

## Seeking protection

Services are becoming an important part of the innovation landscape, but protecting new offerings will take a different approach

There are several reasons for the increasing interest in innovation in the service sector. Growth in some of the most capital-intensive industries has slowed to a point where companies in those sectors are looking to the provision of services as one way to reinvigorate their businesses. Some economies, notably that of the UK, are so dependent on the service sector that service innovation has become equivalent to economic innovation. And some service providers, particularly in telecommunications, have found that new technologies threaten to make their services redundant unless they develop offerings that use their infrastructure in attractive new ways.

Lord Sainsbury, former minister of science and innovation in the UK government, used the launch of the Department of Trade and Industry's 2006 R&D Scoreboard to point out how widespread service innovation is becoming in the UK. He said: "Around two thirds of R&D done in the UK is carried out by companies. It has long been a key part of the corporate strategy of many so-called high-tech firms, both in manufacturing and in services, particularly software companies. For the first time we are also seeing substantial R&D from UK companies outside these sectors, particularly in financial services. Much of this R&D was previously unreported; some of it represents increases in spending. But the most important point is the ever-widening relevance of technology, and the R&D that goes into its creation, for virtually all businesses."

So service innovation is becoming vital to reinvigorating mature industries and to the economic wellbeing of many countries. The problem is that it is unclear how to protect such increasingly vital innovation from being copied. A novel can be given copyright protection, and a promising anti-cancer molecule can be patented. But what if you want to turn your business from one that sells newsprint production equipment into one that offers to provide a guaranteed amount of perfect paper each day, and spares the customers the details of how that happens? It's not immediately obvious what protections are available for this sort of innovation, and whether the lack of protection will cause weak returns that hobble investment in services innovation.

### Can you keep a secret?

One straightforward way to protect a new service is to keep it a secret. This may sound odd, but many manufacturers use the strategy, keeping a breakthrough technology concealed for as long as possible, at the same time as patenting its supporting technologies. In the finance sector, banking, tax and wealth-management companies often keep their most innovative schemes for their wealthiest clients.

Services often involve bringing together many skills drawn from many organisations and orchestrated by a web of contractual arrangements. This complexity can be protection itself – think what it would take to replicate a world-wide parcel delivery service such as FedEx, for example.

Other protections can evolve from a service provider's key assets: its people, processes and relationships. Think of trying to create a technology consultancy to compete with an established operation. You'd need to recreate a staff with similar skills, experience and standing, build new relationships with what may have been long-term customers of the original consultancy, and find ways to replicate or improve upon its processes, resources and culture in order to begin to compete. Meanwhile the original consultancy would have moved on.

### Being better and faster

Another way to protect a service is to be the best at providing it.

David Excell, head of innovation and technology management group for consultancy Sagentia Group, says an organisation can prevent imitation by creating a barrier dependent on its unique skills. He gives the example of Dell Computer, which has protected its business approach by its combination of skills, capabilities and assets.

"The key is to have a unique market position and a focused business model, with the underlying assets and capabilities, which can include soft issues such as the business's culture, processes and skills," said Excell. "Look at low-cost airlines such as SouthWest, easyJet and Ryanair. It's been very difficult for mainstream airlines such as British Airways to challenge today's low-cost entrants because of their legacy business model and assets.

"We found one way of responding to disruptive business models is to set up a separate business entity. British Airways did this with

the Go brand, but eventually sold it to easyJet. British Airways didn't get the value for that innovation."

### Recourse to law

Some service innovations can be protected by legal means, although the methods can be tortuous. It would be possible, for example, to build a service innovation around a brand image in a way that would make it difficult to replicate, as McDonald's has done with its Happy Meal™.

Computer software, which can be an important part of many services, is not patentable in Europe at the moment, although controversy continues to rage about whether it should be.

Klaus-Dieter Langfinger is senior vice president and head of the competence center on global intellectual property (IP) at BASF, and chairman of the IP working group of UNICE – the Confederation of European Business. He says software is already protected by copyright, and that it doesn't make sense to have two protections apply to one class of invention.

Patents on business methods provide another protection, although they are not available in Europe and Canada despite being granted in the US, Japan and Australia.

Excell said: "In the US a new class of IP protection called business-method patents is emerging, for example the Amazon OneClick shopping patent. These became known as internet patents because they were underpinned by a bit of technology which made them protectable."

