Consumer IoT: Vulnerability Disclosure – Expanding The View Into 2021

IoT
Security Foundation

Build Secure, Buy Secure, Be Secure

Introduction

Picture the scene, a researcher discovers a security issue in a product, but can't find a contact point for reporting the problem. Or, details are submitted to a device maker, but the company keeps the researcher in the dark on what happens next and whether any headway has been made. Both scenarios frustrate progress in building and maintaining products that consumers can trust. Clear lines of communication are key to widening the net for catching issues and vulnerability disclosure best practice[1] helps make this happen. But how well are IoT providers following the guidelines?

Global Push

2020 saw further alignment on the roadmap towards greater IoT security following the publication of EN 303 645[2] by European standards organization, ETSI. The 34 page document establishes a security baseline for internet-connected consumer products and has buy-in from national bodies. Putting teeth into the regulations, the UK government is leading the way in the world by progressing its plans for legislation[3] based on the 2018 Code of Practice for Consumer IoT Security [4].

Aimed at IoT producers – a catch-all for manufacturers, their representatives and importers – the initiative focuses on the guidelines at the top of the list, which includes and proposes the following requirements:

- Ban universal default passwords in consumer smart products
- Implement a means to manage reports of vulnerabilities
- Provide transparency on for how long, at a minimum, the product will receive security updates

It's not just countries in Europe that are taking action, other countries such as Australia[5], Japan, Korea, and the USA[6] are also engaging with stakeholders. Globally, there is a push to protect consumers by setting out steps that all developers should follow to support IoT products that the public at large can have faith in.

This report is the third in a series commissioned by the IoT Security Foundation (IoTSF) and conducted by Copper Horse, which surveys the websites of more than 300 companies to gauge the extent to which the message on IoT cybersecurity has landed.

In the 2018 dataset, just under 10% of companies selling consumer IoT products had a way for security researchers to contact them[7]. One year later, the needle had moved to around

1. https://www.iotsecurityfoundation.org/best-practice-guidelines/
2. https://www.etsi.org/newsroom/press-releases/1789-2020-06-etsi-releases-world-leading-consumer-iot-security-standard
3. The 'Call for Views' stage had completed at the time of writing (September 2020).
4. https://www.gov.uk/government/publications/code-of-practice-for-consumer-iot-security
5. https://www.homeaffairs.gov.au/reports-and-pubs/files/code-of-practice.pdf
6. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB327
7. https://www.iotsecurityfoundation.org/less-than-10-of-consumer-iot-companies-follow-vulnerability-disclosure-guidelines/

13%[8] - an increase, but not by much. The proportion of companies with clearly marked security contact details fell far short of a goal that should be pegged at 100% to maximize the opportunity to close security holes that put consumers at risk.

Now, it's time to not just revisit this metric, but also expand the analysis to include home routers – the gateway to the internet for many consumer IoT products – as well as other related categories such as laptops, PCs and tablets.

This update comes during a period where many of us will have added to our home networks either for entertainment, education or work; and highlights why it's important to revisit and expand the analysis.

Product Categories

Informed by legislation proposed in the UK, the product categories adopted in this study have been harmonised from those used in 2018 & 2019. The new labels will assist when matching results against the scope of future regulations.

In 2020, products have been grouped into appliances, audio, childcare, energy, environment control, garden, health fitness and wellbeing, hub, laptops, PCs and tablets, leisure & hobbies, lighting, maintenance, mobile, pet care, safety, security, smart home, toys, TV, wearables, Wi-Fi and networking and workplace.

8. https://www.iotsecurityfoundation.org/just-13-percent-of-consumer-iot-firms-allow-vulnerabili ty-reporting-despite-incoming-laws-and-international-standards/

New Products Have Been Added To The 2021 Report

Study Aim

Focusing on the domain of consumer IoT, this study examines whether providers have a publicly accessible route for vulnerability disclosure. The analysis also captures other attributes such as the disclosure type, the disclosure time and whether companies outsource the process to a third party, plus a number of other features that will be discussed below.

Method

To capture a representative picture of consumer IoT, and to allow a comparison with data gathered in 2018 and 2019, the core methodology remains as follows:

- Consumer IoT products: simply defined as Internet/network connected products that can be readily purchased through retail[9] and utilized by non-technical users.
- Global Companies: the brands and manufacturers are typically international. The survey took into account products sold by major retailers across the world.
- 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.
- 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.
- A key requirement was that the manufactured products were available on the open market (at the time the research was conducted) and not prototypes or proof of concept versions.

Note – in the latest round of analysis, multiple data for two companies in the original survey (Lightwave and Lutron) have been consolidated into a single entry for each firm. This is to recognize that the respective links now point to the same product. The Weblink to Buddy's Ohm IoT product has also been updated – in this case because it had been entered incorrectly in the original dataset.

Key Findings

Year-on-year comparison

In 2018, 9.7% (32) of companies surveyed provided a public channel for vulnerability disclosure compared with 13.3% (44) in 2019.

In 2020, the figure is 16.3% when tracking the original cohort first surveyed in 2018 – or 18.9% when this year's new products (detailed below) are also included in the calculation.
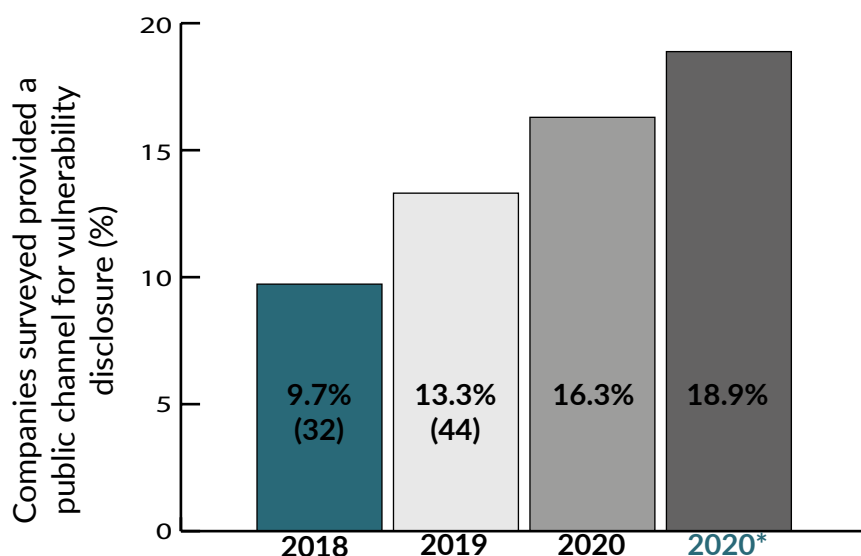
*When this year's new products (detailed p5) are also included in the calculation.

Attrition In The Market

Of the 330 companies first surveyed in 2018, 11.5% (38) of firms are either no longer operating or no longer provide the product via the link (or a redirect) listed in the study. Lack of customer interest is likely to be one explanation, particularly when the value proposition offered by a connected device is tenuous. There are other reasons too – for example, in one case the IoT product was pulled from the market due to privacy concerns.

