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(71)**Name of Applicant :**
1)Chitkara University
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------
2)Bluest Mettle Solutions Private Limited
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)MISHRA, Rahul
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
2)PANDEY, Sakshi
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
3)SHARMA, Manish
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------

(57) Abstract :
The present system (100) proposes data transmission within Content Centric Networks (CCNs) by introducing a comprehensive architecture for discovering and adapting Maximum Transmission Unit (MTU) sizes. This system consists of key components including a sender node (102) generating packets with varying MTU sizes, intermediate nodes (108) examining packet sizes and initiating MTU discovery packets, and a receiver node (112) processing received data. The system incorporates intelligent modules such as the MTU adjustment module (114) that fine-tunes MTU sizes based on received feedback. This adjustment process considers factors like network congestion, available bandwidth, content cache hit ratio, data type, and priority, ensuring efficient data transmission with minimized fragmentation. The system's adaptive nature enhances reliability, and its holistic approach to MTU management contributes to streamlined and effective communication within CCNs.

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