Solution Brief

ORACLE DYN BOT MANAGER

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Oracle Dyn Bot Manager

Cloud-based bot detection, mitigation, and management offered as a 24/7 Managed Security Service

Overview

Bots are everywhere, accounting for more than half the traffic to some sites.[1] A bot's main purpose is to automate a task by running scripts over the internet, and these tasks can either be harmful or helpful. Since some bots are good and some are bad, they all need to be managed. To stay ahead of the growing bot epidemic, you must have a comprehensive bot solution in place.

Hackers use bots to launch pre-attack scans, post comment spam, exploit vulnerabilities, and execute code injection attacks, denial of service attacks, and password guessing hacks against your web-facing properties. These bots commit fraud by credential stuffing, repetitively making and canceling purchases, holding and/or consuming inventory, scraping sites, stealing information, and a host of other unwanted activities.

[1] **Source:** Ponemon Institute, 2017

Malicious bots also cause application and API outages that impact your customers' experience, resulting in commercial losses. To effectively control the damages caused by the bot epidemic, organizations must stay ahead of threat actors and their malicious bots.

Conversely, legitimate bot traffic is a necessary part of the internet. Good bots are used to crawl sites on behalf of search engines, scan content to ensure that it hasn't been plagiarized, and provide real-time content such as news and weather information. Organizations want to be able to detect these good bots, while at the same time making sure they don't negatively affect the human user experience. Having the ability to eliminate malicious bot traffic, while managing legitimate bot traffic, is critical to maintaining uptime for your lines of business.

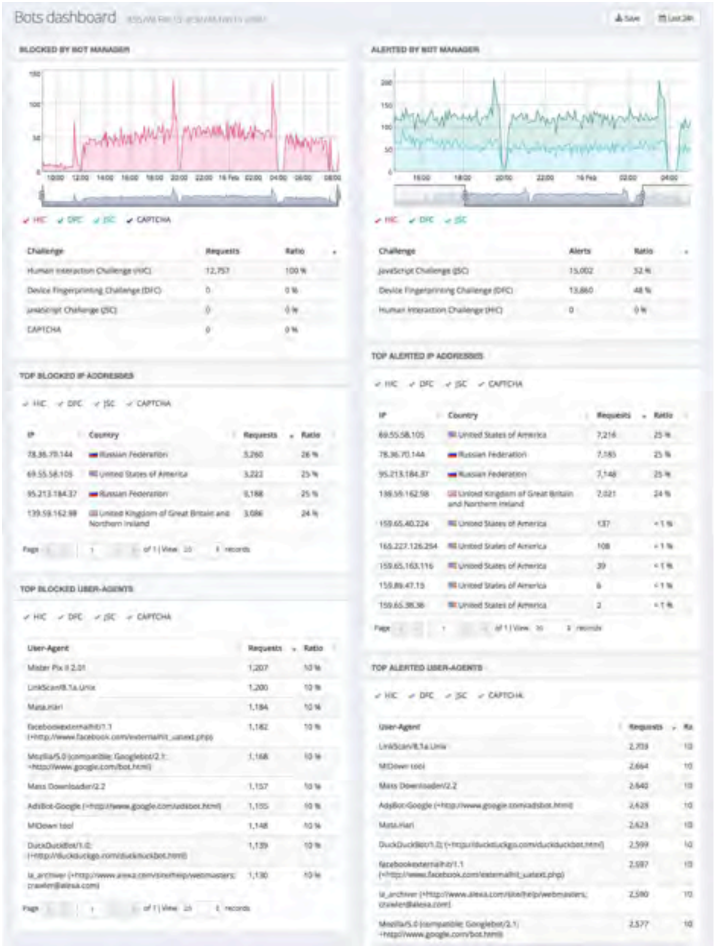
The Solution

Unlike traditional bot detection and mitigation solutions, Oracle Dyn Bot Manager offers a flexible platform that is easily deployed and continuously managed. Ongoing monitoring and tuning of bot management policies ensures an optimal security profile to protect your web applications without sacrificing performance.

