



Consumer IoT: Understanding the Contemporary Use of Vulnerability Disclosure A Q1 - 2020 Progress Report



INTRODUCTION

Providing security researchers of Internet of Things (IoT) devices with a straightforward and consistent method for reporting vulnerabilities to manufacturers is a key element in raising the bar on security. At the same time, it's important for companies to make it clear how they will respond once vulnerabilities have been identified and to set expectations on the timescale for software patches, hardware fixes or other forms of remediation.

This essential information forms the basis of a vulnerability disclosure policy and its implementation has the potential to deliver major security benefits, particularly in a general increase in 'cyber hygiene' within the IoT ecosystem. A number of industry bodies and governments across the world agree on the importance of the practice and recommend implementing vulnerability disclosure policies¹.

This practice also positively impacts the related themes of safety and privacy.

In 2018, the IoT Security Foundation (IoTSF) commissioned Copper Horse to conduct primary research to give a snapshot of vulnerability disclosure practice in consumer companies providing connected products. The results of the study made for dramatic reading as data showed less than 10% of consumer IoT companies follow vulnerability disclosure guidelines².

While not exhaustive, the list of over 300 companies analysed, offering IoT products ranging from security robots to bed bug monitors, can be considered a practical gauge of use within the global industry.

To determine how the reporting landscape has developed "one year on", the same product websites have been revisited in new research. This study also examines how widely adopted 'security.txt' is amongst IoT companies. This is a relatively recent proposal for streamlining and automatically discovering contact between security researchers, companies and service providers by placing relevant information in a common, machine-readable location across websites.

In the following pages, this paper describes the aims of the study and method, presents key findings, and delivers its conclusions on the adoption of vulnerability disclosure best practice worldwide for IoT consumer devices and services based on 2018 and 2019 data.

¹ <https://iotsecuritymapping.uk/code-of-practice-guideline-no-2/>

² <https://www.iotsecurityfoundation.org/less-than-10-of-consumer-iot-companies-follow-vulnerability-disclosure-guidelines/>



STUDY AIM

The research performed in August 2019 reassesses the state of vulnerability disclosure “one year on” to understand how far industry has come in addressing security for IoT.

Following an identical protocol to the 2018 study, this analysis seeks to establish how widely vulnerability disclosure is practised in the consumer IoT product domain. Within this boundary, the study asks the question;


Do providers have a public channel for vulnerability disclosure?

METHOD

Unchanged from the 2018 study, the target sample criteria remain as follows:

1. Consumer IoT products: simply defined as Internet/network connected products that can be readily purchased through retail and utilised by non-technical users.
2. Global Companies: the brands and manufacturers are typically international. The survey took into account products sold by major retailers across the world.
3. Volume of the market: the coverage of the survey was such that the results may be considered representative of the global consumer IoT market as a whole.
4. Company size: the results include a mix of companies contrasting brands and non-brands, mature vendors and start-ups, and companies both large and small.
5. A key requirement was that products were available on the open market (at the time the research was conducted) and not prototypes or proof of concept (i.e. in volume production).

Note – to make a direct comparison between vulnerability disclosure in 2018 and 2019, no new IoT device manufacturers have been added to the dataset.

The background of the slide features a blue-tinted image of a city skyline, including the Petronas Towers. Overlaid on this is a network diagram with white lines connecting various nodes, some of which are highlighted with blue circles.

Some of the products under scrutiny were considered to be on the borderline for inclusion in the study – for example, cloud services often support many consumer products and could be argued to be in scope, but it was decided not to include them in this study. For the purposes of our investigation the focus centred on the product itself. For this reason, the Android operating system software was therefore considered in scope. Similarly, Network Attached Storage (NAS) devices were also included in the analysis, while home routers were considered out of scope to follow the same methodology as 2018. It is to be noted that the domain is rapidly evolving and home routers, gateways and bridges are now considered important device elements in an IoT system hence follow on studies will include them.

This study utilised 2018's approach in the data gathering stage. We did not test if the advertised contact point for vulnerability disclosure was operational as part of the research, as it would be inappropriate and likely trigger response mechanisms without reporting a real issue.

There are a range of different vulnerability disclosure mechanisms in operation and the study aims to capture these details. Some companies use non-disclosure mechanisms to deal with security researchers, and firms may choose to use payment methods known as bug bounties to compensate researchers for discovered vulnerabilities. Companies can also use proxy services to handle disclosures and bug bounties on their behalf. Coordinated Vulnerability Disclosure (CVD) is a mechanism where the producer and researcher will work together to fix an issue and then publicly issue both fix and a vulnerability report at the same time in order to minimise the potential harm to users. Lastly, a company may have no mechanism in place for handling disclosures.

The analysis further examines the disclosure process, as different mechanisms are used for handling information. For example, some companies will provide researchers with public encryption keys to protect the transmitted information. Both the time taken to reply to an initial security query submitted by a researcher and the length of the process can vary considerably between companies.

It is also common practice for some brands to offer products to market which are developed by a third party Original Design Manufacturer (ODM). To preserve clarity, our research did not go as far as to study this domain, which can soon become complex and somewhat opaque.

Following publication of the 2018 report, the authors were contacted by Signify – the new name for Philips Lighting – highlighting its name change, which the firm began rolling out in the lead up to 2019³. In this paper, we refer to the company as 'Signify – Philips Lighting' to preserve continuity between 2018 and 2019 data sets.

Product Categories

It is important to note that many companies considered in the study produce multiple types of consumer products varying from cameras to washing machines. Some of these firms choose to organise their disclosure schemes by a particular product category corresponding to the division of the company responsible. This scenario may be confusing for security researchers and a common security contact for a company is preferable.

A complete list of product categories is contained in Appendix D. Some of the products crossed multiple categories, for example – camera products that were designed for security monitoring, but also used for monitoring pets or children. The majority of the products are classed as Smart Home products, with some in specific areas such as Pet Care, Garden or Health & Fitness.

For simplicity, drones have also been excluded in this study as many are not currently Internet-connected.



KEY FINDINGS AND SUMMARY RESULTS

2018 vs 2019

The same 330 companies were surveyed again in 2019 and a direct comparison of the original and updated research can be found in the chart below.

Headline Indicators

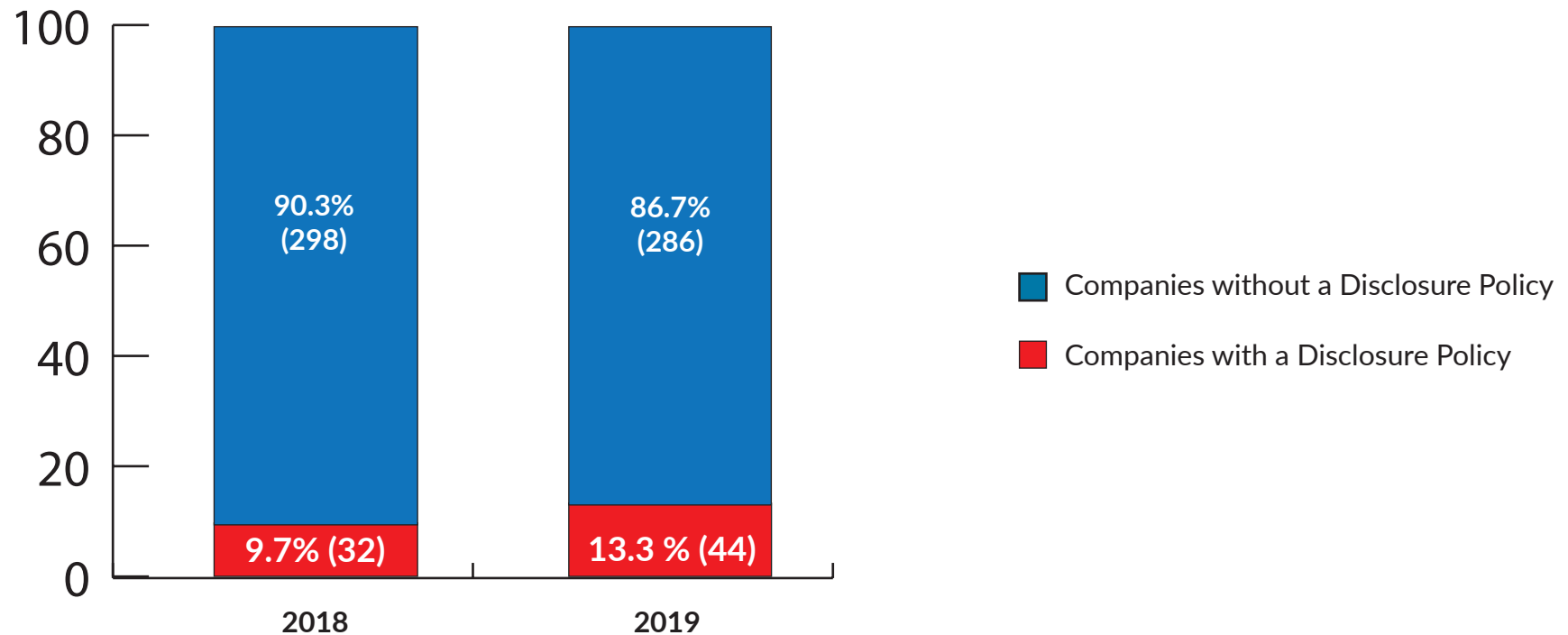
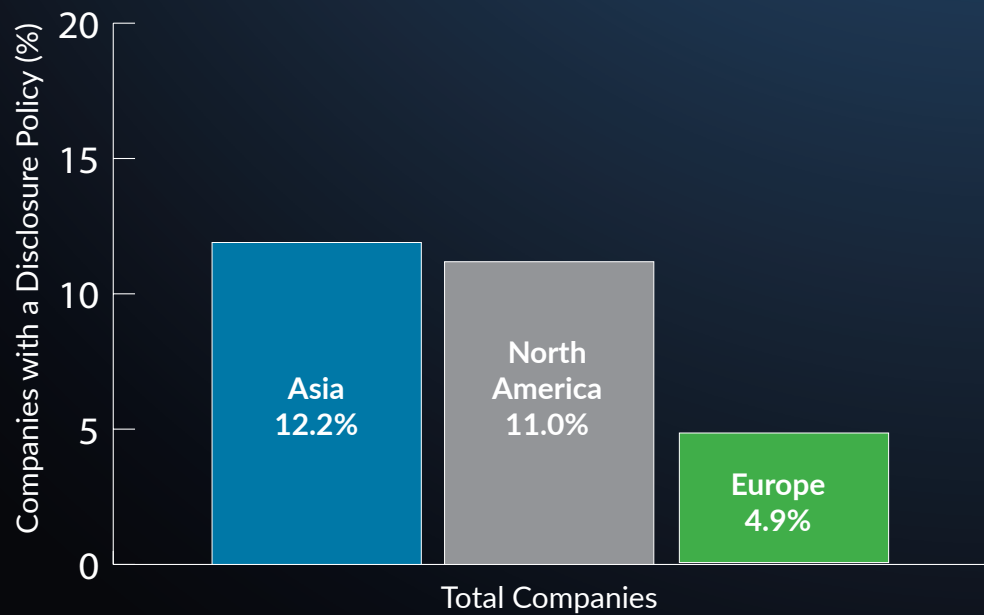


Figure 1. Global Comparison of Coordinated Vulnerability Disclosure in Practice

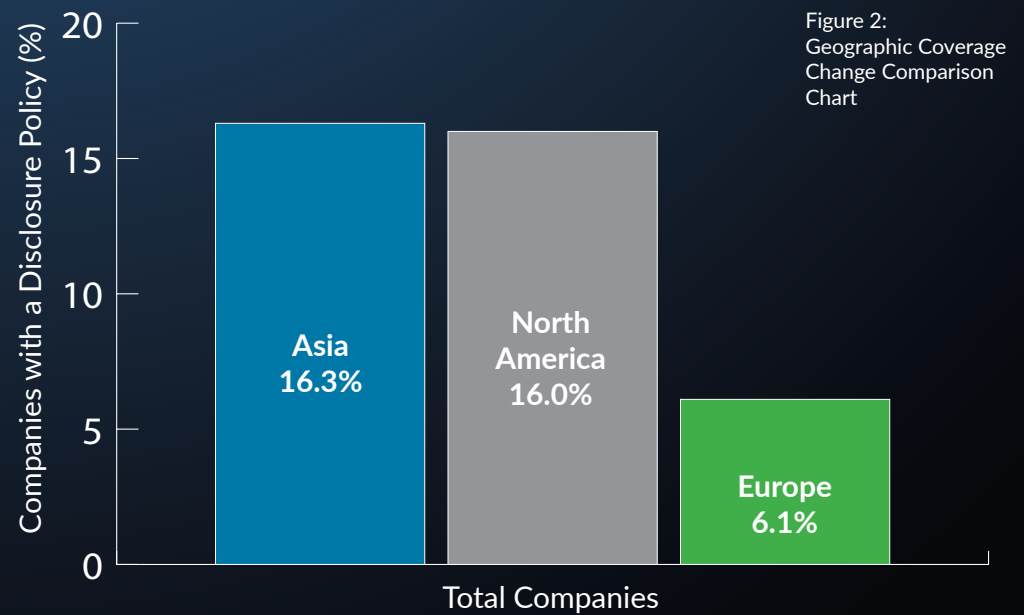
Geographic Disclosure Policy Coverage

Almost half of the companies in the survey are attributed to North America (43.8%), with 29.6% from Asia and just under a quarter from Europe (24.8%).

