

Date

# Trust by Design: The Internet of Things

## Security and privacy of smart-home devices and services




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The number of IoT devices and systems  
connected to the Internet will be more than  
**2.5x the global population**  
by 2020 (Gartner).







As more and more devices  
are connected, privacy and  
security risks increase.

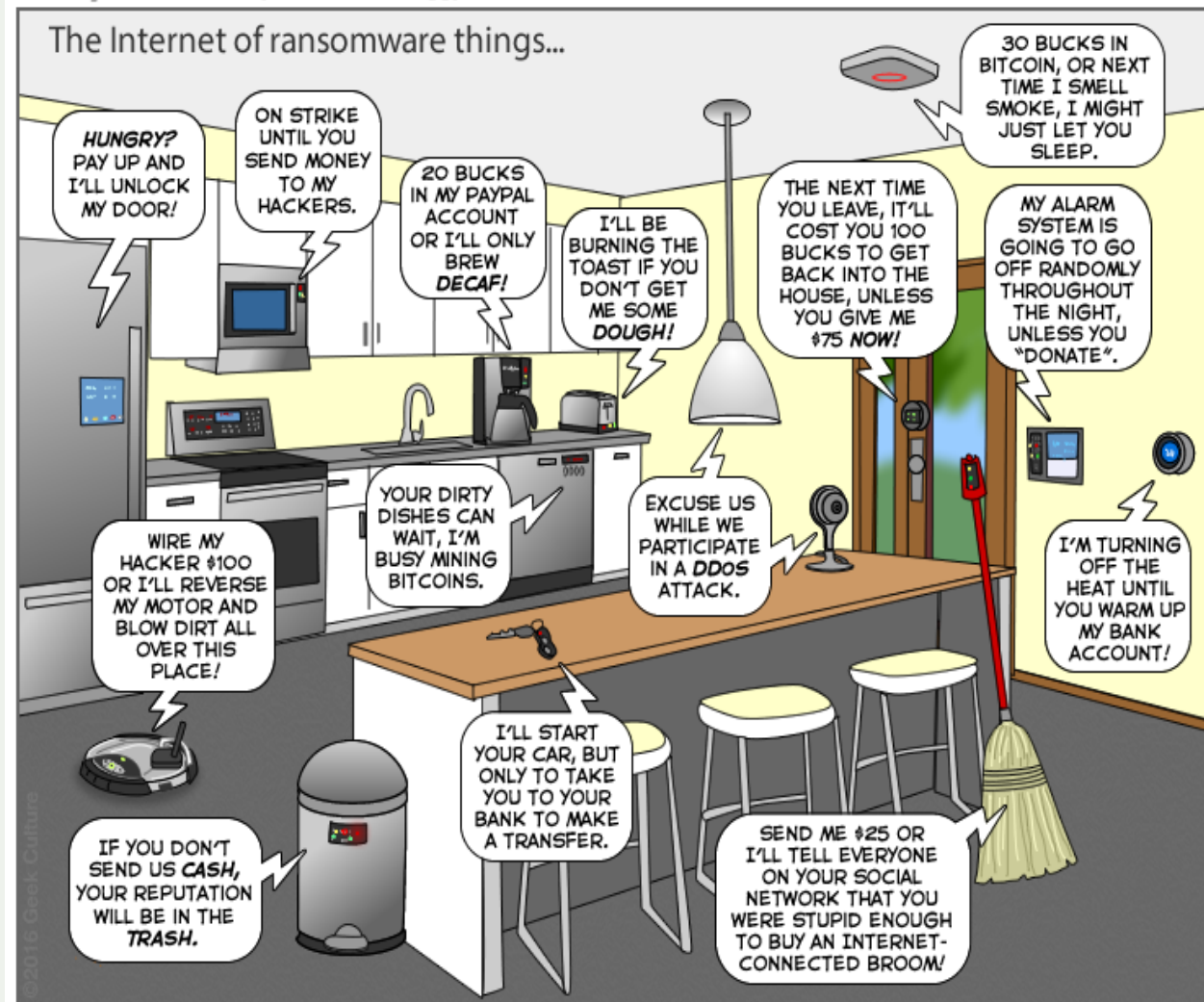
And most consumers don't even know it.





People's safety or the safety of their family might even be at risk.

Large IoT-based attacks, such as the Mirai botnet in 2016, have crippled global access to high-profile Internet services for several hours.



joyoftech.com

# The challenges we face

A connected world offers the promise of convenience, efficiency and insight, but creates a platform for shared risk.

