



# Topic: Security of IoT

18/Aug/2020

## 1. Identify the problem:

-Problem: The IoT of things is a new concept in the software development field, and security has never been a top priority.

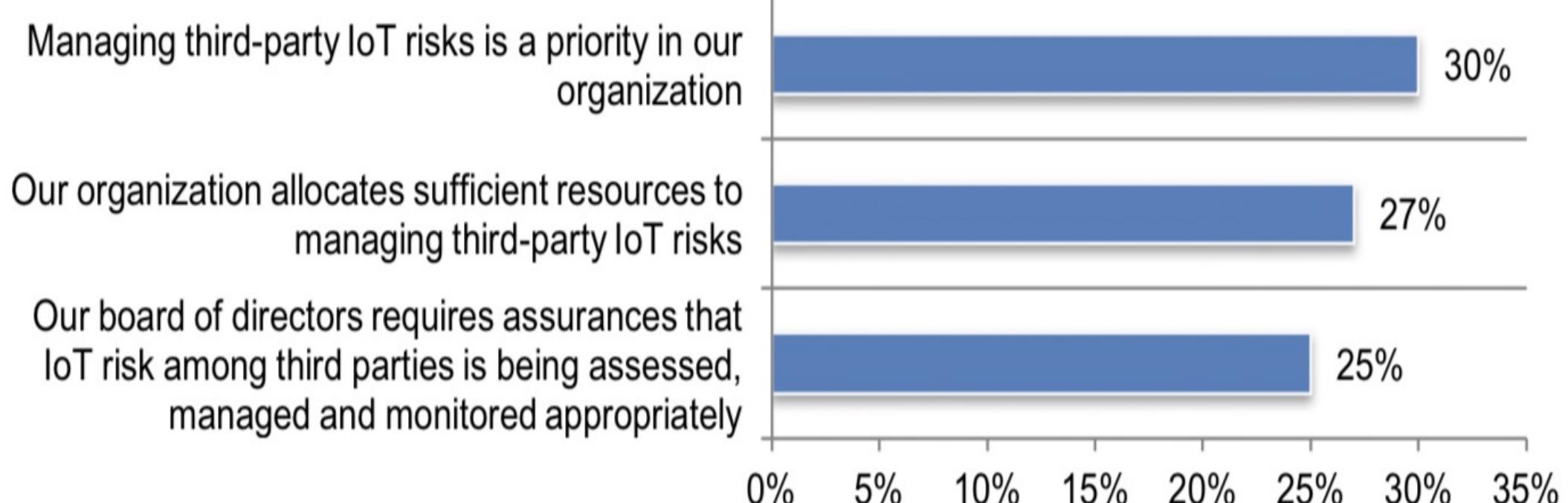
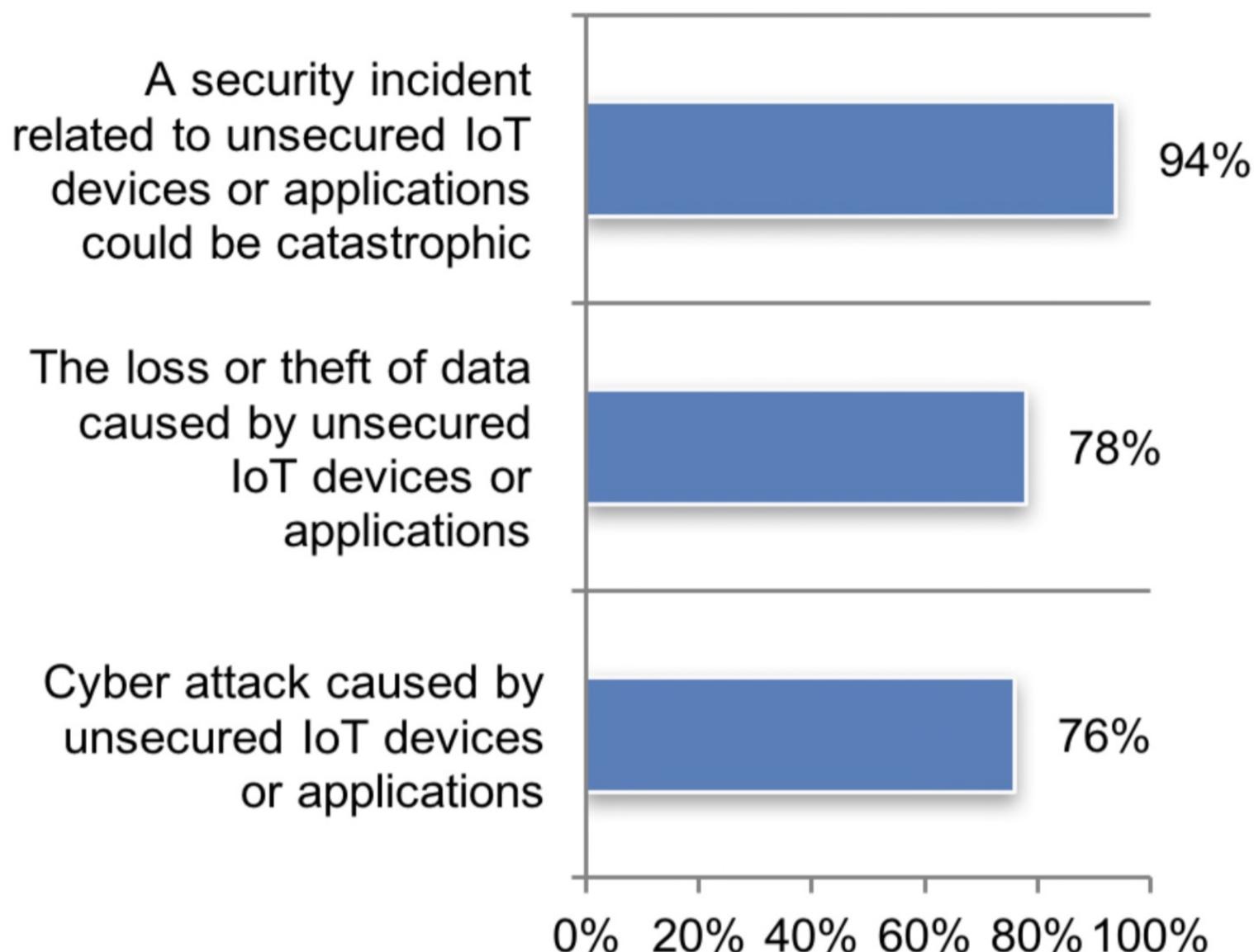
The idea idea of networking devices has been helpful but most of them have severe security issues because manufacturers are interested in marketing the device.

