Literature Review

Description of tires

1. papers that address the same problem with the same type of solution

    1. An Internet-wide view of ICS devices

        Ariana Mirian; Zane Ma; David Adrian; Matthew Tischer; Thasphon Chuenchujit; Tim Yardley; Robin Berthier; Joshua Mason; Zakir Durumeric; J. Alex Halderman; Michael Bailey

        Published in: 2016 14th Annual Conference on Privacy, Security and Trust (PST)

        The paper is addressing the same problem which devices are exposed in the public internet and who are searching for those devices and to solve that they are using the 5 SCADA protocols to discover the devices on the IPV4.

    2. Characterising industrial control system devices on the Internet

        Xuan Feng; Qiang Li; Haining Wang; Limin Sun

        Published in: 2016 IEEE 24th International Conference on Network Protocols (ICNP)

        This is the same paper which was published in the 2016

    3. The Landscape of Industrial Control Systems (ICS) Devices on the Internet

        Wei Xu; Yaodong Tao; Xin Guan

        Published in: 2018 International Conference On Cyber Situational Awareness, Data Analytics And Assessment (Cyber SA)

        The paper is discovering the ICS devices on the internet using the 5 protocols to understand the number of devices distribution and trend of these devices on the internet.

2. papers that address the same problem with a different solution

1. Analysing Internet-connected industrial equipment

   Adam Hansson; Mohammad Khodari; Andrei Gurtov

   Published in: 2018 International Conference on Signals and Systems (ICSigSys)

   In this paper a search engine called Shodan will discover the ICS devices and check the protocols which are not designed against the cyber attacks and came up with the list of devices which are vulnerable to attacks.

2. A Survey of Industrial Control System Devices on the Internet

   Guannan Guo; Jianwei Zhuge; Mengmeng Yang; Gengqian Zhou; Yixiong Wu

   Published in: 2018 International Conference on Internet of Things, Embedded Systems and Communications (IINTEC)

   To reduce the attack risk on ICS devices this paper deployed the high-interaction honeypots using real devices on the Internet to get to know who is searching for the ICS devices. To find out that they took the survey of the ICS devices discovery and found the devices which are more vulnerable to the attack.

3. Reconnaissance of Industrial Control System by deep packet inspection

   Mahesh Wakchaure; Satish Sarwade; Irfan Siddavatam

   Published in: 2016 IEEE International Conference on Engineering and Technology (ICETECH)

   In this paper they use techniques with captured network traffic which is used to identify the protocols and also some of the features to classify the ICS devices.

4. Efficient Passive ICS Device Discovery and Identification by MAC Address Correlation

   Matthias Niedermaier, Thomas Hanka, Sven Plaga, Alexander von Bodisco, Dominik Merli

Published in: Submitted on 8 Apr 2019 (v1), last revised 12 Aug 2019

In this paper the ICS device discovery is done by passive with complex deep-packet inspection techniques. And device monitoring is done by efficient Media Access Control (MAC) address-based identification of industrial devices.

5. Automated Asset Discovery in Industrial Control Systems - Exploring the Problem

   Adam Wedgbury , Kevin Jones

   Published in: September 2015 3rd International Symposium for ICS & SCADA Cyber Security Research 2015 (ICS-CSR 2015) (ICS-CSR)

   In this paper the ICS devices are discovered using the passive scanning and they are understood property so that they are protected by the attacks by identifying its vulnerabilities.

3. papers that address a different problem with the same solution

1. Towards automatic fingerprinting of IoT devices in the cyberspace

   KaiYang, QiangLi, LiminSun

   Published in: 15 January 2019

   IOT devices are discovered in this paper using the different layers of network protocols and check which devices are vulnerable to the attack on the internet.

2. De-anonymizing the internet using unreliable IDs

   Yinglian Xie, Fang Yu, Martin Abadi

   Published in: 6 August 2009

   In this paper the dynamic binding between host and IP are traced using the host tracker so that the devices activities can be trackers using the IDs to reduce the cyber attacks

3. Automatically Discovering Surveillance Devices in the Cyberspace

   Qiang Li, Xuan Feng, Haining Wang, Limin Sun

   Published in : Proceedings of the 8th ACM on Multimedia Systems Conference June 2017

   In this paper the surveillance devices are discovered and created the prototype to discover the devices online and deployed that prototype in the amazon EC2 to search for devices in the IPv4.