Reducing Processing Delay and Node Load Using Push-Based Information-Centric Networking

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Abstract	Information-Centric Networking (ICN) is attracting attention as a content distribution method against increasing network traffic. Content distribution in ICN adopts a pull-type communication method that returns data to Interest. However, in this case, the push-type communication method is advantageous. Therefore, the authors have proposed a method in which a server pushes content to reduce the node load in an environment where a large amount of Interest to specific content occurs in a short time. In this paper, we analyze the packet processing delay time with and without the proposed method in an environment where a router processes a large number of packets using a simulator. Simulation results show that the proposed method can reduce packet processing delay time and node load.
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Scalability Servers telecommunication traffic Resiliency pubcrawl Routing internet Distributed databases telecommunication network routing network traffic Routing protocols Load modeling delays ICN information-centric networking named data networking Information Centric Networks edge node faces content distribution method contents deliver node load packet processing delay time pull-type communication method push-based information-centric networking push-type communication method returns data specific content