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**SECURE SYNCHRONIZATION OF
PERIODIC UPDATES IN AD-HOC
NETWORKS**

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ABSTRACT

The global penetration of mobile phones that have rich media and wireless networking capabilities has ushered in a new paradigm in mobile computing with new emerging social behaviors. New enabling technologies now allow users to search, locate, download, and share dynamically created content with friends and family from their mobile devices. With ad hoc networking capabilities in mobile devices, we are in the beginning to see the above trend shift from wide-area communities of users to dense local area social situations (e.g., Coffee shops, Train stations, Football fields, etc.) Such a shift presents opportunities to design proximity aware systems that deliver novel social experiences. For example, fans watching a football game can automatically share pictures taken on their mobile phones with each other, while commenting/rating pictures being taken around them.

Designing systems for ad hoc environments presents several interesting research challenges, including the difficult problem of providing scalable, energy efficient presence and content updates. To keep information fresh in such environments, the distribution mechanisms have to focus on frequent, small metadata updates rather than large infrequent payloads, which could also be a cause of significant battery drain from a mobile device.

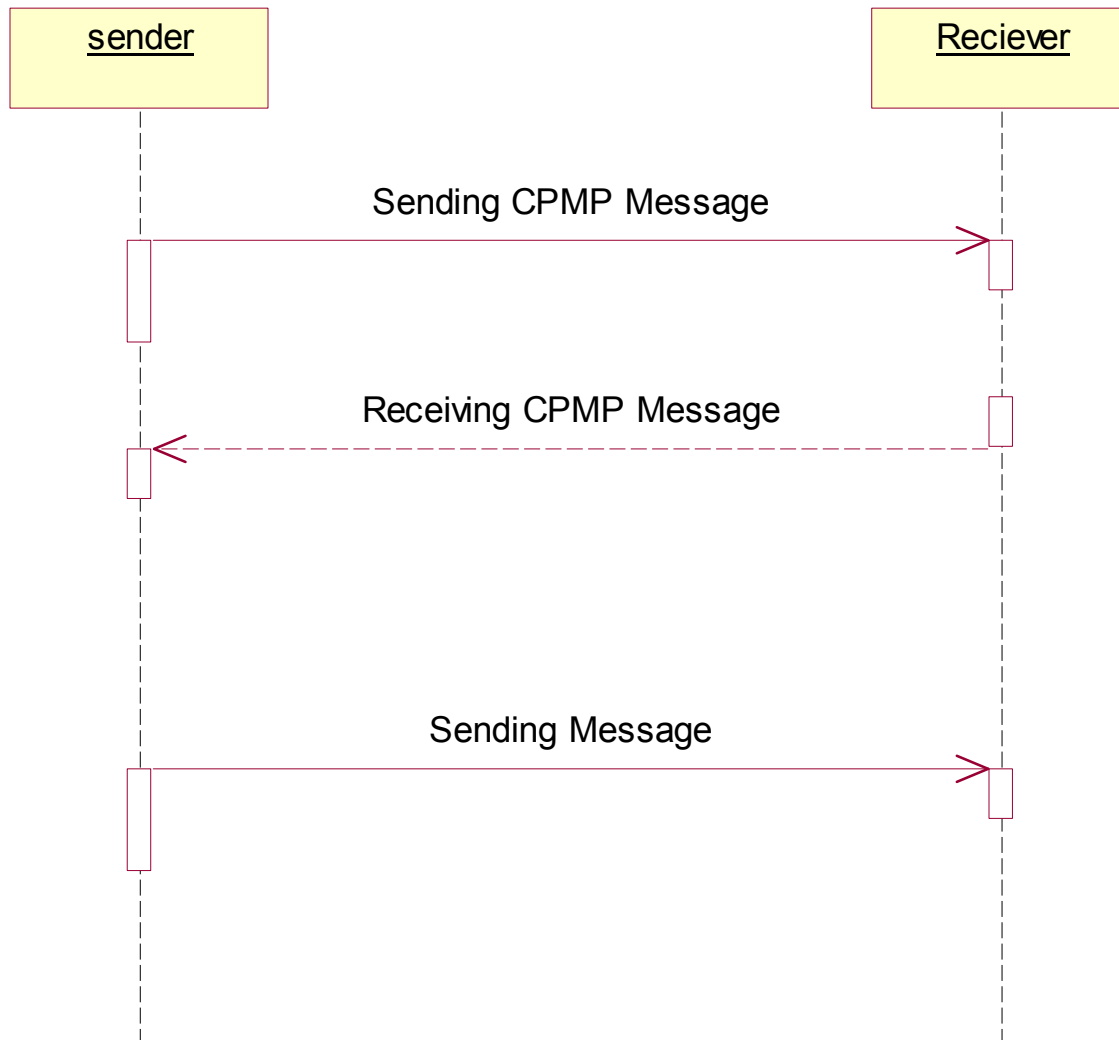
Introduction

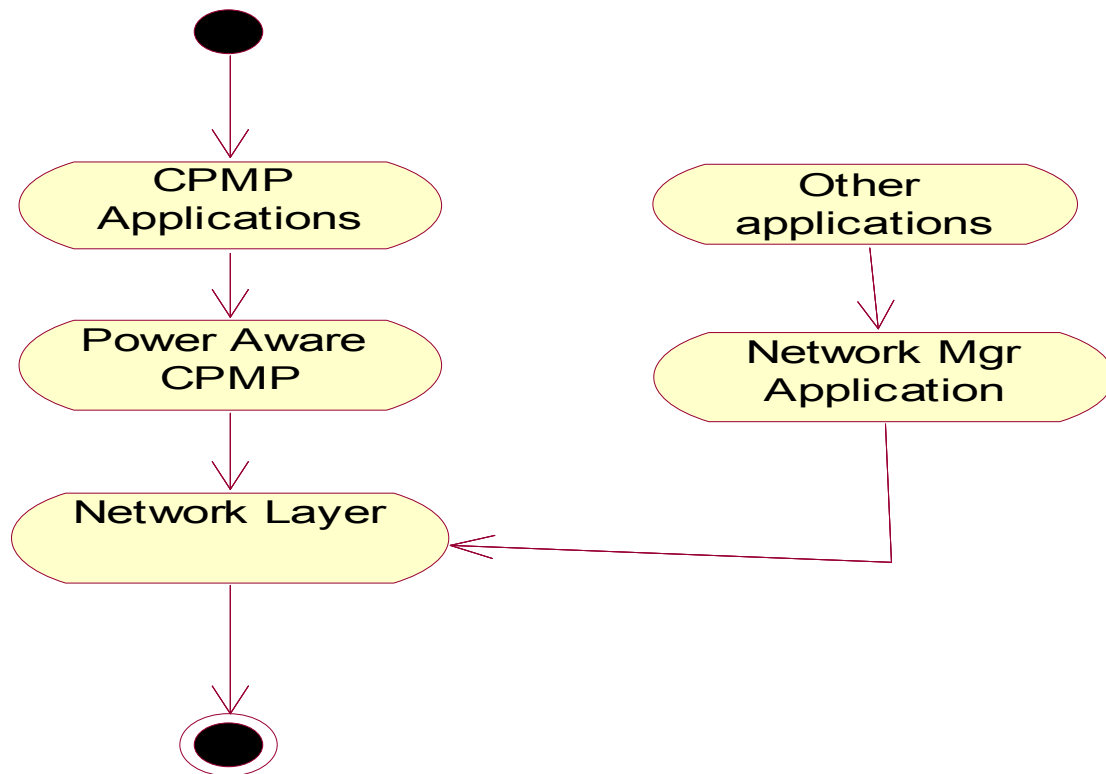
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Architecture:





SYSTEM IMPLEMENTATION

