

The background features a gradient of light blue to a darker blue, overlaid with a horizontal band of a slightly darker blue. Numerous water droplets of various sizes are scattered across the entire image, some in sharp focus and others blurred, creating a sense of depth and movement.

Out of Control

Aronetics



Who is  
Aronetics?

THOR







  
**Marriott**







# The Vanishing Network Perimeter

A misty landscape with a body of water and forested hills. The scene is dimly lit, with a greyish-blue color palette. The foreground shows a sandy or light-colored shore curving into the water. The water is calm with subtle ripples. In the background, there are dark, silhouetted hills or mountains, partially obscured by a thick mist or fog. The overall atmosphere is quiet and somewhat somber.







ONLY 21%

of security professionals think their  
current security controls are adequate.

*Forrester State of Enterprise IoT Security in  
North America*

207 DAYS

days is the average time to identify a breach. Meaning the bad guys are in your system for over 6-months. *IBM Security Cost of a Data Breach Report 2020.*



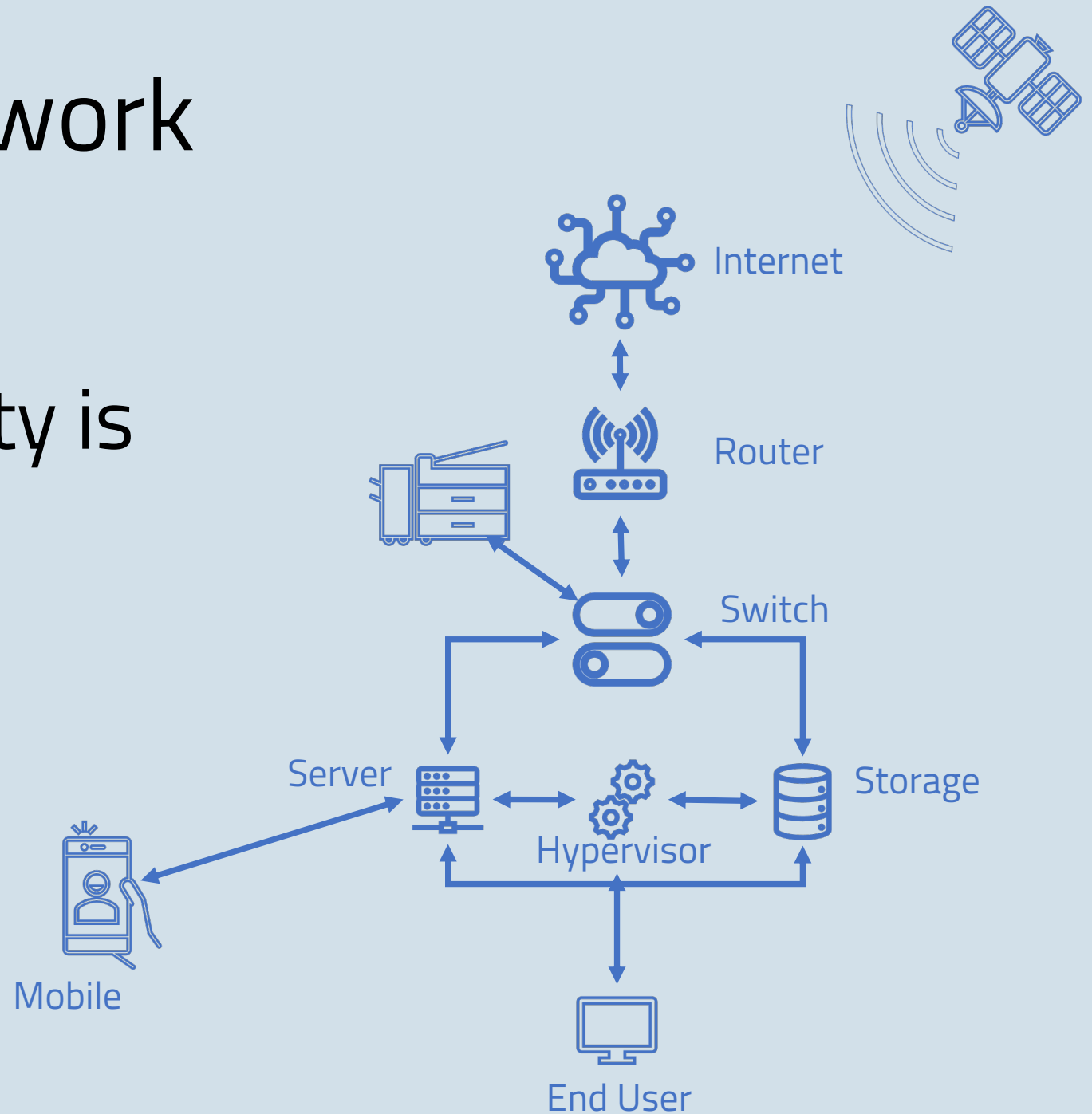
9 in 10 organizations  
that suffered a data  
breach were fully  
compliant with their  
policies.

