

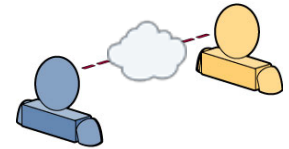


Achieving online trust through Mutual Authentication

Agenda

- Where do we need trust online?

- who are the affected parties?



- Authenticating the site to a consumer

- V by V and SecureCode, next generation browsers

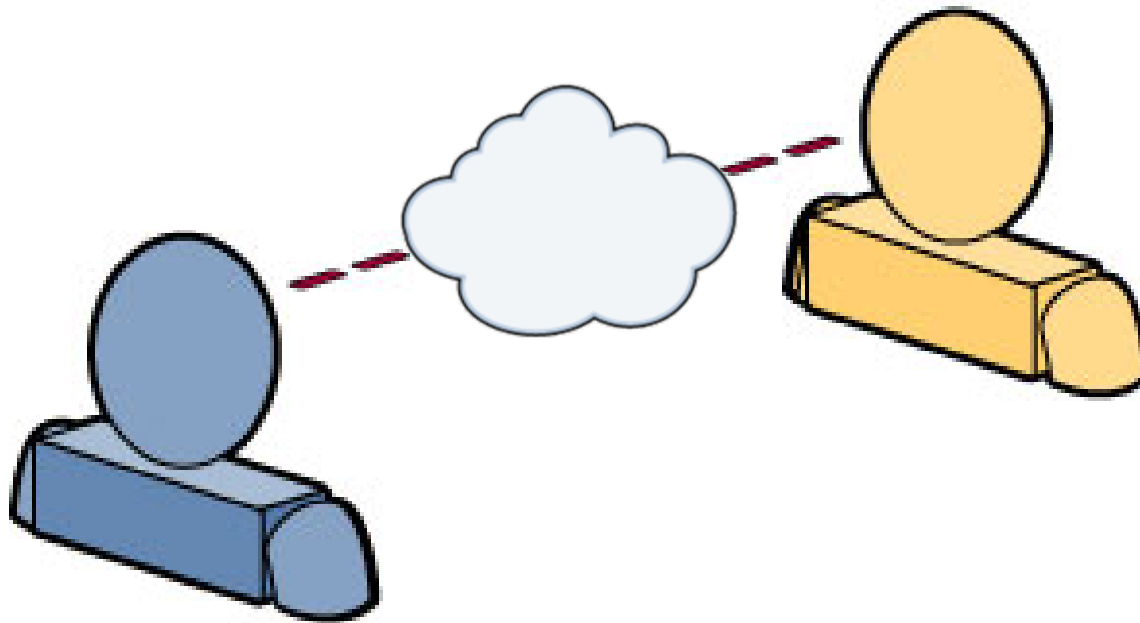


- Authenticating the consumer to a site

- strong authentication options



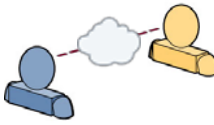
Where do we need trust online?



“For it is mutual trust, even more than mutual interest that holds human associations together.”

H. L. Mencken (1880 - 1956)

Where do we need trust online?



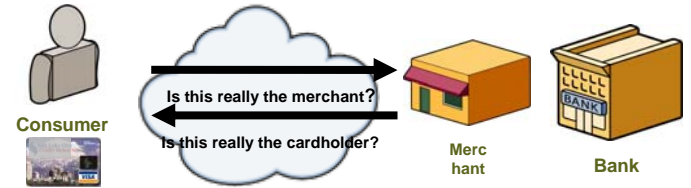
For any online interaction where consumer confidence would be eroded if a fraudster could gain value from intercepting or changing data such as....

