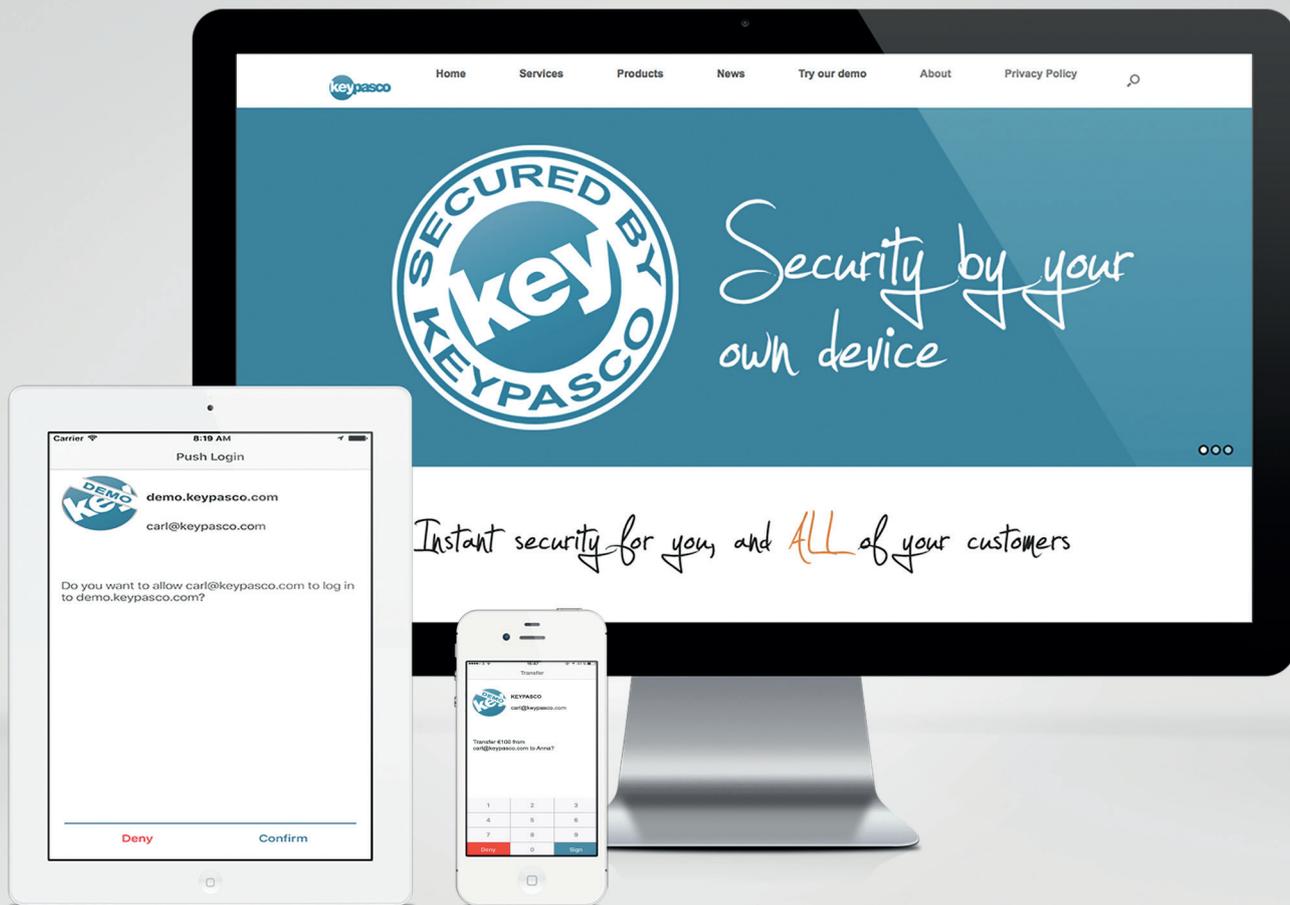




Your device ID - as unique as your DNA

How it Works



## It is high time that you secure ALL of your customers!

With its ground breaking innovative technology, the Keypasco solution offers you a way to secure ALL of your customers without them even knowing it!

In addition, the Keypasco solution provides you with a unique risk engine, analysing the device behind every authentication attempt to detect fraudulent behaviour, to further increase the security for you and your customers. Several other features also add to the security – **let us tell you how it works!**

[www.keypasco.com](http://www.keypasco.com)

No distributed credentials = nothing to steal!

