Abstract

Memory management is a fundamental technique in embedded systems design like wireless sensor networks. This is particularly true for mission-critical and safety-critical embedded systems where response times need to be predictable and bounded. The typical solution used is to allocate, during system initialization, a fixed size pool or stack of buffers. The buffer size is typically chosen as the maximum possible request size foreseen by the intended application, e.g. the maximum transfer unit (MTU) of a protocol data unit (PDU). This results in low overall
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memory utilization because many requests will require far lower memory than the buffer size or cache. This leads to the serious attention to have for embedded systems especially when it will be the wireless embedded system e.g. WSN. We are trying to deal with the parameters which emphasize the performance of memory management. In this paper we investigate the issues related to the memory management used for wireless embedded systems (WSN).

References

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Index Terms

Computer Science
Computational Intelligence
Keywords
Memory management  wireless embedded system  Buffer  Cache  Wireless Sensor Networks