A leading cyber insurance agency in the United States reported that ~83% of their payouts were due to breaches

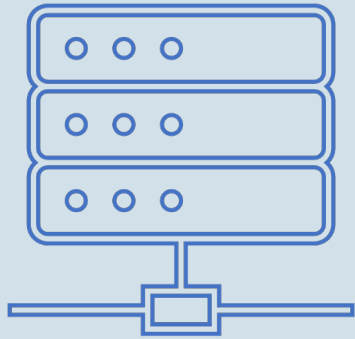


# Security in the Network

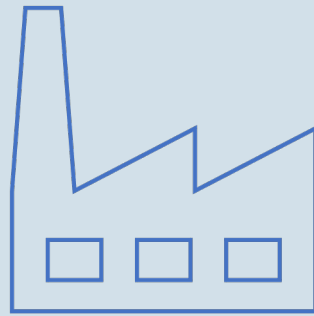
Current cyber-security is extremely data-flow focused.



# Thor – Closing Gaps on the Edge



A Server



Industrial Controls

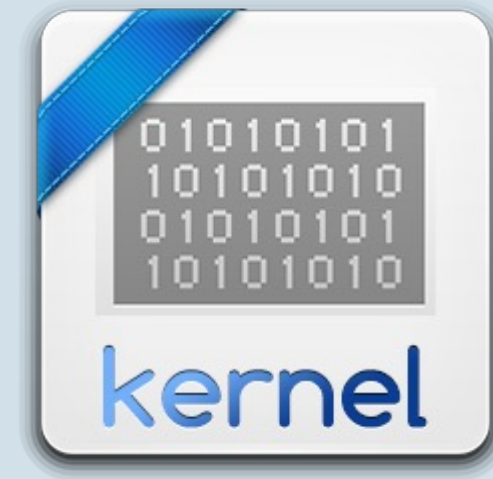


A Mobile Device



# What does Thor provide?

Implicit guaranteed security of any hardware *and* software operation from an adaptive *end-to-end* solution from *any* connected device to *any other* third party device

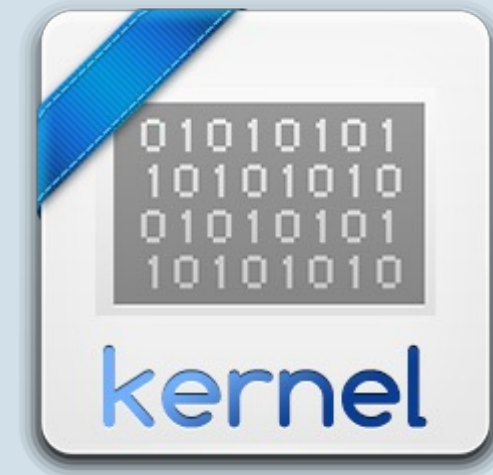


# What is gained by using Thor?

Implicit and native compute trust

Warfighters in Security Centers can focus efforts on other tasks

Warfighters with drones, planes, trucks, anything experience guaranteed operation