In percentage terms, the proportion of the Asian contingent practicing disclosure maintain their lead over those in North America and Europe. However, in relative terms, North America is narrowing the gap by moving fastest with a 30% improvement over 2018 figures, whilst Asia and Europe have only improved by 25%. The European cohort compares very poorly against both Asia and North America yet all have significant room for improvement. Or to put it another way, Asia, is the best of a bad lot.



- Asia 12 of 98 (12.2%) of cohort
- North America 16 of 144 (11.0%) of cohort
- Europe 4 of 82 (4.9%) of cohort



- Asia 16 of 98 (16.3%) of cohort
- North America 23 of 144 (16.0%) of cohort
- Europe 5 of 82 (6.1%) of cohort

Figure 2:
Geographic Coverage
Change Comparison
Chart

Overall Finding

Industry Must Do Better - Much Better:

The number of companies operating some form of disclosure policy in our fixed data set has risen from 9.7% (32) to 13.3% (44). The situation has improved marginally yet the level of industry adoption is still very low. This is of great concern as vulnerability disclosure is widely considered to be a baseline requirement due to its fundamental importance towards operational IoT security.

Additional Survey Findings and Observations

Of the 44 companies found to have some form of public vulnerability disclosure policy:

- 40.9% (18) of policies also had a bug bounty programme. Two of these programmes were by invitation only, so were not open for general contribution.
- 20.5% (9) of companies with policies utilised a proxy disclosure service.

Data Set

The results are based on the same 330 companies analysed in the 2018 report. Note that we have adjusted the total number of companies researched down from 331 to 330 in this research due to duplication in the original report; a product (Sous Vide Precision Cooker by Anova Culinary) had been duplicated in the 2018 list with two URLs pointing to the same item. However, this makes negligible impact on the overall analysis.

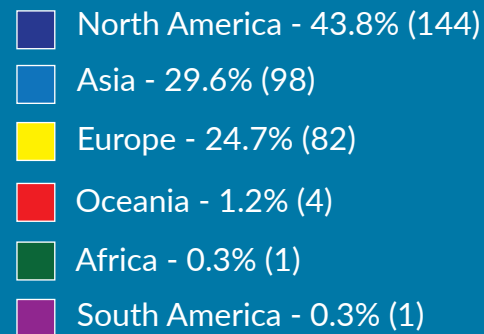
Some products are no longer available from the original suppliers, but can still be sourced from alternate sites such as eBay. Also, in some cases, websites have become inactive. Full details can be found in the table below.

Company	Product	Observation
HowsieAcc	Wifi Smart Plug	URL no longer reaches product. Product code reveals no Point of Sale
Lombex	Smart WiFi Plug, Smart WiFi Wall Switch, Smart WiFi Multicolor Bulb	Product no longer sold
Filmodent	Dental Camera	Product no longer listed
Mirubee	Mirubox Mono	Product no longer available
Lumo Bodytech	Lift, Run	Seismic has acquired the assets of Lumo Bodytech, Inc. (the "Company"). The Company has ceased operations, and is no longer producing or selling its products
Nightingale Smart Solutions	Home Sleep System	Product/company no longer active
Thalmic	Myo Gesture Control	Product no longer active
Ninja Blocks Inc	Ninja Block, Ninja Sphere	Product/company no longer active

Table 1

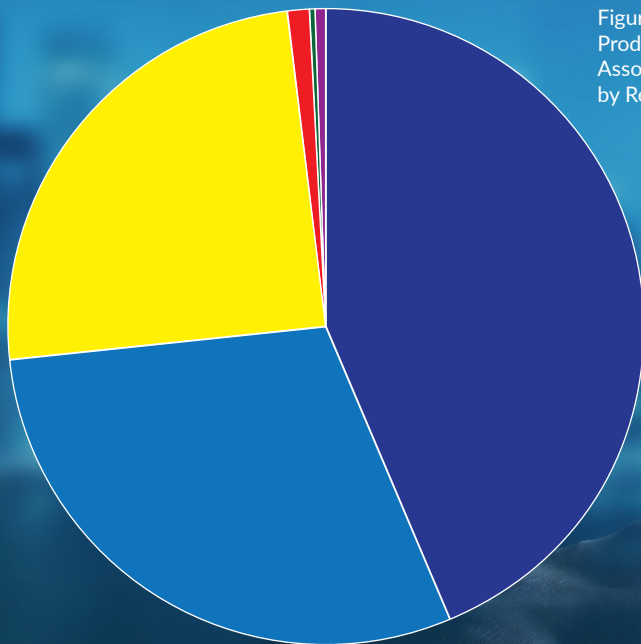
Product Association by Region

Many of the companies in this study operate globally, with regional offices and sometimes with local websites. The breakdown of companies listed by headquarter location is as follows:



Readers should apply a degree of caution when viewing the geographical breakdown as the complex nature of production and ownership means that attributing a location to a company is not straightforward. Additionally, some products are brand licensed, which further complicates the picture. However, the results do help to illustrate regional differences and are presented once more in the 2019 analysis.

Figure 3
Product
Association
by Region



Product Categories

The two biggest product categories surveyed are 'smart home, lighting' & 'smart home security'. In line with the general findings of this report, both categories scored poorly for having an associated vulnerability disclosure policy – a trend that persists from 2018 into 2019.

There is also a sense of irony for the 'smart home security' segment as just 3 out of 37 (8.1% of the product category) had a visible policy in place. And for the 'smart home, lighting' segment, just 2 identified examples out of 46 (4.3 % of the product category).

Smart Home Security



3/37 with a visible policy in place

8.1% of the product category

Smart Home, Lighting



2/46 with a visible policy in place

4.3% of the product category

Figure 4: 2019
Status of Primary
Consumer Markets - Smart
Home Security/Lighting

Variation in Disclosure Practices

Of the companies that have a disclosure policy, the vast majority are labelled as ‘co-ordinated disclosure’. This is a positive sign as it shows that firms are avoiding the imbalance implied in previous language. Historically, some firms had referred to ‘responsible disclosure’, which risked creating a division between the research community and industry. Companies may be unaware of this, having simply adopted best practice guidance and the ISO/IEC 29147 vulnerability disclosure standard.

The picture isn't as clear for communicating disclosure timelines. Much like in 2018, an expectation of how long producers will take to act on security information received is often lacking, or simply given as 'reasonable time' or 'by mutual consent'. There are some exceptions – Google is very clear and has a 90 day process. Western Digital and Wink also listed 90 day periods on their policy pages, with Western Digital referring to the timeframe as 'consistent with industry norms'.

Some companies continue to have conditions attached to their disclosure policies. For example, Arlo and Lenovo request that researchers do not go public with their findings unless the company first consents to allow that. Samsung's SmartThings operates a non-disclosure scheme.

Protecting communications between vulnerability reports and producers is good practice. Ideally, a PGP public key should be made available for researchers to use to encrypt disclosure report details. In 2019, 32 companies in the survey offered this, which is up from 25 from the 2018 analysis.

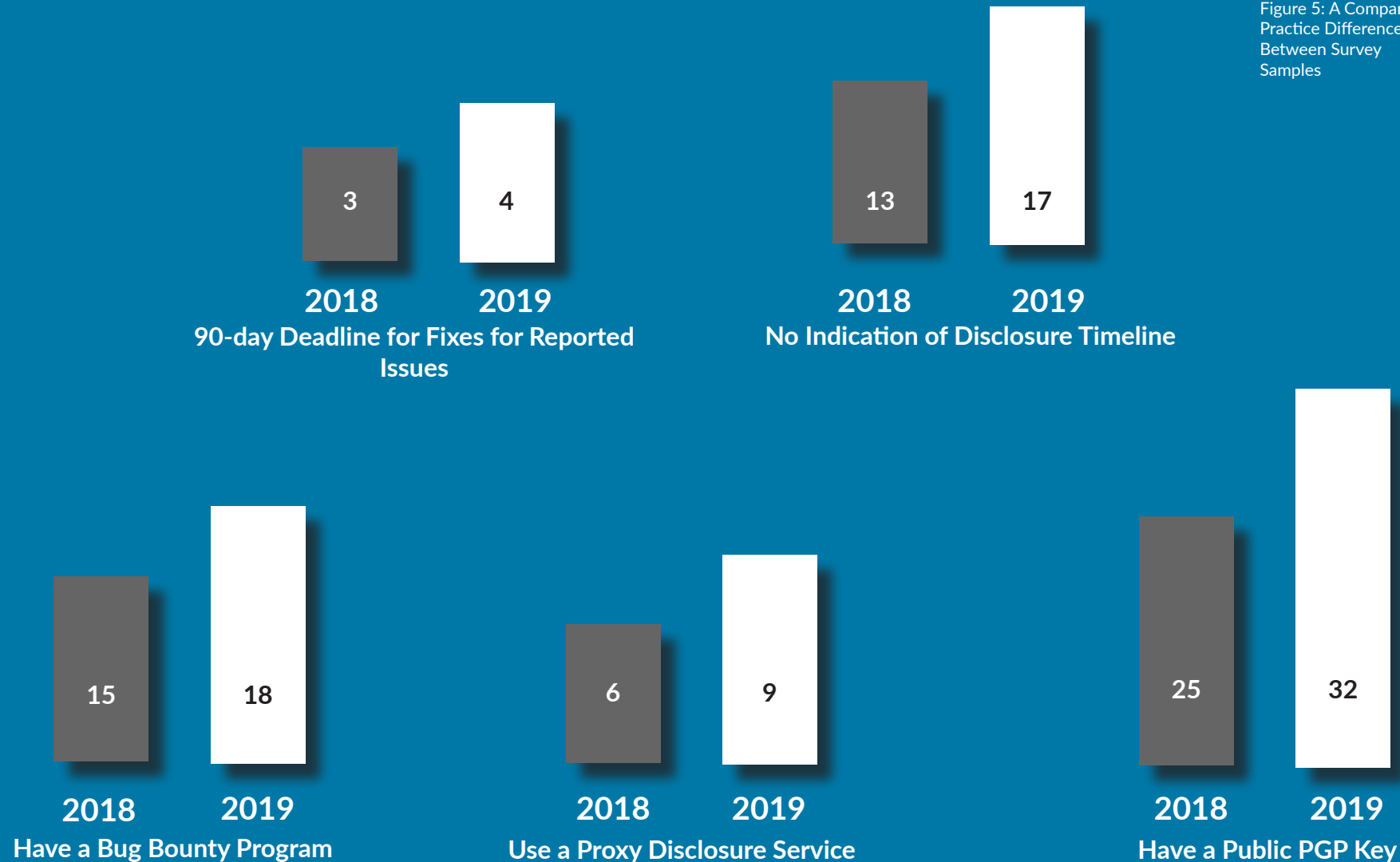
The list of firms that provided a PGP public key includes Amazon, Apple, Belkin, Bosch, Bose, Dahua, Fitbit, Garmin, Google (multiple entities), Honeywell, HP, HTC, Huawei, Lenovo, LG, Lix, Motorola Mobility, Netgear/Arlo, Nokia Health, Signify - Philips Lighting, Roku, Samsung (multiple entities), Siemens, Sony, Tapplock, Tom Tom, Western Digital, Wink and ZTE, and, – new for this report – Ecobee.