Business changes are another consideration. Earlier this year, Osram announced that it will shut down the server for the Lightify system on 31 August 2021[10] as part of a transition to becoming a photonics company.

New Additions

Three years is a long time in consumer IoT. To keep things up to date, 50 new products have been added to the 2020 dataset. These have been chosen to i) reflect developments in the market and ii) build out a harmonised set of categories such as health fitness and wellbeing, laptop PCs and tablets, wearables and Wi-Fi and networking, which -- as touched on earlier -- will help to compare the results gathered from this study with other analysis.

Some of these categories perform relatively strongly – for example, in Wi-Fi and networking, which tops the list, more than 85% have a vulnerability disclosure policy. At face value this seems like providers such as router makers, which fall into this group – at least those that are available through retail channels (the analysis doesn't consider devices that are bundled as part of a broadband package) – are on the right path. However, vendors may have other issues[11] to contend with before we can celebrate too loudly, such as dealing with platforms powered by old operating systems.

Laptops, PCs and tablets has a figure of 69.2%, well above the baseline figure of 16.3%. But the category with the most entries -- smart home -- doesn't fare nearly so well.

10. https://www.osram-group.com/en/media/press-releases/pr-2020/09-03-2020

In the smart home segment, only 15.8% of products surveyed (35 out of 222) can be linked to a publicly available vulnerability disclosure policy. This percentage is much closer to the 2020 base-line figure mentioned above.

Percentage of Companies in a Segment with a Policy
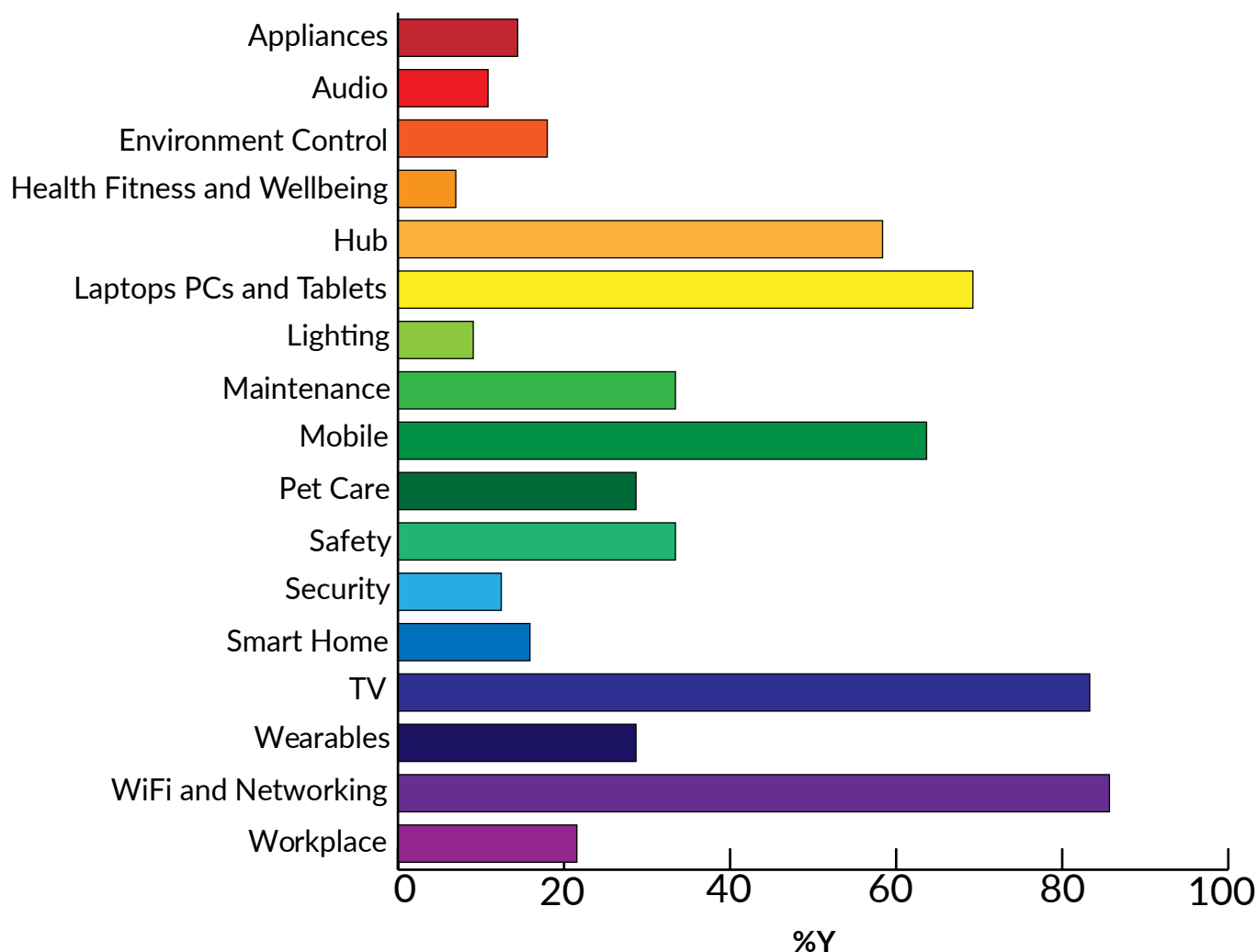
Putting this finding another way, security researchers could potentially face unnecessary delays in trying to communicate vulnerabilities for more than four out of every five products in the number one category of IoT consumer devices.

11. https://www.fkie.fraunhofer.de/content/dam/fkie/de/documents/HomeRouter/HomeRouterSecurity_2020_Bericht.pdf

Regional Variations

In 2019, Asia provided the least worst result with 16.3% of companies surveyed found to provide a disclosure policy. North America was second with 16.0% followed somewhat further behind by Europe with 6.1%. It was a similar picture in 2018, but what does the landscape look like in 2020?

The latest data shows that 26.5% of providers in Asia have an advertised vulnerability disclosure process, compared with 20.6% for North America. Again, Europe is in the third spot. This time with 7.5%. While these results are up on 2019, they still point to the fact that the majority of companies could be missing out on valuable security research by providing insufficient vulnerability disclosure information.

