(22) Date of filing of Application :15/08/2024

(51) International classification

(61) Patent of Addition to

Application Number
Filing Date
(62) Divisional to Application

Filing Date

Number

 (86) International Application No Filing Date
 (87) International Publication No

## (43) Publication Date : 23/08/2024

## (54) Title of the invention : CLOUD-BASED NETWORK SECURITY SOLUTION WITH ADVANCED THREAT INTELLIGENCE INTEGRATION

 $: H04L0009400000,\ G06N0020000000,\ G06N0003006000,$ 

G06F0021550000, G06F0021570000

: NA

:NA

:NA

:NA

(71)Name of Applicant:

1)Dr.C.S.Boopathi
Address of Applicant :Associate Professor, Department of EEE, SRM institute of Science and Technology,
Kattankulathur, Chengalpattu, Tamil Nadu, India. Pin Code:603203 -------

2)Mr. A. Koteswara Rao 3)Mrs.Poonam Joshi 4)Dr.V.R.Seshagiri Rao 5)Mr.Surendar Rama Sitaraman 6)Mr.Bathula Prasanna Kumar

7)Mrs.Srija Gundapaneni 8)Mr.Devadi Ganesh 9)Mr.Chandu Jayaram 10)Dr.Sivaram Rajeyyagari

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor :

1)Dr.C.S.Boopathi
Address of Applicant: Associate Professor, Department of EEE, SRM institute of Science and Technology,

Address of Applicant : Assistant Professor, Department of Computer Science and Engineering, Lakireddy Bal Reddy College of Engineering (A), Vijayawada, NTR District, Andhra Pradesh, India. Pin Code: 521230 -----

3)Mrs.Poonam Joshi

Address of Applicant :Assistant Professor, Department of CSE (Cyber Security), Thakur College of Engineering and Technology, Kandivali East Mumbai, Maharashtra, India. Pin Code:400101

4)Dr.V.R.Seshagiri Rao

Address of Applicant : Assistant Professor, Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India. Pin Code: 500043 ---------

5)Mr.Surendar Rama Sitaraman

Address of Applicant :Samsung Austin R&D Center (SARC), San Jose, California, USA. Po.Box: 95134 -----

6)Mr.Bathula Prasanna Kumar

Address of Applicant :Associate Professor, Department of Computer Science and Engineering, KKR & KSR Institute of Technology and Sciences, Guntur, Andhra Pradesh, India. Pin Code:522017 ------

7)Mrs.Srija Gundapaneni Address of Applicant: Assistant Professor, Department of Computer Science and Engineering, KITS Akshar

Address of Applicant : Assistant Professor, Department of CSE, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh, India. Pin Code:532127 -------

9)Mr.Chandu Jayaram

Address of Applicant: Assistant Professor, Department of Computer Science and Engineering, Vignan Lara Institute of Technology and Science, Vadlamudi, Guntur District, Andhra Pradesh, India. Pin Code: 522213 ----

10)Dr.Sivaram Rajeyyagari

Address of Applicant : Associate Professor, Department of Computer Science, College of Computing and Information Technology, Shaqra University, Shaqra, Saudi Arabia. Po.Box:11961

## (57) Abstract

The present invention provides a cloud-based network security solution that integrates advanced threat intelligence and machine learning to enhance cybersecurity across distributed networks. The solution features a central cloud-based security platform that aggregates and processes threat data from diverse sources through a threat intelligence integration layer. Distributed network agents monitor and collect data from endpoints, which is analyzed by a machine learning engine to detect and predict potential threats. An automated incident response module executes predefined actions to mitigate threats, while a reporting and feedback mechanism offers insights for continuous improvement. This innovative approach delivers real-time, scalable protection against evolving cyber threats, leveraging the flexibility and scalability of cloud computing to maintain robust network security. Accompanied Drawing [FIGS. 1-2]

No. of Pages: 24 No. of Claims: 10