Accountability
The key to defeating Internet Crime

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VeriSign Inc.

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If cars were like computers…

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…but

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Cars are not designed for speed, cost or mpg.

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Cars

Safety

Reliability

Luxury

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The luxury computer has not yet been made

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Computers

Pig to use

Break every hour

Steal your life savings

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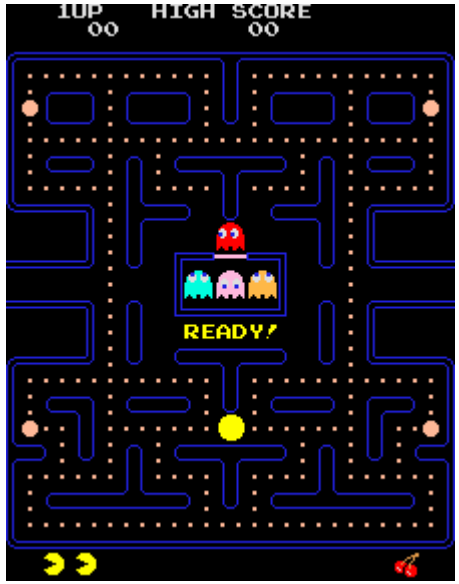

But luxury is not impossible

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Making driving safe

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Accountability

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How do we use Accountability to stop Internet Crime?

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Professional Internet Crime

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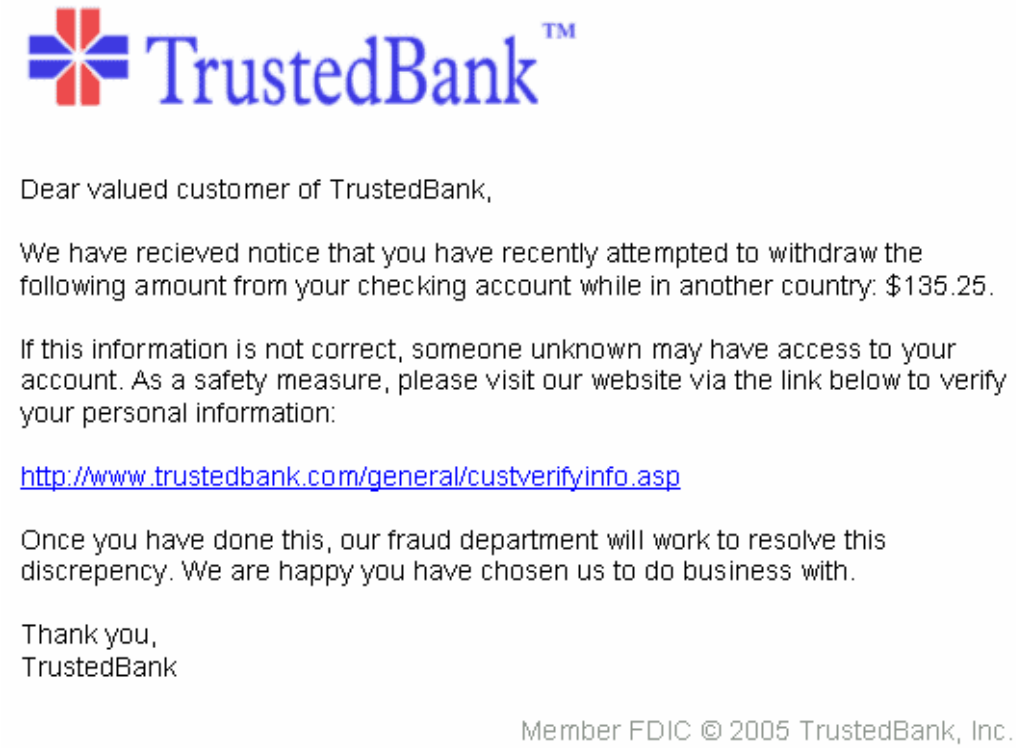
Phishing



TrustedBank™

Dear valued customer of TrustedBank,

We have recieved notice that you have recently attempted to withdraw the following amount from your checking account while in another country: $135.25.

If this information is not correct, someone unknown may have access to your account. As a safety measure, please visit our website via the link below to verify your personal information:

http://www.trustedbank.com/general/custverifyinfo.asp

Once you have done this, our fraud department will work to resolve this discrepency. We are happy you have chosen us to do business with.

Thank you,
TrustedBank

Member FDIC © 2005 TrustedBank, Inc.

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Extortion

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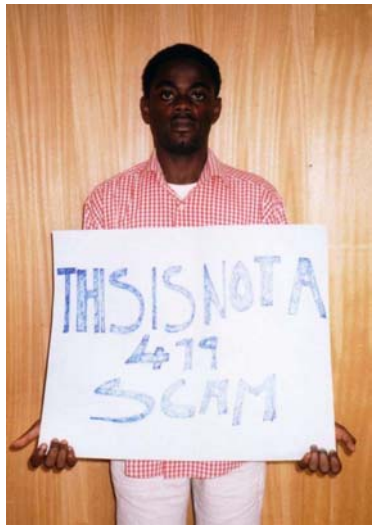

419eater.com

Advance Fee Frauds

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What is to be done?