Authenticating the consumer to a site



- For financial payments

- CVV2
- Address verification



- For bank account management

- Almost always user name and ID
- Some pioneers (Lloyds TSB, Alliance & Leicester)

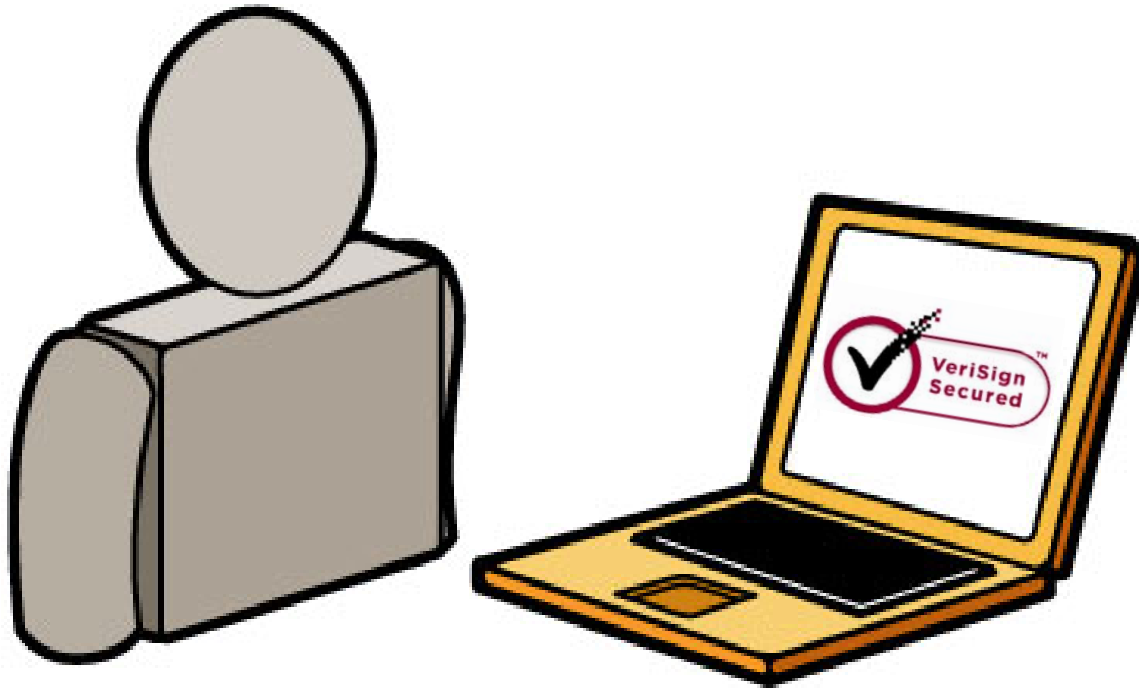


- For online service providers account management

- Almost always User Name and ID
- Some pioneers (eBay, PayPal, MicroSoft, Yahoo)



Authenticating the site to a consumer



“Trust in Allah, but tie your camel”
Old Muslim Proverb

Authenticating the site to a consumer - Today



Address  <https://www.playsecureserver1.com/order.asp>

PLAY.COM FREE DELIVERY ON EVERYTHING

Options: Cancel Order, Helpdesk, FAQs, Back to shop, Sign out

Your Order: Sign In, Delivery, Confirm & Pay, Done

Please check the delivery information for your order. [Continue >](#)

Choose a delivery address for your order. Click 'Add/edit addresses' to change an existing address or create a new one.

Mobile phone details: Edit phone details

Number: 07717894905
Model: All other EMS phones (Siemens, etc...)
Network: Orange

Item	Status	Price	Qty	Subtotal	Cancel
Crazy (Polytone)	In Stock	£1.50	1	£1.50	Remove Item
Total				£1.50	

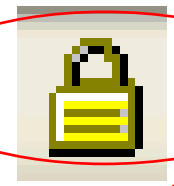
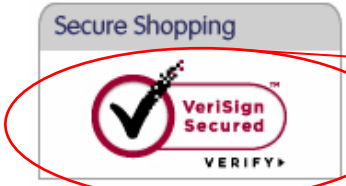
Please check the delivery information for your order. [Continue >](#)

We accept these cards:

0845 800 1020 Play.com Helpdesk

Done

[Privacy Policy](#)

