



Universal remote control. Photo courtesy of Universal Electronics

Who's ahead in the race for convergence 4.0?

As the Internet of Things (IoT) heats up, consumers are facing an ever-increasing number of smart devices in their homes. These devices remain fragmented, not working together to their full potential. Kuldip Singh Johal, Vice President of sales for subscription broadcasting at Universal Electronics, outlines the race towards convergence 4.0 and the implications for device manufacturers.

The remote control was one of the first devices to find its way into our homes. Now it could be given a new lease of life as our homes become smarter and our TVs become the portal connecting all the devices that help support our day-to-day lives. As the technology in this field has developed, so too have the remote's capabilities improving the user experience.

Most of us will remember a time when changing the channel meant pointing the remote control directly at the television and lining it up precisely. This was due to the use of infrared (IR) technology needing devices to be in the direct line of sight in order to communicate with each other. Needless to say, this could be a frustrating experience, particularly if something was blocking the view. Now, thanks to the move from IR to radio frequency (RF), specifically RF4CE, and the use of Bluetooth, this is no longer the case. This technology means users no longer have to point the remote control at a device in order to perform a function. In fact, the device doesn't even have to face the same way. The use of RF also means that more data can be passed between

the remote and the television, which has allowed for the integration of voice technology in remote controls. With these developments, remote controls could now be at the heart of convergence, providing users with a single device with which to perform synergised functions, controlling everything from the television to your home's temperature, security and lighting.

Growing integration

As the Internet of Things (IoT) continues to develop, smart technology is becoming increasingly integrated and the race to fully converge smart devices is heating up. However, with established technology manufacturers competing against smaller, yet more agile, counterparts, who will win convergence 4.0?

With more and more smart devices appearing in the home, you might think consumers would welcome convergence. In reality, many consumers are currently turned off by the idea due to the difficulties they face when configuring and setting

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Kuldip Singh Johal, Vice President of sales for subscription broadcasting at Universal Electronics

up smart devices. For the average person, configuring multiple devices can seem daunting and like it may require some engineering know-how, deterring consumers from buying new devices or attempting to integrate them. Difficulties with configuring, discovering and controlling devices are among the biggest pain points for consumers of smart devices and is something that needs to be considered in relation to convergence.

For increased uptake, these pain points need to be addressed by manufacturers and industry leaders. It is vital for the end users that convergence and configuration is a frictionless and simple process. Users require intuitive devices which are capable of automatically recognising new devices and help the user to configure them. However, many of the key players within the industry are yet to offer devices capable of this. Should manufacturers, and the bigger market challengers such as Amazon and Google, want to attract audiences, the need for end-to-end solutions which simplify the process of migration to the smart home for the end user need to be considered. For example, devices should offer simplistic, voice-based processes to increase ease of use.

In addition to this, the winner of convergence 4.0 will produce devices which are capable of 'learning' set skills. These devices need to not only be intuitive in recognising other devices but must also intuit what a user requires when they perform certain commands. For example, ultimate convergence will come when users are able to ask their device to enter 'movie mode,' for instance, and the device will not only play a movie, but will also draw the curtains and dim the lights.

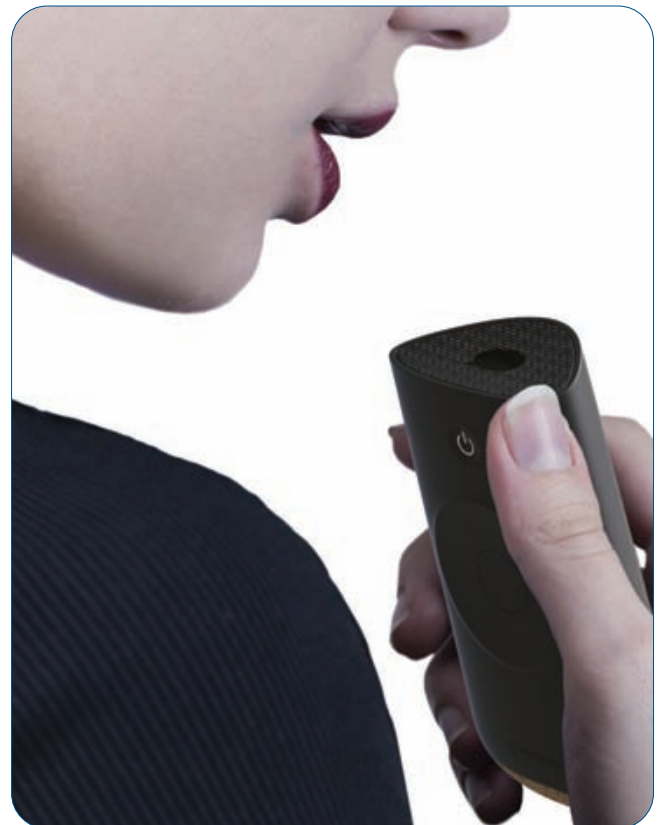
While there are a handful of manufacturers most of us will associate with smart home technology, many paid TV operators and telecommunication companies are turning their backs on these devices, thus creating space for some of the smaller brands to rise to the top. Not only are devices created by these big brands more expensive for paid TV operators to deploy, but they are also less adaptable for their needs. Conversely, by partnering up with smaller manufacturers to create bespoke solutions, paid TV operators can be in control of their own destiny and create their own eco-system on which they can build in the future. This is a fluidity that isn't offered by larger branded devices where the roadmaps for

convergence are already set out for them. Solutions developed with telcos and paid TV operators in mind also allow them to have more autonomy in their approach to the market, rather than following the trends as dictated by large manufacturers. This is a key issue in convergence as with paid TV operators on side, the smaller manufacturers have the potential to tap into different insights and develop new capabilities.

The battle to win convergence 4.0 also goes hand in hand with the fight for the voice-assistant market. As many smart devices make use of voice-control, the two issues are intrinsically linked. The number of voice-controlled devices is growing significantly as user demand increases. A recent study found that 1 in 6 adults in the US now owns a voice-activated smart speaker and 65 percent say they wouldn't want to go back to a life without these devices. Their popularity and their ease of use show that this technology should be a key feature for the future of convergence.

A pre-emptive strike

It is fair to say that convergence is currently driven primarily by the market as a pre-emptive strike to anticipate the needs of consumers. Consumer demand is yet to catch up with this due to the difficulties associated with configuring devices. As such, the real winner of convergence 4.0 will be the company that can make it as easy and seamless as possible to integrate these devices into the home. That said, while the big names currently have a monopoly on this market, convergence 4.0 could be a case of the tortoise and the hare as smaller manufacturers step up their approach to the market. With a more insightful view of the requirements of not only the user but also telecommunication companies, these brands could be better able to tailor their offerings more precisely to suit the users' needs. ■



Voice remote convergence. Photo courtesy of Universal Electronics

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