

Abstract: A VHO-support Mechanism with Virtual Interface emulating a Simple IP on Heterogeneous Mobile Networks

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Abstract

This paper proposes a VHO (Vertical Handover)-support mechanism using a VI (Virtual Interface) which emulates a simple IP and PHY (physical) interfaces on heterogeneous mobile networks. The VI emulates a MN's home address as a simple IP, which can be handled in operating system, and active PHY link by interworking with connection manager within a MN. This mechanism can make upper layers do not detect link change on PHY layer and support stable service without resetting an ongoing session to new link even on handover. Consequently, the proposed scheme can reduce handover latency as much as the session reset time on the upper layers. We experimentally measure handover latency. As a result, we can verify that the proposed scheme has better handover latency than the existing scheme.

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