REAL-TIME BOT PROTECTION FOR AIRLINE & TRAVEL INDUSTRY

RADWARE BOT MANAGER PROTECTS YOUR WEBSITES, MOBILE APPS & APIS FROM MALICIOUS BOT ATTACKS

- Highest accuracy
- Fast and flexible deployment
- Filter bots from analytics dashboards
- Feed fake data or take custom actions against bot signatures

Airlines and other travel industry firms are among the biggest targets for bots, as most travelers today book tickets online, and expect a good user experience while doing so. Consumers now have unprecedented access to travel related information and services through websites and mobile apps, which also opens the door to sophisticated bots that carry out several highly harmful attacks against travel industry portals.

INTEGRATION OPTIONS

- Web Server Plugins
- Cloud Connectors
- JavaScript Tag
- Virtual Appliance

Radware Bot Manager's non-intrusive API-based approach detects and blocks highly sophisticated human-like bots in real time. Our bot detection engine uses proprietary Intent-based Deep Behavior Analysis (IDBA) to understand the intent of visitors and filter sophisticated invalid traffic. We collect over 250 parameters including browsing patterns, mouse movements, keystrokes, and URL traversal data points from the end user's browser and use proprietary algorithms to build a unique digital fingerprint of each visitor. Radware's collective bot intelligence gathers bot signatures from across our client base to build a database of bot fingerprints and proactively stop bots from infiltrating into your internet properties.

WE PROTECT AIRLINE & TRAVEL INDUSTRY PORTALS FROM:

Price Scraping:
Bots from price comparison sites and competitors regularly scrape prices and schedules to obtain competitive intelligence and pricing strategies.

Excessive GDS Queries:
When bots make frequent pricing queries without buying tickets, travel industry operators incur large costs for the GDS (Global Distribution System) queries as they do not convert into purchases.

Ticket Scalping:
Bot operators often try to make a quick buck by buying flight tickets and reselling them for a considerable profit. This not only increases prices for travelers but also erodes consumer confidence in being able to easily buy tickets whenever needed.

Denial of Inventory:
Bad bots can block (book without paying) seat inventory and prevent legitimate travelers from buying tickets, which can significantly hurt revenue and make travelers look elsewhere for tickets.

Account Takeover (ATO):
Cybercriminals deploy bots to automatically try out lists of breached user log-in credentials obtained from data leaks or sold on the Dark Web to test their validity, a practice known as "credential stuffing". They also use "credential cracking" techniques to guess combinations of usernames and passwords to buy tickets and other goods sold via in-flight or in-cruise online retail portals.

OWASP THREATS STOPPED BY RADWARE

OAT-001 — Carding
Multiple payment authorization attempts used to verify the validity of bulk stolen payment card data

OAT-005 — Scalping
Obtain limited-availability and/or preffered goods/services by unfair methods

OAT-007 — Credential Cracking
Valid login credentials identified by trying different values for usernames

OAT-008 — Credential Stuffing
Mass login attempts used to verify the validity of stolen username/password pairs and/or passwords

OAT-011 — Scraping
Collect application content and/or other data for use elsewhere

OAT-015 — Denial of Service
Target resources of the application and database servers, or individual user accounts, to achieve denial of service (DoS)

OAT-016 — Skewing
Related link clicks, page requests or form submissions intended to alter some metric

OAT-021 — Denial of Inventory
Deplete goods or services stock without ever completing the purchase or committing to the transaction

API Abuse:
APIs interconnect a wide range of services that support websites and apps. Criminals can use bots to exploit API vulnerabilities to steal sensitive data such as personally identifiable information (PII) and business-critical data. They can also tap into APIs in overwhelming numbers to carry out Application Distributed Denial of Service, attempt credential stuffing attacks, and systematically scrape website and application content.

> **Skewed Look-to-Book ratio & KPIs:**
> Automated traffic on your website and app skews KPIs such as the "look-to-book" ratio and hinders your strategic, marketing, and operation teams from making the right decisions based on accurate visitor data.

> **Cashing Out:**
> After taking over an airline or other travel industry user account, cybercriminals use bots to cash out or redeem airline miles and discount coupons for profit.

> **Application DoS:**
> Application DoS attacks can slow down or even take down Web applications by exhausting system resources, third-party APIs, inventory databases, and other critical resources.

KEY FEATURES

> **Intent-based Deep Behavioral Analysis:**
> Many sophisticated bot attacks are either massively distributed or adequately 'low and slow' to operate under the permissible limits of rule-based security measures. We use proprietary Intent-based Deep Behavior Analysis (IDBA) to understand the intent of highly sophisticated non-human traffic. IDBA performs behavioral analysis at a higher level of abstraction of 'intent' unlike the commonly used shallow 'interaction'-based behavior analysis. Capturing intent enables IDBA to provide significantly higher levels of accuracy while detecting bots with advanced human-like interaction capabilities. IDBA builds upon Radware Bot Manager's research findings in semi-supervised machine learning and leverages the latest developments in deep learning.

> **Customizable Bot-Handling Features:**
> Content aggregators and competitors continuously target your Web properties to scrape your proprietary content and other business-critical information. Our dedicated solution allows you to take custom actions based on bot signatures and types, and even choose to show challenges such as CAPTCHAs to suspected non-human traffic. The responses to these challenges help us build a closed-loop feedback system to minimize false positives down to negligible values.

> **Comprehensive API Protection:**
> Radware Bot Manager provides dedicated enterprise-grade protection from bot threats that are increasingly proliferating. Bot Manager secures internal and external APIs that drive back-end systems, mobile applications, and other essential services to travel enterprises and their customers by:
> - Addressing gaps in unique source identification in M2M communications through our API-Client SDK
> - Charting the statistical probability in how APIs are invoked in a sequence, and marking low probability flows for scrutiny.
> - Collecting data from authentication APIs to validate legitimacy in access to resources.
> - Detecting anomalous navigation flows or access patterns

> **Transparent Reporting and Comprehensive Analytics:**
> Radware Bot Manager provides a comprehensive, real-time overview of traffic across your digital properties, and act against malicious traffic that threatens your BFSI portals. Our system can also be integrated with leading SIEM tools to provide an unparalleled view and insights into your traffic, as well as page-level data on your website or mobile app, and a range of customizable options based on your specific organizational needs.

> **Easy Integration:**

Radware Bot Manager provides easy and flexible deployment options that suit your business requirements. We offer integration options to work with virtually any existing infrastructure in minutes, using our JavaScript (JS) tag, Cloud connectors, Web server and CDN plugins, as well as SDKs for PHP, Java, .Net, Ruby, Android and iOS. Alternately, you can also opt for our virtual appliance. We also allow you to integrate our solution into specific sections of your website based on requirements, instead of the entire application.

> **Accuracy and Scalability:**

Detecting advanced bots based on shallow interaction characteristics results in a high number of false positives. Our Intent-based Deep Behavior Analysis helps you filter highly sophisticated human-like bots without causing false positives. We also ensure that website functionality and user experience remain intact. We use cutting-edge technologies such as Kubernetes container orchestration and Kafka to maintain high scalability during peak hours.

ABOUT RADWARE

Radware® (NASDAQ: RDWR) is a global leader of cybersecurity and application delivery solutions for physical, cloud and software-defined data centers. Its award-winning solutions portfolio secures the digital experience by providing infrastructure, application and corporate IT protection and availability services to enterprises globally. Radware's solutions empower more than 12,500 enterprise and carrier customers worldwide to adapt quickly to market challenges, maintain business continuity and achieve maximum productivity while keeping costs down. For more information, please visit www.radware.com.

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