

vFace

Facial Biometric Authentication

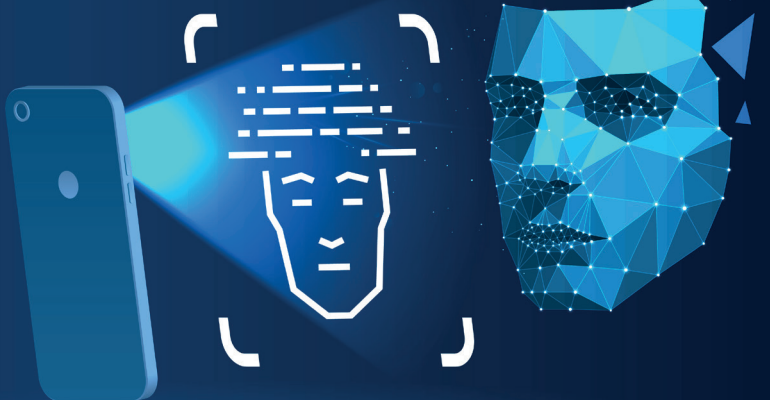
VERIDIUM vFace

Organizations trust Veridium to eliminate risks associated with weak forms of authentication and to comply with regulatory standards. With vFace, our software-only neural net-based facial biometrics offering, Veridium enables enterprises to replace or enhance passwords with biometrics as a fundamental element of digital identity.

Powering vFace is our VeridiumID authentication platform, which is a FIDO 2.0 certified open authentication server. This platform provides users flexibility to choose their preferred authentication method. VeridiumID supports native mobile biometrics (like Touch ID or Face ID), our innovative software-only biometrics (vFace and 4 Fingers TouchlessID), and legacy OTPs, as well as FIDO certified authenticators, providing the ultimate flexibility. This flexible platform in turn reduces total cost of ownership for strong multi-factor authentication and provides secure, simple, and fast user authentication experiences.

**APP FREE and
FRIENDLY**

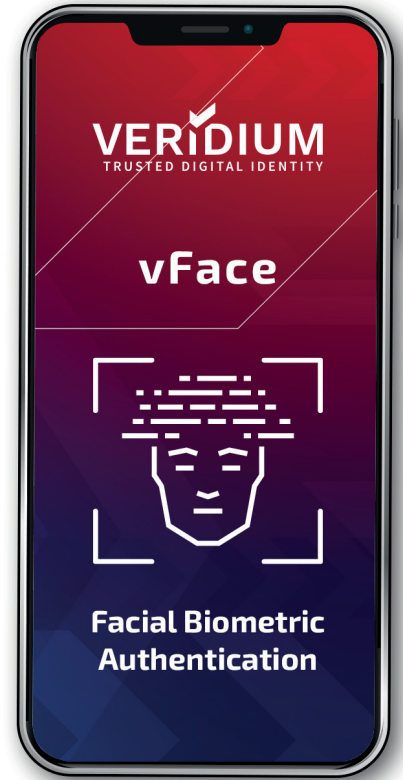
*Your Face is
Your Password*



Since cameras have become a de facto standard on mobile devices, laptops, and desktops, Veridium's innovative vFace is now available for use on a variety of devices. Mobile smartphones, tablets, desktops (Mac, Windows, Linux), and Thin Client devices with a camera can leverage Veridium's vFace to authenticate to any application or service seamlessly and securely. Enterprises can eliminate annoying passwords or add biometrics as an additional factor to improve security for consumers and employees with Veridium's vFace technology.