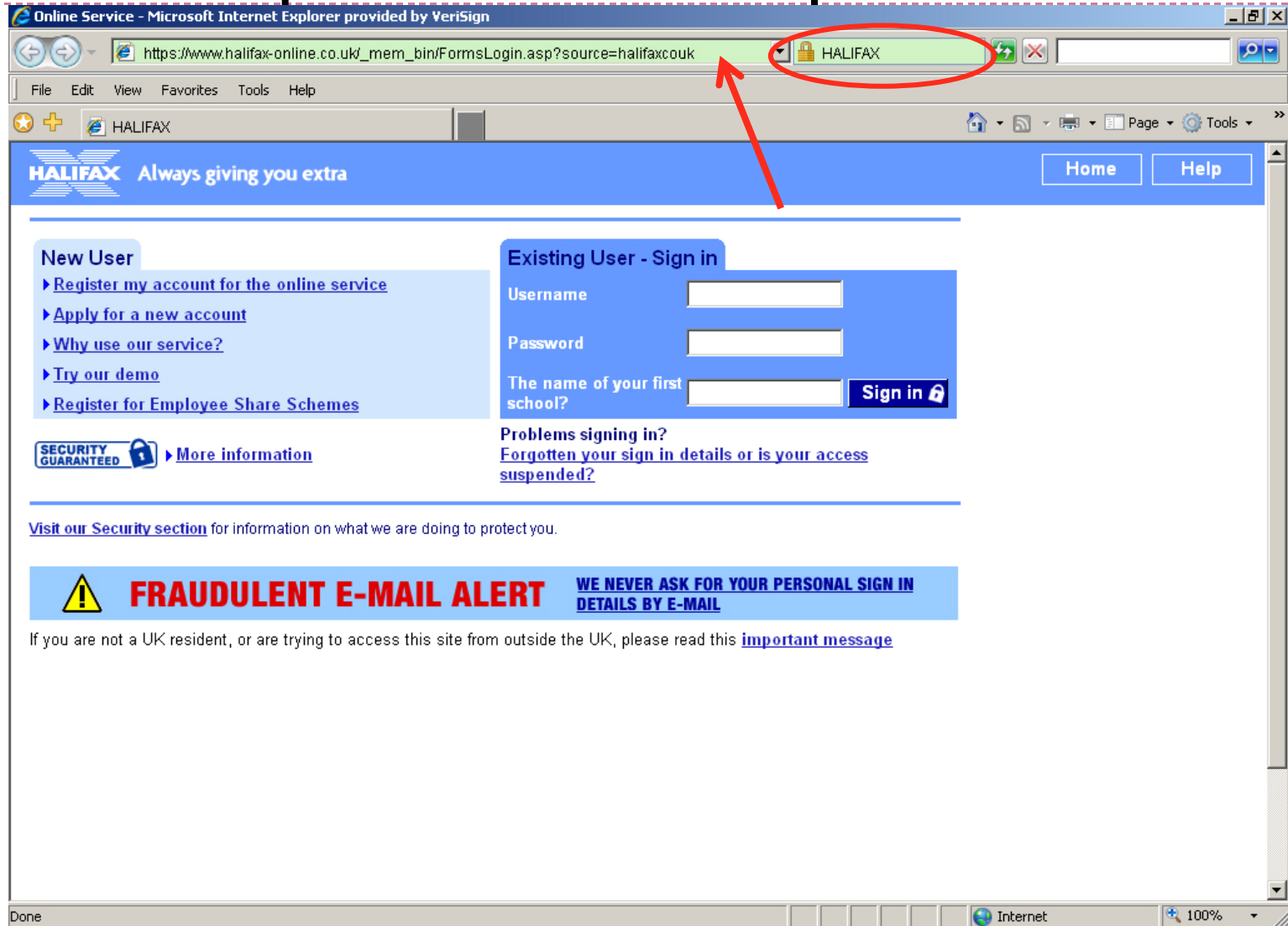




Authenticating the site to a consumer – Future

- SSL and browser providers working together
 - to help fight fraud
- Display security **and site authenticity**
 - method depends on browser
- Standards (nearly) complete for IE7, vary by browser
 - based on authentication procedures for “High Assurance” certificates
- Higher security browsers are available today
 - Netscape / Firefox available, IE7 (85% share) late 2006

Internet Explorer 7 user experience



Internet Explorer 7 user experience

Online Service - Microsoft Internet Explorer provided by VeriSign

https://www.halifax-online.co.uk/_mem_bin/FormsLogin.asp?source=halifaxcouk

Identified by VeriSign, I...

