Abstract

Consumers are demanding world-wide cellular access to the internet. This requires a global standard and effective means of accessing the internet from wireless devices. Integrating the two successful domains, viz, cellular networks and the Internet, provide anytime, anywhere access in third generation (3G) cellular networks. In this paper a hierarchical architecture for integration of cellular network (GSM) and Mobile IPv6 as mobility management is proposed. GSM is the most widely used cellular network and Mobile IP allows transparent routing of IP datagrams in the Internet to the Mobile node irrespective of its physical location. Mobile IP provides an elegant solution for inter-domain, or macro-mobility management, but does not perform well for micro-mobility or intra-domain management. The transition of IPv4 to IPv6 is studied and its improvements are incorporated in the proposed architecture. The proposed
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hierarchical architecture improves the performance of Mobile IP in GSM networks in terms of fast intra-domain hand-offs.

References

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Index Terms

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Keywords

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