Abstract

When a mobile terminal (MT) leaves its registration area (RA) and enters into new RA, the serving Visitor Location Register (VLR) sends a registration request to the Home Location Register (HLR). On receiving this request the HLR sends a de-registration request to the old VLR (which was serving the MT). After deregistering the MT, the old VLR acknowledges the request of HLR and then the HLR confirms the registration of the MT by sending the
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acknowledgement message to the new VLR. This approach is called explicit de-registration scheme. Implicit de-registration is a variant scheme, in which we can save the cost by ignoring the explicit de-registration message to the old VLR and its acknowledgement to the HLR. In terms of cost, implicit de-registration strategy is efficient than the explicit as we are saving de-registration signal exchange cost. However, at old VLR we may have the invalid entries. These invalid entries increase the database size at the VLR. To remove the invalid entries from the VLR, various de-registration schemes were suggested like polling, timeout and the group de-registration scheme. In this paper a comparative analysis is performed. On the basis of the cost incurred and the numerical result shows that the group de-registration scheme is efficient than the timeout and polling scheme.

Reference

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Index Terms

Computer Science Communications
**Key words**

Explicit de-registration  Implicit de-registration

polling

timeout

group de-registration