Eg.: hardcoded or default passwords

- Ability to automatically transfer data over a network
- the computer is created with the purpose of the device so security is sometimes even forgotten.

- Companies have a large variety # of standards combined with proprietary software that limits the company's input.

**Figure 1. IoT risks in the next two years**  
Very likely, somewhat likely & likely responses combined



## 2. Set the target

Small idea: Website/app that could inform customers on their device and maybe help them to make them more secure.

I.E. Hiring baby-sitter online  $\leftrightarrow$  hire IT online

I.E. Stack overflow  
↳ for IT security experts.  
or Cyber Experts

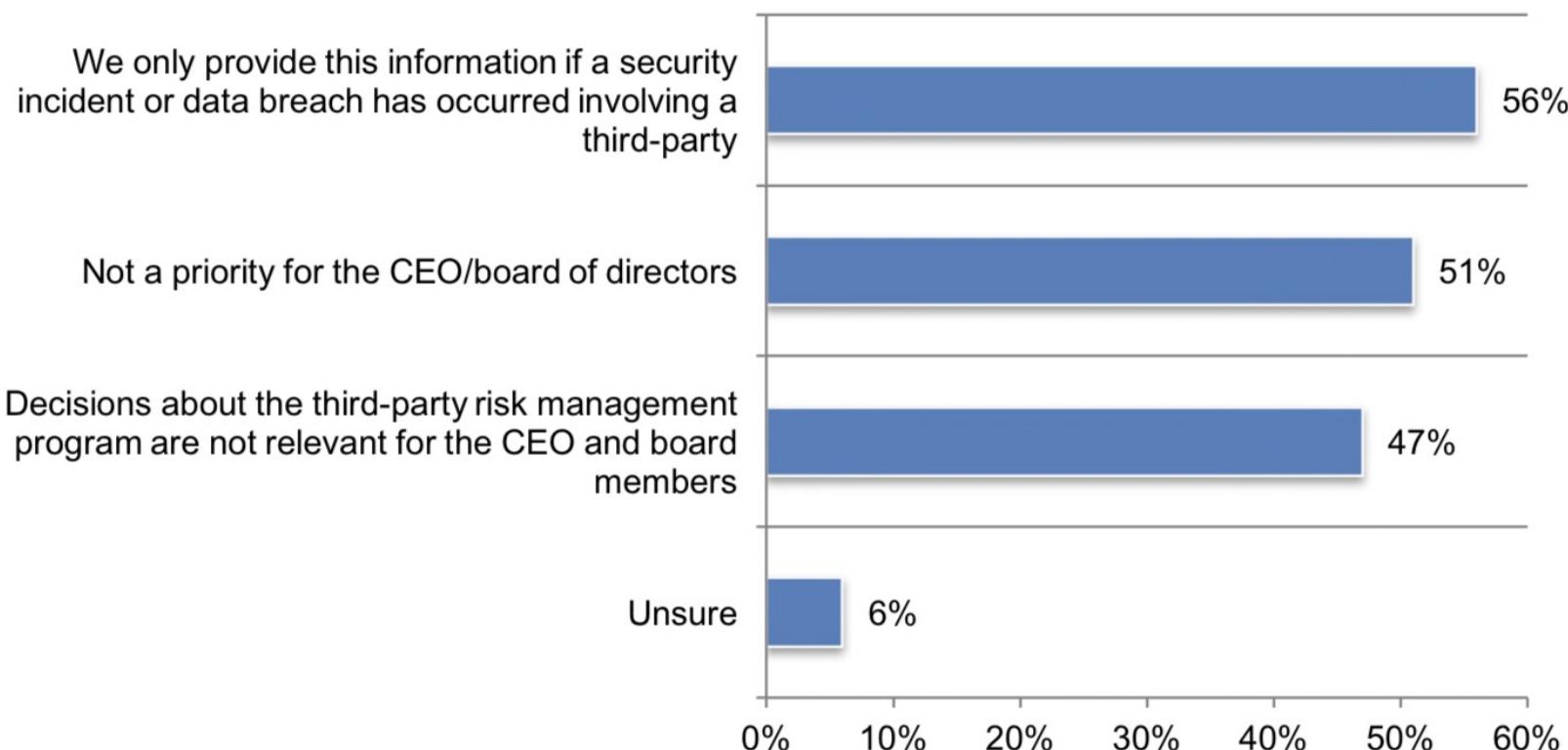
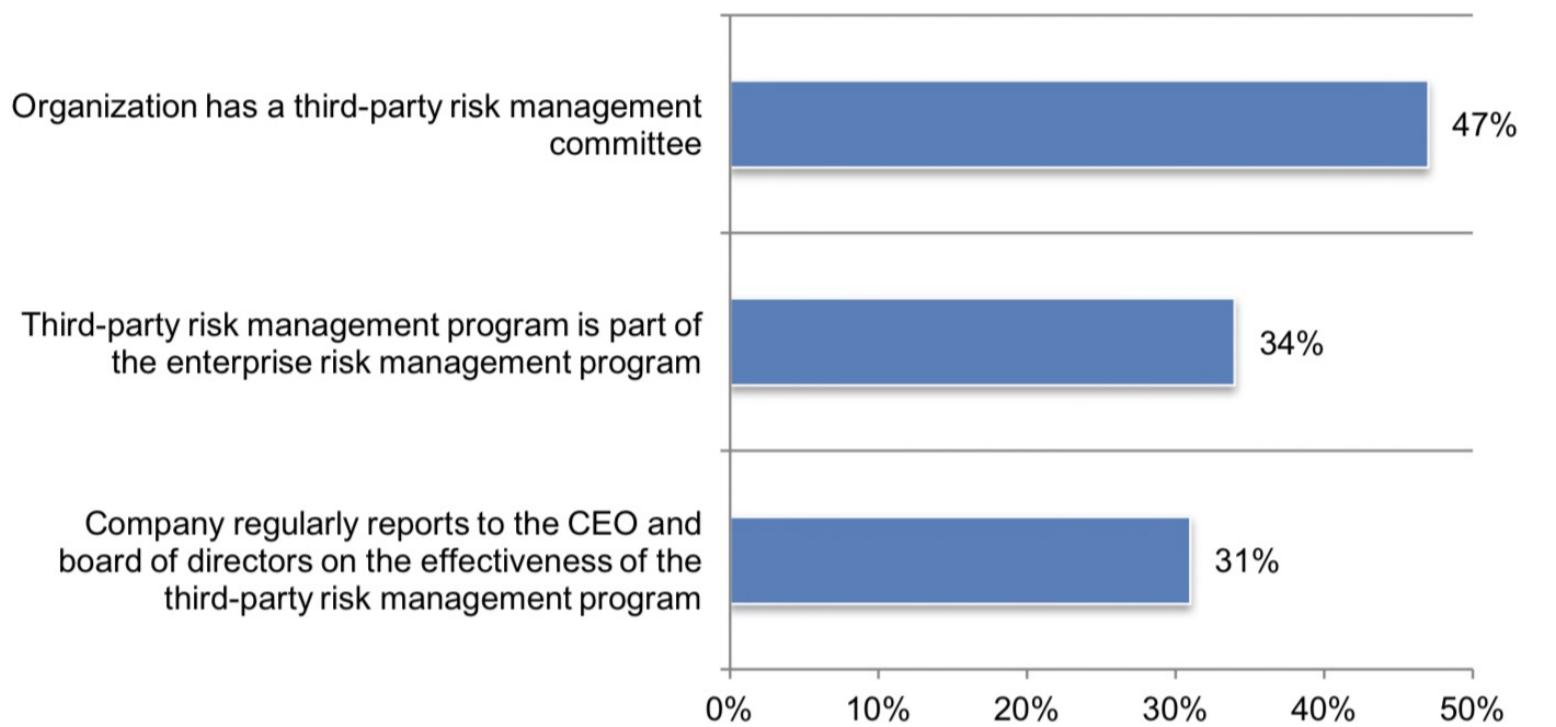
\*By the end of the semester XD\*