Oracle Dyn Bot Manager is hosted in the cloud, so there's no new hardware to install. The platform includes real-time dashboard reporting, analytics, and alerts to provide rich insights into all requests and request handling performed by the Bot Manager proxy.

Business Value

- Strengthen your web application security by identifying and eliminating bad bots
- Avoid commercial losses by eliminating data flow to malicious bot requests
- Improve user experience by blocking resource draining bots
- Gain insight and gather data about bot behavior targeting your web applications
- Fight fraud by validating legitimate user behaviors, and blocking bad behaviors



Challenge	Requests	Ratio
Human Interaction Challenge (HIC)	12,757	100 %
Device Fingerprinting Challenge (DFC)	0	0 %
JavaScript Challenge (JSC)	0	0 %
CAPTCHA	0	0 %

Challenge	Alerts	Ratio
JavaScript Challenge (JSC)	15,002	52 %
Device Fingerprinting Challenge (DFC)	13,860	48 %
Human Interaction Challenge (HIC)	0	0 %

TOP BLOCKED IP ADDRESSES

✓ HIC ✓ DFC ✓ JSC ✓ CAPTCHA

IP	Country	Requests	Ratio
78.36.70.144	Russian Federation	3,260	26 %
69.55.58.105	United States of America	3,222	25 %
95.213.184.37	Russian Federation	3,188	25 %
139.59.162.98	United Kingdom of Great Britain and Northern Ireland	3,086	24 %

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TOP ALERTED IP ADDRESSES

✓ HIC ✓ DFC ✓ JSC ✓ CAPTCHA

IP	Country	Requests	Ratio
69.55.58.105	United States of America	7,216	25 %
78.36.70.144	Russian Federation	7,185	25 %
95.213.184.37	Russian Federation	7,148	25 %
139.59.162.98	United Kingdom of Great Britain and Northern Ireland	7,021	24 %
159.65.40.224	United States of America	137	< 1 %
165.227.126.254	United States of America	108	< 1 %
159.65.163.116	United States of America	39	< 1 %
159.89.47.15	United States of America	6	< 1 %
159.65.38.36	United States of America	2	< 1 %

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TOP BLOCKED USER-AGENTS

✓ HIC ✓ DFC ✓ JSC ✓ CAPTCHA

User-Agent	Requests	Ratio
Mister Pix II 2.01	1,207	10 %
LinkScan/8.1a.Unix	1,200	10 %
Mata.Hari	1,184	10 %
facebookexternalhit/1.1 (+http://www.facebook.com/externalhit_uatext.php)	1,182	10 %
Mozilla/5.0 (compatible; Googlebot/2.1; +http://www.google.com/bot.html)	1,168	10 %
Mass Downloader/2.2	1,157	10 %
AdsBot-Google (+http://www.google.com/adsbot.html)	1,155	10 %
MIDown tool	1,148	10 %
DuckDuckBot/1.0; (+http://duckduckgo.com/duckduckbot.html)	1,139	10 %
ia_archiver (+http://www.alexa.com/site/help/webmasters; crawler@alexa.com)	1,130	10 %

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TOP ALERTED USER-AGENTS

✓ HIC ✓ DFC ✓ JSC ✓ CAPTCHA

User-Agent	Requests	Ra
LinkScan/8.1a.Unix	2,703	10
MIDown tool	2,664	10
Mass Downloader/2.2	2,640	10
AdsBot-Google (+http://www.google.com/adsbot.html)	2,628	10
Mata.Hari	2,623	10
DuckDuckBot/1.0; (+http://duckduckgo.com/duckduckbot.html)	2,599	10
facebookexternalhit/1.1 (+http://www.facebook.com/externalhit_uatext.php)	2,597	10
ia_archiver (+http://www.alexa.com/site/help/webmasters; crawler@alexa.com)	2,590	10
Mozilla/5.0 (compatible; Googlebot/2.1; +http://www.google.com/bot.html)	2,577	10

