been a cornerstone of gathering technical information about end-users accessing our flow. Veriff uses raw technical information to combat fraud, specifically reoccurring fraud.

### Device and Network Fingerprinting solution collects data from multiple layers

### Passive (Requests from Servers)

### Additional parameters:

- Passive TCP/IP stack insight
- Passive SSL/TLS handshake analysis
- · HTTP client user-agent string analysis
- Round Trip Time and variance
- · IP information:
- (ASN/ISP, location, hostname, timezone)
- · Signatures analysis, insight and recognition
- Signatures and IP velocity
- Risk layer for signatures and IP/network (negative/gray lists)

Tagging + Tag retrieval capabilities

Private browsing detection

- hardware local network
- fonts
- plugins • WebGL
- WebRTC
- audio
- battery
- browser features
- network performance · Device internal identifiers
- Device name

- · Hardware (cpu, memory, storage, screen, sensors, audio)
- · OS/Kernel details
- User installed apps details
- Uptime details
- Network detection
  - (radio, host, macAddress, IPV4/IPV6 IP, connected AP info, DHCP details)
- Carrier information
- · Process environment information
- · Emulator/simulator detection
- · Jailbraking and rooting detection

### JavaScript (Requests from browsers, hybrid mobile applications)

### Mobile (Requests from iOS and Android native applications)

Tagging + Tag retrieval capabilities

### Device and Network Fingerprinting Solution also returns the following IP-related risks:

- Known proxies
- TOR exit nodes
- TOR servers
- · Anonymizing VPN providers
- Servers distributing or running malware/spywar
- · Is part of a hijacked netblock or a netblock controlled by a criminal organization
- Running a hostile web spider / web crawler
- Hosting a malicious bot or is part of a botnet.

Includes brute-force crackers

- Hosting a spam bot
- · Hosting an exploit finding bot or is running exploit scanning software
- Is datacenter or hosting company
- · Servers flagged on DShield

### **Device location detection with Veriff**

- · Veriff's Device and Network Fingerprinting technology collects the end-user's IP address, forward it then to our clients.
- This can be used to determine the end-user's location at the time of ID capture, unless they are using a VPN.
- When faced with a VPN, Veriff's Device and Network Fingerprinting Solution will read the location that the end-user wants us to read.
- In this case, the IP/device location will be off, but the rest of the relevant device ID data will still be useful, regardless of the VPN.
- While we do collect the IP location, it can only be accurate enough to determine the city/region that the end-user is coming from.

Veriff does not gather GPS information or IMEI code as these would require us to ask for extensive permissions from the end-user.