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User Education

(Blame the User)

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The Law

Trigger Penalties

Tripwire Offenses

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Change the Internet

Make the Internet Infrastructure crime resistant

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Wasn’t that the plan?

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Permission Based Security

Access Control:

Confidentiality

Integrity

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Accountability Based Security

Authentication

Accreditation

Consequences

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Accountability Based Security

Authentication

Accreditation

Consequences

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How do we apply accountability?

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What is Phishing?

Credential theft

Impersonation of a trusted brand

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Stopping Phishing

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Tactical:
Stop Attacks in Progress

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VeriSign's Anti-Phishing Solution

- + Policy, Programs & Education
- + 2-Factor Authentication
- + Fraud Detection
- + Tokens

- + Brand Management
- + Domain Name Monitoring
- + Web Crawlers
- + Spam Filters
- + Customer Notification

- + 24x7 Support
- + Integrated Processes
- + Global Abuse Contact DB
- + Shutdown Phishing Sites
- + Damage Assessment

- + Cyber Forensics
- + Subpoenas
- + Follow-up Investigation

- + Initial Incident Validations
- + Progress Reports
- + Investigative Report
- + Trend Reporting

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Tactical:
A car alarm

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How do we *stop* Phishing

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What is Phishing?

Credential theft

Impersonation of a trusted brand

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Strategic:
Theft proof Credentials

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Strategic:
Theft proof Brands

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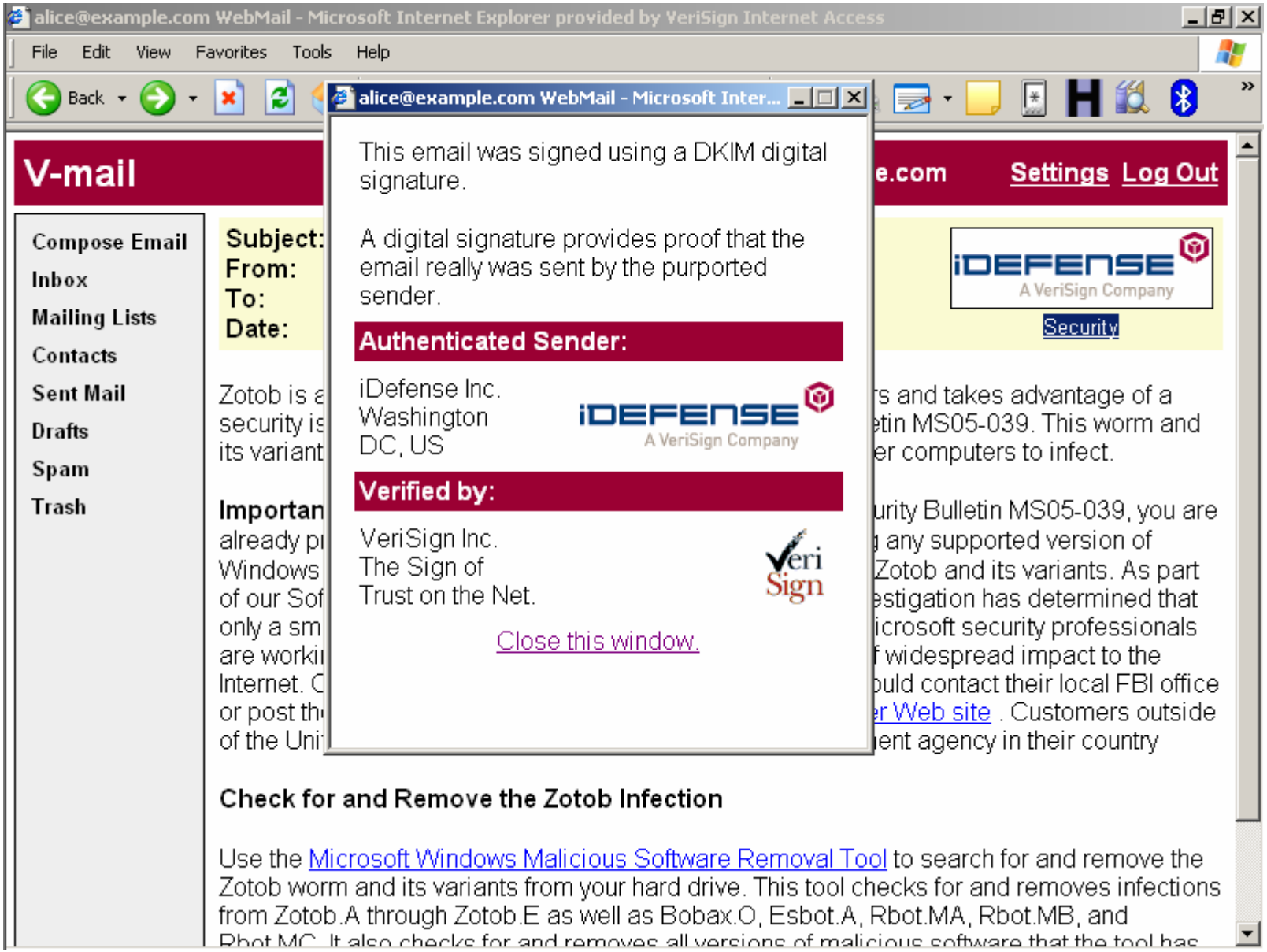
alice@example.com WebMail - Microsoft Internet Explorer provided by VeriSign Internet Access
File Edit View Favorites Tools Help
Back
alice@example.com WebMail - Microsoft Inter...
This email was signed using a DKIM digital signature.
A digital signature provides proof that the email really was sent by the purported sender.
Authenticated Sender:
iDefense Inc.
Washington
DC, US
iDEFENSE
A VeriSign Company
Verified by:
VeriSign Inc.
The Sign of
Trust on the Net.
VeriSign
Close this window.
V-mail
e.com
Settings Log Out
Compose Email
Inbox
Mailing Lists
Contacts
Sent Mail
Drafts
Spam
Trash
Subject:
From:
To:
Date:
iDEFENSE
A VeriSign Company
Security
Zotob is a
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any supported version of
Zotob and its variants. As part
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icrosoft security professionals
f widespread impact to the
ould contact their local FBI office
r Web site . Customers outside
ent agency in their country
Check for and Remove the Zotob Infection
Use the Microsoft Windows Malicious Software Removal Tool to search for and remove the Zotob worm and its variants from your hard drive. This tool checks for and removes infections from Zotob.A through Zotob.E as well as Bobax.O, Esbot.A, Rbot.MA, Rbot.MB, and