Note – for consistency, the region assigned to each company in the study is based on headquarter location. This is to navigate the complexity of attributing a single location to providers that may operate in multiple countries and outsource production to sites elsewhere, not to mention the issue of brand licensing.
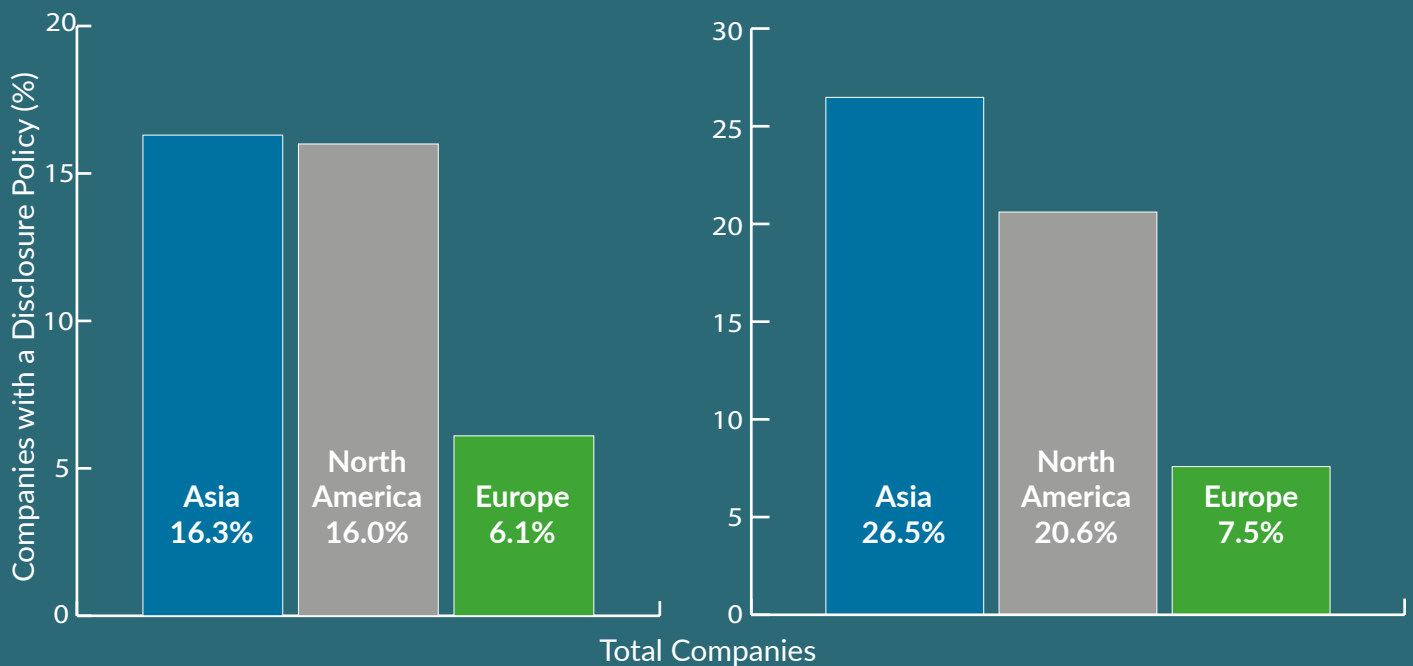
Asia 16 of 98 (16.3%) of cohort

North America 23 of 144 (16.0%) of cohort

Europe 5 of 82 (6.1%) of cohort

Asia 26 of 98 (26.5%) of cohort

North America 32 of 155 (20.6%) of cohort

Europe 6 of 80 (7.5%) of cohort

Fast-Track Features

Two additions to the 2019 analysis were checking for the existence of a /security webpage (something which has been de facto good practice in the past) and the presence of security.txt[12] (a recent initiative); both making it easier for security researchers to jump straight to the right company contact – either by navigating to a logically named web address, or by running a short script.

Speeding up the communications process is important. It allows companies to start work on patching vulnerabilities sooner and cuts down on the time wasted by security researchers in fruitless searches for the right email address or phone number.

In some cases, where contact details haven't been made readily available, tracking down the correct vulnerability reporting contact can take longer than the time spent identifying a bug and preparing the demonstration video[13].

In 2020, a mere 17 out of the 338 company websites surveyed in the consumer IoT space featured a /security page comparing similarly with 14 out of 330 providers in 2019.

Uptake of security.txt has also remained low (7 instances compared with 3 in 2019), despite the buzz – in some quarters at least –surrounding the concept. However, the idea could still catch on and scale in value as it appears to be doing elsewhere[14] in the IT sector.

The UK's National Cyber Security Centre lists security.txt as an essential component in its vulnerability disclosure toolkit[15] released in September 2020[16].

Policy Details

Reviewing the data, the vast majority of companies with a policy use coordinated vulnerability disclosure. In other words, the producer and researcher will work together to fix an issue and then publicly issue both a fix and a vulnerability report at the same time in order to minimize the potential harm to users.

The number of firms offering a PGP public key, which helps to protect the communication of vulnerability details, continues to grow – 25 companies in 2018, 32 in 2019 and 45 in 2020.

12. https://securitytxt.org/
13. https://www.michalspacek.com/what-is-security.txt-and-why-you-should-have-one
14. https://blog.cloudflare.com/security-dot-txt/
15. https://www.ncsc.gov.uk/files/NCSC_Vulnerability_Toolkit.pdf
16. https://www.ukauthority.com/articles/ncsc-releases-vulnerability-disclosure-toolkit/

Payouts

Bug bounties and reward schemes give researchers a financial incentive to share their findings with product makers. The approach is proving to be a useful model for companies, ratcheting up on the number of vulnerabilities caught as well as, potentially, playing a role in attracting new researchers to the scene. However, considering the data for consumer IoT, paying for vulnerability information appears to appeal to only a minority of companies - based on information shown on their websites. Security researchers are also realising that the compensation doesn't always match the level of effort put in to discover bugs for bounties.

In 2020, 20 firms out of the 338 surveyed chose to offer such programs compared with 15 and 18 out of 330 companies in 2018 and 2019 respectively.

Again, BugCrowd and HackerOne were popular choices for administering schemes with both providers employed in similar proportions. Payouts can be as large as five figure sums, depending on the size of the security hole identified, but typically start at a minimum of $50, $100 or $200.

Popular Choices For Bug Bounty Schemes

As the broader IoT sector matures, it's likely that the use of bug bounties and reward schemes will increase to more closely resemble adoption figures seen in other industries. In 2019, the total number of all organizations, not just consumer IoT providers, signed up to HackerOne and BugCrowd was north of 1400 and 1200 respectively[17].

But money isn't everything and it would be a mistake to assume that security researchers' sole goal for reporting vulnerabilities is to obtain a financial reward. Many researchers are reporting vulnerabilities because they are more broadly concerned about the wider impact or exploitation against users and are reporting them as a form of positive contribution back to society. There are other ways too that developers and the wider IoT community can express their appreciation of the work done by security researchers – for example, through 'hall of fame' lists and acknowledgement pages. These benefit security researchers by putting on public record their efforts, which can also be helpful in terms of job prospects.

17. https://www.darkreading.com/vulnerabilities---threats/vulnerability-management/bug-bounties-continue-to-rise-but-market-has-its-own-1--problem/d/d-id/1335689

Third Party Assistance

Around two thirds of the 64 companies with a public channel for vulnerability disclosure chose to use a proxy service to run the process on their behalf. In the 2019 analysis, the fraction was just under a quarter.