# Security Implications at the Compute Level

Unlimited systems are at risk –

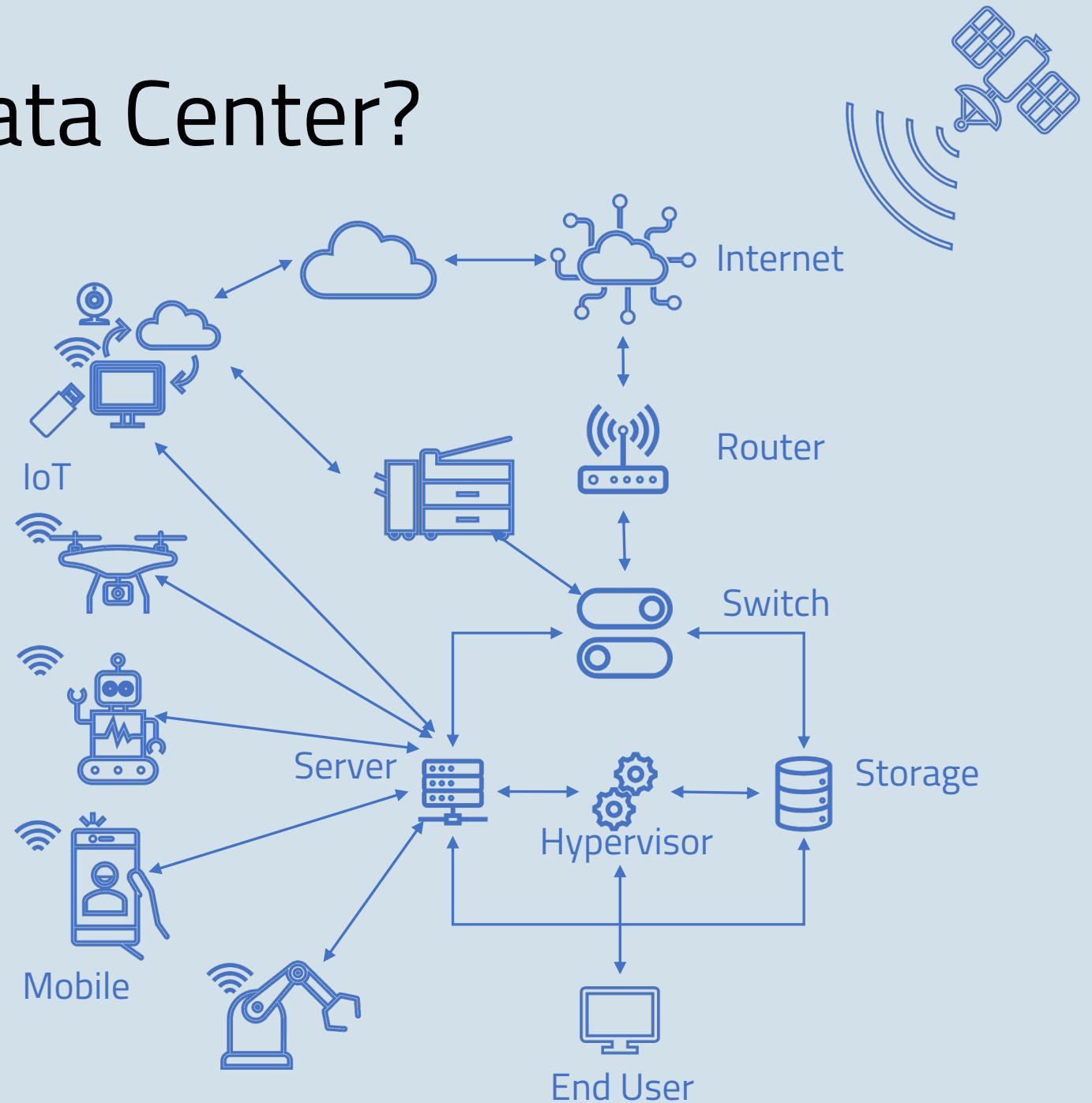


... it is a race that we're losing.