Langfinger said: "Europe doesn't need business-method patents on a broad scale either, because some of them, such as patenting how you instruct someone to clean a desk, are questionable at least. The question is whether offering a service is really an invention. Calling something an invention has always been seen as a reward to protect a technical development. In the long term, allowing business-method patents for subjects having no technical character or contribution would be detrimental because they would create uncertainty in the marketplace. It takes a lot of effort to deal with these patents, and that's effort that does not create corresponding value by promoting technical development."

Excell advises that with such uncertainty over business method patents, the key to protecting a service innovation is to use a variety of strategies: "Patenting a business method is certainly something an organisation should be considering, but not banking on. They should be thinking of creating barriers to entry in the business model itself."

### Change is good

Change can be one such barrier – turning a service into a relentlessly evolving offering that rivals cannot keep up with. Think of Apple's iTunes online music service, whose software is now in its seventh major version. iTunes was launched before the iPod was announced and offered a limited amount of music and limited functions at the time. It was upgraded each time a new generation of the music players was announced, when Motorola announced an iTunes-compatible mobile phone and when Apple introduced a video-capable iPod.

Meanwhile Apple was innovating on the business side, increasing the attractiveness of iTunes by making deals with music companies, audiobook publishers and filmmakers. Just as a rival gained some purchase on the hardware front by making a more attractive music player, Apple countered by expanding the iTunes offering. When other companies started to offer more comprehensive music download services, Apple countered with a new iPod. The combination has been a stunning success for Apple, despite the fact that many believe it doesn't make money from iTunes – instead using it to encourage people to buy iPods and then the rest of Apple's hardware.

One issue with this 'staircase' model of innovation, of course, is that companies that apply it have to climb the staircase for as long as they want to keep offering a competitive service. Once companies start working this way it can be difficult to find time to make large innovative leaps – staff can't focus on the long term at the same time as developing the next small innovation.

