



# IN THE SPOTLIGHT

LATEST NEWS FROM ANT



## ANT'S PRACTICAL MESH NETWORK SOLUTION SIMPLIFIES HOME AUTOMATION

Home automation systems have traditionally been AC power operated and implemented during the construction of a home. Homeowners have had limited options to update their homes without ripping up the walls and re-wiring the entire electrical infrastructure. Due to this lack of flexibility, home automation applications have fallen sharply short of their intended consumer acceptance. Demand in this market is changing due to the evolution of the smartphone, portable applications and wireless technologies. Consumers now see the potential of simple solutions that can be easily retrofitted to a home and changed on the fly. The only way to meet this consumer demand is to create intelligent, flexible low-overhead wireless solutions, and that is exactly what the ANT protocol brings to the table.

ANT's simple to set up and use network offers a series of advantages compared to other current wireless options available. This allows for the creation of an optimal home automation system such as mood or display lighting control.

### ANT Lighting Control Demo



#### ANT's practical mesh network capability ensures that multiple points can be controlled by multiple controllers

The inherent adhoc nature of the ANT protocol lends itself to supporting the varied and changing requirements of a home automation network. With ANT, a user can have one controller connecting to many sensors, many controllers connecting to one sensor and all combinations in between, creating a practical mesh network.

As ANT implements the basic building blocks of a mesh topology, product developers are able to pick and choose the network options required for a particular application thus creating practical mesh topologies.

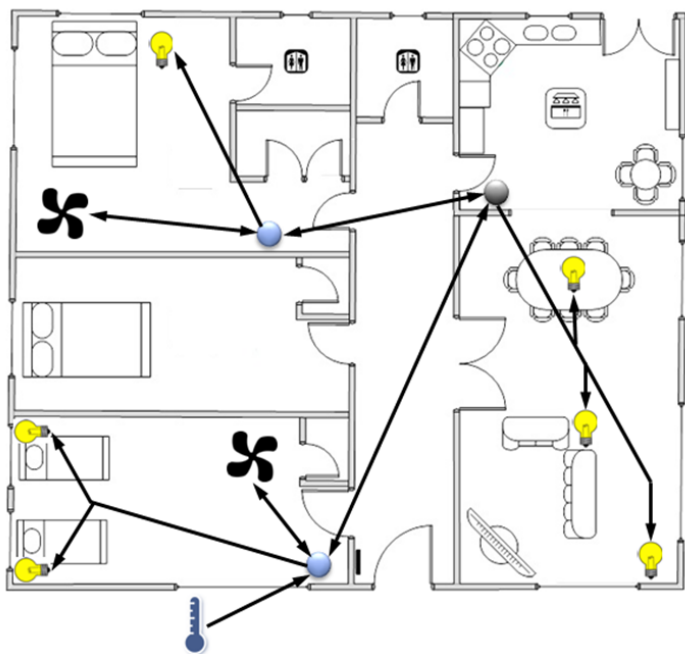
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FIRECHAT ADOPTS ANT WIRELESS  
TO ENHANCE PEER-TO-PEER  
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(An example of a multi-tree deployment in a home)

#### Simple development and proven network sophistication with mobile control

ANT offers a variety of embedded, mobile and PC resources such as the ANT Android SDK, and ANT+ profile plugins to make application development as simple and easy as possible. This assures optimal connectivity and allows developers to focus on the functionality of their applications knowing that the ANT/ANT+ integration will just work. This will reduce development time of a product from months to days.

Along with mobile devices that have ANT natively built in, there are also a variety of products available such as ANT USB sticks and iPhone dongles that allow users to connect to ANT+ devices from virtually any mobile device.

#### ANT can control thousands of lights at a time

ANT's powerful and functional protocol employs many synchronous and asynchronous connectivity options embedded into the base protocol. Simple commands are used to select individual or combination options that then enable very complex use cases.

The ANT+ Controls profile uses an addressed multidrop channel option called a shared channel supporting multi level addressing of up to 250 devices in up to 16 zone levels. (ANT can expand this number of devices to 65,000+.) By setting the zone and individual device addresses in the application one can turn on, dim, or turn off any group or individual light in the facility from any room, all from a smartphone.

#### Proximity pairing

ANT enables on the fly adhoc connections to be created with built in proximity pairing. Because each ANT device allows for multiple transmit or receive connections to be created and operated independently, it is possible to create new connections at any time to any other ANT device in the network, by simply employing a proximity pairing process. Creating dynamic and changing networks becomes simple with ANT.

#### Great battery life on a coin cell

The flexibility of the ANT network allows every connection to be optimized for power consumption versus latency. Typical sensor applications for example are able to operate for multiple years on a coin cell battery. To get an exact indication of power consumption for your use case view the [Power Estimator](#) tool in the Developer section.

To date, home automation applications have failed to gain market acceptance, mostly due to the complexity of installation and use. Now with flexible and easily established ANT network connections and cell phone connectivity, there is a real opportunity for home automation to take off.

For more information on ANT's home automation capabilities [click here](#).

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