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Název: Bezpečnost v IoT (Internet of Things/Internet věcí)  
Klíčová slova: Bezpečnost, IoT, zabezpečení, útoky/Security, IoT, attacks

1)

<https://www.svetchytre.cz/domov-chytre/bezpecnost-iot-jak-moc-se-mame-bat/>  
<https://medium.com/edtech-kisk/bezpe%C4%8Dnost-internetu-v%C4%9B%C3%AD-28af18f69e21>

[https://technet.idnes.cz/ddos-iot-utok-na-internet-0hw-/sw\\_internet.aspx?c=A161022\\_002537\\_sw\\_internet\\_nyv](https://technet.idnes.cz/ddos-iot-utok-na-internet-0hw-/sw_internet.aspx?c=A161022_002537_sw_internet_nyv)  
<https://www.zive.cz/bleskovky/kdyz-se-iot-splasi-hacknute-kamery-byly-zapojeny-do-rekordni-ho-ddos-utoku-s-intenzitou-11-tb/s/sc-4-a-184382/default.aspx>

<https://blog.avast.com/cs/hackeri-tezi-kryptomeny-i-na-mobilech-a-iot-zarizenich>

<https://elektro.tzb-info.cz/inteligentni-budovy/15569-rizika-chytrych-zarizeni-a-jejich-zabezpeceni>

<https://www.forbes.com/sites/gilpress/2017/03/20/6-hot-internet-of-things-iot-security-technologies/#3977e7a61b49>

<https://www.networkworld.com/article/3266375/internet-of-things/best-practices-for-iot-security.html>

2)



[queryString=FP%3A%28iot+security%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=1096](https://patentscope.wipo.int/search/en/detail.jsf?docId=US214736274&recNum=3&office=&queryString=FP%3A%28iot+security%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=1096)

World Intellectual Property Organization [CH] <https://patentscope.wipo.int/search/en/detail.jsf?docId=US214736274&recNum=3&office=&queryString=FP%3A%28iot+security%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=1096>

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3. (US20180109554) DISTRIBUTED DENIAL OF SERVICE ATTACK PROTECTION FOR INTERNET OF THINGS DEVICES

National Biblio. Data Description Claims Drawings Documents

PermaLink

Application Number: 15292503 Application Date: 13.10.2016  
Publication Number: 20180109554 Publication Date: 19.04.2018  
Publication Kind : A1  
IPC: H04L 29/06 CPC: H04L 2463/143  
H04L 63/0245  
H04L 63/0428  
H04L 63/08  
H04L 63/1458

Applicants: Cisco Technology, Inc.  
Inventors: K Tirumaleswar Reddy  
Daniel G. Wing  
Carlos M. Pignataro

Priority Data:  
Title: (EN) DISTRIBUTED DENIAL OF SERVICE ATTACK PROTECTION FOR INTERNET OF THINGS DEVICES  
Abstract: (EN)  
Presented herein are techniques for remediating a distributed denial of service attack. A methodology includes, at a network device, such as a constrained resource Internet of Things (IoT) device, receiving from an authorization server cryptographic material sufficient to validate and decrypt tokens carried in packets, detecting a denial of service attack that employs packets containing invalid tokens, and in response to detecting the denial of service attack, signaling a remediation server for assistance to remediate the denial of service attack, and sending to the remediation server the cryptographic material over a secure communication channel such that the remediation server enables validation and decryption of tokens carried in packets, subsequent to detection of the denial of service attack, that are destined for the network device.

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graph TD
    610[DISCOVER A NETWORK DEVICE] --> 612[RECEIVE FROM AN AUTHORIZATION SERVER CRYPTOGRAPHIC MATERIAL SUFFICIENT TO VALIDATE AND DECRYPT TOKENS CARRIED IN PACKETS DESTINED FOR THE NETWORK DEVICE]
    612 --> 614[RECEIVE A GIVEN PACKET DESTINED FOR THE NETWORK DEVICE]
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<https://patentscope.wipo.int/search/en/detail.jsf?docId=US214736274&recNum=3&office=&queryString=FP%3A%28iot+attack%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=20>

World Intellectual Property Organization [CH] <https://patentscope.wipo.int/search/en/detail.jsf?docId=US198636875&recNum=10&office=&queryString=FP%3A%28iot+attack%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=20>

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10. (US20170169234) SYSTEM AND METHOD FOR REMOVING INTERNET ATTACK SURFACE FROM INTERNET CONNECTED DEVICES

National Biblio. Data Description Claims Drawings Documents

PermaLink

Application Number: 15376641 Application Date: 12.12.2016  
Publication Number: 20170169234 Publication Date: 15.06.2017  
Publication Kind : A1  
IPC: G06F 21/60 CPC: G06F 21/604  
G06F 21/62 G06F 21/45  
G06F 21/45 H04L 67/12

Applicants: Noam Camiel  
Inventors: Noam Camiel

Priority Data:  
Title: (EN) SYSTEM AND METHOD FOR REMOVING INTERNET ATTACK SURFACE FROM INTERNET CONNECTED DEVICES  
Abstract: (EN)  
A system and method is introduced for communicating over the internet with no internet attack surface using internet connected devices. An isolated device referred to as a dc device, is introduced to function as a place for carrying out computations in isolation from internet connected devices as well as from other instances within the dc device. A user is able to interact with the dc device through a dc terminal. The dc terminal may make use of the input/output interfaces of the user internet connected device, while maintaining the isolation of the dc device. A dc server is introduced for communicating with the dc device over the internet with no internet attack surface. Having introduced the dc device, the dc terminal and the dc server, a dc domain is defined where communication between devices and between users and devices takes place in the dc domain over the internet with no internet attack surface. Uses for the dc domain may be user authentication, messaging between users, payment applications, cloud applications, IoT, smart vehicles, medical applications, document uses and so forth. In the dc domain content and ad serving may take place between a dc server and a dc device.

```
graph LR
    subgraph DC_DEVICE [DC DEVICE]
        direction TB
        DT[DC TERMINAL]
        DS[DC SERVER]
    end
    subgraph DC_DOMAIN [DC DOMAIN]
        direction TB
        DT
        DS
    end
    DC_DEVICE --- DC_DOMAIN
```

<https://patentscope.wipo.int/search/en/detail.jsf?docId=US198636875&recNum=10&office=&queryString=FP%3A%28iot+attack%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=20>

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<https://patentscope.wipo.int/search/en/detail.jsf?docId=GB203279209&recNum=6&office=&queryString=FP%3A%28iot+attack%29&prevFilter=&sortOption=Pub+Date+Desc&maxRec=20>

3)

<https://ieeexplore.ieee.org/document/6978614/#full-text-section>

<https://ieeexplore.ieee.org/document/7412116/#full-text-section>

[https://www.iotvillage.org/slides\\_DC23/IoT-Attack-Surfaces-DEFCON-2015-2.pdf](https://www.iotvillage.org/slides_DC23/IoT-Attack-Surfaces-DEFCON-2015-2.pdf)

<https://www.usenix.org/system/files/conference/woot15/woot15-paper-pa.pdf>

<https://dl.acm.org/citation.cfm?id=2872552>