A hierarchical structuring of relations may result in more classes and a more complicated structure to implement. Therefore it is advisable to transform the hierarchical relation structure to a simpler structure such as a classical flat one. It is rather straightforward to transform the developed hierarchical model into a bipartite, flat model, consisting of classes on the one hand and flat relations on the other. Flat relations are preferred at the design level for reasons of simplicity and implementation ease. There is no identity or functionality associated with a flat relation. A flat relation corresponds with the relation concept of entity-relationship modeling and many object oriented methods.

In this Proposed System a method of 'hiding' encrypted information in a color digital image. In principle, any cipher can be used to do this providing it consists of floating point (or decimal integer) numbers that are ideally, uniformly distributed. The scheme allows for the authentication and self-authentication of documents such as letters, certificates and other image based data. The encrypted watermark can be camouflaged to obfuscate its existence and the applications to which the method can be applied are numerous. For example, the self-authentication of e-documents sent as attachments over the internet provides a unique facility for many legal and financial transactions that have traditionally relied on paper based documents to secure authenticity.

CONCLUSION

We study the problem of synchronizing the periodic transmissions of nodes in ad hoc networks, in order to enable battery lifetime extensions without missing neighbor's updates. The implementation show that our protocols are computationally inexpensive, provide significant battery savings, are scalable and efficiently defend against attacks.

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