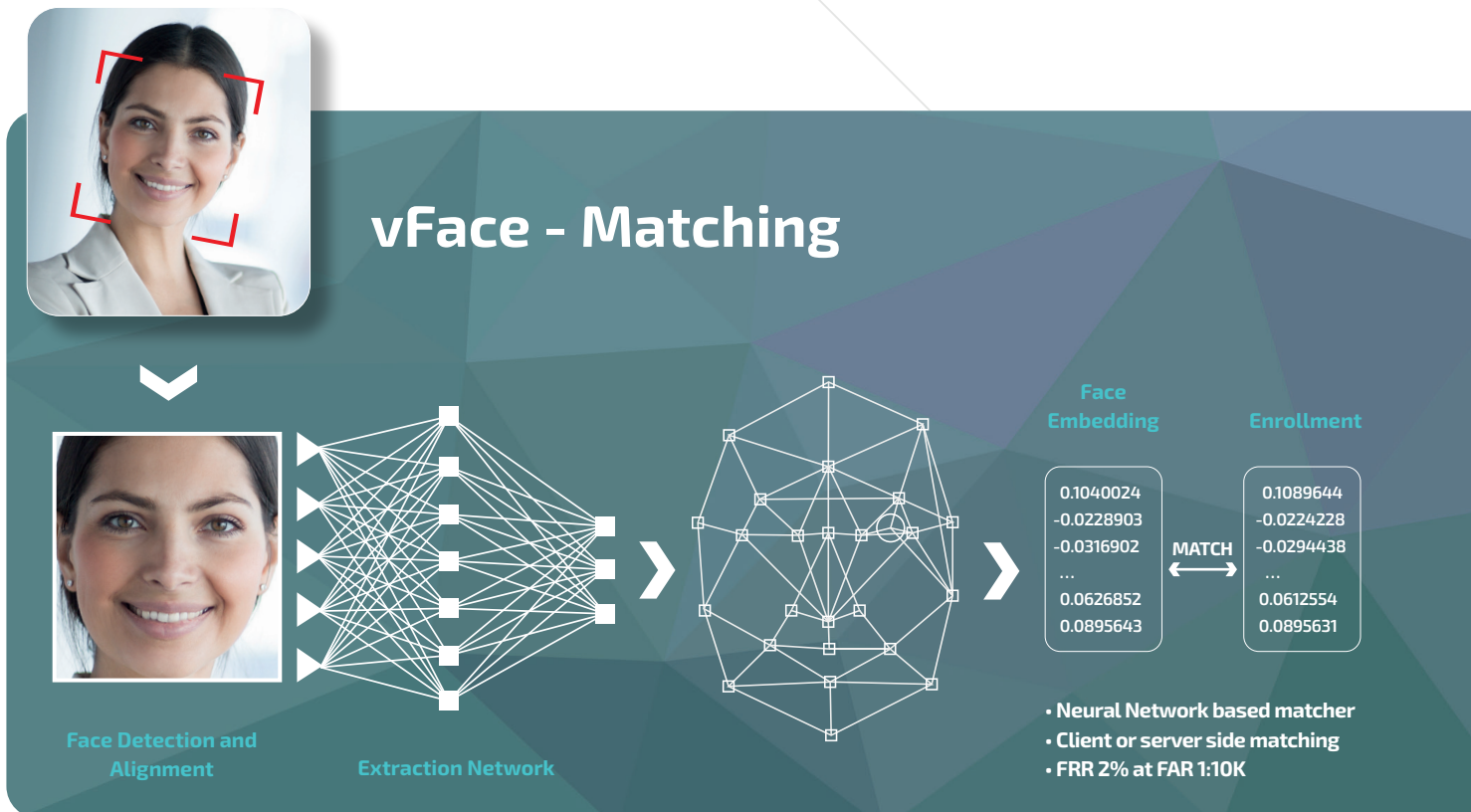
Veridium's vFace uses the built-in camera on your desktop or laptop, or any off-the-shelf web camera, through our standard browser HTML 5 support. This ensures that any operating system with a modern browser can leverage vFace for seamless, easy, and strong authentication, without requiring any application download or mobile development, thus enabling a completely App Free experience.

For smartphone users, Veridium's vFace utilizes the mobile device's front facing camera to provide the same seamless, easy, and strong authentication experience using the VeridiumID mobile application for iOS and Android devices (available via AppStore or Play Store) or your native mobile application that incorporates Veridium's mobile SDK.



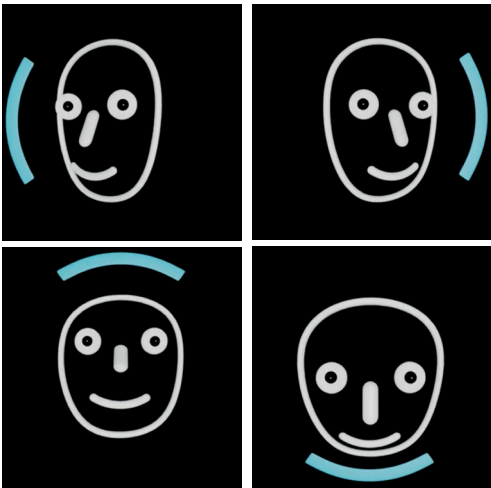
BIOMETRIC FACIAL TEMPLATES

Veridium's vFace allows users to enroll easily and securely completely unassisted. To preserve user privacy, Veridium only stores a one-way transformed face template, which is then encrypted and stored in a proprietary format on the VeridiumID platform. These templates are created using a state-of-the-art neural network embedded at the edge which can then be matched very efficiently. vFace biometric matching is executed on the mobile device or at the VeridiumID server for maximum security and flexibility. This enables users to enroll and match from any device.