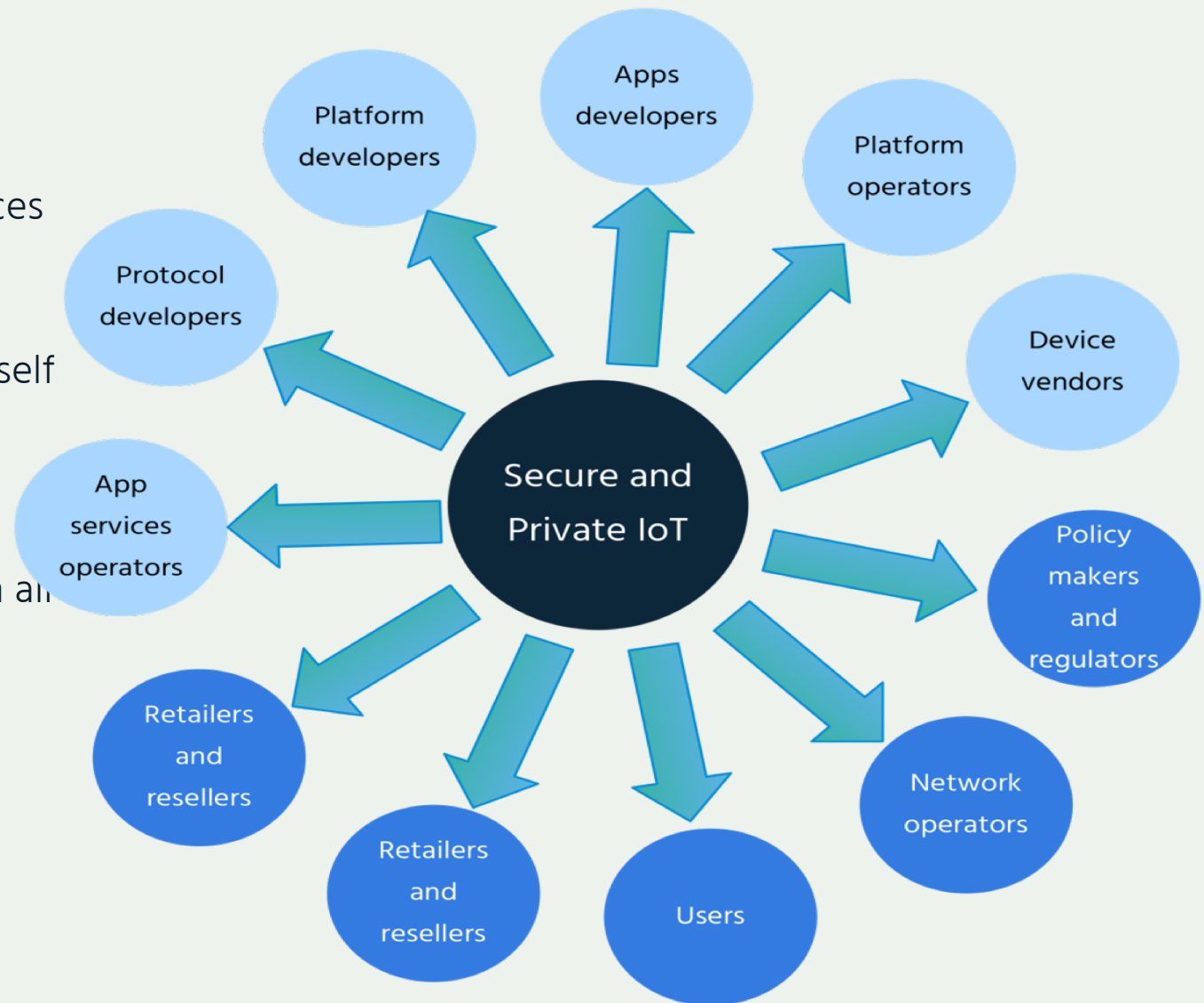
Many of today's IoT devices are rushed to market with little consideration for basic security and privacy protections.



## Who is responsible?

Developers and users of IoT devices and systems have a collective obligation to ensure they do not expose others and the Internet itself to potential harm.

We need a collective approach, addressing security challenges on all fronts.



# The Internet Society is working for a better Internet.

- We want manufacturers and suppliers of consumer IoT devices and services to adopt security and privacy guidelines to protect the Internet and consumers from cyber threats.
- We want to educate users on the importance of secure IoT devices and work with stakeholders involved in technology and security to better inform their communities on IoT.



## Online Trust Alliance (OTA) IoT Trust Framework

- Provides a set of actions and principles to raise the level of security for IoT devices and related services to protect consumers and the privacy of their data
- More than 100+ stakeholders from industry, government and consumer advocates contributed to the Framework
- Stands apart from other IoT-related Frameworks with its comprehensive focus on security, privacy and lifecycle issues, as well as a holistic view of the entire system
- Please visit the ISOC Booth for a copy!



<https://otalliance.org/iot/>





# Actionable principles in eight categories for manufacturers, developers and service providers

Authentication

Encryption

Security

Updates

Privacy

Disclosures

Control

Communications

## IoT Framework Principles: It is a collective responsibility



IoT vendors and  
their supply chain



Distribution  
channels



Policymakers and  
governments



Consumer testing  
and product  
review  
organizations



Consumers and  
enterprises

## Are you doing something in IoT in the African region?

- Are you doing research into the field of IoT or developing IoT products?
- Please let us know through the ISOC chapters
- This info will help us coordinate efforts in IoT and know what types of IoT devices are being developed in the region



# Thank you.

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