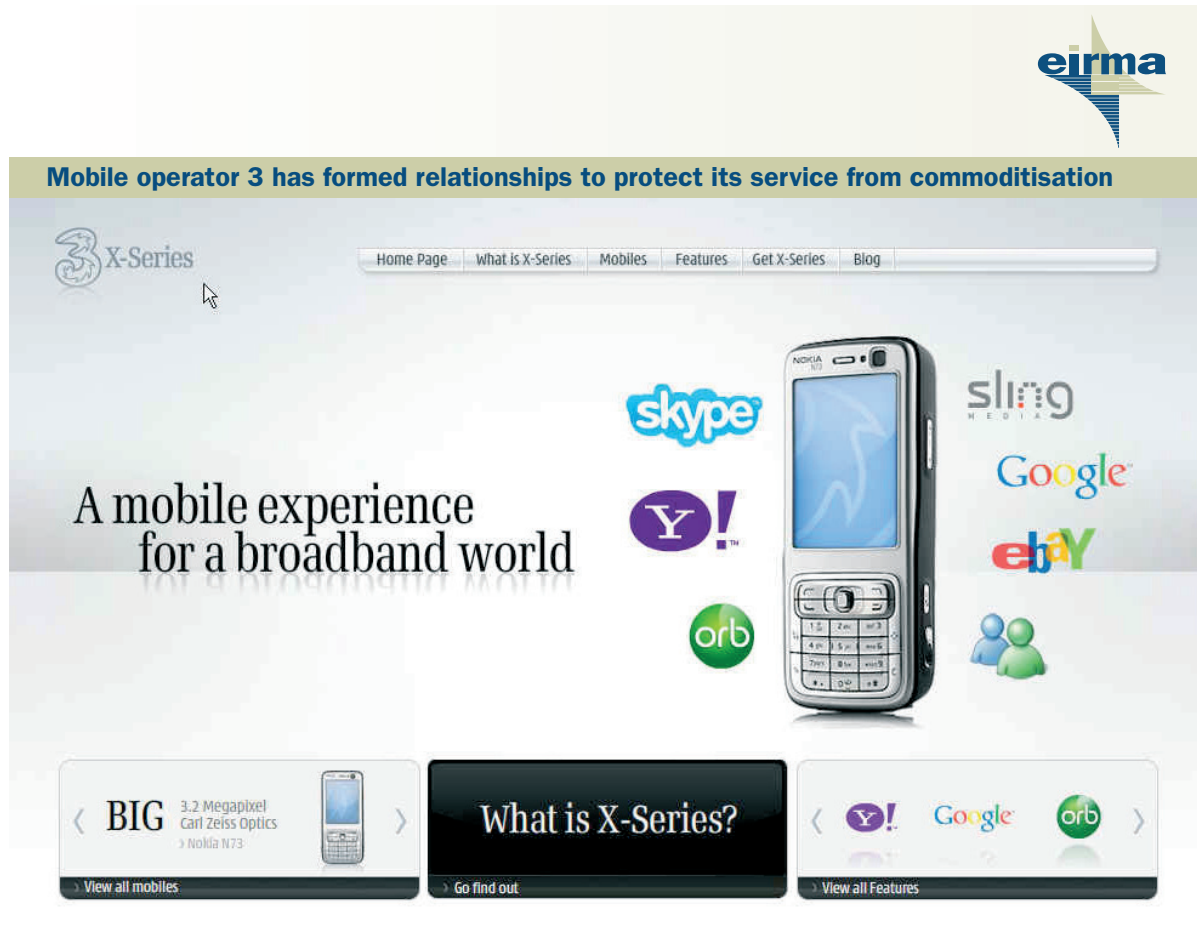
### Relationship counselling

Another way to protect a service innovation is to control access to the distribution channels, customer relationships, marketing, and reputation that underpins it. These assets are often complex, inter-related and developed over a long time. It can be difficult for a competitor to substitute one network of such assets for another.

3, the mobile network owned by Hutchinson Whampoa, has spent billions of dollars on licences and developing the infrastructure for its third-generation network. But take-up has been slow, with just 13.5m customers across nine countries so far. Although the 3G network supports video calling, a lot of its appeal, in the UK at least, has been built around very competitive voice call costs. Faced with the prospect of rival technologies, such as wi-fi for data and voice-over-IP for speech, undermining demand for its high-bandwidth network, 3 has developed an innovative service protected by a series of key relationships. For a flat fee on top of a

normal subscription, 3 subscribers will be able to use mobile internet services from partners including Skype, Yahoo!, Google, eBay, Microsoft, Sling Media, Orb Nokia, and Sony Ericsson.

Subscribers to 3's X-Series offering will be able to make unlimited calls from their mobile using Skype, watch home television on their mobile using the SlingMedia SlingBox video sender, access their home PC remotely using Orb, and try internet and messaging services from Yahoo!, Windows Live Messenger and Google.



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At the service's launch Canning Fok, group managing director of Hutchison Whampoa, said: "By partnering with the leaders of the internet and the leading handset makers, the X-Series will give everyone access to more of what they want, when they want it, and however much of it they want, all free when they use it."

The deal will protect 3's high-bandwidth network from becoming a commoditised mobile data pipe, and give rivals pause as they try to build a similar set of deals for their own third-generation services. It will also enable 3 to experiment with its shift to becoming a mobile broadband supplier, rather than a voice provider: customers will be charged flat access fees for basic X-Series services on top of their normal subscription, and add-on fees for higher-bandwidth services like Sling and Orb.

**Protect and survive**

Service innovation is going to be an increasingly important driver for companies and economies. The relative weakness of legal protections for service innovations may be less important than it at first seems. In a background paper prepared for the Advanced Institute of Management Research's Grand Challenge on Service Science, Ammon Salter of the Tanaka Business School at Imperial College London and Bruce S Tether of Manchester Business School argues that both manufacturing and service firms regard legal protections as less important than being ahead of competitors, keeping secrets, and having complex offerings.



**What users say about the best ways to protect innovation (survey response – %)**

	Manufacturers		Service firms	
	<i>Used</i>	<i>Of high importance</i>	<i>Used</i>	<i>Of high importance</i>
Lead times over competitors	64	24	45	18
Secrecy	58	21	46	16
Confidentiality agreements	56	22	47	21
Complexity of designs	56	14	35	9
Trademarks	40	16	31	12
Patents	36	17	16	7
Copyrights	35	10	30	11
Registered designs	32	11	18	6

Source: UK Innovation Survey 2001, calculations by Ammon Salter of the Tanaka Business School at Imperial College London, and Bruce S Tether of Manchester Business School

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It may turn out that the best way to protect service offerings is through continuous innovation, effectiveness, and working in networks, of customers, suppliers and even competitors, that are hard to replace.



### Links

Sagentia

<http://www.sagentiagroup.com>

UNICE – the Confederation of European Business

<http://www.unice.org>

Apple iTunes

<http://www.apple.com/itunes>

3's X-Series offering

<http://xseries.three.com>

Salter & Tether paper

[http://www.eirma.org/f3/local\\_links.php?catid=96&linkid=1122](http://www.eirma.org/f3/local_links.php?catid=96&linkid=1122)

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