Looking at providers, HackerOne appears to be gaining ground in the IoT consumer space as a popular choice – being selected 15 times in the 2020 dataset. BugCrowd is also active in the sector and was chosen by 6 out of the 20 IoT providers in the study using proxy disclosure. Two firms used both services.

Close, But Not Quite There Yet

As found in previous surveys, there were once again examples of IoT firms – albeit only three -- offering online forms for reporting vulnerabilities or listing contact points for doing so, but without any published vulnerability policy. Puzzlingly, one company (Roku) still goes as far as to publish a PGP key, without briefing researchers on the types of information they'd like to receive – although they do have contact address, so in principle details could be requested.

Clear guidance on how long device providers will take to act on security information remains lacking in 2020 with the majority of companies choosing not to post a statement on their websites. And of those that do, 'reasonable time' or 'until resolved' are the most popular responses. Only five companies go as far as to specify a more concrete estimate – for example, 90 days, which we'll look at in more detail in the next section.

Companies that send a stronger signal on vulnerability disclosure – for example, by rewording product terms of use to welcome security research – are much more likely to benefit from the process. It's worth remembering that IoT devices are physically much more accessible than classic IT infrastructure such as servers. And writing that 'interfering with security features is prohibited' will do nothing to stop bad actors.

When applied correctly, vulnerability disclosure puts more minds to work on catching security issues of all kinds and gives IoT developers another tool for building better devices.

Some Confusion Remains

Navigating to the right security contact is not made easy when companies offer products across a number of divisions and assign a separate vulnerability disclosure policy to each. In some cases, firms appear to have picked up on this and now point security researchers to a single website, but this is not so for every IoT provider surveyed.

Considering the policies themselves, even wading through the fine detail can still leave questions unanswered – for example, in general, companies need to be much clearer in spelling out that they operate coordinated vulnerability disclose. As it stands, many times security researchers are left to read between the lines to determine how closely a company is willing to work with them, which is not ideal.

Adding to the uncertainty, one firm's (Arlo) official website appears to be in the spirit of coordinated vulnerability disclosure, but the details given on their proxy service page state non-disclosure. Presumably, the company's own policy will trump the proxy details, but again it adds unnecessary confusion to a process that benefits from being as straightforward as possible.

Applying A Threshold Test

If all of the companies in the survey had to comply with minimum vulnerability disclosure requirements, how many would meet the target?

To qualify, based on international standards and proposed legislation, IoT providers would need to demonstrate that they both –

1. Had a vulnerability policy and reporting system in place.
2. Give information on the timelines for acting on the issues disclosed.

Basic threshold

| Does the IoT provider have, either in-house or provided through a third party, a publicly available vulnerability disclosure policy and a formal reporting system? |

Extended threshold

YES →

| Does the IoT provider give information on the timelines for acknowledgement & resolution of the reported issues? |

→ **YES**

↓ **NO**

↓ **NO**
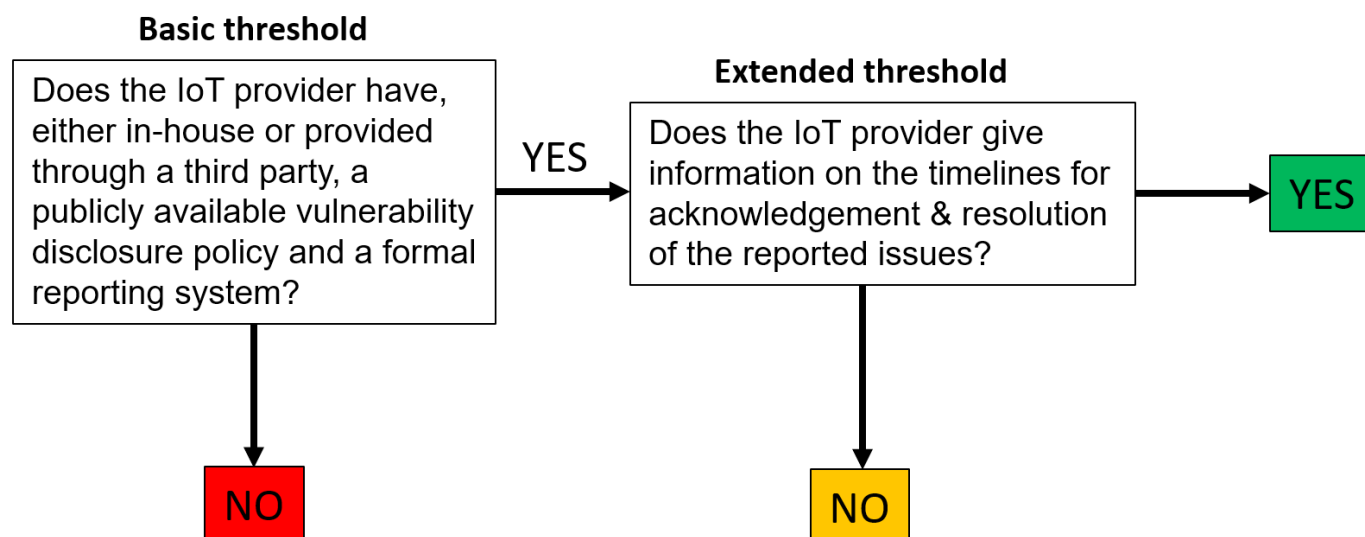
Of the 338 entries in the 2020 data, a staggering 274 would fail at the first hurdle. And of the 64 that meet basic threshold criteria, just 4 pass the second test.

Companies/Numbers	Level
Google Western Digital Wink Xiaomi	Extended Threshold
64 Companies	Basic Threshold
274 Companies	Do Not Meet the Basic Threshold

Based on such a threshold analysis, the readiness of companies for upcoming legislation appears to be poor with considerable room for improvement. However, it is a scenario that can change with education and will certainly see movement when sufficiently motivating factors are applied. After all, putting everything in place can be a relatively swift process for many firms.

For example, the 60 IoT providers in the survey that already have a policy and reporting system, but don't provide any information on disclosure timelines, are just a small step (or website update) away from satisfying requirements more fully.

Today, information guiding firms in how to setup and run a vulnerability disclosure process is readily available and includes not just written material[18], but also webinars. And for cases where motivation is the limiting factor, legislation will play a key role in helping firms to reap the full rewards of adopting a scheme.

Supporting vulnerability disclosure makes good business sense – for example, it's not a stretch to imagine a consumer shopping for a fitness watch and concerned about their health data choosing a manufacturer that embraces good security. Buyers will become better informed and firms that act sooner rather than later will come out ahead.

18. https://www.iotsecurityfoundation.org/wp-content/uploads/2020/08/IoTSF-Vulnerability-QG_FINAL.pdf

Conclusions

The basics of applying a vulnerability disclosure mechanism are straightforward, with guidelines on where to start easy to find on the web, including internationally ratified standards, which makes it disappointing to find such poor adoption overall by providers of consumer IoT.

