

Transparency and Usability of Web Authentication

Personalized Web Experience

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The views expressed in this position paper are those of the author, and do not necessarily reflect those of the author's employer, World Saving Bank, FSB or its parent company, Golden West financial.

Overview

- FFIEC Requirements
- Consumer Trusted Channel
- Personalized Experience
- Customer Education

FFIEC as a Starting Point

“Where risk assessments indicate that the use of single-factor authentication is inadequate, financial institutions should implement multifactor authentication, layered security, or other controls”

Authentication Techniques, Processes, & Methodologies

- Shared Secrets
- Tokens
- Smart Card
- Biometrics
- Non-Hardware-Based One-Time-Password Scratch Card
- Out-of-Band Authentication
- Internet Protocol Address (IPA) Location and Geo-Location
- **Mutual Authentication**

Mutual Authentication:

Mutual authentication is a process whereby customer identity is authenticated and **the target Web site is authenticated to the customer.**

Mutual Authentication technology aid in the protection against

- phishing / fraudulent email?
- pharming / fraudulent websites?

Mimicking a Trusted Channel

Recognized Branch Banking Experience ~

- Known Location
- Welcome Greeting
- Personalized experience with a teller
- Account history summary

Personalized Web Experience

- Background Color
- Font Color
- Text Message
- Graphic Image
- Phrase Displayed
- Voice Greeting
- Session Timer
- Transactional History
- Security Checklist

“Reverse Biometric Authenticator”

Site validating itself to the customer by providing the end-user with unique visual trait or behavioral characteristic that the site operates.

Low Level Authentication

Personalized visual indicators such as:

- **Background Color**
- **Font Color**
- **Text Message**

Low Level Authentication

PRODUCTS

SERVICES

TEMPLATES

DIE GALLERY

SAMPLES

MY FILES

MY ORDERS

MY ACCOUNT

My Orders

My Files

Preferences

1

Products & Pricing

2

Billing & Shipping

3

File Upload

4

Job Approval

Welcome back, John Doe

[\(Click here if you aren't John Doe.\)](#)

We have pre-filled the order form with the information you used on your last order. You can overwrite anything that you wish to change. For security reasons, you must re-enter credit card payment information.

THAWTE

AUTHENTIC SITE

CLICK TO VERIFY

Secured by SSL

* Required fields

Billing Information

Name: John Doe

Company:

Title:

Address 1: 1235 Main St

Address 2:

City: Scottdale

State: ID

Zip Code: 12345

Country: United States

Daytime Phone: (123) 456-7890

Evening Phone:

Fax:

Email Address:

Have a gift code?

Please enter it here:

Apply Gift

Shipping Information

Mid Level Authentication

Personalized visual indicators such as:

- **Background Color**
- **Font Color**
- **Text Message**
- **Graphic Image**
- **Phrases Greeting**
- **Voice Greeting**

Mid Level Mutual Authentication

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• My Orders

• My Files

• Preferences



01hr:02m:36s
Online Time

How Is your
(Last Purchase Info)
working for you!!!

1

2

3

4

Products & Pricing

Billing & Shipping

File Upload

Job Approval

Welcome back, **John Doe** [\(Click here if you aren't John Doe\)](#)

We have pre-filled the order form with the information you used on your last order. You can overwrite anything that you wish to change. For security reasons, you must re-enter credit card payment information.

* Required fields

Billing Information

☐

Name:

John Doe

Company:

Title:

Address 1:

1235 Main St

Address 2:

City:

Scottsdale

State:

ID

Zip Code:

12345

Country:

United States

Daytime Phone:

(123) 456-7890

Evening Phone:

Fax:

Email Address:

Shipping Information

THAWTE

AUTHENTIC SITE

CLICK TO VERIFY

Secured by SSL

Have a gift code?

Please enter it here:

Apply Gift

High Level Authentication

Personalized visual indicators such as:

- **Background Color**
- **Font Color**
- **Text Message**
- **Graphic Image**
- **Phrases Greeting**
- **Voice Greeting**

- **Session Timer**
- **Transactional History**
- **Security Checklist**

High Level Mutual Authentication

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How Is your
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Job Approval

Welcome back, **John Doe**

(Click here if you aren't **John Doe**)



For your safety please confirm that all info is correct.

☐ Color

☐ Image

☐ Text Message

☐ Session Timer

☐ Fraud Tips

☐ Secure SSL

* Required fields

Billing Information

Confirm Keys: ☐

Name: John Doe

Company:

Title:

Address 1: 1235 Main St

Address 2:

City: Scottsdale

State: ID

Zip Code: 12345

Country: United States

Daytime Phone: (123) 456-7890

Evening Phone:

Fax:

Email Address:

Shipping Information

Have a gift code?

Please enter it here:

Apply Gift

Conclusion:

- Personalize experience for the end-user
- Consistent authenticator across the web
- Better placement of fraud tips and info

If widely accepted this method of personalized visual and behavioral indicators can heighten an end-user consciousness of safe data sharing procedures over internet channels.



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