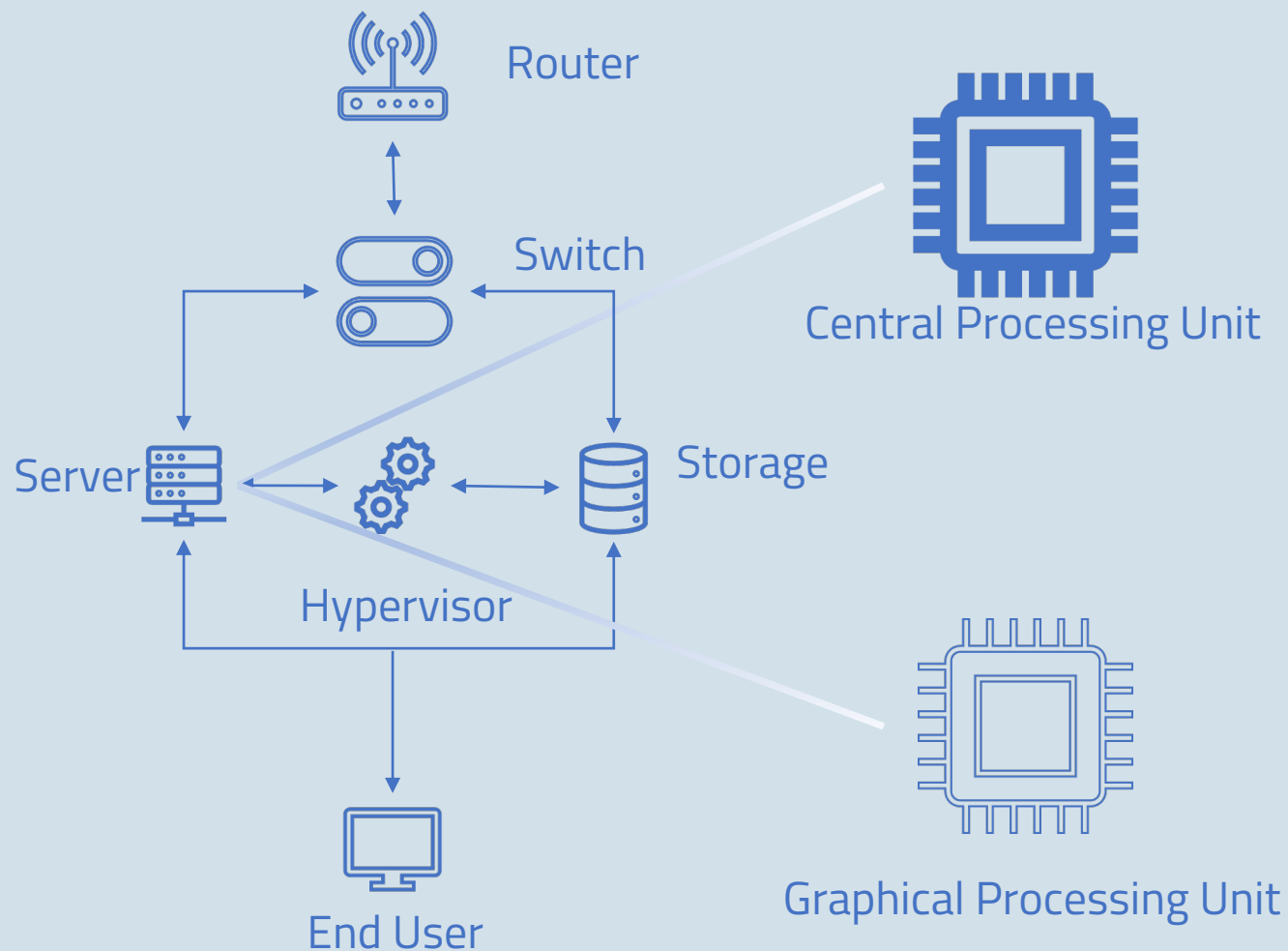
# Where is Thor in the Data Center?

A server is a computer that *serves* information to other computers –

Thor resides *within* the actual server in the data center, regardless of server location.



# Where does Thor Live in the Server?



There are two main types of data processors:

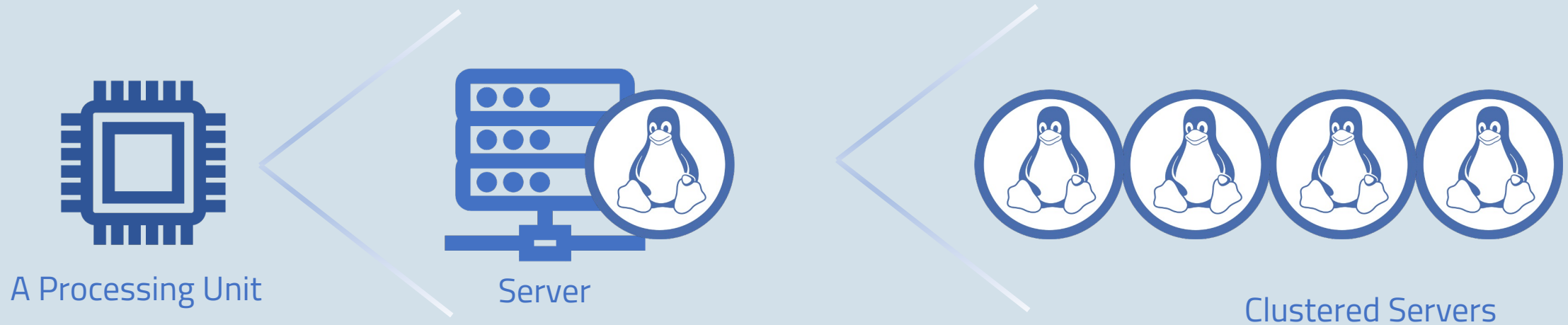
Central Processing Units (CPUs) and Graphical Processing Units (GPUs)