Interestingly, one firm (Roku) offers a PGP key, but has no policy. Also, 1.81% (6) of companies surveyed had forms for reporting vulnerabilities or contact points, but no published vulnerability disclosure policy.



Statistics for Companies with a Disclosure Policy

Figure 5: A Comparison of Practice Differences and Between Survey Samples



Difficulties for Security Researchers

In 2018, we highlighted that alerts from security researchers can be an important early warning system for a commercial organisation. The sooner a researcher can identify the correct point of contact for communicating their findings to a firm, the faster the company can begin the process to address the security issues. This in turn reduces the potential exploitation and risk of that vulnerability in operation.

Complications to vulnerability disclosure for researchers remain and, as discussed in 2018, can occur due to brand licensing. Examples raised by the original research include Nokia where the vulnerability disclosure scheme listed relates to its Networks division rather than the brand for handsets and tablets (licensed to HMD Global). Readers of the 2018 report will also recall that the name Motorola is licensed to third parties for a range of smart home devices, although it is Motorola Mobility (a brand of Lenovo) that has vulnerability disclosure available.

Revisiting the analysis for 2019 reveals a number of developments on this theme, including the use of proxy disclosure schemes, which appears to show a slight increase on the previous year. The data shows that a total of 9 companies surveyed are now using a third party to operate their vulnerability disclosure schemes. Potentially, this offers scope for greater adoption across the sector and could help to further incentivise security researchers (as we discuss in a later section of the report – ‘Bug Bounties and Reward Schemes’).

One risk is that the addition of a third party in the reporting chain could, in theory, add to delays in security messages being communicated. However, at this stage, it's reasonable to infer that the use of a proxy disclosure service would help satisfy the requirement and constitute progress toward vulnerability disclosure adoption. The concept is now well understood by both parties and shows signs of being a successful format as ultimately, the overall objective of all of this work is keeping consumers and companies safe and nations less vulnerable to widespread cyber-attack.

In summary, our key observation here is that it is desirable to improve the process by which security researchers are connected to those responsible for product security. With this in mind, we decided to add additional research related to theme.

Additional Analysis

A new dimension to this research was to identify two new elements. Firstly, the proportion of companies re-directing a /security web page to another web page within their site. This provides an indication that a company is aware that researchers would go to a /security page and of it being used. Secondly, to address a newer method of working with security researchers, that of 'security.txt'.

Formatting a company's security contact information in a machine-readable format as the proposed 'security.txt' does, has the potential to make it available to security researchers in an instant (for example, using the 'wget' command in the Linux operating system). The initiative lowers the barrier to raising security issues and, in principle, puts an end to the need to manually trawl through a website searching for an appropriate email address or phone number.

The results were as follows:

- The usage by companies of a /security page or a redirect to their actual security page, 4.2% (14)
- Companies with a security.txt file located at <domain>/well-known/security.txt, 0.9% (3)

Adoption of the nascent security.txt initiative was found to be low. However, the practice has started to spread, so it's just the beginning of the conversation. The creators of security.txt proposed a draft informational RFC to IETF: 'A Method for Web Security Policies' which at the time of writing completed its 'last call' review. Further details on the proposal can be found at: <https://securitytxt.org>. The proposed specification goes beyond providing simply an email address, as other fields in the text file can be used to direct researchers to security policy information, keys for encrypting communication and even security-related job vacancies.

Finally, to complete this section, there were specific observations that are worth revisiting from the original 2018 study.

- Encouragingly, ZTE now has a working link to their "Vulnerability reporting" webpage.
- Webcam manufacturer Foscam has yet to progress its 'suggestions' email address into a more formal security policy that mentions vulnerability disclosure, directly.
- Hidrate which makes the Spark 'smart water bottle', appears to still attempt to put restrictions on security research in its terms of service.

Bug Bounties and Reward Schemes

Offering some kind of reward scheme for identifying security issues, dubbed bug bounties, remains a key area to watch.

Large bounties are motivating considerable activity by researchers across the security sector – for example, it has been reported that ‘bug hunters’ are submitting thousands of vulnerabilities on a monthly basis. Much of this sphere is focused on mobile and desktop OS, but as IoT devices become more prevalent they may follow a similar pattern.

Looking at the 2019 data, 18 out of the 44 companies with some form of public vulnerability disclosure policy offered a reward scheme, usually in the form of a bug bounty. Here, all of the 18 firms (up from 15 in 2018) identified use services provided through BugCrowd or HackerOne.

As was the case for 2018, Apple and Dyson operate invite-only bug bounty/reward programmes.

An additional factor of note and concern, is related to the more conventional cyber ‘exploit acquisition platforms’ (such as Zerodium, Crowdfence and Pwnorama) which offer researchers a market to sell their findings. They advertise rewards of up to \$2 million for high-risk vulnerabilities on popular software platforms with fully functional exploits. The obvious concern for IoT manufacturers is that companies acquiring vulnerabilities could choose to sell them to entities interested in exploiting them, rather than improving the actual product.

Addressing the Secondary Sales Market

In the 2018 survey, we expressed concern at the availability of products such as Mattel’s Hello Barbie, even though they had been discontinued by vendors. Unless stock of insecure products is destroyed, or functionality disabled once vulnerabilities have been found, then it is likely that consumers will still remain at risk in secondary sales markets. In the US, both eBay and Amazon removed CloudPets toys from sale and in the UK, toy store Hawkin’s Bazaar eventually removed the toys from sale after being repeatedly informed they were insecure. These actions are not consistent across the globe however and the products are still available outside of these countries. It is to be noted that in the case of Hello Barbie and CloudPets, the applications are no longer available in the major app stores. It is also believed that the servers are inactive so the toys should not be able to connect to the internet without significant, expert effort by the user. The debate on what to do about compromised products that will never be fixed is still open and raises further questions such as e-waste concerns.

CONCLUSIONS

Industry adoption of vulnerability disclosure remains a prime concern.

Updating the 2018 research reveals that the level of identifiable vulnerability disclosure mechanisms remains low “one year on”. Whilst the needle is moving in the right direction, the proportion of companies surveyed with public policies has increased from just under 10% to just over 13%. This can only be described as ‘poor performance’ by industry as the practice is widely considered to be a basic security-hygiene mechanism.

Implementing a vulnerability disclosure process is of crucial importance for a number of stakeholder interests and it is one of the simplest security measures companies can install.

Stronger influence is needed to motivate companies to adopt basic IoT security hygiene practices.

Disclosure schemes should be visible and accessible; a public demonstration of a commitment to continually improving security. A secure and straightforward channel for reporting offers many economic and societal benefits.

Ideally, all providers of IoT products and services should have a process for vulnerability disclosure. Reaching an acceptable global level (t.b.d but as close to 100% as possible) at the current rate of progress remains elusive in the absence of strong incentives. A number of government agencies and institutions such as the IoT Security Foundation have advocated for firms to implement disclosure policy mechanics as a fundamental and basic hygiene measure. The drive towards normalisation, standardisation and ultimately regulation of vulnerability disclosure is therefore, a natural course as the market and industry mature. The only open question now is ‘when will it be legally mandated?’.

Given the slow progress and uptake in this area, regulation is considered to be of merit to provide the missing motivation to better protect users of connected products. Delaying adoption exposes consumers to harm, not only slowing market uptake but also risks frustrating the security research community which may revert to alternative, less managed methods of public disclosure.

Final Comments

In 2020, the ETSI TS 103 645 'Cyber Security for Consumer Internet of Things' specification is expected to become a European Standard or 'EN'. This includes the mandatory adoption of vulnerability disclosure schemes for manufacturers of IoT products. A draft of this specification: ETSI EN 303 645 is (at the time of writing) issued for review to National Standards Organisations, with an anticipated publication date of August 2020.

The new initiative around 'security.txt' has joined the discussion, given the nascent entry it is not surprising that the impact on the 2019 data is just beginning to be seen. The security.txt initiative is considered to be positive progress and much-needed, however, it should not supplant a public-facing web page (such as /security) as reporting should be open to anyone and not confined to those that have pre-existing knowledge of conventions, technical ability or hidden website information.

Big consumer product categories – 'smart home: lighting' and 'smart home: security' score poorly with uptake of vulnerability disclosure practice and this exposes consumers to unnecessary risk

Magnifying the impact of the slow implementation of vulnerability disclosure policies by providers of consumer IoT devices is the finding that two of the largest product categories appear to be especially poorly served. In the next review we intend to include new products and manufacturers, whilst retaining the core dataset for comparison. Home routers are a significant device category of the Internet of Things that is missing in this study, so that product sector will be included too.

In our analysis, disclosure relative uptake of companies based in Europe lags behind Asia and North America within a globally poor adoption environment.

The most important take-way message from this report is that worldwide providers of consumer IoT products need to place 'implementing vulnerability disclosure policies' on their priority agenda.

For companies that have not already begun, there is no better time to start than now as doing so will greatly streamline the communication and resolution of security issues for your business. The benefits of this simple action accrue to all stakeholders including users, providers and investors. Ultimately it inspires greater confidence in the Internet of Things as a whole, underwriting a future cyber and physical world that is safer, more secure and increasingly connected.

The IoT Security Foundation's Best Practice Guidelines on Vulnerability Disclosure can be downloaded at the following link:
<https://www.iotsecurityfoundation.org/best-practice-guidelines>

APPENDIX A

Survey Countries

Australia, Brazil, Canada, China, Egypt, France, Germany, India, Italy, Japan, Russia, South Africa, South Korea, Spain, Turkey, UK, US

APPENDIX B

Disclosure Policies by Region

Region	Company with no Disclosure Policy	% of Region	Company with a public disclosure policy	% of Region	Grand Total Number	%
Africa	1	100%	0	0%	1	100%
Asia	82	83.7%	16	16.3%	98	100%
Europe	77	93.9%	5	6.1%	82	100%
N. America	121	84%	23	16%	144	100%
Oceania	4	100%	0	0%	4	100%
S. America	1	100%	0	0%	1	100%
Grand Total	286	86.7%	44	13.3%	330	100%

APPENDIX C

Disclosure Timescales

Public Disclosure Time (Days)	No. of Companies	Percentage
90 Days	4	10.81%
By Consent	3	8.11%
Coordinated	3	8.11%
Last Day of Each Month	1	2.70%
Not Given	17	45.95%
Reasonable Time	4	10.81%
Until Resolved	4	10.81%
Until Security Notice Issued	1	2.70%
Grand Total	37	100%

APPENDIX D

Disclosure Policies by Product Type

Vulnerability Disclosure Policy			
Product Category	No	Yes	Grand Total
Appliances	2		2
Audio	1		1
Child Care, Health & Fitness	1		1
Energy	1		1
Garden	1		1
Garden, Maintenance	1		1
Health & Fitness	21	5	26
Health & Fitness, Appliances	1		1
Leisure & Hobbies	3		3
Leisure & Hobbies, Security	1		1

Product Category	No	Yes	Grand Total
Mobile	8	4	12
Mobile, Smart Home		1	1
Mobile, Smart Home, Audio		1	1
Mobile, TV		2	2
Pet Care	2		2
Security	9	1	10
Smart Home	18	2	20
Smart Home, Appliances	23	2	25
Smart Home, Appliances, Hub, Environment Control		1	1
Smart Home, Appliances, Security	1		1

Product Category	No	Yes	Grand Total
Smart Home, Audio	28	1	29
Smart Home, Bathroom	1		1
Smart Home, Energy	3		3
Smart Home, Energy, Lighting	1		1
Smart Home, Environment Control	10	4	14
Smart Home, Environment Control, Health & Fitness	2		2
Smart Home, Environment Control, Hub	1		1
Smart Home, Environment Control, Security	2		2
Smart Home, Garden	2		2
Smart Home, Health & Fitness	8		8

Product Category	No	Yes	Grand Total
Smart Home, Health & Fitness, Appliances	1		1
Smart Home, Health & Fitness, Environment Control	3		3
Smart Home, Hub	2	3	5
Smart Home, Hub, Maintenance, Lighting		1	1
Smart Home, Hub, Mobile		1	1
Smart Home, Hub, Security, Lighting	1		1
Smart Home, Lighting	45	2	47
Smart Home, Lighting, Audio	1		1
Smart Home, Lighting, Environment Control	4		4
Smart Home, Lighting, Environment Control, Hub	1		1

Product Category	No	Yes	Grand Total
Smart Home, Lighting, Health & Fitness	1		1
Smart Home, Lighting, Mobile	1		1
Smart Home, Lighting, Security	4		4
Smart Home, Lighting, Security, Hub	1		1
Smart Home, Maintenance	2		2
Smart Home, Maintenance, Energy	1		1
Smart Home, Mobile	2	2	4
Smart Home, Pet Care	4	1	5
Smart Home, Security	34	3	37
Smart Home, Security, Child Care		1	1

Product Category	No	Yes	Grand Total
Smart Home, Security, Child Care, Pet Care, Mobile		1	1
Smart Home, Security, Lighting	3		3
Smart Home, Security, Lighting, Environment Control		1	1
Smart Home, Security, Maintenance	1		1
Smart Home, TV	1	1	2
Smart Home, Workplace	10	1	11
Smart Home, Workplace, Security	2		2
Toys	7	1	8
TV		1	1
Workplace	2		2

APPENDIX E

Vulnerability Disclosure Policy Situation by Company

Note: This is a subset of the published data. The full dataset is publicly available as open data on request and includes seven additional fields – public disclosure time; formal reporting system; use of encryption keys; proxy company names; security.txt; /security page; and additional notes.

