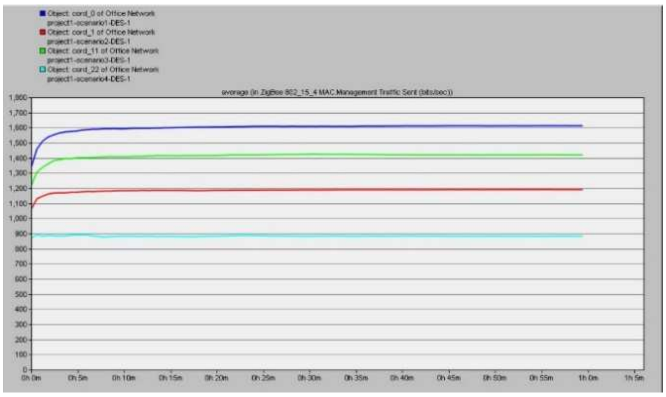

Fig. 7 The management traffic sent by the four scenarios

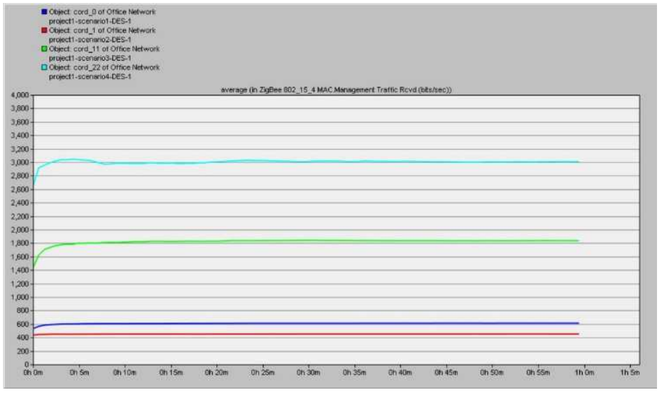

Fig. 8 The management traffic received by the four scenarios

C. Load

Fig. 9 illustrates the load in bits/sec that this node's higher layers deliver to the 802.15.4 MAC[9]. The graph shows that when the number of routers is at its highest, the load is at its highest, and when we reduce the number of routers, the load is reduced. There is no difference in the loads of scenarios 1 and 2, meaning that the quantity of coordinators has no bearing on the burden.

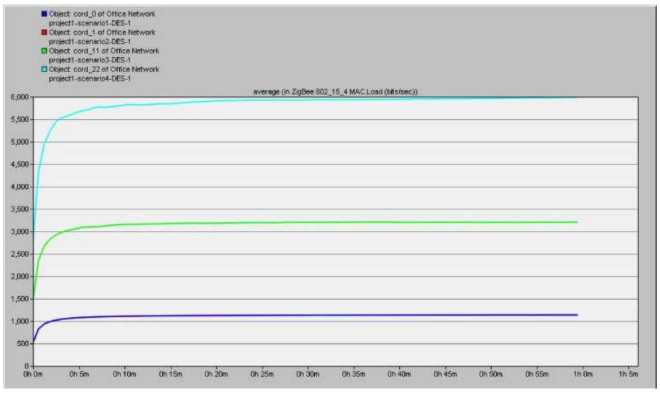

Fig. 9 Load of the four scenario networks

IV. CONCLUSIONS

The amount of data traffic that is received grows in direct proportion to the number of routers. While the data remains unaffected by the number of coordinators. The sent data traffic is subject to the same rules. When the number of coordinators (and/or) routers is raised, the amount of MAC management traffic sent is reduced. It is evident by comparing the management traffic graphs for scenarios 1, 3, and 4 that as the number of routers drops, so does the amount of management. When there are fewer routers, the MAC load lowers and the load is unaffected by the number of coordinators.

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