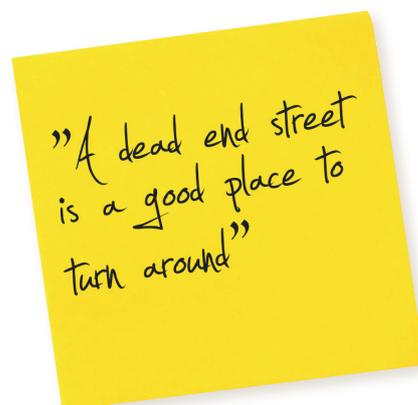
Over the years, reports have been pouring in about leaked account information, stolen passwords, credit card fraud and other troublesome and costly incidents, all due to poor security solutions.

At Keypasco we believe we can make the Internet a safer place. By challenging the traditions and making things easier and more human we create the Keypasco products and services.

### Internet (in)security – a huge problem

Why does it continue to happen when we all know how important good security is?

- **Username and password** – still the most common authentication solution
- **Hardware tokens** – can add to security but are expensive, difficult to roll-out and inconvenient
- **Human behaviour** – people use the same or similar password for all services
- **Federated login** – the use of Gmail or Facebook to open a new account at another site may be convenient, but also very vulnerable



Traditionally ALL authentication solutions use distributed credentials, like password or a unique key stored in a token or a mobile app. But – credentials can be stolen. So why continue on a dead end street?

#### Keypasco Digital Identity = DeviceID

- Device properties
- Location and proximity
- External personal device as part of device properties
- Internet of Things

#### Traditional Digital Identity

- distributed credentials = username + password and unique key
- Hardware tokens
  - SMS OTP, mobile software OTP token

### The unique Keypasco solution

- Software based solution
- Convenient, low cost, easy for mass rollout
- Privacy/Integrity protection – no connection between Personal Identity and Digital Identity
- Evolving risk engine, for continuous improvement of your security
- Flexible and self-scalable
- On premises or Cloud service
- No distributed credentials – nothing to steal!

### Our patented features

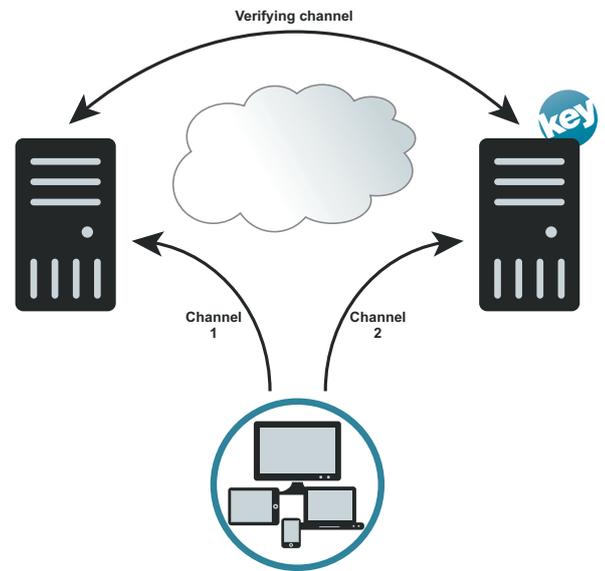
- **Device Fingerprint and two-channel authentication:** Bring the users own device as unique authentication device through a two-channel structure. Security by Your own device.
- **Proximity:** User's own devices/wearables in close position to each other as unique identity to enhance security.
- **Keypasco PKI Sign:** Keypasco has invented a unique solution for PKI in a mobile device without need for a Secure Element. By using Keypasco PKI Sign no complete private key is stored at any place, but it is still PKI compliant, making the solution extremely safe.
- **Dynamic URL:** This allows for single sign-on with one single trusted security app linking multiple Internet content providers on one side and multiple ID providers on the other.