In the third year of conducting this analysis, the needle has moved from 9.7% to a baseline figure of 16.3% in 2020, or 18.9% considering newly added firms. Although increasing, these are low numbers and explains why legislation is in the works to mandate that firms must do better.

Viewing the data by product category, it can be seen that some groupings are definitely making more progress than others. Almost 70% of entries in Laptops PCs and tablets – a mature sector that has lived with security issues for some time – have a disclosure policy on their website. The challenge here is to make it 100%, a stretch goal perhaps, but one that is worth striving for. Likewise for Wi-Fi and networking, another category with high adoption.

However, now is not the time to celebrate small wins. Security must be raised across the board to avoid leaving weak points in the chain for bad actors to exploit.

The responsibility of IoT manufacturers to their customers is clear, but they don't have to tackle security issues alone. Vulnerability disclosure brings the wider security research community to the table, joining forces in the mission to build and maintain IoT products that consumers can trust. Action points –

i)   Continued education so that vulnerability disclosure is better understood including pushing to make guidance, standards and recommendations are freely accessible.

ii)   Streamline and simplify reporting processes to speed up communications and avoid confusion.

iii)   Spell out the benefits of vulnerability disclosure to drive up engagement, particularly outside traditional engineering and information security circles.

For more information, including vulnerability disclosure process guidelines and a comprehensive compliance framework, visit –

https://www.iotsecurityfoundation.org/wp-content/uploads/2017/12/Vulnerability-Disclosure_WG4_2017.pdf

https://www.iotsecurityfoundation.org/best-practice-guidelines/

Appendix A

Survey countries

Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Dubai, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Japan, Lithuania, Netherlands, Norway, Poland, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, United Kingdom, US.

Appendix B

Disclosure policies by region

Continent	N	Y	Grand Total
Africa	1		1
Asia	72	26	98
Europe	74	6	80
N. America	123	32	155
Oceania	3		3
S. America	1		1
Grand Total	**274**	**64**	**338**

Appendix C

Disclosure timescales

Public Disclosure Time (Days)	Number of Companies	Percentage
90 Days	3	5.77%
By Consent	1	1.92%
Coordinated	2	3.85%
Last Day of Each Month	1	1.92%
Not Given	35	67.31%
Reasonable Time	5	9.62%
Until Resolved	4	7.69%
Until Security Notice Issued	1	1.92%
Grand Total	**52**	**100.00%**

Appendix D

Disclosure policies by product type

Category	Y	N	Total
Appliances	4	24	28
Audio	3	25	28
Childcare	0	0	0
Energy	0	4	4
Environment Control	5	23	28
Garden	0	4	4
Health Fitness and Wellbeing	3	41	44
Hub	7	5	12
Laptops PCs and Tablets	9	4	13
Leisure & Hobbies	0	4	4
Lighting	5	51	56
Maintenance	2	8	6
Mobile	14	8	22
Pet Care	2	5	7
Safety	3	9	9
Security	8	57	65
Smart Home	35	187	222
Toys	0	4	4
TV	5	1	6
Wearables	6	15	21
WiFi and Networking	12	2	14
Workplace	3	11	14

Appendix E

Vulnerability disclosure policy situation by company

Company	Product	Product Category	Website	Has a Vulnerability Disclosure Policy?	Disclosure Type	Has a Bug Bounty or Reward Programme?	Uses 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
Acer	Swift, Aspire	Laptops PCs and Tablets	https://www.acer.com/ac/en/GB/content/home	Y	Coordinated	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 and Wellbeing	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, Environm	foobot.io	N	N/A	N	N	N	N

		ent Control							
Airthings	Wave series	Safety	https://www.airthings.com	N	N/A	N	N	N	N
AISIRER	Smart Plug Mini	Smart Home	https://www.iaisirer.com/	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
AliveCor	KardiaMobile	Health Fitness and Wellbeing	https://www.alivecor.co.uk/	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
Amaryllo	Security Robot, Home Security, Outdoor Security	Smart Home, Security	http://www.amaryllo.eu/	N	N/A	N	N	N	N
Amazfit (Huami)	Bip	Wearables	https://en.amazfit.com/bip.html	N	N/A	N	N	N	N
Amazon	Echo, Echo Dot, Echo Show, Fire, Kindle, Echo Plus	Smart Home, Hub, Mobile, Laptops PCs and Tablets	https://www.amazon.com/gp/help/customer/display.html?nodeId=200724850	Y	Coordinated	Y	Y	N	Y
Amor Gummiwaren GmbH	Vibratissimo	Health Fitness and Wellbeing	https://www.vibratissimo.com/en/	N	N/A	N	N	N	N
Aniken	Sports Bracelet, Smart Plug	Smart Home, Wearables	http://www.ianeken.com	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-	N	N/A	N	N	N	N

Company	Product	Category	Website						
			Assistant/dp/B079JGDQJD/						
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.cdiscount.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
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, Apple Watch, Mac, Macbook, iPad	Smart Home, Mobile, Wearables, Laptops, PCs, and Tablets	https://hackerone.com/apple, https://support.apple.com/en-us/HT201220, https://developer.apple.com/bug-reporting/	Y	Coordinated	Y	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.armatix.de/iP1-Pistol.779.0.html?&L=1	N	N/A	N	N	N	N
ARLO	Security Cameras, Security Light	Smart Home, Security	https://www.arlo.com/en-us/about/security/default.aspx	Y	Non-Disclosure	Y	Y	N	N
Armani (Armani Exchange, Emporio Armani)	Hybrid, Smartwatch	Wearables	https://www.armaniexchange.com/gb, https://www.armani.com/gb/armanicom	N	N/A	N	N	N	N
Arris (Commscope)	Surfboard	WiFi and Networking	https://www.arris.com/, https://www.commscope.com/	Y	Coordinated	N	N	N	N

ASAKUKI	Smart Defuser	Health Fitness and Wellbeing	https://www.amazon.co.uk/ASAKUKI-Essential-Ultrasonic-Aromatherapy-Humidifier/dp/B07B2TFXKP	N	N/A	N	N	N	N
ASUS	Zenbook	Laptops PCs and Tablets	https://www.asus.com/uk/Laptops/	Y	N/A	N	Y	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/B07BQQXRM6/	N	N/A	N	N	N	N
Awair	Awair	Smart Home, Environment Control, Health Fitness and Wellbeing	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	Y	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
Beeline	Bicycle Compass	Health Fitness and Wellbeing	https://beeline.co/	N	N/A	N	N	N	N
Behmor	Brewer, Roaster	Smart Home,	http://behmor.com/	N	N/A	N	N	N	N

		Appliances							
Belkin	Wemo, N1 Vision, Routers, Wireless adapters	Smart Home, Hub, WiFi and Networking	http://www.belkin.com/us/security/	Y	Coordinated	N	N	N	Y
Best Buy, Insignia	WiFi Smart Plug, WiFi Convertible Fridge/Freezer, WiFi Chest Freezer, WiFi Camera	Smart Home, Appliances, Security	https://www.insigniaproducts.com/smart-home	N	N/A	N	N	N	N
Beurer	SL 70, SL 60, SL 40	Wearables	https://www.beurer.com/web/gb/	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 and Wellbeing, 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
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	Discretional	N	N	Y