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
ACEMAX	SONOFF Wifi Switch, Smart Home, Smart WiFi LED	Smart Home, Lighting	http://www.acemax.net.cn/products/	N	N/A	N	N	N	N
ACTi	D series, B series, I series, E series	Smart Home, Security	https://www.acti.com/	N	N/A	N	N	N	N
AdhereTech	Wireless Pill Bottle	Smart Home, Health & Fitness	https://adheretech.com/	N	N/A	N	N	N	N
ADT	Smart Home System	Smart Home, Security	https://www.adt.co.uk/home-security/smart-home	N	N/A	N	N	N	N
Aeon Labs, Aeotec	Wall Switch, Door/ Window Sensor, Doorbell, Garage Door Controller, Energy Meter, LED Bulb, LED Strip, MultiSensor6, NanoMote, WallMote	Smart Home, Lighting, Security	https://aeotec.com/homeautomation	N	N/A	N	N	N	N
Airboxlab	Foobot	Smart Home, Environment Control	https://foobot.io/	N	N/A	N	N	N	N
AISIRER	Smart Plug Mini	Smart Home	https://www.amazon.co.uk/AISIRER-Assistant-Control-Required-Support/dp/B07BS82N54	N	N/A	N	N	N	N
Aiwa	XR-WS100	Smart Home, Audio	https://aiwa.co/ , https://www.yamada-denkiweb.com/4216921012?q=WiFi	N	N/A	N	N	N	N
Allure Energy	Eversense Thermostat	Smart Home, Environment Control	https://buyeversense.com/	N	N/A	N	N	N	N

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
Amaryllo	Security Robot, Home Security, Outdoor Security	Smart Home, Security	http://www.amaryllo.eu/	N	N/A	N	N	N	N
Amazon	Echo, Echo Dot, Echo Show, Fire, Kindle, Echo Plus	Smart Home, Hub, Mobile	https://www.amazon.com/gp/help/customer/display.html?nodeId=200724850	Y	Coordinated	N	N	N	Y
Amor Gummiwaren GmbH	Vibratissimo	Health & Fitness	https://www.vibratissimo.com/en/	N	N/A	N	N	N	N
Aniken	Sports Bracelet, Smart Plug	Smart Home, Health & Fitness	http://www.ianeken.com , https://www.amazon.co.uk/ANEKEN-Assistant-Control-Function-Required/dp/B075F4SNPZ	N	N/A	N	N	N	N
Anker, Eufy	SMART, Lumos	Smart Home, Lighting	https://www.eufylife.com/	N	N/A	N	N	N	N
Anki	Cozmo	Toys	https://anki.com/en-gb/company/privacy.html	N	N/A	N	N	N	N
Anoopsyche	WiFi Smart Plug	Smart Home	https://www.amazon.co.uk/ANOOPSYCHE-Control-Required-%EF%BC%88Amazon%EF%BC%89-Assistant/dp/B079JGDQJD	N	N/A	N	N	N	N
Anoto	Livescribe, Echo	Smart Home, Workplace	https://www.livescribe.com/int/smartpen/ls3/	N	N/A	N	N	N	N
Anova	Precision Cooker	Smart Home, Appliances	https://anovaculinary.com/anova-precision-cooker/	N	N/A	N	N	N	N
ANTCOOL	Ampoule Intelligente	Smart Home, Lighting	https://www.cdiscout.com/bricolage/domotique/antcool-r-ampoule-smart-bluetooth-3-0-sans-fil-6w/f-166190101-ant0602798993221.html?idOffre=218353752#pres	N	N/A	N	N	N	N

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
Apollo Tech USA	Momentum Smart Camera	Smart Home, Security	https://momentumcam.com/	N	N/A	N	N	N	N
Appkettle	Appkettle	Smart Home, Appliances	https://www.myappkettle.com/	N	N/A	N	N	N	N
Apple	HomePod, iPhone	Smart Home, Mobile	https://hackerone.com/apple , https://support.apple.com/en-us/HT201220 , https://developer.apple.com/bug-reporting/	Y	Coordinated	Invite Only	N	N	N
Apption Labs	Meater	Smart Home, Appliances	https://meater.com/	N	N/A	N	N	N	N
Aramatix	iP1 Pistol	Leisure & Hobbies	http://www.aramatix.de/iP1-Pistol.779.0.html?&L=1	N	N/A	N	N	N	N
Atom Labs	ALC Wireless Security	Smart Home, Security	http://alcwireless.com/products	N	N/A	N	N	N	N
Audio Pro	Addon, Drumfire	Smart Home, Audio	https://www.audiopro.com/#	N	N/A	N	N	N	N
August	Smart Lock, Doorbell	Smart Home, Security	august.com	N	N/A	N	N	N	N
AUSEIN	Wifi Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Dimmable-Bayonet-Equivalent-Required-Daylight/dp/B07BQXX-RM6	N	N/A	N	N	N	N
Awair	Awair	Smart Home, Environment Control, Health & Fitness	https://getawair.com/index.html	N	N/A	N	N	N	N
AWOS	SmartLight	Smart Home, Lighting	http://www.awox.com/en/awox-product/smartlight-color/	N	N/A	N	N	N	N
B&O	Beoplay	Smart Home, Audio	https://www.beoplay.com/en	N	N/A	N	N	N	N
Bawoo	Alexa Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Bawoo-Dimmable-Changing-Smartphone-Required/dp/B07868TST4	N	N/A	N	N	N	N

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
Beatife	Smart WiFi Plug Socket, Smart WiFi Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Beatife-Equivalent-Compatible-Smart-phone-Christmas/dp/B078HQW-MP6 , https://www.amazon.co.uk/Beatife-Applicable-Assistant-Wireless-Required/dp/B078B9DFGL	N	N/A	N	N	N	N
Beeline	Bicycle Compass	Health & Fitness	https://beeline.co/	N	N/A	N	N	N	N
Behmor	Brewer, Roaster	Smart Home, Appliances	http://behmor.com/	N	N/A	N	N	N	N
Belkin	Wemo	Smart Home, Hub	http://www.belkin.com/us/security/	Y	Coordinated	N	N	N	Y
Best Buy, Insignia	WiFi Smart Plug, WiFi Convertable Fridge/ Freezer, WiFi Chest Freezer, WiFi Camera	Smart Home, Appliances, Security	https://www.insigniaproducts.com/smart-home	N	N/A	N	N	N	N
Bizfeat	i-see WiFi IP Static Camera	Smart Home, Security	http://bizfeat.co.za/product-category/i-see-wifi-cameras/	N	N/A	N	N	N	N
BLU Products	Advance, C, Dash, Energy, Grand, Life, Neo, Pure, R, S, Studio, Tank Xtreme, Touchbook, Vivo	Mobile	https://bluproducts.com/home/	N	N/A	N	N	N	N
BlueAir	BlueAir Classic Series	Smart Home, Health & Fitness, Environment Control	https://www.blueair.com/gb/air-purifiers	N	N/A	N	N	N	N
BlueStork	Caméra Cloud intérieure, Serena	Smart Home, Security	http://bluestork.eu	N	N/A	N	N	N	N

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Bosch	Smart Home	Smart Home, Appliances, Hub, Environment Control	https://psirt.bosch.com/en/responsibleDisclosurePolicy.html	Y	Coordinated	N	N	N	N
Bose	Multi-Room Speakers	Smart Home, Audio	https://global.bose.com/en_us/product_security_vulnerability_response.html	Y	Coordinated	Discretionary	N	N	N
Breathometer	Mint	Health & Fitness	https://www.breathometer.com/	N	N/A	N	N	N	N
Brita	Infinity Pitcher	Smart Home, Health & Fitness	https://infinity.brita.com/	N	N/A	N	N	N	N
Brother Industries, Ltd	DCP Series, MFC Series	Smart Home, Workplace	https://www.brother.co.uk/printers/wireless-printers	N	N/A	N	N	N	N
Buddy	Ohm	Smart Home, Environment Control	https://buddy.works/disclosure-policy	Y	Coordinated	N	N	N	Y
BUTEFO	Smart Plug	Smart Home	https://www.amazon.co.uk/Plug-BUTEFO-Scheduling-Function-Compatible-Assistant/dp/B077VK1X5S	N	N/A	N	N	N	N
Canary	View, Flex, All-in-One	Smart Home, Security	https://canary.is/security/	N	N/A	N	N	N	Y
Candy	Connected Appliances	Smart Home, Appliances	http://www.candy-domestic.co.uk/en_GB/bianca	N	N/A	N	N	N	N
Canon	Pixma	Smart Home, Workplace	https://www.canon.co.uk/support/product-security/ https://www.canon.co.uk/printers/wifi-connectivity/	N	N/A	N	N	Y	N
Canon, IRIS	IRISNotes 3, Portable Scanners	Smart Home, Workplace	http://www.irislink.com/EN-GB/c1521/IRISNotes-3---Digital-Pen.aspx	N	N/A	N	N	N	N
Catapult Sports	ClearSky, OptimEye	Health & Fitness	https://www.catapultsports.com/	N	N/A	N	N	N	N
Chamberlain	MyQ	Smart Home, Security	https://www.chamberlain.com/	N	N/A	N	N	N	N

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Circle	Home, Go, On Netgear	Smart Home	https://meetcircle.com/contact	N	N/A	N	N	N	N
Clever Dog	Wireless Security	Smart Home, Security	http://www.cleverdog.com.cn/	N	N/A	N	N	N	N
Click and Grow	Smart Garden	Smart Home, Garden	https://www.clickandgrow.com	N	N/A	N	N	N	N
CloudCover365	My Android Smart Mirror	Smart Home	https://www.amazon.co.uk/Cloud-cover365-My-Android-Smart-Mirror/dp/B0791CB5T5	N	N/A	N	N	N	N
COOSA	Smart Plug	Smart Home	https://www.amazon.co.uk/COOSA-Wireless-Control-Anywhere-Required/dp/B077Z6X9SI	N	N/A	N	N	N	N
CrockPot	WeMo Smart Slow Cooker	Smart Home, Appliances	http://crockpot.co.uk/type/slow-cookers/	N	N/A	N	N	N	N
Curb	Energy Monitor	Smart Home, Maintenance, Energy	https://energycurb.com/	N	N/A	N	N	N	N
Current Labs	FishBit	Smart Home, Pet Care	https://getfishbit.com/	N	N/A	N	N	N	N
D-Link	Smart Plug, Sensors	Smart Home, Security, Maintenance	http://us.dlink.com/security-advisories/report-vulnerabilities/	N	N/A	N	N	N	N
Dahua	EZ-IP Cameras, Smart Locks	Smart Home, Security	https://www.dahuasecurity.com/support/cybersecurity/response	Y	N/A	N	N	N	N
Deeper	Sonar, Smart Fish Finder	Leisure & Hobbies	https://deepersonar.com/en/	N	N/A	N	N	N	N
Delta Five	Bed Bug Monitoring System	Smart Home, Health & Fitness, Environment Control	http://www.deltafive.com/	N	N/A	N	N	N	N
DENON	HEOS, CEOL	Smart Home, Audio	https://www.denon.co.uk/uk/support/home	N	N/A	N	N	N	N
Devialet	Phantom	Smart Home, Audio	https://www.devialet.com/en-gb/	N	N/A	N	N	N	N
Devolvo	Home Control	Smart Home, Environment Control	https://www.devolvo.co.uk/home-control/	N	N/A	N	N	N	N
DigitalKeys	IoT Smart Locks	Security	https://www.digitalkeys.io/	N	N/A	N	N	N	N

