

prevents them from using the network capacity for other things, such as internet access or new high-definition channels.

One way of dealing with problems of this kind is, appropriately enough, to establish a "converged" regulator, as Britain did when it merged its communications and broadcasting watchdogs into a single body, Ofcom, in 2003. Three years on, its experience provides three lessons for regulators in other countries, says Peter Phillips, an Ofcom strategist.

First, converged services and existing services will co-exist for a long time, "so you can't just jump straight to a solution." Instead, regulators must be flexible enough to deal with both the old ways of doing things and the new.

Second, under the old rules there were a lot of implicit deals: telecoms operators were granted monopolies in return for providing universal service, for example, and broadcasters were given spectrum in return for meeting public-service requirements. "In a converged world, those deals need to become much more explicit if you want to preserve the policy goals," says Mr Phillips.

Third, content on different platforms may require different rules. Broadcast television is not the same as subscription cable channels or streaming internet video. The shift away from broadcast television does require a more laissez-faire approach from regulators, but that is not the same as a total free-for-all. "If you have massive amounts of content out there, on platforms that may not respect international boundaries, you have to put more reliance on people's ability to understand the nature of content and decide how they want to engage with it," says Mr Phillips.

That raises another regulatory challenge: the fact that different rules apply in different countries. For example, there has been a huge fuss in Europe in recent months over the extension of the European Commission's "Television Without Frontiers" directive to cover video sent over the internet or to mobile phones. The aim is to impose standards governing things like decency and advertising on these new forms of video, but critics regard the rules as too heavy-handed.

Convergence will make the need for a common set of European rules more pressing as operators begin, for the first time, to venture onto each other's home turfs. For example, Orange, France Telecom's wireless arm, operates in several European countries and now also offers fixed-line broadband and voice services in several of



them in order to provide a service bundle. Similarly, O₂, another European wireless operator, is branching out into fixed-line services in several countries. Telecom Italia has launched fixed-line triple-play services in both France and Germany, and Deutsche Telekom is doing so in France and Spain.

In America, meanwhile, the debate about telecoms regulation in recent months has been dominated by one issue: network neutrality. In essence, this means that the internet simply delivers packets of information from one place to another, regardless of their content or the identity of the sender or receiver. The furore began last November, when Mr Whitacre, the boss of AT&T, complained in an interview with *Business Week* about Google, Yahoo! and other internet companies getting a free ride on his company's expensive new broadband network. "Now what they would like to do is use my pipes free, but I ain't going to let them do that, because we have spent this capital and we have to have a return on it," he said. "So there's going to have to be some mechanism for these people who use these pipes to pay for the portion they're using."

Neutral tones

A few weeks later Ivan Seidenberg, the boss of Verizon, said that Google, Microsoft and other providers of bandwidth-intensive internet applications ought to "share the cost" of operating high-speed

networks. "We need to pay for the pipe," he told an audience at the Consumer Electronics Show in Las Vegas. Both AT&T and Verizon denied that they planned to act as gatekeepers, blocking access to any big sites that failed to pay up. Instead, they suggested, Google and other firms, such as music and video download services, might choose to pay extra to have their traffic prioritised.

The result was an outcry. Critics felt that AT&T and Verizon were threatening to abandon the hallowed principle of network neutrality. It is this principle that has enabled the internet to support new applications and made it such a hotbed of innovation. Its agnostic design, which ensures that it blindly does its best to deliver whatever traffic is fed into it, meant there was no need for the inventors of the web, or Napster, or Skype, to ask permission to run their software across the internet.

Advocates of net neutrality gave warning that the introduction of fast lanes and other premium services could undermine this innovative culture. "If the fast lane is the information 'superhighway', the slow lane will operate more like a dirt road," wrote Meg Whitman, the boss of eBay, the leading internet auction site, in an e-mail to its users. "A two-lane system will restrict innovation because start-ups and small companies—the companies that can't afford the high fees—will be unable to succeed." Eric Schmidt, the boss of Google, took a similar stance. "Creativity, innova-