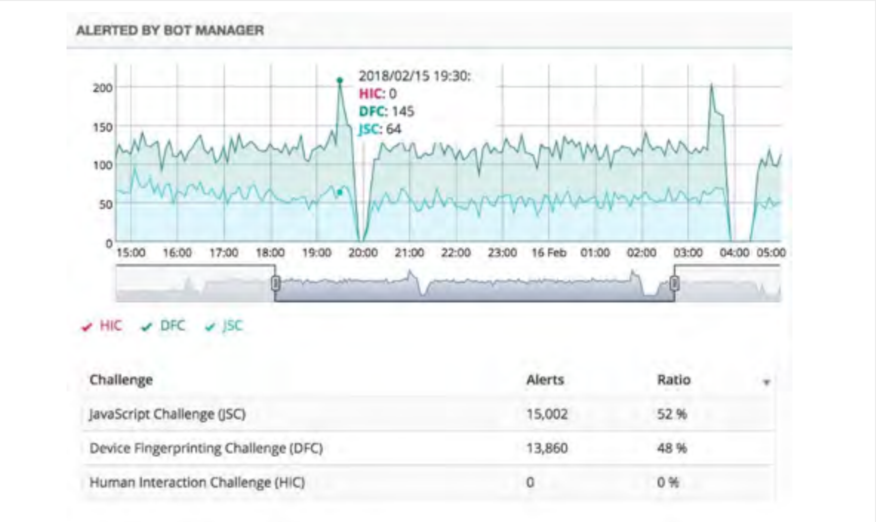
Bot Detection Methods

Oracle Dyn Bot Manager is part of our cloud-based, managed cybersecurity suite and is seamlessly integrated with our Web Application Firewall, DDoS, API Security, and Malware Protection offerings.

- **JavaScript Challenge** is a challenge that is sent as a response to every incoming request. Legitimate requests will transparently pass the challenge. Bots, on the other hand, will be blocked, since they are not generally equipped with JavaScript.
- **Human Interaction Challenge** distinguishes between nonhuman and normal human usage patterns for web applications. This ability to differentiate is based on analysis of how legitimate website visitors behave. The challenge also provides security postures for bots that can be customized when they don't conform to standard usage behavior, activity, or frequency.
- **Good Bot Whitelisting** has a predefined list of known legitimate bot providers (example: Googlebot) that users can enable to bypass bot checks.
- **CAPTCHA** is a challenge that can be enabled for any portion of the web application to differentiate between computers and humans. In general, scripted bots are unable to solve the CAPTCHA, whereas humans can.
- **IP Rate Limiting** allows users to set traffic request thresholds tied to a single IP. This type of traffic control mechanism provides flexibility and customization to delay or drop automated high request traffic created by bots.
- **Device Fingerprinting** generates a hashed signature of both virtual and real browsers based on 50-plus attributes. These proprietary signatures are then employed for real-time correlation to identify and block malicious bots.

Key Benefits

- Detects and blocks malicious bot traffic
- Allows and manages good bots by type, time of day, origin
- Includes configurable challenge/detection techniques
- Redirects unwanted bot traffic to preconfigured pages
- Provides visual bot classifications
- Defeats content and price scraping
- Defeats web-based phishing, spam, and chatbots
- Conserves bandwidth and web resources
- Defeats click fraud, credential stuffing, vulnerability scans, code injections