Breathometer	Mint	Health Fitness and Wellbeing	https://www.breathometer.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
BT	Whole Home Wi-Fi, Wi-Fi extenders, Smart Hub	WiFi and Networking	https://www.bt.com	Y	Coordinated	N	Y	N	N
Buddy	Ohm	Smart Home, Environment Control	https://buddy.com/	N	N/A	N	N	N	N
Buffalo	Routers, USB wireless adapters, Network storage	WiFi and Networking	https://www.buffalotech.com/, https://www.buffalo-technology.com/	Y	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/	Y	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
Casio	Pro Trek Smart	Wearables	https://wsd.casio.com/intl/en/	N	N/A	N	N	N	N
Catapult Sports	ClearSky, OptimEye	Health Fitness and Wellbeing, Wearables	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
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
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/, https://support.dlink.com/ReportVulnerabilities.aspx	Y	Non-Disclosure	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
Dell	Latitude, Inspiron	Laptops PCs and Tablets	https://www.dell.com/en-uk?~ck=mn	Y	Coordinated	N	Y	N	Y
Delta Five	Bed Bug Monitoring System	Smart Home, Health Fitness and Wellbeing, 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
Devolo	Home Control	Smart Home, Environment Control	https://www.devolo.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

Name	Products	Category	URL						
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
Draytek	Routers, Access points, switches	WiFi and Networking	https://www.draytek.co.uk	Y	Coordinated	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
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 Plug	Smart Home, Lighting	https://www.amazon.co.uk/EDSUN-Socket-Outlet-Amazon-Google/dp/B07DK32DP4/	N	N/A	N	N	N	N
Eero	eero	WiFi and Networking	https://eero.com/	Y	Coordinated	Y	Y	N	N
Elecom	Mesh kits, Home routers	WiFi and Networking	https://www.elecom.co.jp/	N	N/A	N	N	N	N
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
Estimote	Beacons	Smart Home, Workplace, Security	https://estimote.com/	N	N/A	N	N	N	N
Etekcity	Wifi Outlet, Wifi Switch, Scale	Smart Home, Health Fitness and Wellbeing	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	http://extsud.com	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
Fibaro	Smoke detector, Water leak detector	Safety	https://www.fibaro.com/en/	N	N/A	N	N	N	N
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	Wearables	"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
Fossil	Gen 5	Wearables	https://www.fossil.com/en-gb/	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, Vivoactive, Forerunner	Wearables	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	Y	Coordinated	N	N	N	Y
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, Home, Nest, Nest WiFi, Pixel 7, Slate, Jacquard	Mobile, WiFi and Networking, Wearables, Smart Home, Environment Control, Hub, Laptops PCs and Tablets	https://www.google.com/about/appsecurity/android-rewards/, https://www.google.com/about/appsecurity/reward-program/index.html	Y	Coordinated	Y	N	Y	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 and Wellbeing, 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/B0787PJTBZ/	N	N/A	N	N	N	N
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 and Wellbeing, Environment Control	https://www.guardiantechnologies.com/smart-purifier/	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 Home	http://hankelectronics.manufacturer.gl	N	N/A	N	N	N	N

	Smart LED, Z-Wave Scene Controllers		obalsources.com/si/6008839043141/Homepage.htm						
Hanwha, Wisenet	Smart Home Cameras, Wireless Baby Monitors, All in one CCTV Kits	Smart Home, Security, Childcare	https://www.hanwha-security.com/support/tutrl/list.do?menuCd=MN000252	Y	Coordinated	N	N	N	N
Hatch Baby	Rest (Smart Nightlight), Grow (Smart Changing Pad)	Childcare, Health Fitness and Wellbeing	https://shop.hatchbaby.com/	N	N/A	N	N	N	N
Hidrate	Spark	Health Fitness and Wellbeing	https://hidratespark.com/pages/terms-of-service	N	N/A	N	N	N	N
Hikvision	Network Cameras, Video Intercom	Smart Home, Security	https://www.hikvision.com/europe/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
HMD Global (Nokia Mobile)	Nokia Mobile handsets	Mobile	https://www.nokia.com/phones/en_in/all-phones/	N	N/A	N	N	N	N
Honeywell Home (Resideo)	Smart home key fob, Water detector leak sensing alarm, Two-Way Wireless Smoke Detector	Safety	https://www.honeywellhome.com/us/en/	N	N/A	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	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
Horsky	Smart UK Plug, Smart LED Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Horsky/b/ref=bl_dp_s_web_13825932031?ie=UTF8&node=13825932031&field-lbr_brands_browse-bin=Horsky	N	N/A	N	N	N	N
HP	Deskjet, Workplace Jet, Sprocket, Pavillion	Smart Home, Workplace, Laptops PCs and Tablets	https://www.hpe.com/us/en/services/security-vulnerability.html	Y	N/A	Y	Y	N	N
HTC	U12, Desire, U11	Mobile	https://www.htc.com/us/terms/product-security/	Y	Coordinated	N	N	N	N
Huawei	P20, Mate, P Smart, Smart Home, Watch, Band, Matebook	Mobile, Smart Home, Laptops PCs and Tablets	https://www.huawei.com/en/psirt	Y	Coordinated	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
Husqvarna	Automower	Garden	https://www.husqvarna.com/uk/products/robotic-lawn-mowers/#B1A534457183458D96943E204F9CA341	N	N/A	N	N	N	N
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
iHealth	Gluco-Monitoring System, Body	Health Fitness and Wellbeing	https://ihealthlabs.com/	N	N/A	N	N	N	N

	Compositio n Scales								
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
Insteon	Hub, Plug-In Devices, Wall Switches, Wall Outlets, Wall Keypads, LED Bulbs, Thermostats, Remotes	Smart Home, Lighting, Environm ent 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 and Wellbeing, Wearable s	http://www.choosemuse.com/	N	N/A	N	N	N	N
Invoxia	Triby Smart Speaker	Smart Home, Audio	https://www.invoxia.com/be/fr/smart-speaker/triby	N	N/A	N	N	N	N
Iris Ohyama	IRW-2217C-W Air conditioner	Smart Home, Environm ent Control	https://www.irisohyama.co.jp/aircon/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

Jasco	Lighting, Fan Control	Smart Home, Lighting	https://byjasco.com/products/ge-z-wave-plus-wall-smart-fan-control	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
JOMARTO	WiFi Smart Bulb, WiFi Smart Plug	Smart Home, Lighting	https://www.amazon.co.uk/JOMARTO-Dimmable-Equivalent-Controlled-Required/dp/B07F6XJGZK/	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
KAMTRON	Smart Body Scales	Health Fitness and Wellbeing	https://www.amazon.co.uk/Bathroom-Scales-Weighing-Body-Fat/dp/B07HH6DJHH/ref=sr_1_5?dchild=1&keywords=smart&qid=1597763733&sr=8-5	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
Kobo	Clara HD, Forma, Libra H2O, Nia	Laptops PCs and Tablets	https://uk.kobobooks.com/	N	N/A	N	N	N	N

