Company

This e-commerce retailer is one of the world's largest sellers of photo, video, audio and computer technology. Millions of audio and imaging professionals rely on its products to power their creative pursuits.

Challenge

This large e-commerce retailer was bombarded with credential stuffing attacks that led to account takeovers (ATOs). Its bandwidth was saturated with malicious traffic, and successful attacks resulted in chargebacks and other fraud that resulted in financial losses, customer churn and brand reputation damage.

Solution

The retailer began by implementing HUMAN Bot Defender to detect and mitigate malicious bots across its e-commerce website. Bot Defender solves for full-fledged ATO attacks in real-time, but the retailer didn't stop there. They also took a proactive approach to account fraud by adopting Credential Intelligence, a HUMAN product that stops logins using compromised credentials on websites and mobile apps.

Credential Intelligence leverages an expansive, dynamic and up-to-date database of compromised credentials that HUMAN gathers from its unmatched visibility into the internet. The HUMAN platform verifies the humanity of 15 trillion interactions each week and sees 3 billion each day. This allows us to zero in on compromised credentials that are actively in use, rather than an outdated list of credentials stolen in past breaches.
Results

Credential Intelligence provides an early signal that cybercriminals are attempting to log in with stolen usernames and passwords. This enables the retailer to take mitigating actions ahead of ATO attacks, such as notifying users that their credentials have been breached and triggering a password reset. This yielded a number of results:

**REDUCED CREDENTIAL STUFFING ATTACKS**
Following the deployment of Credential Intelligence, the e-commerce retailer realized a more than 90% reduction in the magnitude of credential stuffing attacks, and the number of accounts at risk of ATO dropped from nearly 2.5 million per quarter to less than 2,500.

**DECREASED NUMBER OF ACCOUNTS AT RISK OF ATO**
In the first two weeks alone, Credential Intelligence identified 3,988 login requests using compromised credentials. The solutions blocked these login requests and prompted users to change their passwords.

**SERVED AS AN EARLY WARNING SYSTEM**
Attackers sometimes conduct a dry run with manual attempts before launching the full bot attack. The graph to the right shows an example in which Credential Intelligence flagged some of the manual logins (teal line), acting as an early signal that a larger scale attack was coming (purple line).

**Takeaway**
Credential Intelligence works because of HUMAN's unparalleled visibility into what's happening online. We leverage information gathered from every digital interaction we observe to build our credential database. By stopping the use of these stolen credentials up front, Credential Intelligence prevents fraud before it happens. This decreases fraud claims, transaction fees and write-offs, protects brand reputation and instills trust in consumers that their accounts are safe on your site.

![Figure 1](image1.png)
Figure 1 shows the volume of credential stuffing attack attempts before and after the implementation of Credential Intelligence.

![Figure 2](image2.png)
Figure 2 shows the reduction in accounts using compromised credentials over time.

**Figure 1:**
- **Legitimate Logins Using Compromised Credentials:** 14.1k
- **Blocked Compromised Logins:** 16.6k

**Figure 2:**
- **POST IMPLEMENTATION**
- **BLOCKED REQUESTS**
- **TIME**

**About Us**
HUMAN is a cybersecurity company that safeguards 500+ customers from sophisticated bot attacks, fraud and account abuse. We leverage modern defense—internet visibility, network effect, and disruptions—to enable our customers to increase ROI and trust while decreasing end-user friction, data contamination, and cybersecurity exposure. Today we verify the humanity of more than 15 trillion interactions per week across advertising, marketing, e-commerce, government, education and enterprise security, putting us in a position to win against cybercriminals. Protect your digital business with HUMAN. To Know Who’s Real, www.humansecurity.com.