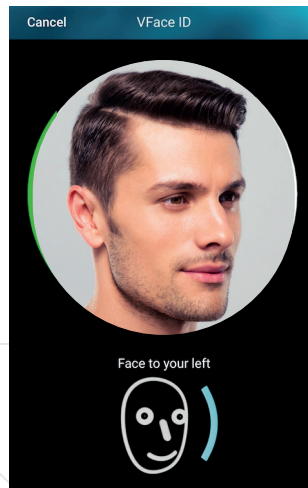


vFace - Directed Liveness

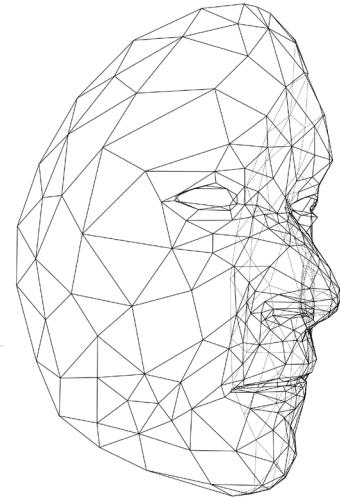
Random Pose Passcode



User Produces Poses



Model Representation



(Illustration only)

- vFace requests a random sequences of poses
- Liveness is asserted if movement appears genuine and face geometry is correct
- Robust against photos and video playback attacks

Architecture

Veridium's vFace leverages the power of Edge AI, a highly efficient neural network technology running locally on a device. This results in a responsive user experience and high accuracy across both the latest mobile hardware and legacy low-powered mobile devices. The same fluid experience is available on browsers regardless of the underlying operating system. Veridium's vFace runs natively in a browser, whether desktop or mobile, allowing browser-based authentication.

For native application developers, VeridiumID's mobile app SDK allows full User Interface customization so integrations can match the look-and-feel of your applications. VeridiumID's out of the box default user interface provides a clean design with instructional content and dynamic feedback to make it an easy integration for application developers.

Liveness

Veridium's vFace ships with an "active liveness" capability to guard against spoofing. Active liveness requires users to follow prompts and move their head during enrollment and authentication to deliver enhanced security and mitigate against presentation attacks.

Minimum System Requirements

- **IoS Version** : iOS 9.3, device with 64-bit processor (iPhone 5S or newer)
- **Android Version** : 5.1 (Lollipop, API Level 22)
- **Safari Version** : 14.1
- **Microsoft Edge Version** : 91.0.864.37
- **Firefox Version** : 90.0
- **Chrome Version** : 91.0.4472.147
- **Camera Requirements** : 1 Megapixel (720p), (recommend 2.1 megapixel)
- **Operating Systems Supported for**
 - Desktop Login/Unlock** : Windows OS 7, 8, 10 and Server
- **Works with** : Apple iPhone and iPad, Google Android phones and tablets, Windows, OSX, MacOS, Chromebooks, Linux, IGEL OS

SDK

Veridium's vFace has also been seamlessly integrated into the Veridium Mobile SDK, offering mobile application developers to offer a consistent user experience during logon process between native mobile application, mobile browser, or desktop browser.

ABOUT VERIDIUM

Veridium is a leader in the development of user-centric authentication solutions which link biometrics (what you are) to smart phones (what you have) for trusted digital identities. Our authentication platform and proprietary biometrics provide strong authentication, eliminating the need for passwords, tokens, or PINs – delivering multi-factor security with single-step convenience at a lower total cost of ownership than traditional MFA solutions.

veridiumid.com info@veridiumid.com +1 877 301 0299

LONDON | OXFORD | NEW YORK | ROMANIA

www.veridiumid.com © 2021 Veridium IP Ltd. All Rights Reserved.