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Entrust Stops Man-in-the-Browser Malware

Man-in-the-browser is the latest critical threat that is actively defrauding both consumers and business-banking customers. Innocent organizations are being targeted, resulting in large losses, bankruptcies and even legal action against banks.

Unfortunately, many security methods — antivirus protection, OS-patching, traditional strong authentication and legacy fraud detection — are simply not effective against man-in-the-browser attacks. And most current solutions that can address the problem tend to be expensive, hard to use and difficult to deploy.

Defeating Man-in-the-Browser

While there are many safeguards deployed inside financial institutions today, criminals are increasingly turning to highly effective social engineering tactics, combined with stealthy malware, to illegally obtain consumer identities.

Advanced Malware. One of the most advanced forms of malware used by criminals today, a man-in-the-browser (MITB) attack typically takes the form of an invisible browser extension, installed unknowingly by the user as a result of social engineering (e.g., phishing). From the user's point of view, the Web transaction takes place normally, complete with expected interactions with the organization's Web site.

The malware modifies Web sessions at will and initiates fraudulent transactions — all while showing the session as normal to the user, making it next to impossible for an end-user to detect. Whether a consumer or a business-banking customer, the impacts can be devastating.

The criminal community is heavily focusing its attacks today on business-banking customers, as the available funds are often greater, transaction limits are higher and the business customer has access to a wire transfer or Automated Clearing House (ACH) services through the online-banking interface.

Solution Benefits

- Only vendor to provide three distinct, proven methods of stopping man-in-the-browser malware:
 - Behavioral and transactional fraud detection
 - Out-of-band SMS authentication with transaction details
 - Mobile identity application for out-of-band transaction verification and signature capabilities
- Leverages Entrust IdentityGuard Mobile for strong authentication with out-of-band transaction confirmation
- Helps eliminate risk resulting from online fraud, lawsuits and non-compliance
- Offers proven, cost-effective authentication methods that are easy to deploy and accepted by end-users



Out-of-Band Strategy

Fortunately, a number of techniques remain strongly effective against man-in-the-browser attacks, either through the use of a separate communication channel with the user, or by relying on fraud detection engines that run on the target Web site instead of the infected computer.

To help stop this malware, organizations need to deploy authentication solutions that are “out-of-band” from the originating transaction — not on the local computer — as well as including the transaction details for the user to verify before proceeding.

Behavioral and transactional fraud detection also plays a critical role in detecting and defending against man-in-the-browser attacks.

Entrust — The Proven Approach

The Entrust IdentityGuard versatile authentication platform and the Entrust TransactionGuard fraud detection solution combine to form a proven integrated strategy for protecting consumers and business-banking customers from online fraud and man-in-the-browser attacks.

Leveraging this pair of proven solutions, Entrust is the only vendor that currently offers three distinct and highly effective methods of addressing man-in-the-browser attacks:

- Behavioral and transactional fraud monitoring
- SMS authentication with transaction details
- Out-of-band transaction verification and signature techniques on a mobile application



Behavioral & Transactional Fraud Monitoring — The Entrust TransactionGuard fraud detection solution enables organizations to seamlessly monitor user behavior for transactions, account access and more. This real-time approach has been proven effective globally for stopping MITB and other online fraud attacks — all in a way that is invisible to the end-user and the banking applications.



Out-of-Band Transaction Verification — Leveraging a user's existing device (e.g., mobile phone, smartphone), Entrust can authenticate online transactions via out-of-band SMS communication. This convenient, cost-effective approach takes advantage of existing user devices to defeat MITB malware.



Mobile Transaction Verification & Signature — The most convenient, easy-to-use mobile authentication method available today, Entrust IdentityGuard Mobile enables strong authentication and out-of-band transaction verification, OATH-compliant signatures and even a method to immediately report suspicious account behavior. The end-user isn't forced to enter any data within the smartphone application, only a straightforward Web confirmation code to complete the transaction.

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MITB Solution Advantages

Global Success. Entrust IdentityGuard is the strong authentication solution of choice for many of today's elite banks and financial institutions.

Proven. Entrust is the only vendor that offers three distinct and highly effective ways of addressing man-in-the-browser attacks — behavioral and transactional fraud detection; SMS authentication with transaction details; and mobile out-of-band transaction verification and signature.

Versatile, Cost-Effective. Offering the widest range of authenticators from a single platform, Entrust's strong authentication solution can properly match an authenticator with an associated risk or user role. This approach is cost-effective for mass consumer or business deployments.

Customizable. Entrust solutions include the ability to add organization-specific branding to most authenticators, improving usability and reinforcing brand image.

Mobile. Entrust IdentityGuard Mobile is a convenient, easy-to-use method to enable strong mobile authentication to help defeat man-in-the-browser and other malware attacks.

Real-Time Fraud Detection. A zero-touch, risk-based approach, Entrust's fraud detection platform can help defeat man-in-the-browser malware by analyzing transaction behavior and stepping up authentication within a transaction when appropriate — all in real-time.

Entrust IdentityGuard Mobile

The latter of the three Entrust methods is made possible by the latest Entrust IdentityGuard application. Leveraging standards-based, out-of-band techniques, and without requiring any specialized hardware, Entrust IdentityGuard Mobile delivers strong mobile authentication that defeats the latest malware threats impacting online-banking users.

This even includes defense against man-in-the-browser attacks that are causing significant losses — and even bankruptcies — for business-banking customers today.

Entrust IdentityGuard Mobile features software-based, one-time-passcode authentication, as well as out-of-band transaction verification, on today's leading smartphone platforms, including the Apple iPhone, RIM BlackBerry, Microsoft Windows Mobile and Symbian (Java).



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Entrust & You

More than ever, Entrust understands your organization's security pain points. Whether it's the protection of information, securing online customers, regulatory compliance or large-scale government projects, Entrust provides identity-based security solutions that are not only proven in real-world environments, but cost-effective in today's uncertain economic climate.

More Information

For more information on Entrust's man-in-the-browser solutions, contact the Entrust representative in your area at **888.690.2424** or visit **www.entrust.com/mitb**.

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About Entrust

Entrust provides identity-based security solutions that empower enterprises, consumers, citizens and Web sites in more than 4,000 organizations spanning 60 countries. Entrust's identity-based approach offers the right balance between affordability, expertise and service. For strong authentication, fraud detection, digital certificates, SSL and PKI, call 888-690-2424, e-mail entrust@entrust.com or visit www.entrust.com.

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