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Doogee	S Series, BL Series, Mix Series, X Series	Mobile	https://www.doogee.cc/category/mobile	N	N/A	N	N	N	N
Double Robotics	Telepresence Robot	Workplace	https://www.doublerobotics.com/	N	N/A	N	N	N	N
Drayton	Wiser	Smart Home, Environment Control	https://www.draytoncontrols.co.uk/products/Smart-Thermostats/Wiser/wiser-multi-zone-kit-1	N	N/A	N	N	N	N
Drop	Scale, kCook Multi Smart, Wifi Connected Ovens	Smart Home, Appliances	https://getdrop.com/	N	N/A	N	N	N	N
Dyson	Pure Hot + Cool Link	Smart Home, Environment Control	https://hackerone.com/dyson	Y	Coordinated	Invite Only	Y	N	N
E-JIAEN	Wi-Fi Smart LED	Smart Home, Lighting	https://www.amazon.co.uk/JIAEN-Bayonet-Million-Dimmbale-Multicolored/dp/B077T1HSP4	N	N/A	N	N	N	N
Ecobee	Ecobee4, Room Sensors, Switch+	Smart Home, Environment Control	https://hackerone.com/ecobee?view_policy=true , https://www.ecobee.com	Y	N/A	N	Y	Y	N
Edimax	Network Cameras, Smart Plugs, Wireless Sensors	Smart Home, Workplace, Security	http://www.edimax.co.uk/	N	N/A	N	N	N	N
Edsun	Smart LED Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Smart-Bulb-Alexa-Google-Home/dp/B076H75RMG	N	N/A	N	N	N	N
EletecPro	Smart Plug	Smart Home	https://www.amazon.co.uk/EletecPro-Wireless-Required-Control-Anywhere/dp/B071W46FHT	N	N/A	N	N	N	N

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Elgato, Eve	Smart Home Products	Smart Home, Lighting, Security	https://www.evehome.com/en	N	N/A	N	N	N	N
Eminent	RFID Key, Alarm System, IP Camera	Security	http://www.eminent-online.com/	N	N/A	N	N	N	N
Energenie	Mi Home	Smart Home, Lighting, Environment Control, Hub	https://energenie4u.co.uk/catalogue/product/MIHO001	N	N/A	N	N	N	N
eq-3	eqiva	Smart Home, Environment Control, Security	https://www.eq-3.com/products/eqiva.html	N	N/A	N	N	N	N
Estimate	Beacons	Smart Home, Workplace, Security	https://estimate.com/	N	N/A	N	N	N	N
Etekcity	Wifi Outlet, Wifi Switch, Scale	Smart Home, Health & Fitness	https://www.etekcity.com/	N	N/A	N	N	N	N
Expower	B22 Smart WiFi Bulb	Smart Home, Lighting	http://www.iexpower.com/en/h_contact	N	N/A	N	N	N	N
EXTSUD	E14 WiFi Smart Bulb, Smart WiFi Bulb	Smart Home, Lighting	https://www.amazon.co.uk/EXTSUD-Dimmable-Compatible-Smartphone-Equivalent/dp/B07D3Q7JSJ , https://www.amazon.co.uk/EXTSUD-2700K-6500K-Adjustable-Compatible-Smartphone/dp/B07D6ZKR6Q	N	N/A	N	N	N	N
EZVIZ	C Series, Mini, Alarm Devices	Smart Home, Security	https://www.ezvizlife.com/uk	N	N/A	N	N	N	N
Fender	Mustang GT 100	Smart Home, Audio	https://shop.fender.com/en-GB/guitar-amplifiers/contemporary-digital/mustang-gt-100/product-231020.html	N	N/A	N	N	N	N
FIBARO	Sensors, Actors, Intercom, Remotes, Gateways	Smart Home, Lighting	https://www.fibaro.com/en/	N	N/A	N	N	N	N
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Filmodont	Dental Camera	Health & Fitness	https://www.ebay.co.uk/itm/Dental-camera-connected-to-smart-phones-and-tablets-via-Wifi-Wireless/122851106286?hash=item-1c9a7f1dee:g:h5QAAOSw~XpZ.jpg	N	N/A	N	N	Product no longer listed	
FireAngel	Wireless Smoke Alarm	Smart Home	https://www.fireangel.co.uk https://www.screwfix.com/p/fireangel-wst-630q-wireless-interlink-thermoptek-smoke-alarm/87048	N	N/A	N	N	N	N
FirstBuild	Opal Nugget Ice Maker	Smart Home, Appliances	https://firstbuild.com/products/opal/	N	N/A	N	N	N	N
FitBit	FitBit	Health & Fitness	https://bugcrowd.com/fitbit , https://hackerone.com/fitbit	Y	Coordinated	Y	Y	N	Y
FLiR	Thermal Camera	Security	https://www.flir.com/	N	N/A	N	N	N	N
Flux Smart	Smart LED	Smart Home, Lighting	https://www.fluxsmartlighting.com/products/flux-wifi	N	N/A	N	N	N	N
Foscam	IP Camera, Network Video Recorder	Smart Home, Security	https://www.foscam.com/company/contact-us.html	N	N/A	N	N	N	N
FREDI	Wifi Camera	Smart Home, Security	https://www.fredicctv.com/	N	N/A	N	N	N	N
Furbo	Dog Camera	Smart Home, Pet Care	https://shopuk.furbo.com/	N	N/A	N	N	N	N
Garadget	Remote Garage Door Controller	Smart Home	https://www.garadget.com/	N	N/A	N	N	N	N
Gardena	SmartFlow Meter	Garden, Maintenance	https://www.gardena.com/uk/products/watering/hose-fittings/water-smart-flow-meter/966780901/	N	N/A	N	N	N	N
Garmin	Fitness Tracker	Health & Fitness	https://www.garmin.com/en-US/legal/security#report	Y	Coordinated	N	N	N	Y
GE Appliances	Connected Appliances	Smart Home, Appliances	https://www.ge.com/security	N	N/A	N	N	N	Y

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Generic	Smart Plug	Smart Home	https://www.amazon.com.au/Wi-Fi-Smart-Plug-Compatible-Smart-phone/dp/B0761LJ5ZN	N	N/A	N	N	N	N
Genetic International, Ultralink	Smart Plug, Smart Bulb, IP Camera	Smart Home, Security, Lighting	http://ultralinkhome.com/	N	N/A	N	N	N	N
GeniCan	GeniCan	Smart Home, Appliances	https://www.genican.com/	N	N/A	N	N	N	N
Genius Hub	Hub, Heat Genius, Smart Plugs	Smart Home, Environment Control, Hub	https://www.geniushub.co.uk/	N	N/A	N	N	N	N
Good Sound of Himalayan	Good Sound Void AI-001	Smart Home, Audio	https://item.jd.com/4524325.html	N	N/A	N	N	N	N
Google	Android OS	Mobile	https://www.google.com/about/appsecurity/android-rewards/	Y	Coordinated	Y	N	N	N
Google	Home	Smart Home, Hub	https://www.google.com/about/appsecurity/reward-program/index.html	Y	Coordinated	Y	N	N	N
Google	Nest	Smart Home, Environment Control	https://www.google.com/about/appsecurity/reward-program/ , https://hackerone.com/nest	Y	Coordinated	Y	Y	N	N
Gourmia	GTA2800 Turbo Cooker - WiFi	Smart Home, Appliances	https://www.gourmia.com/item.asp?item=10130	N	N/A	N	N	N	N
Greater Goods	Appsync Smart Scale, Food Scale, BPM	Health & Fitness, Appliances	https://greatergoods.com/products	N	N/A	N	N	N	N
GREMAG	Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Aluminum-Dimmable-Colorful-Function-Controlled/dp/B0787PJT8Z	N	N/A	N	N	N	N

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GresatekEU	Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Dimmable-Equivalent-Function-Controlled-Required/dp/B077XDZLVP	N	N/A	N	N	N	N
Guardian Technologies	Smart Air Purifier	Smart Home, Health & Fitness, Environment Control	https://www.guardiantechnologies.com/smart-purifier/	N	N/A	N	N	N	N
Guardzilla	WiFi Video Security Cameras	Smart Home, Security	https://www.guardzilla.com/	N	N/A	N	N	N	N
Hangzhou XiongMai Technology	Wifi Camera	Smart Home, Security	http://www.xiongmaitech.com/en/	N	N/A	N	N	N	N
Hank	Smart Plugs, Smart LED, Z-Wave Scene Controllers	Smart Home	http://hankelectronics.manufacturer.globalsources.com/si/6008839043141/Homepage.htm	N	N/A	N	N	N	N
Hanwha, Wisenet	Smart Home Cameras, Wireless Baby Monitors, All in one CCTV Kits	Smart Home, Security, Child Care	https://www.hanwha-security.com/support/tutrl/list.do?menuCd=MN000252	Y	Coordinated	N	N	N	N
Hapi	HAPIFork	Smart Home, Health & Fitness	https://www.hapi.com/product/hapifork	N	N/A	N	N	N	N
Hasbro	Furby Connect	Toys	https://furby.hasbro.com/en-us	N	N/A	N	N	N	N
Hatch Baby	Rest (Smart Nightlight), Grow (Smart Changing Pad)	Child Care, Health & Fitness	https://shop.hatchbaby.com/	N	N/A	N	N	N	N
Hidrate	Spark	Health & Fitness	https://hidratespark.com/pages/terms-of-service	N	N/A	N	N	N	N

