

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511043184 A

(19) INDIA

(22) Date of filing of Application :05/05/2025

(43) Publication Date : 23/05/2025

(54) Title of the invention : A REAL-TIME PACKET PRIORITIZATION SYSTEM FOR CRITICAL DATA STREAMS

(51) International classification :H04L0047244100, H04L0009400000, H04L0047241600, H04L0047560000, H04L0047500000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY

Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)ROHIT CHAUDHARY

Address of Applicant :Department of Computer Science & Engineering, Noida Institute of Engineering & Technology, Greater Noida. Greater Noida -----

(57) Abstract :

A real-time packet prioritization system (100) is provided, comprising a Criticality Detection Module (101), a Dynamic Tagging Unit (102), a Priority-Based Packet Scheduler (103), and a Feedback Monitoring System (104). Incoming packets are analyzed, tagged (106), and prioritized into dynamic queues (107) based on real-time network conditions. An Emergency Override Switch (109) ensures zero-delay for critical packets. The system dynamically adapts to changing traffic, offering lightweight integration with existing networks while improving transmission efficiency for critical data streams.

No. of Pages : 14 No. of Claims : 5