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Secure Internet Letterhead

Every Web Site

Every Email Message

Every Instant Message

Every Voice or Video Call

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How?

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Technical Details

Open Standards

X,509 Certificate (ISO)

Domain Keys Identified Mail (IETF, in progress)

PKIX Logo Type Extension (IETF)

High Assurance Certificates (CA Forum)

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Brand owner is accountable to consumer

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What if the certificate is issued to an attacker?

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Who Guards the Guardians?

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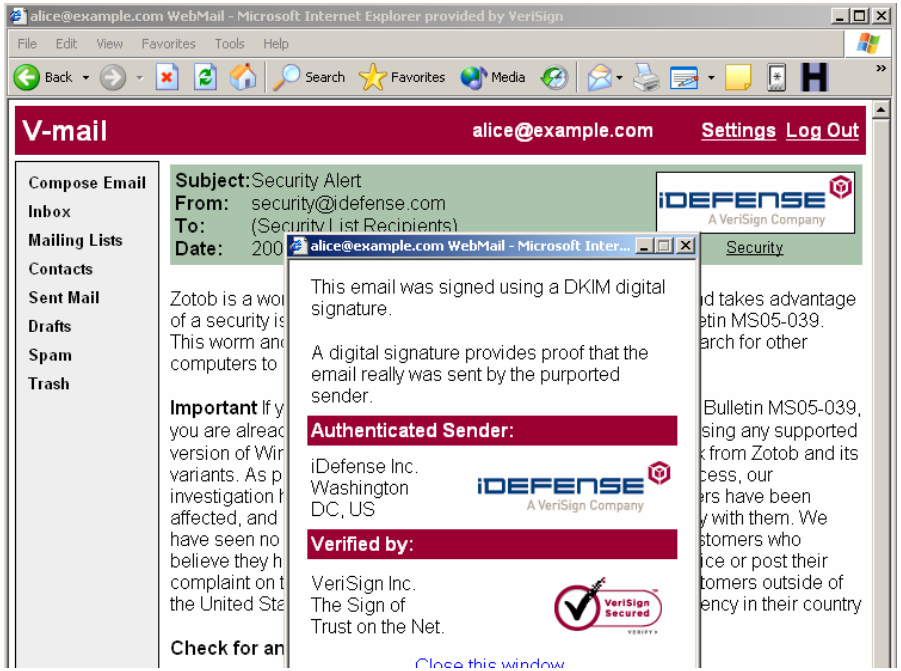

Accountability

Our brand on the line

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How to stop spam

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Accountability

Who sent the email?

Are they likely to be a spammer?

Consequences for default

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Strategic:
Theft proof Credentials

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oath

Theft-proof Credentials

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But how to deploy?

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Keyboards with card readers?

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Open Standards
for Tokens

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Open Standards for Interconnect

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Identity 2.0

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A Pain Point, not a technology

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Blogs

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Single Sign on
(for consumers)

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Work in progress

SAML, WS-Security, DIX, XKMS, LID, OpenID, LID, HTTP-Auth…

(we can work it out)

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What must be

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Consumer can control their own security

I can buy a bike lock at a store,

I need an Internet lock more

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Authentication

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Accreditation

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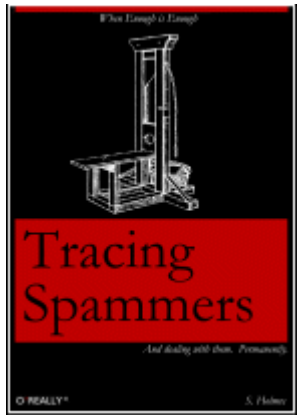

Consequences

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Thank You

Questions

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