

Creating a high speed mesh by using dual radio nodes

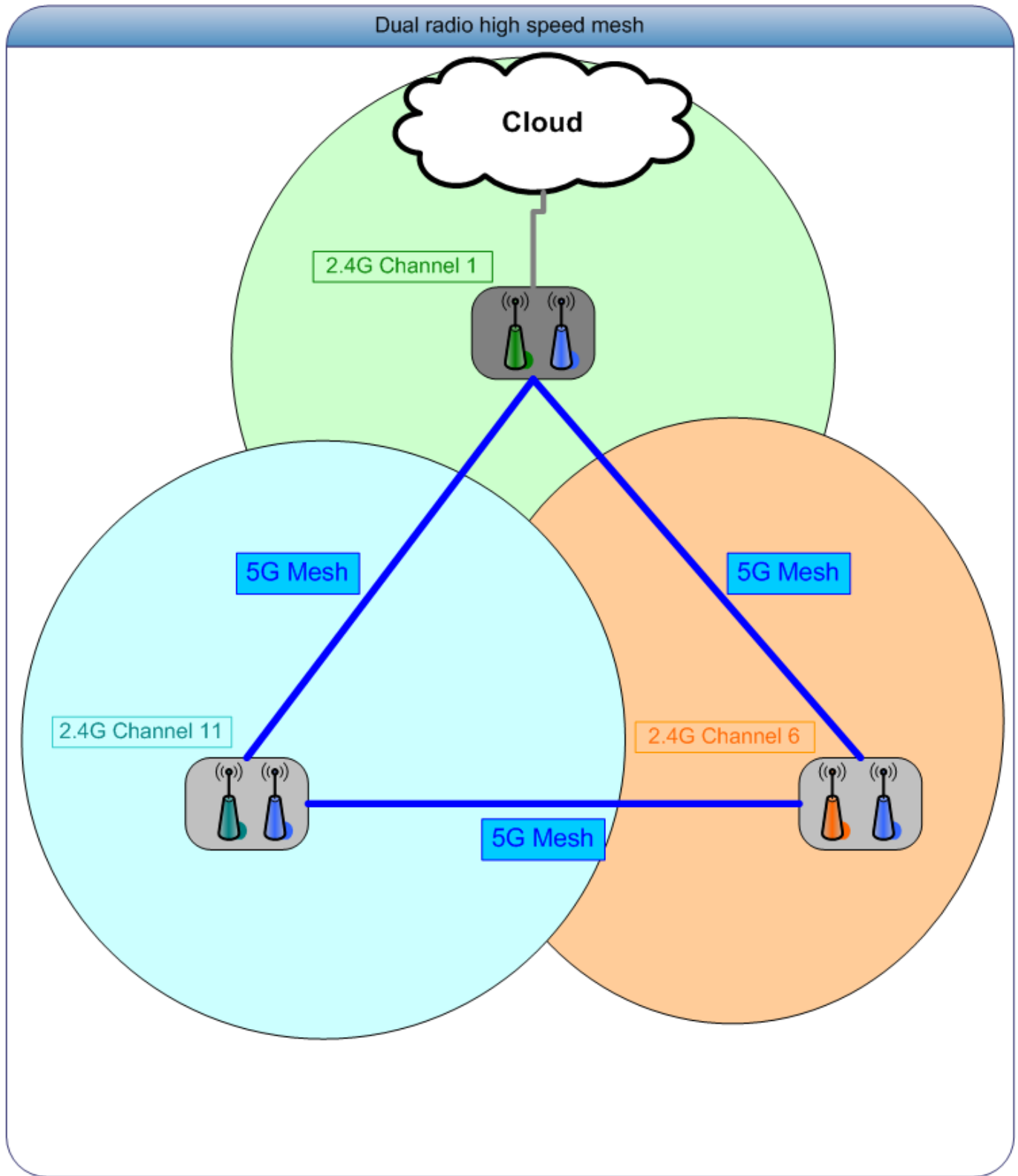
- During an early demonstration of MESHdesk the first question that was asked: **Does it supports dual radio nodes?**
 - The answer at that time was *not yet, perhaps in the future....*
 - Fast forward to today and we are proud to say that **MESHdesk does indeed also support dual radio nodes.**
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The limitations of single radio nodes

- Unfortunately with a mesh there is a performance knock with each hop away from the gateway node.
 - This performance knock is unavoidable even with dual radio nodes.
 - With single radio nodes there are however also the following to consider.
 - When you use single radio mesh nodes each node has two functions:
 - It has an ad-hoc connection with neighbor nodes. (This can be seen as the connecting wire between the nodes)
 - It typically also has one or more SSIDs to which clients can connect.
 - This means that each radio has to **time share** between these two functions.
 - Add to the mix that the mesh and SSID's are all on the same channel and it does not take a genius to see why people will ask *Does this system supports dual radio nodes*
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Dual radio node alternative

- When we have dual radio nodes we can create a mesh in the following way.
- Use the 5G radio for the ad-hoc connection with the neighbor nodes.
- Use the 2.4G radio for the SSIDs to which clients will connect.
- Make sure each node's 2.4G radio is on a non-overlapping channel (1,6,11) to reduce interference.
- Test shown that this configuration results in an **increase** of the throughput of **nearly 3 times** when compared to a mesh that consist of single radio nodes.
- See the following diagram for an overview.



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