ALERTED BY BOT MANAGER

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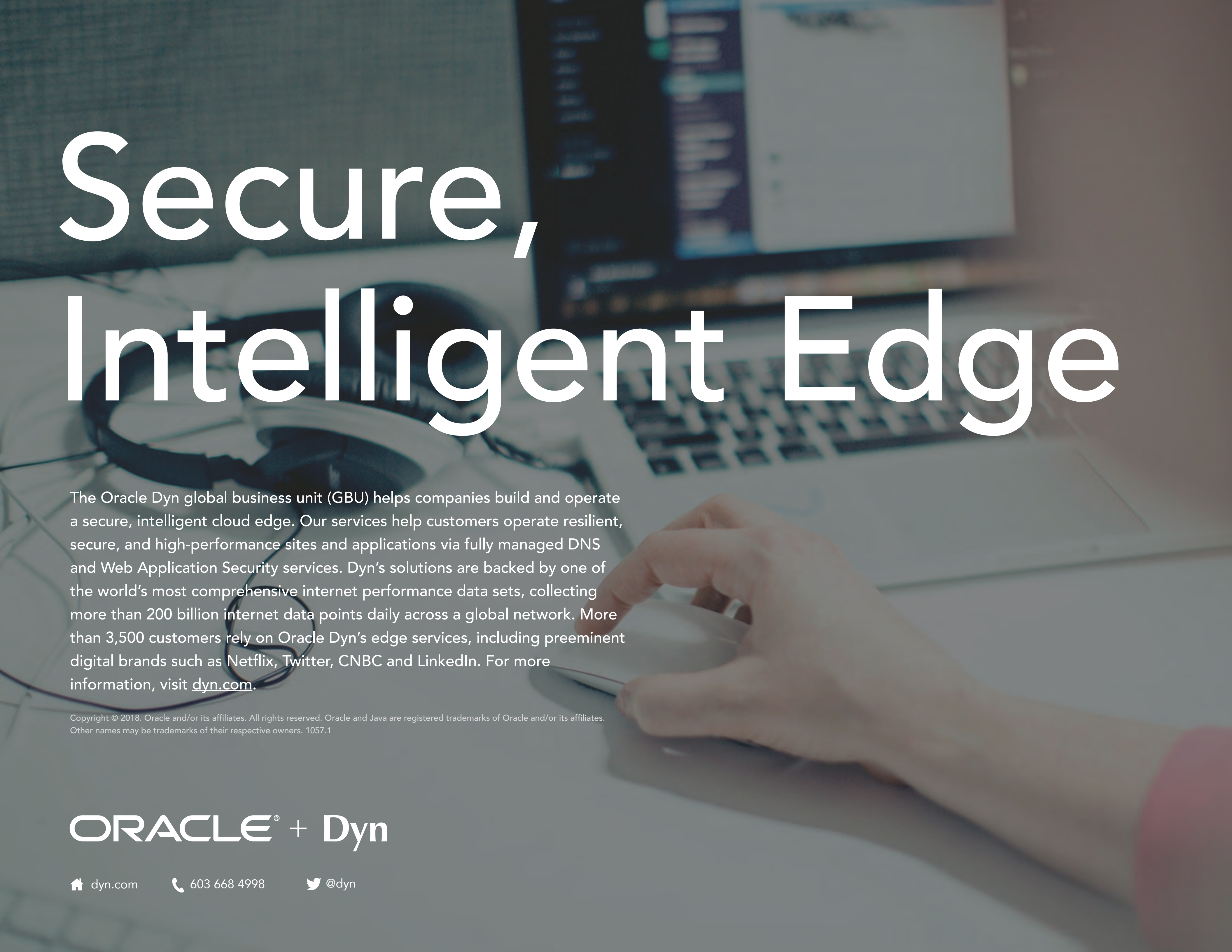

Secure, Intelligent Edge

The Oracle Dyn global business unit (GBU) helps companies build and operate a secure, intelligent cloud edge. Our services help customers operate resilient, secure, and high-performance sites and applications via fully managed DNS and Web Application Security services. Dyn's solutions are backed by one of the world's most comprehensive internet performance data sets, collecting more than 200 billion internet data points daily across a global network. More than 3,500 customers rely on Oracle Dyn's edge services, including preeminent digital brands such as Netflix, Twitter, CNBC and LinkedIn. For more information, visit dyn.com.

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