File Edit View Favorites Tools Help

HALIFAX

Home Help

HALIFAX Always giving you extra

New User

- ▶ [Register my account for the online service](#)
- ▶ [Apply for a new account](#)
- ▶ [Why use our service?](#)
- ▶ [Try our demo](#)
- ▶ [Register for Employee Share Schemes](#)

Existing User - Sign in

Username

Password

The name of your first school? **Sign in**

SECURITY GUARANTEED ▶ [More information](#)

Problems signing in?
[Forgotten your sign in details or is your access suspended?](#)

[Visit our Security section](#) for information on what we are doing to protect you.

FRAUDULENT E-MAIL ALERT **WE NEVER ASK FOR YOUR PERSONAL SIGN IN DETAILS BY E-MAIL**

If you are not a UK resident, or are trying to access this site from outside the UK, please read this [important message](#)

Done Internet 100%

Authenticating the consumer to a site



“All men are frauds. The only difference between them is that some admit it.
I myself deny it.”

H. L. Mencken (1880 - 1956)

Authenticating for financial payments – CVV2 & AVS



Argos - www.argos.co.uk - Microsoft Internet Explorer provided by VeriSign

Address: https://www.argos.co.uk/webapp/wcs/stores/servlet/DeliveryOnlyPaymentInfo?availableOrder_2=&availableOrder_1=&krypto=swkj4413U0BcAxeBdBeAJCPNqXz3yPpdzl

Card Details * must be completed

Cardholder's Name

Card Type

Argos Card payment credit plan: **Choose credit plan**

Card Number

Expiry Date (mm/yyyy) /

Card Signature Code * must be completed for most cards - see below for details

Issue Number **Switch/Solo** cards only - Please enter the start date or issue number. Issue number must be entered exactly as it appears on your card e.g. 01 as 01, 1 as 1.

Valid From (mm/yyyy) /

Card Billing Address * must be completed

If this is not your card billing address, please enter the correct details below.

