



Just when you didn't think digital entertainment couldn't get any smarter, the big guns have changed the state of play again. By **Kris Sangani**.

# SMART HOME TECH

WIRELESS communication may seem like old news with Wi-Fi and 3G readily available, but competition is heating up between companies that want to offer you wireless streaming of audio, photos and even video directly in your home.

Sonos offers its ZonePlayer, which, in league with other ZonePlayers, uses a proprietary system called SonosNet to create a wireless network. Each ZonePlayer can communicate with all the others, and share the music and audio content stored there. A controller, which is also looped into SonosNet, tells each ZonePlayer what you want it to play.

Competitor Apple offers AirPlay, which streams audio, video and photos. Initially only implemented in Apple's own software and devices, the company has licensed the

audio-streaming portion of AirPlay as a third-party component to make other products compatible with Apple's devices.

Just plug your stereo or speakers into the audio port on your AirPort Express Wi-Fi basestation using an audio cable, or have your AirPlay-enabled output devices connect to the same network as your iTunes library. AirPlay links to the existing network, letting you play your music wherever you choose.

AirPlay, like SonosNet, allows you to listen through multiple speakers. The maximum number of outputs is typically three to six. However, Sonos allows you to create separate 'zones' where streams can be synced. This enables you to walk from room to room while listening to the same stream. This is, however, limited to audio streaming.

Apple's AirPlay will enable you to stream

content to other Apple devices and is not limited to audio streaming. Therefore, you can sling video content from an iPhone, iPod or iPad to an Apple TV.

All of which may leave you wondering which side to choose in this battleground of standards and commercial competition. The Digital Living Network Alliance was formed in 2003 to establish interoperability standards among digital devices. Some 245 companies comprise the DLNA, which published its Interoperability Guidelines in 2004.

DLNA-certified devices have far more interoperability features than AirPlay. A certified media player can access network-attached storage by way of a certified digital media server. So, instead of having to play your music or movies from a separate device, your TV or stereo can access them directly.



Consumers are only slowly realising some of the benefits of 'smart' TVs

### Smart TV

Innovations have come thick and fast for users on the move, but if you want to take in your media in a more traditional style, tech companies still have a trick or two up their sleeves. Smart TVs integrate the Internet and Web 2.0 into TV sets and set-top boxes, similar to how the Internet, Web widgets and software applications are integrated into smartphones.

In a recent YouGov survey, consumers admitted the main reason they would buy a smart TV is to have the most up-to-date television. Only one-third said that connecting to the Internet was a factor. Dan Brilot, YouGov's media consulting director, says: "It's more about future-proofing [the consumer's] TV in the same way that people bought HDTVs before HD channels were available."

Some 53 per cent of smart-TV owners correctly identified a smart TV as one that directly connects to the Internet; while around 25 per cent have never used their device to connect to the Web.

Despite this, smart TVs are expected to have a big impact on traditional viewing habits, with 14 per cent of people set to own one in the next year. Just over 35 per cent of smart-TV owners say they now spend more time watching TV through 'on-demand' services, such as BBC's iPlayer, than they do watching traditional 'linear' TV.

### Apple rumour mill

Although smart TVs have been available for a few years, the Apple 'iTV' rumour mill has gone into overdrive after the latest reports

from China suggesting that Foxconn's Shenzhen plant (Apple's manufacturer of choice) has received orders from Cupertino to build the much-hyped sets on a trial run.

Apple's plans to build Internet-connected TVs have been the subject of speculation since revelations in Walter Isaacson's biography of Steve Jobs that the late CEO had "cracked" TVs with the "simplest interface you can imagine". This has led some to say that it could feature a voice-powered search system, like the Siri app for the iPhone 4S.

Isaacson later revealed that he had left several details of the "integrated television set" out of the biography because Apple had not fully realised Jobs' vision.

According to the Global TV Replacement Study, 31 per cent of households plan to replace their TV over the next year. The most important reason given by consumers to replace their current TV is getting a bigger screen – not a smarter one.

This was followed by a desire to upgrade to a flat-panel display with better image quality. Price was found to weigh heavily in potential buyers' decisions, even though it did not make it into the top three reasons cited by consumers who replaced their existing TVs.

Despite being marketed heavily by TV makers and retailers, Internet connectivity was described as only a weak motivator for consumers to upgrade their old TV sets.

Clearly, these advanced features were not as important as manufacturers would like them to be in influencing a buyer's choice of new television. \*

### CONNECTIVITY POWERLINE VERSUS WI-FI

How do the two solutions stack up against each other?

The main challenge associated with Wi-Fi has been overcoming the issues of interference, and being able to adequately permeate through brick walls to deliver a latency- and jitter-free secure signal while also making the solutions easy enough to install and administer by the consumer.

In order for powerline to work, the devices it is connecting to need to be physically located on the same circuit. This, however, is not always the case. The second problem is one of interference caused by leakage of RF signals. The technology is now in its third or fourth generation and the maximum data rate, which was previously around 200Mb/s, has increased to 500Mb/s. While its use may be suitable in most cases for sharing data, it is not proven for HD video sharing, and is prone to interference.

But they are largely complementary solutions. Wireless isn't constrained by the existence or quality of the existing cabling infrastructure. It offers higher speeds, greater predictability and quality, and the option of moving devices at will. However, as demand for more and more bandwidth in the home heats up, adding powerline into a wireless environment can add extra bandwidth.