



Proposal for Topic: Dedicated action to reinforcing hospitals and healthcare providers

# Hardware for Protecting European Healthcare Infrastructure

Philipp Keydel, Synogate

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# The Current State of Threats

Cyber attacks are cheap to produce and expensive to defend against. Constantly rising bandwidth and number of connected devices are making this worse.

- The importance of online services for healthcare is only growing
- Adversarial state and criminal actors attack European Internet Infrastructure
- More IoT and “smart home” devices increase threats from “bot nets”
- Software cannot keep up with the growth of network speed

Attacks against healthcare providers and hospitals are attractive to actors aiming to gain data and to deteriorate trust in public institutions. They also cannot always employ mitigation services due to data privacy concerns.

# Levelling the Playing Field

To recognize and mitigate coordinated attacks is a challenge to software as well as hardware.

Specialized hardware has the processing power to counter even very powerful attacks but is not flexible enough to wield efficiently.

We propose a platform leveraging on-premise, commodity hardware and a novel approach to development for easy-to-use hardware to defend European Internet Infrastructure against even the heaviest attacks.

# Our Idea

With experience in chip design, IP networks and software development, we develop network accelerators with a novel approach, our free and open-source Hardware Construction Library C++ for more productive and accessible circuit design.

Based on existing technology, we want to create a hardware platform for easy-to-use, affordable, extremely powerful devices that

- use chip design to mitigate extremely powerful attacks,
- are usable also for people without extensive hardware experience
- Are flexible enough to quickly configure to keep up with evolving threats