Kolibree, Baracoda	Magic, Ara	Health Fitness and Wellbeing	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 and Wellbeing	https://www.koogeek.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://www.laurastar.com/all-in-one/laurastar-smart-en	N	N/A	N	N	N	N
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, Ideapad, Tab	Smart Home, Hub, Laptops PCs and Tablets	https://support.lenovo.com/gb/en/solutions/ht103338	Y	Coordinated	N	N	N	N
Leotec	Vigilancia Remota, Crontrola la Temperatura, Diseños adaptativos	Smart Home, Environment Control, Security	https://leotec.com/	N	N/A	N	N	N	N
LetsFit	Fitness Tracker	Wearables	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	Y	N/A	N	N	N	Y
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
LifeFitness	SE3 HD, Platinum Club Series, Discover	Health Fitness and Wellbeing	https://lifefitness.co.uk/	N	N/A	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
Lightwave	Lighting, Power, Heating, Plug in on-off kit, Smart Switches	Smart Home, Lighting, Environment Control	https://lightwaverf.com/	N	N/A	N	N	N	N
Linkplay Technology Inc, Muzo	Cobblestone	Smart Home, Audio	https://www.amazon.co.uk/MUZO-Cobblestone-Wi-Fi-Audio-Receiver/dp/B00N9NZIKM http://www.muzohifi.com/	N	N/A	N	N	N	N
Linksys	Home routers, Mesh routers, Modem routers	WiFi and Networking	https://www.linksys.com	Y	Coordinated	N	Y	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.smartlock.co.uk/collections/vendors?q=lockstate	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-	Y	N/A	N	Y	N	Y

			vulnerability-reporting.html						
Logitech, Ultimate Ears	Blast, MegaBlast, MegaBoom, Boom 2, Wonder-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
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 and Wellbeing	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.luidia.com/	N	N/A	N	N	N	N
Lutron	Caseta Wireless, Single room controls, Whole building Systems, Shading Systems, Whole Home Systems	Smart Home, Lighting	http://www.lutron.com/en-US/Products/Pages/SingleRoomControls/CasetaWireless/overview.aspx	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, 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-	N	N/A	N	N	N	N

			Controlled/dp/B075ZLTVNX/						
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
Michael Kors	Lexington, Broadshaw	Wearables	https://www.michaelkors.co.uk/	N	N/A	N	N	N	N
Microsoft	Surface	Laptops PCs and Tablets	https://www.microsoft.com/en-gb/surface	Y	Coordinated	Y	N	N	N
MIPOW	PLAYBULB	Smart Home, Lighting	https://www.mipow.com/	N	N/A	N	N	N	N
Misfit	Fitness Tracker	Health Fitness and Wellbeing	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
MoKo	MoKo Smart WiFi Smoke Detector Alarms	Safety	https://www.mokodirect.com,	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, Childcare, Pet Care, Mobile	https://www.motorolasolutions.com/en_us/about/security-vulnerability.html	Y	Coordinated	Y	N	N	N
MSI	Stealth	Laptops PCs and Tablets	https://www.evooproducts.com/index.html	N	N/A	N	N	N	N
MySpool	Gas Alert	Safety	https://myspool.com/	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
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	Expert Range	Smart Home, Appliances	https://www.nespresso.com/uk/en/expert-machines-range	N	N/A	N	N	N	N
Netatmo	Air Quality, Energy, Weather, Security	Smart Home, Environment Control, Safety	https://www.netatmo.com/en-gb	N	N/A	N	N	N	N
Netgear	Nighthawk Switches, Nighthawk Routers, Orbi, Insight Managed Smart Cloud Wireless Access Points	WiFi and Networking	https://www.netgear.co.uk/	Y	Non-Disclosure	Y	Y	N	N
Neurio	Energy Monitor	Smart Home, Energy	https://neur.io/	N	N/A	N	N	N	N
Nima	Gluten Sensor, Peanut Sensor	Health Fitness and Wellbeing	https://nimasensor.com/	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
Nologie	WiFi Smart 60W Bulb, Smart Plug	Smart Home, Lighting	https://www.amazon.co.uk/Nologie-Incandescent-Equivalent-Dimmable-Controlled/dp/B078ZXFYH3/	N	N/A	N	N	N	N
NordicTrack	Commercial 2950, 2450, 1750	Health Fitness	https://www.nordictrack.co.uk/	N	N/A	N	N	N	N

		and Wellbeing							
Novostella, Ustellar	B22 Smart WiFi Bulb	Smart Home, Lighting	https://www.amazon.co.uk/Novostella-Dimmable-2700-6500K-Controlled-Required/dp/B07DN4LKM/	N	N/A	N	N	N	N
Nuki	Smart lock, Keypad, Opener	Safety	https://nuki.io/en/	N	N/A	N	N	N	N
Oculus	Go	Wearables	https://www.oculus.com	Y	N/A	Y	Y	N	N
Omron	EVOLV, HeartGuide,	Health Fitness and Wellbeing	https://omronhealthcare.com/	N	N/A	N	N	N	N
OnePlus	3, 5, 6	Mobile	https://security.oneplus.com/index.html	Y	Non-Disclosure	Y	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	Non-Disclosure	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	Ampule LED. Capteurs, Prises connectées, Cameras, Traceurs, Pasarelles	Smart Home, Lighting, Security, Hub	http://www.bee-wi.com/	N	N/A	N	N	N	N
Ovni	Prophix	Health Fitness and Wellbeing	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/sec/psirt.html	Y	N/A	N	N	N	N
Peloton	Peloton Bike	Health Fitness and Wellbeing	https://www.onepeloton.co.uk/shop/bike	Y	Coordinated	N	N	N	Y
Perfect Company	Perfect Drink, Perfect Bake,	Smart Home, Appliances	https://makeitperfectly.com/	N	N/A	N	N	N	N