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Hikvision	Network Cameras, Video Intercom	Smart Home, Security	https://www.hikvision.com/eu-rope/Support/Cybersecurity-Center/Report-an-Issue , https://oversea-download.hikvision.com/uploadfile/Cybersecurity/Hikvision%20Cyber%20Security%20White%20Paper.pdf	Y	Coordinated	N	N	N	N	HP	Deskjet, WorkplaceJet, Sprocket	Smart Home, Workplace	https://www.hpe.com/us/en/services/security-vulnerability.html	Y	N/A	N	N	N	N
HMD Global (Nokia Mobile)	Nokia Mobile handsets	Mobile	https://www.nokia.com/phones/en_in/all-phones/ https://www.nokia.com/mobile	N	N/A	N	N	N	N	HTC	U12, Desire, U11	Mobile	https://www.htc.com/us/terms/product-security/	Y	Coordinated	N	N	N	N
Honeywell International	Home	Smart Home, Security, Lighting, Environment Control	https://www.honeywell.com/contact-us/vulnerability-reporting , https://hackerone.com/honeywell	Y	N/A	N	N	N	N	Huawei	P20, Mate, P Smart, Smart Home	Mobile, Smart Home	https://www.huawei.com/en/psirt	Y	Coordinated	N	N	N	N
Hoover	Axi, Dynamic Next, Link	Smart Home, Appliances	https://www.hoover.co.uk/en_GB	N	N/A	N	N	N	N	Hunterfan	Signal	Smart Home, Lighting, Environment Control	https://www.hunterfan.com/ceiling-fans/signal-with-led-light-54-inch-fam740	N	N/A	N	N	N	N
Horsky	Smart UK Plug, Smart LED Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Horsky/b/ref=bl_dp_s_web_13825932031?ie=UTF-8&node=13825932031&field-lbr_brands_browse-bin=Horsky	N	N/A	N	N	N	N	Husqvarna	Automower	Garden	https://www.husqvarna.com/uk/products/robotic-lawn-mowers/	N	N/A	N	N	N	N
HowsieAcc	Wifi Smart Plug	Smart Home	https://www.amazon.co.uk/HowsieAcc-Wireless-Function-Required-Assistant/dp/B075XCP7D9	N	N/A	N	N	URL no longer reaches product. Product code reveals no Point of Sale		Icontrol Networks Canada	Piper	Smart Home, Security	https://getpiper.com/	N	N/A	N	N	N	N
										iFAVINE	iSomellier	Smart Home, Appliances	http://www.ifavine.com/	N	N/A	N	N	N	N
										IFITech	Smart Lighting, Security	Smart Home, Security, Lighting	https://www.ifihomes.com/	N	N/A	N	N	N	N
										iku	Smart Tag, Smart Bulb, i Series, K Series, U Series, Zeus Series, LEO Series, C Series	Smart Home, Lighting, Mobile	http://iku-mobile.com/all-products/	N	N/A	N	N	N	N
										ilumi	LED Smart Light Bulbs	Smart Home, Lighting	https://ilumi.co/	N	N/A	N	N	N	N
										Infinix	Zero, Note, Hot, Quiet	Mobile	http://www.infinixmobility.com/	N	N/A	N	N	N	N
										Innr	Smart Lighting	Smart Home, Lighting	https://www.innrlighting.com/en/	N	N/A	N	N	N	N

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Insteon	Hub, Plug-In Devices, Wall Switches, Wall Outlets, Wall Keypads, LED Bulbs, Thermostats, Remotes	Smart Home, Lighting, Environment Control	https://www.insteon.com/products/	N	N/A	N	N	N	N
Intelbras	WiFi Camera	Smart Home, Security	https://produto.mercadolivre.com.br/MLB-1029405521-cmera-intelbras-mibo-wifi-hd-720p-ic3-micro-sd-nota-fiscal-JM	N	N/A	N	N	N	N
InteraXon Inc	MUSE Meditation Headband	Health & Fitness	http://www.choosemuse.com/	N	N/A	N	N	N	N
Invoxia	Triby Smart Speaker	Smart Home, Audio	https://www.amazon.com/Invoxia-Smart-Portable-Speaker-Amazon/dp/B013DJSKKQ	N	N/A	N	N	N	N
Iris Ohyama	IRW-2217C-W Air conditioner	Smart Home, Environment Control	https://www.irisohyama.co.jp/air-con/wifi/irw-2217c-2817c/	N	N/A	N	N	N	N
iSmartAlarm	iCamera Keep Pro	Smart Home, Security	https://www.ismartalarm.com/icamera-keep-pro	N	N/A	N	N	N	N
JAM Audio	Rhythm	Smart Home, Audio	https://uk.jamaudio.com/jam-rhythm-wireless-wifi-speaker	N	N/A	N	N	N	N
Jasco	Lighting, Fan Control	Smart Home, Lighting	http://www.ezzwave.com/z-wave-products/	N	N/A	N	N	N	N
JBL	Link, Horizon, Playlist, CONTROL XSTREAM, LINK VIEW	Smart Home, Audio	https://uk.jbl.com/	N	N/A	N	N	N	N
JingDong	DingDong	Smart Home, Audio	https://item.jd.com/7343289.html	N	N/A	N	N	N	N

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
JOMARTO	WiFi Smart Bulb, WiFi Smart Plug	Smart Home, Lighting	https://www.amazon.co.uk/JOMARTO-Dimmable-Equivalent-Controlled-Required/dp/B07F6XJGZK , https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=JOMARTO&index=diy&search-type=ss	N	N/A	N	N	N	N
June	Intelligent Oven	Smart Home, Appliances	https://juneoven.com/security	Y	N/A	N	N	N	Y
Kainsy	WiFi LED Light	Smart Home, Lighting	https://www.amazon.co.uk/Changing-Equivalent-Function-Controlled-Decorative-Silver/dp/B075WTBD8Z	N	N/A	N	N	N	N
Keen Home	Smart Vent, Temp Sensor	Smart Home, Environment Control	https://keenhome.io/	N	N/A	N	N	N	N
KeySmart	Keysmart Pro	Security	https://getkeysmart.com/pages/introducing-keysmart-pro-with-tile-smart-location	N	N/A	N	N	N	N
Kolibree, Baracoda	Magic, Ara	Health & Fitness	https://www.kolibree.com/en/ara/	N	N/A	N	N	N	N
Koogeek	Smart Plug, Smart Switch, Thermometer, Padlock, Scales	Smart Home, Environment Control, Health & Fitness	https://www.koogeek.com/	N	N/A	N	N	N	N
Kuvée	Kuvée Bottle	Smart Home, Appliances	https://kuvée.com/	N	N/A	N	N	N	N
Kwikset	Smart Security	Smart Home, Security	https://www.kwikset.com/smartsecurity/default.aspx	N	N/A	N	N	N	N
Lampaous, LUMENMAX	Smart Home Connected LED Light Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Lampaous-Connected-Replacement-2700K-6500K-Adjustable/dp/B075WTX5F3	N	N/A	N	N	N	N
Laurastar	Smart	Appliances	https://smartnews.laurastar.com/	N	N/A	N	N	N	N

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LEAGOO	S Series, M Series, T Series, Z Series, Power Series, XRover Series, Smart Plug	Smart Home, Mobile	https://www.leagoo.com/Products/index.html#Smart%20Phone	N	N/A	N	N	N	N
Lenbrook Industries, Bluesound	Pulse	Smart Home, Audio	http://www.bluesound.com/en-gb/?cl	N	N/A	N	N	N	N
Lenovo	Smart Assistant, Think Centre, Think Pad, ThinkStation	Smart Home, Hub	https://support.lenovo.com/gb/en/solutions/ht103338	Y	Non-Disclosure, Coordinated	N	N	N	N
Leotec	Vigilancia Remota, Crontrola la Temperatura, Diseños adaptativos	Smart Home, Environment Control, Security	http://smarthome.leotec.com/	N	N/A	N	N	N	N
LetsFit	Fitness Tracker	Health & Fitness	https://www.iletsfit.com/	N	N/A	N	N	N	N
Lexmark	X Series, C Series, Pro Series, Interact	Smart Home, Workplace	https://www.lexmark.com/en_us.html	N	N/A	N	N	N	N
LG	G Series, V Series, Q Series, Stylus Series, K Series, Signature Series Smart TV	Mobile, TV	https://lgsecurity.lge.com/	Y	Coordinated	N	N	N	N
Lifx	Smart Light Bulb	Smart Home, Lighting	https://www.lifx.com/pages/privacy-security	Y	N/A	N	N	N	N

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Lightwave	Lighting, Power, Heating	Smart Home, Lighting, Environment Control	https://lightwaverf.com/	N	N/A	N	N	N	N
LightwaveRF	Plug in on-off kit, Smart Switches, Heating Control	Smart Home, Lighting, Environment Control	https://lightwaverf.com/smart-power/plug-in-on-off-kit	N	N/A	N	N	N	N
Linkplay Technology Inc, Muzo	Cobblestone	Smart Home, Audio	https://www.amazon.co.uk/MU-ZO-Cobblestone-Wi-Fi-Audio-Receiver/dp/B00N9NZIKM http://www.muzohifi.com/	N	N/A	N	N	N	N
Lithe	WiFi Multi-Room Ceiling Speakers	Smart Home, Audio	http://www.litheaudio.com/wifi-multi-room-ceiling-speakers.html	N	N/A	N	N	N	N
Lockstate, smartLOCK, RemoteLOCK	Remote Lock 7i	Security	https://www.lockstate.eu/	N	N/A	N	N	N	N
Locus Energy	Solar Power Meter	Energy	https://www.locusenergy.com/	N	N/A	N	N	N	N
Logitech	Harmony	Smart Home, Hub	https://www.logitech.com/en-us/legal/security-vulnerability-reporting.html	N	N/A	N	Y	N	N
Logitech, Ultimate Ears	Blast, MegaBlast, MegaBoom, Boom 2, Woder-Boom	Smart Home, Audio	https://www.ultimateears.com/en-gb/wireless-speakers.html	N	N/A	N	N	N	N
Lohas	Smart Bulb	Smart Home, Lighting	http://www.lohas-led.com/	N	N/A	N	N	N	N

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Lombex	Smart WiFi Plug, Smart WiFi Wall Switch, Smart WiFi Multicolor Bulb	Smart Home, Lighting	https://www.ilombex.com/collections/all	N	N/A	N	N	Product no longer sold	
Lorex	Home Security Camera System	Smart Home, Security	https://www.lorextechnology.com/	N	N/A	N	N	N	N
Lovense	Remote sex toys	Health & Fitness	https://www.lovense.com/security	Y	N/A	N	N	N	Y
Loxone	Miniserver, Lighting, Security	Smart Home, Hub, Security, Lighting	https://www.loxone.com/enen/products/overview/	N	N/A	N	N	N	N
Ludia	Equil SmartPen 2, SmartMarker, Edge, Touch	Smart Home, Workplace	https://www.ludia.com/	N	N/A	N	N	N	N
Lumo Body-tech	Lift, Run	Health & Fitness	https://www.lumobodytech.com/	N	N/A	N	N	Ceased operations	N
Lutron	Caseta Wireless	Smart Home, Lighting	http://www.lutron.com/en-US/Products/Pages/SingleRoomControls/CasetaWireless/overview.aspx	N	N/A	N	N	N	N
Lutron Electronics Company	Single room controls, Whole building Systems, Shading Systems, Whole Home Systems	Smart Home, Energy, Lighting	http://www.lutron.com/europe/Pages/default.aspx	N	N/A	N	N	N	N

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LYASI	Smart Switch, Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=LYASI&index=lighting&search-type=ss	N	N/A	N	N	N	N
Marshall	CODE50	Smart Home, Audio	https://marshall.com/marshall-amps/products/amps/code/code50	N	N/A	N	N	N	N
Mattel	Hello Barbie	Toys	http://hellobarbiefaq.mattel.com/	N	N/A	N	N	N	N
Mattel, Fisher-Price	Smart Toy	Toys	https://www.fisher-price.com/en_CA/brands/smarttoy/index.html	N	N/A	N	N	N	N
MEAMOR	Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/MEAMOR-Dimmable-Multicolored-Decorative-Controlled/dp/B075ZLTVNX	N	N/A	N	N	N	N
Medion AG	Intelligente Steckdose, Life Series	Smart Home, Mobile	https://www.otto.de/p/medion-intelligente-steckdose-mit-funksteckdosen-set-md-16173-623351873/#-variationId=623351874	N	N/A	N	N	Y	N
Mellow	Sous Vide Machine	Smart Home, Appliances	https://www.cookmellow.com/	N	N/A	N	N	N	N
Meross	Smart Plugs, Smart Lighting	Smart Home, Lighting	http://www.meross.com/index.html	N	N/A	N	N	N	N
MIPOW	PLAYBULB	Smart Home, Lighting	https://www.mipow.com/	N	N/A	N	N	N	N

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Miric	Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Miric-Changing-Bluetooth-Multicolour-Smartphone/dp/B0768GG6WS	N	N/A	N	N	N	N
Mirubee	Mirubox Mono	Smart Home, Energy	https://mirubee.com/en/products/33-mirubox-v2.html	N	N/A	N	N	Product no longer available	
Misfit	Fitness Tracker	Health & Fitness	https://misfit.com/	N	N/A	N	N	N	N
Moen	U	Smart Home, Bathroom	https://www.moen.com/whats-new/innovation/u	N	N/A	N	N	N	N
Moleskine	Pen+	Smart Home, Workplace	https://us.moleskine.com/pen-plus-ellipse/p0655	N	N/A	N	N	N	N
Motorola Mobility	moto z, moto x, moto g, moto e, moto c, Smart Nursery, Home Monitors, Pet Monitors	Smart Home, Security, Child Care, Pet Care, Mobile	https://www.motorolasolutions.com/en_us/about/security-vulnerability.html	Y	Coordinated	Y	N	N	N
Muvit	Ampoule Musicale LED, Smart Sound System	Smart Home, Lighting, Audio	http://mymuvit.net	N	N/A	N	N	N	N
NAIM	Mu-so, Uniti, ND series	Smart Home, Audio	https://www.naimaudio.com/streaming-and-multiroom	N	N/A	N	N	N	N