## Security By Your Own Device!

### How it works

- Our strong authentication solution consists of the Keypasco server, one or several clients, and a two-channel structure
- The DeviceID properties on the end-users devices are scanned and stored at the Keypasco server
- The first channel sends information between the end-user's device (client or browser) and the online service provider
- The second channel sends information between the end-user's device, the client(s) and the authentication server
- To verify the authentication and add the multi-factor levels of security the online service provider checks with the Keypasco server to verify the device authentication, geographical locations, proximity and the risk management analysis
- Any external personal devices can form a part of the Digital Identity
- Risk-engine: Analysis of different device properties: device, location, proximity, time gap, behaviour or combinations of them
- Black-list of fraudulent devices



### Keypasco mitigates threats

**Phishing** – by linking the users DeviceID with its geographical location, your username and password only works on your devices in the right locations.

**Man in the Middle (MitM) and Man in the Browser (MitB) attacks** – by Keypasco's two-channel structure and Out of band secure notifications.

**Malicious Virus Control (Viruses, Trojans, etc.)** – with an Out of Band secure notifications we can stop them from taking control or replicate an end user's device.

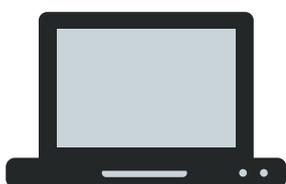
**Theft/Robbery** of a device can compromise a user's security. With the Keypasco proximity feature, a user's account is safe even if a device is stolen.

Keypasco mitigates all present threats

- Phishing
- Man in the Middle
- Man in the Browser
- Malicious Virus Control
- Theft/Robbery

### Desktop client

The client is installed on the end-users desktop computer for identification of the device and location. The desktop client also provides the functionality of secure verifications and signatures. The desktop client can be used to secure web solutions as well as desktop applications.



### Smartphone & tablet client

Our SDK is integrated in the ICP's app to identify the device and its location, and can confirm secure verifications and signatures through the Out-of-Band verification channel. One of the signature options is the Keypasco PKI Sign, which has no need of a secure element.



### Browser client

With the Browser client, the Keypasco solution can verify the device and location. The unique risk engine is working in the background.



### The Keypasco server

Keypasco authenticates the end-user by identifying and associating their device(s) and location(s) to an anonymous user-ID within the Keypasco server. No personal data is ever stored in either the client or on the server! The server is located in the Cloud and self-scalable to handle any volume.



## Service on your terms

The core technology of the Keypasco solution, the collecting of device-related data - makes it possible for us to offer something no one else does – a risk-based authentication solution that is easy to integrate and can be rolled out in the background to ALL end-users at once, regardless of the number of users. Our aim is to provide our customers with the best security solution and service for their needs. We work globally through established local partners – as reseller and for local support.



### Generic Service model

An embedded solution without end-user interaction where the risk-engine works in background, easy for silent mass roll-out and instantly secure 100% of your customers!

### Premium Service model

When you want to offer your customers an extra high level of security suitable for services like: Finance industry, eGovernment, healthcare, Credit card protection, Cardless ATM withdrawal, Mobile payment service using NFC or QR-code, P2P payment service etc.

Silent enrolment   Easy integration   Unique risk engine	Generic	Premium
Automatic enrolment in background – no end-user interaction Provided through the Internet browser and / or existing mobile app	✓	✓*
Unique risk-engine – powered by device data mining working in the background to improve your security	✓	✓
Easy to integrate with your current solution	✓	✓
Instantly protects all of your customers after implementation	✓	✓
You own the information about your customers, Keypasco can not access it	✓	✓
Scalable solution – suitable regardless of the number of end-users	✓	✓
Secure enrolment with user identification		✓
PKI for document and transaction signing		✓
Authentication and signing for e-commerce		✓
Authentication and signing for Cardless ATM		✓
Mobile Commerce and Mobile payment		✓
Push notifications		✓
Cost per year	20 cents / active user**	Request a quote

\* The Premium model includes both the silent enrolment and the secure enrolment with user identification. \*\*The price is subject to change

### About Keypasco

By using the unique device ID on the end-user's own device, like a smartphone, tablet or a desktop/laptop computer, we can make sure that a username and password only works on the right device and in the right location. To ensure a convenient user experience the cutting-edge technology is working in the background to maintain the security behind the provider's ordinary application interface.

Since the start in 2010 Keypasco's award winning solution has contributed to a paradigm shift within Internet security. Keypasco's unique patented solution uses a revolutionary new technology for user authentication and provides security to online service providers and users.

The Keypasco solution opens up for new innovative business models and enables the creation of new services. Today our products provide mobile security to millions of users across the world. **Keypasco - Security By Your Own Device!**