	Perfect Blend								
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
Phillips	Lighting, 7500 Series Smart TV	Smart Home, Lighting, TV	https://www.philips.com/a-w/security/coordinated-vulnerability-disclosure.html	Y	Coordinated	N	N	N	Y
PicoBrew	KegSmarts	Smart Home, Appliances	https://www.picobrew.com/	N	N/A	N	N	N	N
Polar	Ignite	Wearables	https://www.polar.com/uk-en	N	N/A	N	N	N	N
Procter & Gamble, Oral B	Smart Series Toothbrush	Health Fitness and Wellbeing	https://www.oralb.co.uk/en-gb/products/electric-toothbrushes/smart-series, https://www.elcorteingles.es/electrodomesticos/A23908466-cepillo-de-dientes-electrico-oral-b-smart-6-6000n/	Y	Non-Disclosure	N	Y	Y	N
Proform (ICON fitness)	Studio Bike, Studio Bike Pro, E Series, Hybrid Series, iFit	Health Fitness and Wellbeing	https://www.proform.com/	N	N/A	N	N	N	N
Quardio	Base, Arm, Core	Health Fitness and Wellbeing	https://www.getqardio.com/	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-WFIREX 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-	N	N/A	N	N	N	N

			controls/706/remotec-scene-master						
RENPHO	Bluetooth Scale	Health Fitness and Wellbeing	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/wirelessss-speakers	N	N/A	N	N	N	N
Roku	Express, Streaming 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 Light Switch	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 Watch)	Galaxy Watch	Wearables	https://www.samsung.com	N	N/A	N	N	N	N
Samsung (Mobile)	Galaxy Series	Mobile	https://security.samsungmobile.com/securityReporting.smsb	Y	Coordinated	Y	N	N	N
Samsung (Smart TV)	UE Series Smart TV	TV	https://security.samsungmobile.com/securityReporting.smsb	Y	Coordinated	Y	N	N	N
Samsung (SmartThings)	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

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	Wearables	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	Y	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 and Wellbeing	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 and Wellbeing	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 and Wellbeing	https://www.smarthalo.bike	N	N/A	N	N	N	N
SmartPlate	TopView	Smart Home, Health Fitness and Wellbeing, Appliances	https://www.getsmartplate.com/	N	N/A	N	N	N	N
SmartyPans	SmartyPans	Smart Home, Appliances	https://smartypans.io/	N	N/A	N	N	N	N
SonicWall	SonicWave, NSa firewall,	WiFi and Networking	https://www.sonicwall.com/	Y	Coordinated	N	N	N	N
Sonoff	Window sensor, smart switches	Safety, Smart Home	https://sonoff.tech/#	N	N/A	N	N	N	N
Sonos	Speakers	Smart Home, Audio	https://www.sonos.com	Y	N/A	N	N	N	Y
Sony	Xperia Series, Master Series Smart TV	Mobile, TV	https://hackerone.com/sony	Y	Coordinated	Y	Y	N	N
Sphero	Connected Toys	Toys	https://support.sphero.com/article/5drs94lhk5-vulnerability-disclosure-program	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
SUUNTO	D5, 9, 7, 5, 3,	Wearables	https://www.suunto.com/en-gb/	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 and Wellbeing	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

Company	Products	Category	URL						
TCL Corporation (Alcatel)	1, 1T 7, 1X, 1C mobiles	Mobile	https://us.alcatelmobile.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, Actifry 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
Theatro	Workforce Communications	Workplace	https://www.theatro.com	N	N/A	N	N	N	N
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	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	Wearables	https://www.tomtom.com/en_gb/responsibledisclosure/ https://www.tomtom.com/en_gb/sports/running-watches/	Y	N/A	N	Y	N	N
TP-Link	Smart Bulbs, Smart Plugs, Cloud Cameras, Wireless Routers, Mesh WiFi Systems, Range Extenders, Access Points, Modems/gateways	Smart Home, Lighting, WiFi and Networking	https://www.tp-link.com/uk/	Y	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=Cj0KCQjwnZXbBRC8ARIsABEYg6CaCOFkhpvO2DobT_yAeLT76sD-Zxvsek96FwiON7rI3idMZnM_uIMaAlljEALw_wcB	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
TrendingObjects	Smart Bulb	Smart Home, Lighting	http://www.trendingobjects.com	N	N/A	N	N	N	N
TRENDnet	Routers, Mesh systems, Access points,	WiFi and Networking	https://www.trendnet.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
TytoCare	TytoHome Remote Exam Kit	Health Fitness and Wellbeing	https://www.tytocare.com/	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
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
Vankyo	MatrixPad,	Laptops PCs and Tablets	https://ivankyo.com/	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 Sensor	Smart Home, Lighting, Security	https://veho-world.com/	N	N/A	N	N	N	N
Velco	Wink Handlebar	Health Fitness and Wellbeing	https://velco.bike/en/	N	N/A	N	N	N	N
Venturer (RCA)	Mercury, Aura, Mars	Laptops PCs and Tablets	https://venturer.com	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://www.vivo.com/en/support/security-advisory	Y	Coordinated	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
Wallfire	Wifi Led Light bulbs	Smart Home, Lighting	https://www.amazon.co.uk/Wireless-Remote-Control-Dimmable-Amazon/dp/B073WB1CBT	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 and Wellbeing	https://we-vibe.com/app-products	N	N/A	N	N	N	N
Wearable X	Nadi X, Fundawear	Wearables	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
Winix America	Smart	Smart Home, Environment Control	https://winixamerica.com/winix-smart/	N	N/A	N	N	N	N
Wink	Bright, Lookout, Leak Protection	Smart Home, Hub, Maintenance, Lighting	http://security.wink.com/	Y	Coordinated	Y	Y	N	Y
Withings	Smart Scales	Health Fitness and Wellbeing	https://www.withings.com/uk/en	N	N/A	N	N	N	N
WyzeCam	WyzeCam	Smart Home, Security	https://www.wyzecam.com/	N	N/A	N	N	N	N
X-Sense	Smoke Alarm, Carbon Monoxide Alarm, Combination Alarm	Safety	https://www.x-sense.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
XOLO	Era Series	Mobile	http://www.xolo.in/	N	N/A	N	N	N	N
Xoopar	X5 Xoopar Boy Stereo	Audio	xoopar.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
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 and Wellbeing	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/greetpro-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://wwwen.zte.com.cn/en/about/corporate_citizenship/security/201403/t20140327_421951.html	Y	N/A	N	N	N	N
ZyXEL	Multy, Wireless Home Routers, Wireless range extenders, Cloud Storage	WiFi and Networking	https://www.zyxel.com	Y	Coordinated	N	Y	Y	N

Appendix F

List of companies which satisfied the Extended (top 4) and Basic Threshold Test as described in the report section "Applying a Threshold Test".

Company
Google
Western Digital
Wink
Xiaomi (MI)

Amazon	LG
Acer	Lifx
Apple	Linksys
ARLO	Logitech
Arris (Commscope)	Lovense
ASUS	Microsoft
Belkin	Motorola Mobility
Bosch	Netgear
Bose	Oculus
BT	OnePlus
Canon	OPPO
Dahua	Panasonic
Dell	Peloton
D-Link	PetCube
Draytek	Phillips
Dyson	Procter & Gamble, Oral B
Ecobee	Samsung
Eero	Samsung
FitBit	Samsung
Garmin	Siemens
GE Appliances	SonicWall
Hanwha, Wisenet	Sonos
Hikvision	Sony
Honeywell International	Tapplock
HP	Tile
HTC	TomTom
Huawei	TP-Link
June	Vivo
Lenovo	ZTE
Lexmark	ZyXEL