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NanoLeaf	NanoLeaf	Smart Home, Lighting	https://us-shop.nanoleaf.me/	N	N/A	N	N	N	N
Neato	Botvac Connected	Smart Home, Maintenance	https://www.neatorobotics.com/robot-vacuum/botvac-connected-series/botvac-connected/	N	N/A	N	N	N	N
NEC	IP Video Cameras	Smart Home, Security	https://www.necam.com/Video_Communications/doc.cfm?t=IPVideoCameras	N	N/A	N	N	N	N
Neo	Smart Pen	Smart Home, Workplace	https://www.neosmartpen.com/en/?noredirect=en_US	N	N/A	N	N	N	N
Nespresso	Prodigio	Smart Home, Appliances	https://www.nespresso.com/uk/en/prodigio-machines-range	N	N/A	N	N	N	N
Netatmo	Air Quality, Energy, Weather, Security	Smart Home, Environment Control	http://www.deltafive.com/	N	N/A	N	N	N	N
Netgear, ARLO	Security Cameras, Security Light	Smart Home, Security	https://www.arlo.com/en-us/about/security/default.aspx	Y	Non-Disclosure, Coordinated	Y	Y	N	N
Neurio	Energy Monitor	Smart Home, Energy	https://neur.io/	N	N/A	N	N	N	N
NINETY7	VAUX, LOFT	Smart Home, Audio	https://ninety7.com/collections/all	N	N/A	N	N	N	N
Nightingale Smart Solutions	Home Sleep System	Smart Home, Health & Fitness	https://www.meetnightingale.com/	N	N/A	N	N	Product/company no longer active	
Nokia Health (Withings)	Wireless BPM	Health & Fitness	https://networks.nokia.com/responsible-disclosure , https://hackerone.com/nokia	Y	Coordinated	N	N	N	N
Ninja Blocks Inc	Ninja Block, Ninja Sphere	Smart Home	https://ninjablocks.com/	N	N/A	N	N	Product/company no longer active	
Nologie	WiFi Smart 60W Bulb, Smart Plug	Smart Home, Lighting	https://www.amazon.co.uk/s?marketplaceID=A1F-83G8C2ARO7P&me=A37B6ZLV5DEYRG&merchant=A37B6ZLV5DEYRG&redirect=true	N	N/A	N	N	N	N

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Novostella, Ustellar	B22 Smart WiFi Bulb	Smart Home, Lighting	https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=NO-VOSTELLA&index=lighting&search-type=ss	N	N/A	N	N	N	N
OnePlus	3, 5, 6	Mobile	https://www.oneplus.com/uk/	N	N/A	N	N	N	N
ONKYO	VC Series	Smart Home, Audio	https://www.eu.onkyo.com/en/	N	N/A	N	N	N	N
OPPO	Find X, A3, A73, R15, A83, F7, R11, F5	Mobile	https://security.oppo.com/disclosurePolicy.html	Y	Coordinated	Y	N	N	N
Osram	Lightify	Smart Home, Lighting	https://www.osram.com/cb/lightify/index.jsp	N	N/A	N	N	N	N
Otio, Beewi	Ampule LED. Capteurs, Prises connectées, Cameras, Traceurs, Pasarellas	Smart Home, Lighting, Security, Hub	http://www.bee-wi.com/	N	N/A	N	N	N	N
Ovni	Prophix	Health & Fitness	https://www.getprophix.com/	N	N/A	N	N	N	N
Panasonic	TX Series Smart TV, Smart Home	Smart Home, TV	https://www.panasonic.com/global/corporate/product-security/secpsirt.html	Y	N/A	N	N	N	N
Perfect Company	Perfect Drink, Perfect Bake, Perfect Blend	Smart Home, Appliances	https://makeitperfectly.com/	N	N/A	N	N	N	N
PetCube	Play, Bites	Smart Home, Pet Care	https://petcube.com/support/article/petcube-security/	Y	N/A	N	N	N	N
Petnet	SmartFeeder, SmartBowl	Smart Home, Pet Care	https://www.petnet.io/	N	N/A	N	N	N	N
Signify - Philips Lighting	Lighting	Lighting	https://www.signify.com/global/vulnerability-disclosure	Y	Coordinated	N	N	N	Y
PicoBrew	KegSmarts	Smart Home, Appliances	https://www.picobrew.com/	N	N/A	N	N	N	N
Procter & Gamble, Oral B	Smart Series Toothbrush	Health & Fitness	https://www.oralb.co.uk/en-gb/products/electric-toothbrushes/smartseries , https://www.elcorteingles.es/electrodomesticos/A23908466-cepillo-de-dientes-electrico-oral-b-smart-6-6000n/	N	N/A	N	N	N	N
Quardio	Base, Arm, Core	Health & Fitness	https://www.getquardio.com/	N	N/A	N	N	N	N

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Quirky	Egg Minder	Smart Home, Appliances	https://www.amazon.co.uk/Quirky-Minder-Accessory-11-1-White/dp/B00GN92KQ4	N	N/A	N	N	N	N
Rachio	2, 3, Smart Flow Meter	Smart Home, Garden	https://www.rachio.com/	N	N/A	N	N	N	N
Ratoc Systems	REX-WFI-REX 1	Smart Home, Hub	https://www.yamada-denkiweb.com/1267698016?q=WiFi , http://www.ratocsystems.com	N	N/A	N	N	N	N
Remotec	Scene Master	Smart Home	https://shop.zwave.eu/products/z-wave-controller-remote-controls/706/remotec-scene-master	N	N/A	N	N	N	N
RENPHO	Bluetooth Scale	Health & Fitness	http://renpho.com/	N	N/A	N	N	N	N
Reolink Digital Technology	Argus, Go	Smart Home, Security	https://reolink.com/	N	N/A	N	N	N	N
Ring	Doorbell	Smart Home, Security	https://en-uk.ring.com/	N	N/A	N	N	N	N
Roberts Radio	R-Line MultiRoom Speakers	Smart Home, Audio	https://www.robertsradio.com/uk/products/wireless-speakers	N	N/A	N	N	N	N
Roku	Express, Steaming Stick +	Smart Home, TV	https://www.roku.com/en-gb/about/contact	N	N/A	N	N	N	N
Roost	Battery, Leak Detector, Garage Door	Smart Home, Maintenance	https://www.getroost.com/	N	N/A	N	N	N	N
Ruark	MRx Connected Wireless Speaker	Smart Home, Audio	https://www.ruarkaudio.com/products/mrx-connected-wireless-speaker	N	N/A	N	N	N	N
SAINKO	Smart Bulb	Smart Home, Lighting	https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=SAINKO&index=lighting&search-type=ss	N	N/A	N	N	N	N
Samsung	Galaxy Series	Mobile	https://security.samsungmobile.com/securityReporting.smsb	Y	Coordinated	Y	N	N	N
Samsung	UE Series Smart TV	TV	https://samsungtvbounty.com/Home.aspx	Y	Coordinated	Y	N	N	N
Samsung	SmartThings	Smart Home	https://bugcrowd.com/smartthings	Y	Non-Disclosure	Y	Y	N	N
Schlage	Sense	Smart Home, Security	http://www.schlage.com/en/home/keyless-deadbolt-locks/sense.html	N	N/A	N	N	N	N
Seiko Epson	Expression	Smart Home, Workplace	https://www.epson.co.uk/for-home/expression-home-series/	N	N/A	N	N	N	N

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Seneye	Home, Pond, Reef	Smart Home, Pet Care	https://www.seneye.com/	N	N/A	N	N	N	N
Sengled	Audio, Security, Connectivity	Smart Home, Lighting, Security	https://eu.sengled.com/en/	N	N/A	N	N	N	N
Sensoria	Garments, Hardware	Health & Fitness	http://store.sensoriafitness.com/	N	N/A	N	N	N	N
Shenzhen Neo	WiFi Smart Devices, Z-Wave Devices, IP Camera, iDoorbell, Smart Home Kits	Smart Home, Security	http://www.szneo.com/	N	N/A	N	N	N	N
Siemens	Home Connect	Smart Home, Appliances	https://www.siemens.com/global/en/home/products/services/cert/vulnerability-process.html	Y	Coordinated	N	N	N	N
SimpliSafe	SimpliSafe	Security	https://simplisafe.com/	N	N/A	N	N	N	N
SingHong Technology	Smart Light, Air Monitor	Smart Home, Lighting, Health & Fitness	http://www.singhong.cn/en/	N	N/A	N	N	N	N
Skybell	Skybell	Smart Home, Security	https://www.skybell.com	N	N/A	N	N	N	N
Sleep Number	360	Smart Home, Health & Fitness	https://www.sleepnumber.com/360	N	N/A	N	N	N	N
Small	Intelligent Speaker	Smart Home, Audio	https://item.jd.com/7344084.html	N	N/A	N	N	N	N
Smanos	Wireless Alarm, Smart Doorbell, IP Camera, Panic Button	Smart Home, Security	http://www.smanos.com/	N	N/A	N	N	N	N
Smarter Applications	iKettle, Smarter Coffee, Fridge Cam	Smart Home, Appliances	https://smarter.am/	N	N/A	N	N	N	N
SmartHalo	SmartHalo	Health & Fitness	https://www.smarthalo.bike	N	N/A	N	N	N	N
SmartPlate	TopView	Smart Home, Health & Fitness, Appliances	https://www.getsmartplate.com/	N	N/A	N	N	N	N
SmartyPans	SmartyPans	Smart Home, Appliances	https://smartyfans.io/	N	N/A	N	N	N	N
Sonos	Speakers	Smart Home, Audio	https://www.sonos.com	N	N/A	N	N	N	N

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Sony	Xperia Series, Master Series Smart TV	Mobile, TV	https://hackerone.com/sony	Y	Coordinated	Y	Y	N	N
Sparin	Smart Bulb B22	Smart Home, Lighting	https://www.amazon.co.uk/Bulb-SPARIN-Light-Valentines-Decoration/dp/B0774H7KV8 , http://sparindirect.com/	N	N/A	N	N	N	N
Sphero	Connected Toys	Toys	https://support.sphero.com/article/5drs94lhk5-vulnerability-disclosure-program	Y	Coordinated	Y	N	N	Y
SPlug	IoT WiFi Outlet	Smart Home	http://global.11st.co.kr/product/SellerProductDetail.tmall?method=getSellerProductDetail&prdNo=1707323161	N	N/A	N	N	N	N
StoryLink	WiFi Smart Plug	Smart Home	http://global.11st.co.kr/product/SellerProductDetail.tmall?method=getSellerProductDetail&prdNo=1699381071	N	N/A	N	N	N	N
Tado	Smart Thermostat, Smart AC	Smart Home, Environment Control	https://www.tado.com/gb/	N	N/A	N	N	N	N
Tanita	Body Composition Monitors	Health & Fitness	https://tanita.eu/products	N	N/A	N	N	N	N
Tapplock	One	Security	https://tapplock.com/bounty/	Y	N/A	Y	N	N	N
TCL Corporation (Alcatel)	1, 1T 7, 1X, 1C mobiles	Mobile	https://us.alcatelmobility.com/	N	N/A	N	N	N	N
Teckin	Smart Plug	Smart Home	https://www.amazon.co.uk/Outlet-TECKIN-Wireless-Control-Required/dp/B07MT622S1	N	N/A	N	N	N	N
Tefal	Cook4Me Connect, Actify Smart	Smart Home, Appliances	https://www.tefal.co.uk/	N	N/A	N	N	N	N
Tend Insights	Lynx	Smart Home, Security	https://www.tendinsights.com/products/tend-secure-lynx-indoor2	N	N/A	N	N	N	N
Thalmic	Myo Gesture Control	Smart Home, Workplace	https://www.myo.com/	N	N/A	N	N	Product no longer active	
Theatro	Workforce Communications	Workplace	https://www.theatro.com	N	N/A	N	N	N	N