House Name Number

Street/Road

Town

County

Postcode

Card Signature Code * must be completed

House Name/Number

Street/Road



Authenticating the consumer to a site – future

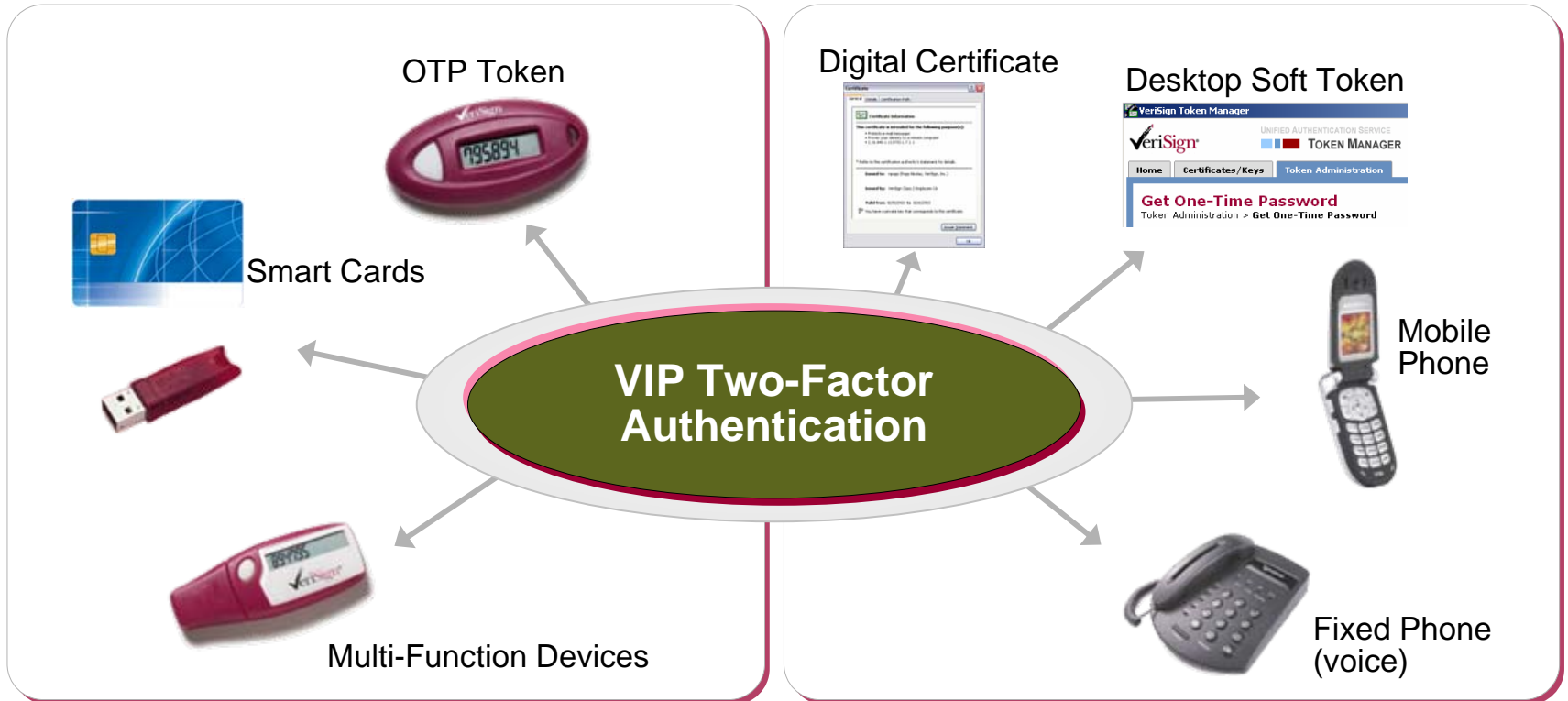
- Two factor or strong authentication, many form factors
 - token, phone, application on PC, “bingo card”
- Many models for authentication
 - must reflect security requirements AND consumer acceptance
- Shared token makes financial sense, helps acceptance
 - Financial Payments
 - Bank Account Management
 - AND Online Service Provider Account Management



