



When the cat decides what's on television tonight



Caught on Facebook with the comment "I was not able to zap for fifteen minutes" and shows how our favorite pet can take control over what is being watched. A great example that illustrates just how outdated infrared (IR) technology for remote controls is. Anything that blocks the small IR receiver puts an end to zapping.

In fact, IR remote controls have hardly changed over the last 30 years, however the much better alternative is available now in radio frequency (RF) remote controls. Remote controls that use RF rather than IR overcome limitations of the IR-based devices and could greatly expand the functionality of the traditional remote control.

Major consumer electronics manufacturers and cable systems operations have gathered behind the ZigBee RF4CE (Radio Frequency for Consumer Electronics) industry standard designed to control a wide range of products including home entertainment devices, garage door openers, keyless entry systems, and many more. This effort takes place under the umbrella of the ZigBee Alliance, an open, non-profit association whose members work together to develop standards for low-power wireless networking.

Switching from IR remote controls to devices based on ZigBee RF4CE offers a number of benefits for the user and opens up the possibility of many new applications for the technology.

To start, the RF devices do not need a clear line of sight to operate. This could be leveraged to, for example, move set top boxes behind the TV-screen or into a closet for a more aesthetically pleasing viewing room setting. And the cat could just sit in front of the television as well.

Another practical benefit is that the two-way communications capability of RF4CE can support new applications. Today's one-way IR systems can't even do simple things like a highly desired "Find My Remote" button on a TV that, once pressed, would cause the remote control device to make a sound so the viewer could easily locate it when it's out of sight (probably under the couch, where the children dropped it): no more lost remote controls.

More sophisticated applications that offer interactive viewer participation could also be built into the remote control, using the two-way communications capabilities: tele-voting and gaming, personal messages and reminders, real-time sports results, stock information and residential sensor network monitoring. It also enables operators to create new opportunities for advertising revenues via server initiated commercial push messages on the consumers' remote control.

The interoperability offered by the ZigBee industry standard allows a remote control to work with more systems in a house and can be used as the basis for home automation. Leveraging this open RF standard, the remote could be used for climate control, to turn lights throughout the house on and off, and to open or close curtains. The remote control will become the dashboard for the home.

It's just like central door locking in your car, once you're used to having an RF remote control, you will wonder how you've ever lived without. The power of zapping is back and the cat stay put where it feels comfortable!

Do you have comments or suggestions? I appreciate your feedback!

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