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Questions addressed in the following document:
What a mesh network is?
What it will be used for?
What I consider as:
1/ Important issues
2/ Issues the group should consider
3/ the issues they are themselves interested in investigating

Definition of a mesh network

What does "mesh" mean?

mesh topology: A network topology in which there are at least two nodes with two or more paths between them.

How can a wireless mesh network be characterized?

- No central orchestrating device. One of the most promising aspects of mesh networks is their ability to reassemble themselves to fit changing environments [1].
- System in which nodes or access points communicate with other nodes without being routed through a central switch point, eliminating centralized failure, and providing self-healing and self-organization. Although decisions on traffic are made locally, the system can be managed globally [2].
- Multihop systems in which devices assist each other in transmitting packets through the network, especially in adverse conditions [3] [4].
- Self-forming, self-healing, self-routing network [6].
- Network that employs one of two connection arrangements, full mesh topology or partial mesh topology. In the full mesh topology, each node is connected directly to each of the others. In the partial mesh topology, nodes are connected to only some, not all, of the other nodes [7].

How do I define a mesh network?
System in which wireless devices participate in the data transmission process

What will it be used for?

- Increase network coverage (increase the number of connection points)
- Increase reliability (self-configuration, self-healing)
- Increase link quality (shorten transmission distance)

Important issues/ Issues the group should consider

- Quality of service
  - service quality
  - link quality
- Handoff
  - Intra & Inter-technology handoff
- Routing (self-organization)
  - Can any existing protocol be used?
- Self-healing capabilities
  - Node failure
  - Link failure

And from a more global perspective, how to manage such a network without flooding it with control packets?

Another main issue is security (which may or may not be addressed by the group).

Issue I am interested in investigating

Quality of service mainly, but sensor networks can bring useful information for routing purposes.
Wireless sensor networks can be involved in almost every aforementioned issue.

References

[1] http://www.pcmag.com/article2/0,4149,1132784,00.asp
[2] http://www.nwfusion.com/news/tech/2003/1110techupdate.html
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