Many form factors

HARD

SOFT



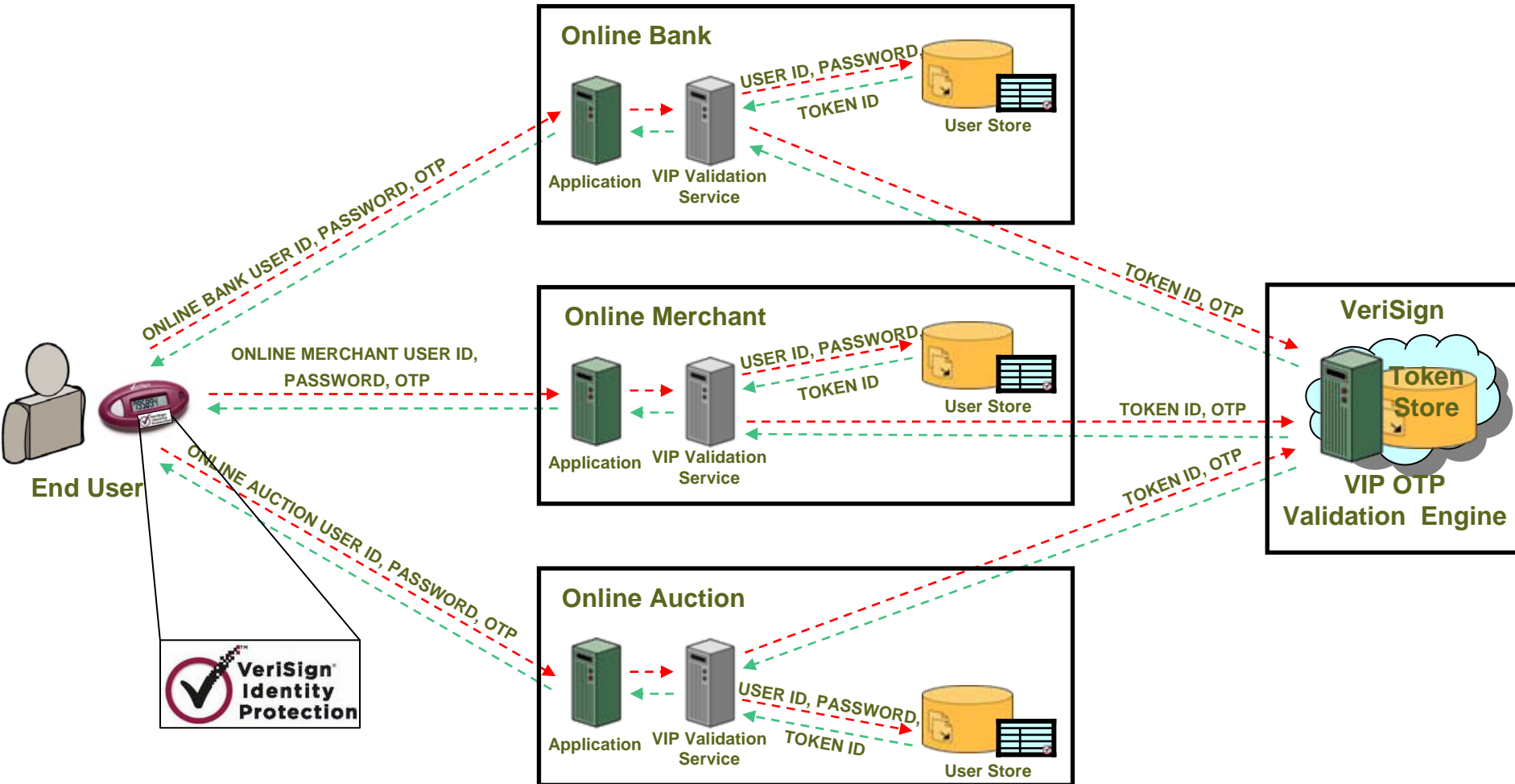


Many models for authentication

- VeriSign have identified 5 models for the UK banking and retail community
 - Traditional
 - EMV CAP
 - Closed user group trusted 3rd Party
 - Open user group trusted 3rd Party (VIP)
 - Hybrid (EMV CAP and VIP)
- 1st draft of White Paper available
 - Will be distributed to contacts within banking and retail community



Open group trusted 3rd party





VeriSign Identity Protection Network (VIP)



- Invisible or Web Lifestyle Friendly Security for Consumers
- Comprehensive & Turn-Key Solution for Online Services

Intelligent Infrastructure for ID Protection
From the Leading Internet Infrastructure Operator



Inspired by the offline world

Online Banking Sign In

Login

Username:

Password:

Sign In

[Forgot your Account Number?](#)

Learn More About:

Checking and Savings
Checking Accounts | Savings

Credit Cards and Prepaid C
Credit Cards | Gift Cards | You Protection

Loans and Credit Lines
Home Mortgage | Home Equity
Auto Loans | Personal Loans |

Investments and Financial
Investment Services | IRAs | M
Private Consulting | Trust Serv
Learn about Investing

VeriSign[®] Identity Protection

- ✓ An ATM card works across all the Banks on the Cirrus Network
- ✓ A VIP Device Works Across all the Web sites on the VIP Network



Achieving online trust through Mutual Authentication