The Processing Unit is the electronic circuitry that executes instructions comprising actions of computer programs.

Thor is a program that resides on x86 or AltArch compute platforms



# Where does Thor Live in the CPU?



Compute hardware requires an operating system (OS) in order to work.

Linux is a family of open-source Unix-like operating systems based on the Linux kernel. Windows is closed-sourced and uses a kernel.

The Linux and Windows kernels sit on-top of the CPU.

# Where does Thor Live in the Kernel?



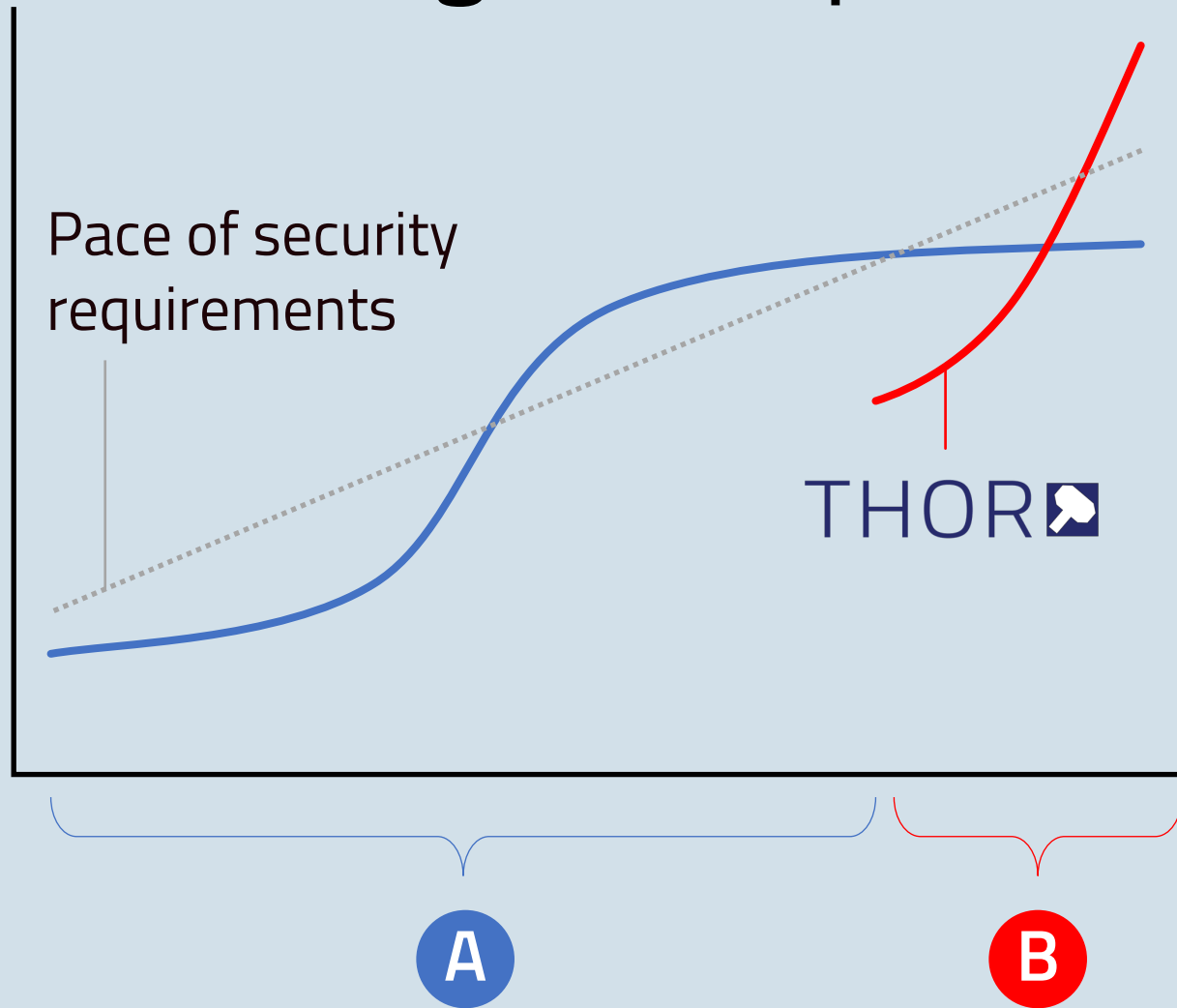
Linux and Windows Kernels are modular -

Thor is a kernel module.



