



The text below is an excerpt from the ICI Mutual risk management study *Shareholder Authentication: Managing the Risk of Fraudulent Transactions*. The full study may be accessed at www.icimutual.com/ShareholderAuthentication.

Positive and Negative Authentication Measures

The three traditional authentication factors, while a useful construct, may not adequately describe certain measures that are aimed less at *positively identifying* a legitimate user, than at *disqualifying or screening out* a probable impostor. Indeed, a number of authentication measures may have more value as “negative” than as “positive” measures. For example, the Internet protocol (IP) address of a user’s computer or device provides information about the location of a user’s computer or device. Because the IP address can be spoofed by a fraudster, the IP address may serve only as corroborating (but not conclusive) evidence that a user’s computer is located in an expected geographic locale (as opposed to a foreign country). However, if an IP address indicates that a user is abroad, this fact may itself be suggestive of fraudulent activity, particularly if the user in question has not previously logged in from foreign IP addresses. Similarly, whereas a user’s ability to provide his or her address of record may be of limited value as a “positive” authentication measure, a user’s *inability* to provide this information may be stronger evidence of potentially fraudulent activity.

“Negative” Authentication Factors		
What you <i>don't</i> know	What you <i>don't</i> have	What you <i>aren't</i>
<ul style="list-style-type: none">• Social Security number• Name of banking institution• Address of record	<ul style="list-style-type: none">• Computer in same country• Same computer operating system• Same browser	<ul style="list-style-type: none">• Same gender• Same pattern of transactions

About ICI Mutual: ICI Mutual is the predominant provider of D&O/E&O liability insurance and fidelity bonding for the U.S. mutual fund industry. Its insureds represent more than 60% of the industry’s managed assets. As the mutual fund industry’s dedicated insurance company, ICI Mutual is owned and operated by and for its insureds.