Big idea: Develop standard OS that meets a minimum security measures that also is easy for developing devices.

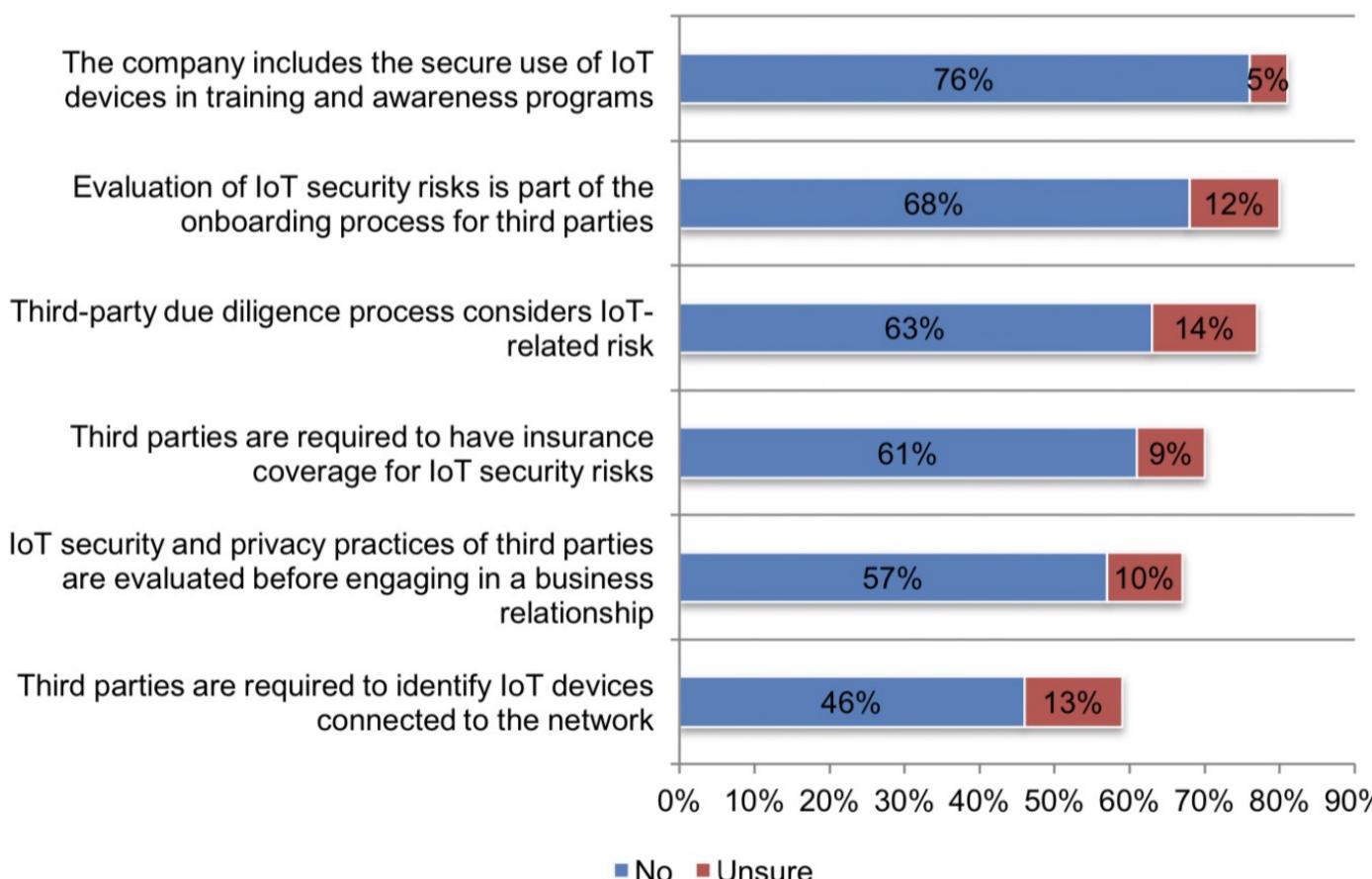