With Thor added to your kernel stack, the native machine speaks *anywhere* about the entire state of the machine.

# Thor is *Transformative* InfoSec – Crossing the Gap in Zero Trust Ideology



**A** Era in which monitoring files on computers was sufficient.

**B** Modern security requirements now include computers, switches, routers and PLCs to be monitored in real time.



# Partnership Pipeline



**ORACLE**

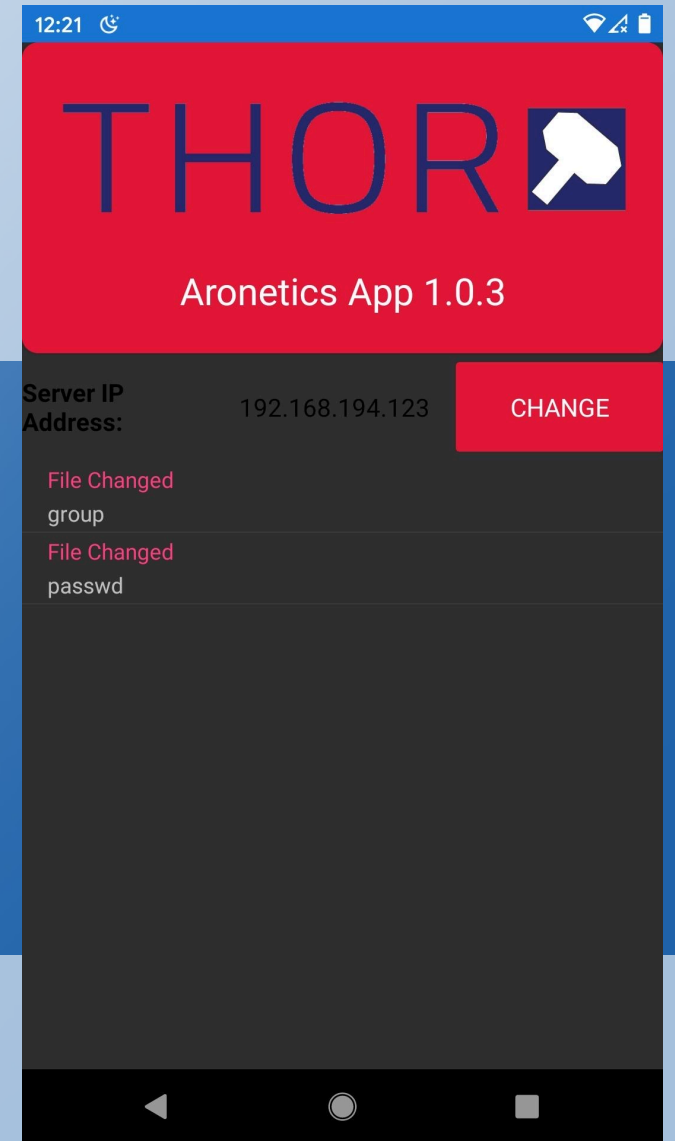
**intel.**<sup>®</sup>



**PUMPKIN**

SPACE SYSTEMS

# See the Unknown



# Aronetics



# Aronetics

We Speak IT®

[john@aronetics.com](mailto:john@aronetics.com)

+1-216/307-5760