

On-demand Anchor-based Mobility Support Method for Named Data Networking

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Abstract— Addressing producer mobility in a Named Data Networking (NDN) is one of the challenging issues in the wireless network, which causes content unreachability problem and may impede overall quality of service. To cope with this, intermediate NDN routers have to update the forwarding information of content request toward a new position of a producer as reactive as possible. Several researchers have contributed to resolving the problem, but there is still room for improvement in terms of reducing network overhead and content retrieval latency. In this paper, we propose *on-demand anchor-based mobility support* method which redirects consumer's requests from an old position to a new position of a producer via a mobility tracking node, which is named *Anchor*. When producer handover occurs, the proposed scheme supports on-the-fly route redirection procedure at the old position, so it can provide better content retrieval latency by reducing retransmission delay. Our preliminary simulation study verifies that the proposed algorithm mitigates network overhead and improves the time taken for content retrieval in a mobile environment.

Keyword— Named Data Networking (NDN), wireless, producer mobility, anchor-based



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