\*By the end of 2022\*

Use of React-Native framework

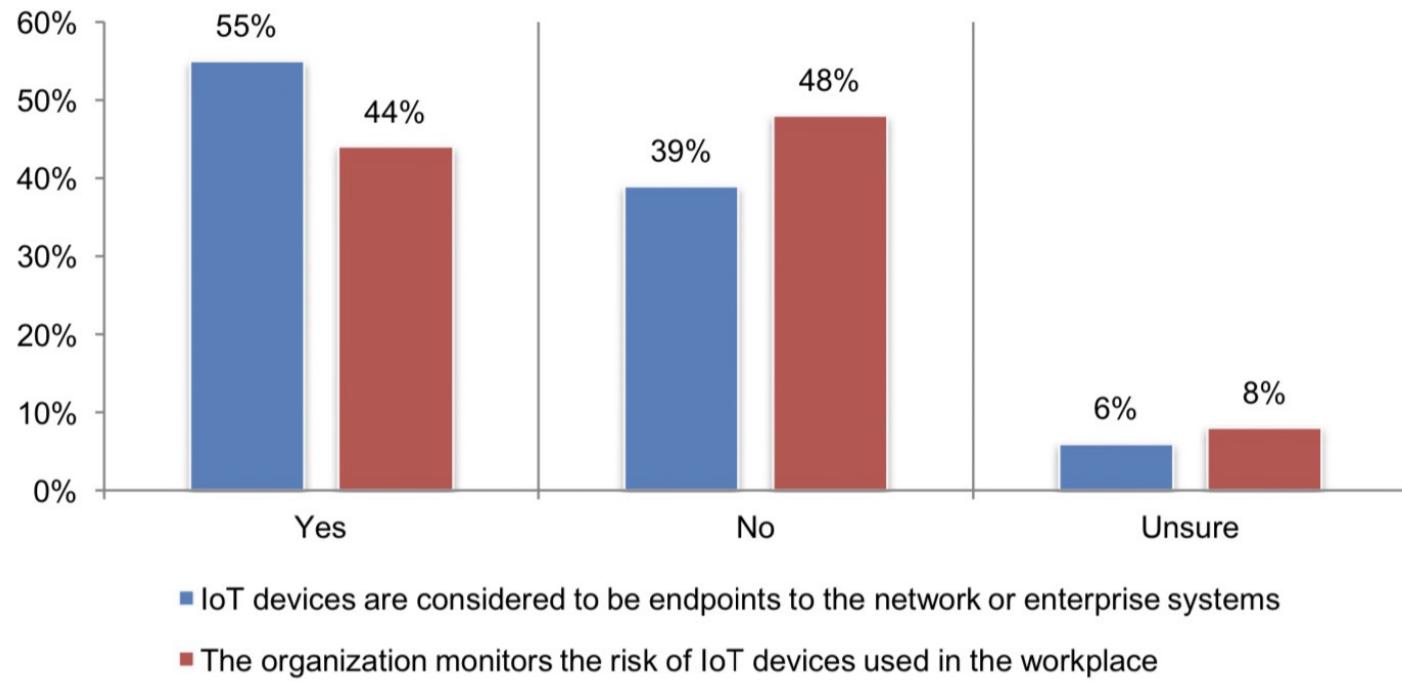
### 3. Analyze the causes:



**Figure 6. Governance practices most organizations do not follow**  
No and Unsure responses

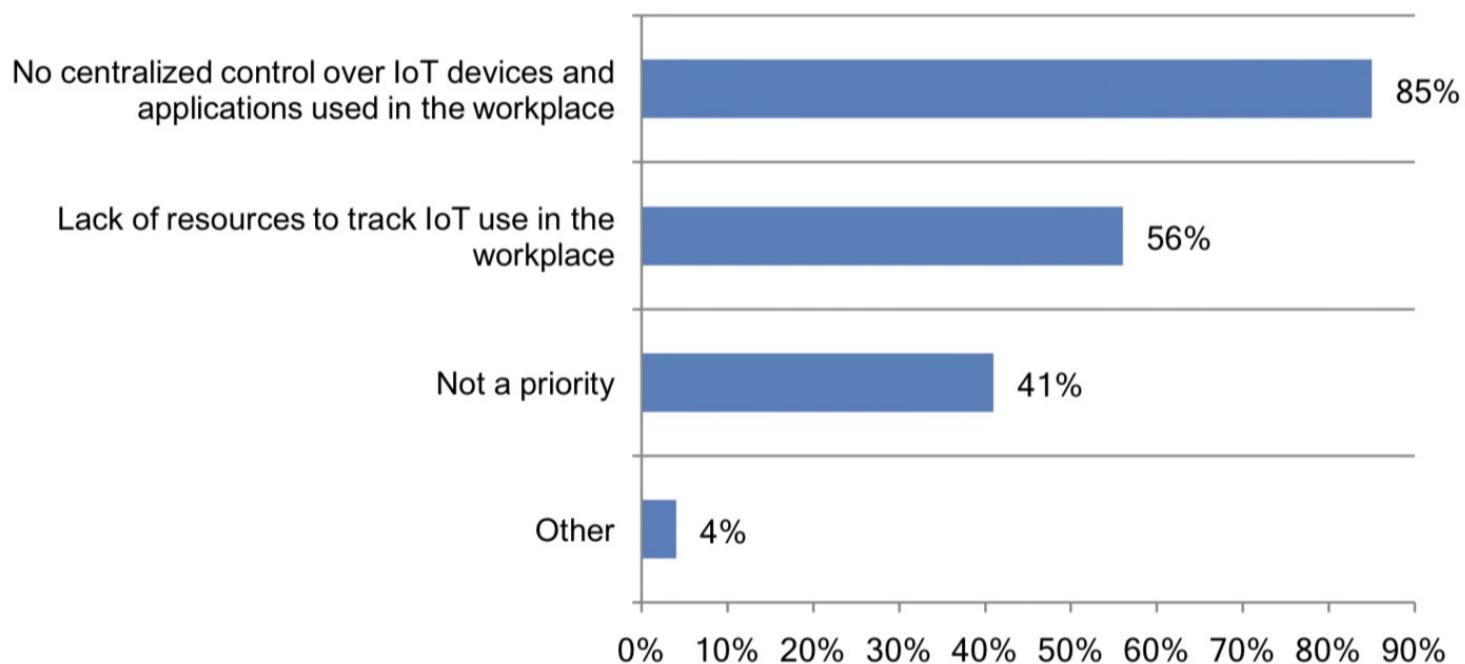


**Figure 8. Are IoT devices considered endpoints and are they monitored?**



**Figure 9. Why companies do not keep an inventory of managed IoT devices and applications in the workplace**

More than one choice permitted



Charts by Ponemon

Main cause :

Bad company administration

Bad hiring

#### 4. Implement Countermeasure

This webapp could:

- 1) Help companies in hiring by asking for minimal skills
  - This could lead to better security teams that meet some security demands such as reports to the CEO.
- 2) Help people protect their information
  - This could lead to better future devices by reporting problems of their customers