Title (en)
INTELLIGENT DEFENSE AND FILTRATION PLATFORM FOR NETWORK TRAFFIC

Title (de)
INTELLIGENTE ABWEHR- UND FILTERPLATTFORM FÜR NETZWERKVERKEHR

Title (fr)
PLATEFORME DE DÉFENSE ET DE FILTRAGE INTELLIGENTE POUR TRAFIC DE RÉSEAU

Publication
EP 3732844 A1 20201104 (EN)

Application
EP 17832511 A 20171229

Priority
FI 2017050953 W 20171229

Abstract (en)
[origin: WO2019129915A1] Systems and methods for detecting and preventing cyber-attacks on communication networks provide a hybrid anomaly detection module (HADM) that uses a combination of linear algorithms and learning algorithms. The linear algorithms filter and extract distinctive attributes and features of the cyber-attacks and the learning algorithms use these attributes and features to identify new types of cyber-attacks. The learning algorithms, which may be algorithms that employ Artificial Neural Networks (ANN), Genetic Algorithm (GA), Extreme Learning Machines (ELM), Self-Organizing Map (SOM), Multi-Layer Perceptron (MLP), or Swarm intelligence (SI)and the like, have better detection accuracy when they are used along with linear algorithms, such as algorithms that employ Decision Tree,Support Vector Machine,or Fuzzy Ruleand the like. The use of linear algorithms in conjunction with learning algorithms allows the HADM to achieve improved cyber-attack detection over existing solutions.

IPC 8 full level
H04L 29/06 (2006.01); **G06K 9/62** (2006.01); **G06N 3/02** (2006.01); **G06N 3/08** (2006.01); **G06N 99/00** (2019.01)

CPC (source: EP US)
G06N 20/00 (2018.12 - EP); **H04L 63/1408** (2013.01 - EP US); **H04L 63/1425** (2013.01 - EP); G06F 18/2433 (2023.01 - EP); H04L 63/1416 (2013.01 - EP); H04L 63/1433 (2013.01 - EP)

Citation (search report)
See references of WO 2019129915A1

Cited by
CN113103535A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2019129915 A1 20190704; EP 3732844 A1 20201104

DOCDB simple family (application)
FI 2017050953 W 20171229; EP 17832511 A 20171229