## Zscaler Annual IoT Report Identifies Shift in Shadow IoT Behavior Threatening Enterprise Security Posture

February 25, 2020

1,500 Percent Increase in IoT Traffic Through the Zscaler Cloud Highlights Dangerous Rise in Unauthorized Devices Brought into the Workplace

SAN JOSE, Calif.--(BUSINESS WIRE)--Feb. 25, 2020-- Zscaler, Inc., the leader in cloud security, today announced the release of the company's second annual Internet of Things (IoT) report, *IoT Devices in the Enterprise 2020: Shadow IoT Threat Emerges*. Zscaler customers are now generating more than 1 billion IoT transactions per month in the Zscaler™ cloud, which amounts to a 1,500 percent increase since Zscaler'sMay 2019 report. By analyzing two weeks of this traffic through Zscaler cloud, Zscaler found 553 different IoT devices across 21 categories from 212 manufacturers.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20200225005401/en/
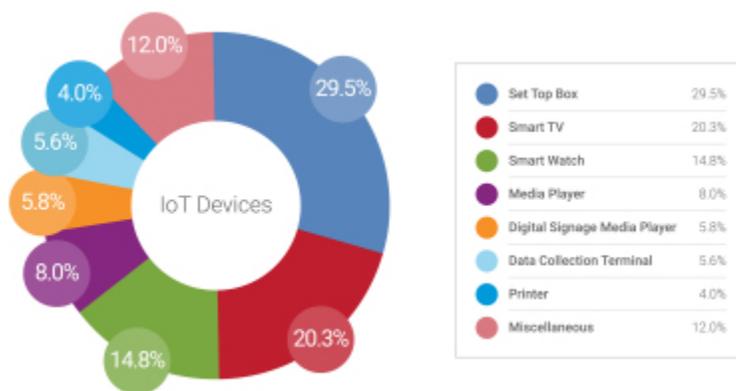
(Graphic: Business Wire)

Organizations around the world are observing this Shadow IoT phenomenon, where employees are bringing unauthorized devices into the enterprise. With this onslaught of unknown and unauthorized devices, IT and security teams often won't know these devices are on the corporate network nor how they impact an organization's overall security posture.

Key Findings:

- **Unauthorized IoT Devices on the Rise:** The top unauthorized IoT devices Zscaler observed include digital home assistants, TV set-top boxes, IP cameras, smart home devices, smart TVs, smart watches, and even automotive multimedia systems.

- **Manufacturing & Retail Industries Top IoT Traffic Volume:** Manufacturing and retail customers generated the highest IoT traffic volume (56.8%) followed by enterprises (23.7%), entertainment and home automation (15.7%), and healthcare (3.8%).

- **Majority of IoT Transactions are Insecure:** 83 percent of IoT-based transactions are occurring over plain-text channels, whereas only 17 percent are using secure (SSL) channels.

- **Exponential Increase of IoT Malware:** Zscaler blocked 14,000 IoT-based malware attempts per month. That number has increased more than seven times than the May 2019 research.

- **New Exploits Emerging to Target Unauthorized Devices:** New exploits that target IoT devices are popping up all the time, such as the RIFT botnet, which looks for vulnerabilities in network cameras, IP cameras, DVRs, and home routers.

"We have entered a new age of IoT device usage within the enterprise. Employees are exposing enterprises to a large swath of threats by using personal devices, accessing home devices, and monitoring personal entities through corporate networks," said Deepen Desai, Vice President of Security Research, Zscaler. "As an industry, we need to implement security strategies that safeguard enterprise networks by removing shadow IoT devices from the attack surface while continuously improving detection and prevention of attacks that target these devices."

Over the quarter, Zscaler blocked approximately 42,000 transactions which were IoT-based malware and exploits. The top malware families included Mirai, Gafgyt, Rift, Bushido, Demonbot and Pesirai. The top destinations connected to by IoT malware families and exploits are the United States, the UK, Russia, The Netherlands and Malaysia.

In response to the growing threat posed by Shadow IoT devices brought into the enterprise, IT organizations must first be able to gain visibility into the existence of unauthorized IoT devices that are already inside the network. Organizations should be considering a Zero Trust approach that ensures any communication between devices and people is with known entities and is within your organization's policy to reduce the IoT attack surface.

To download the *IoT Devices in the Enterprise 2020: Shadow IoT Threat Emerges* report, please visit: https://info.zscaler.com/resources-industry-iot-in-the-enterprise.

About Zscaler

Zscaler (NASDAQ: ZS) enables the world's leading organizations to securely transform their networks and applications for a mobile and cloud-first

world. Its flagship services, Zscaler Internet Access™ and Zscaler Private Access™, create fast, secure connections between users and applications, regardless of device, location, or network. Zscaler services are 100 percent cloud-delivered and offer the simplicity, enhanced security, and improved user experience that traditional appliances are unable to match. Used in more than 185 countries, Zscaler operates a multi-tenant distributed cloud security platform, protecting thousands of customers from cyberattacks and data loss. Learn more at zscaler.com or follow us on Twitter @zscaler.

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