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TIBO	Wifi Speakers, Internet Radio, Amplifiers	Smart Home, Audio	https://tibo-electronics.com/	N	N/A	N	N	N	N
Tile	Mate, Sport, Style, Slim	Security	https://hackerone.com/tilesecurity	N	N/A	N	Y	N	Y
Tingkam	WiFi B22 Smart LED Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Tingkam-Changing-Controlled-Android-devices/dp/B07BBLV4MY4	N	N/A	N	N	N	N
Tomshine	Smart LED Bulb Intelligent Light	Smart Home, Lighting	https://www.tomshine.com/indoor-lighting-3219/#Bulb%20&%20Tube%20%20Lights	N	N/A	N	N	N	N
TomTom	Fitness Tracker	Health & Fitness	https://www.tomtom.com/en_gb/responsible-disclosure/ https://www.tomtom.com/en_gb/sports/running-watches/	Y	N/A	N	N	N	N
TOP-MAX	Smart Power	Smart Home	https://www.amazon.co.uk/TOP-MAX/b/ref=bl_dp_s_web_5379117031?ie=UTF-8&node=5379117031&field-lbr_brands_browse-bin=TOP-MAX	N	N/A	N	N	N	N
Top-Vigor	Bedside Lamp, Alexa Light Bulbs	Smart Home, Lighting	https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=Top-Vigor&index=lighting&search-type=ss	N	N/A	N	N	N	N
TP-Link	Smart Bulbs, Smart Plugs, Cloud Cameras	Smart Home, Lighting	https://www.tp-link.com/uk/	N	N/A	N	N	N	N
Tracking Point	Precision-Guided Firearm	Leisure & Hobbies	https://www.tracking-point.com	N	N/A	N	N	N	N
TrackR	pixel, bravo	Security	https://secure.thetrackr.com/products/online-pixel-5-pack/?-discount=V0T73FUGUKEB&gclid=Cj0KCQjwnZXbBRC8ARIsA-BEYg6CaCOFkhprO2DobT_yAe-LT76sD-Zxvsek96FwiON7rI3id-MZnM_uIMaAljEALw_wcB	N	N/A	N	N	N	N
Trakz	Trakz	Pet Care	https://www.trakz.io/	N	N/A	N	N	N	N
Trane	Connected Controls (Thermostats)	Smart Home, Environment Control	https://www.trane.com/	N	N/A	N	N	N	N

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty OR Reward Programme?	Uses a Proxy Disclosure?	Security.txt	/security page
Trending Objects	Smart Bulb	Smart Home, Lighting	http://www.trendingobjects.com	N	N/A	N	N	N	N
Trust	Plus Line, Smart Switches, LED Bulb	Smart Home, Security, Lighting	https://www.trust.com/en/smarthome	N	N/A	N	N	N	N
TVT	IP Cameras	Smart Home, Security	http://en.tvt.net.cn/	N	N/A	N	N	N	N
UBTECH	Star Wars, Lynx, Alpha, Jimu, Cruzr	Toys	https://ubtrobot.com/	N	N/A	N	N	N	N
URBANEARS	Baggen, Stammen, Lotsen	Smart Home, Audio	https://www.urbanears.com/ue_gb_en/speakers	N	N/A	N	N	N	N
Ustellar	Smart LED Strip, Smart Light Switches, WiFi Control Smart Plug, Smart WiFi LED Bulb	Smart Home, Lighting	https://www.ustellar.com/?lang=en	N	N/A	N	N	N	N
Vaultek	Gun Safes	Leisure & Hobbies, Security	https://vaulteksafe.com/vaultek-view-all-models	N	N/A	N	N	N	N
Veho	Kasa Smart Lighting, Cave Smart Home, IP Camera, Motion Sensort	Smart Home, Lighting, Security	https://veho-world.com/	N	N/A	N	N	N	N
Velco	Wink Handlebar	Health & Fitness	https://velco.bike/en/	N	N/A	N	N	N	N
Vivint	Sky Control Panel, Security, Cameras, Sensors, Smart Doorbell,	Smart Home, Security	https://www.vivintsource.com/	N	N/A	N	N	N	N
Vivitar	WiFi Lights, WiFi Outlets	Smart Home, Lighting	http://www.vivitar.com/	N	N/A	N	N	N	N
Vivo	X29, V9, V7	Mobile	https://global.vivo.com/en/	N	N/A	N	N	N	N
Voxx International, Klipsch	The One	Smart Home, Audio	https://www.klipsch.com/products/the-one	N	N/A	N	N	N	N

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Wallfire	Wifi Led Light bulbs	Smart Home, Lighting	https://www.amazon.co.uk/s/ref=bl_dp_s_web_0?ie=UTF8&field-keywords=Wallfire&index=lighting&search-type=ss	N	N/A	N	N	N	N
Wattcost	Wattcost	Smart Home, Energy	https://www.wattcost.com/	N	N/A	N	N	N	N
We-Vibe	Remote sex toys	Health & Fitness	https://we-vibe.com/app-products	N	N/A	N	N	N	N
Wearable X	Nadi X, Fundawear	Health & Fitness	https://www.wearablex.com/	N	N/A	N	N	N	N
Weber	iGrill	Appliances	https://www.weber.com/US/en/igrill/weber-25969.html	N	N/A	N	N	N	N
Weenect	Geolocation	Security	https://www.weenect.com/en/	N	N/A	N	N	N	N
Western Digital	MyCloud	Smart Home	https://www.wdc.com/security/reporting.html	Y	Coordinated	N	N	N	Y
Whirlpool	Connected Appliances	Smart Home, Appliances	https://www.whirlpool.com/home-innovations/connected-appliances.html	N	N/A	N	N	N	N
Whistle	Pet Tracker	Pet Care	https://www.whistle.com/	N	N/A	N	N	N	N
Wicked Cool Toys	Teddy Ruxpin	Toys	https://www.wickedcooltoys.com/products/teddy-ruxpin/	N	N/A	N	N	N	N
Winix America	Smart	Smart Home, Environment Control	https://winixamerica.com/winix-smart/	N	N/A	N	N	N	N
Wink	Bright, Look-out, Leak Protection	Smart Home, Hub, Maintenance, Lighting	http://security.wink.com/	Y	Coordinated	Y	N	N	Y
WyzeCam	WyzeCam	Smart Home, Security	https://www.wyzecam.com/	N	N/A	N	N	N	N
Xiaomi (MI)	Mi Phone, Redmi, Mi Router, Mi TV, Mi Pad, Mi Box, Mi Band, Mi Air Purifier, Blood Pressure Monitor, Xiao Yi Smart Camera	Mobile, Smart Home, Audio	https://sec.xiaomi.com/post/84	Y	Coordinated	Y	N	N	N
XiaoShuai	Intelligent Robot	Toys	https://item.jd.com/7615207.html	N	N/A	N	N	N	N
XOLO	Era Series	Mobile	http://www.xolo.in/	N	N/A	N	N	N	N
Xoopar	X5 Xoopar Boy Stereo	Audio	xoops.com	N	N/A	N	N	N	N
Xperi, DTS	Play-Fi	Smart Home, Audio	https://play-fi.com/	N	N/A	N	N	N	N
Yale	Smart Living	Smart Home, Security	https://www.yale.co.uk/en/yale/couk/products/smart-living/	N	N/A	N	N	N	N

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Yamaha Pro Audio, Yamaha Corporation	MusicCast	Smart Home, Audio	https://uk.yamaha.com/en/products/audio_visual/desktop_audio/index.html	N	N/A	N	N	N	N
Yeelight	Smart Bulb	Smart Home, Lighting	http://www.yeelight.com/	N	N/A	N	N	N	N
Zeeq	Smart Pillow	Smart Home, Health & Fitness	https://rem-fit.co.uk/zeeq-smart-pillow	N	N/A	N	N	N	N
Zmodo Technology	Greet	Smart Home, Security	https://www.zmodo.com/greet-pro-1080p-wifi-video-doorbell/	N	N/A	N	N	N	N
ZTE	Axon, Blade, Z Max, Smart Home	Smart Home, Mobile	https://hackerone.com/zte , http://www.zte.com.cn/en/about/corporate_citizenship/security/201403/t20140327_421951.html	Y	N/A	N	N	N	N

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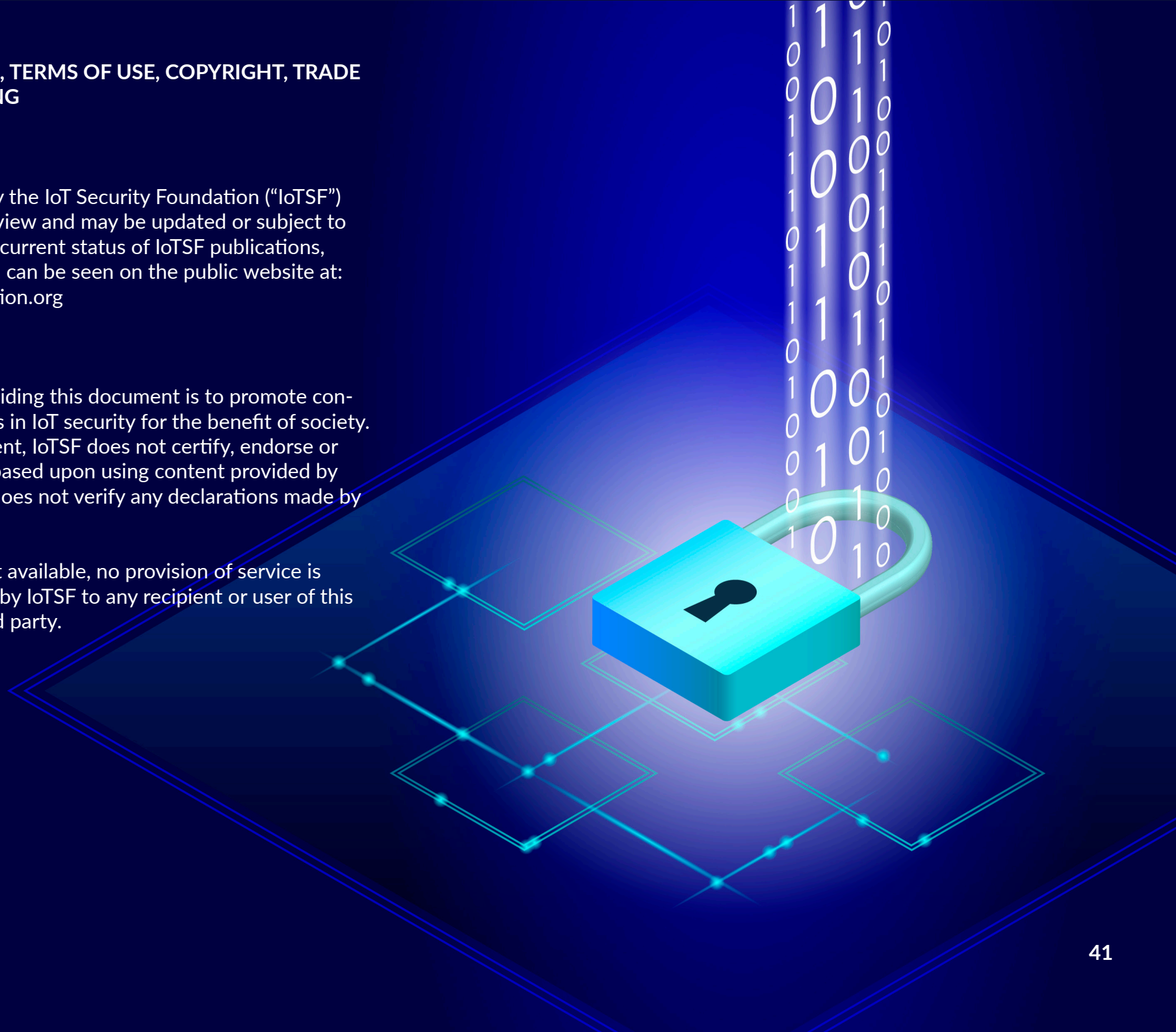
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