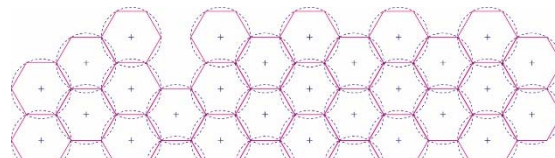


# Separation anxiety – a difficult decision for regulators

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Traditionally an incumbent telecoms operator is vertically integrated and delivers all functions – network build and operations; product design and development; and retail sales and service. This integration carries a tension between the incumbent's role as provider of wholesale services to its competitors, and its activities as a retail competitor. Around the world regulators and governments have considered separation of the incumbent operator as a way of resolving this tension. In this Insight we set out, from a public interest perspective, why and how such a separation might be implemented.

## Introduction

Evolving technology, competitive markets, government interventions, and global service (including 'over the top') providers now challenge the vertically-integrated model. In response to this, some operators have chosen to separate voluntarily to deliver more focused and coherent businesses which attract better matched investment and deliver significant value to stakeholders.

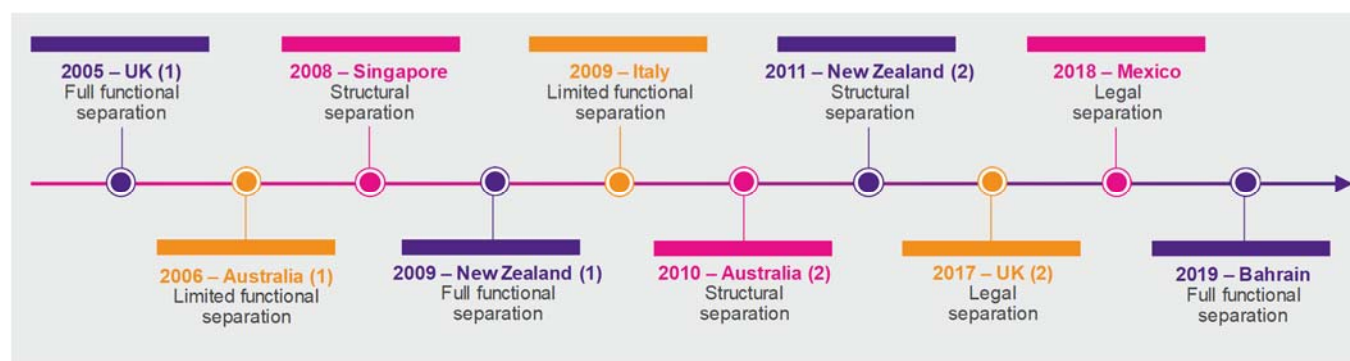
Others have been forced (in law, or in practice through a negotiated agreement) to separate – usually as part of a government investment program or to address concerns about enduring dominance.

Figure 1 shows some of the main ways in which incumbent telecommunications operators have separated their fixed network businesses over the past 15 years because of pressure or directions from their regulators.

The range and diversity of these separation schemes raises a number of issues for regulators and governments in other jurisdictions who are considering similar programmes:

- Is there a good public interest case for requiring such separation in my country?
- What form should separation take?
- Where should the separation boundary lie?
- How should the regulator go about implementing the separation?

Figure 1: Recent separation of telecoms operators



## When should the vertically integrated incumbent be separated?

It is not a given that regulated or imposed separation will generate more benefits than costs and hence, be in the public interest. It requires substantial effort and is a cost to the telecommunication sector that is ultimately borne by customers.

In the UK, for example, BT estimated that functional separation in 2005 cost it over £1 billion to implement. Later experience suggests that BT's costs include elements which can now be avoided, but even so, the benefits of separation need to be substantial to justify such a decision.

Some countries are simply too small, or have a fixed sector that is too small relative to mobile networks, for separation to be justified. In other countries the presence of a nationwide cable operator which offers strong infrastructure-based competition to the vertically integrated incumbent weakens the case for separation.

However, in countries where fixed broadband is important and where broadband services are dependent on the supply of non-replicable assets from the incumbent's fixed access network, the vertically integrated incumbent has both a strong *incentive* and the *ability* to discriminate against rivals who need these non-replicable assets if they are to compete effectively in the mass and corporate markets for the supply of retail fixed broadband products.

In these circumstances separation can provide an effective way of minimising the scope for discrimination by the vertically integrated incumbent in the supply of wholesale broadband inputs to its own dominant retail business and its rivals. This discrimination can take the form of price discrimination or discrimination in non-price supply conditions – such as time to provision; time to repair; the wholesale products offered; and the quality of service with which they are supplied.

While price discrimination may be detected through rigorous accounting separation, discrimination in non-price supply conditions is much harder to detect and prevent without the right form of separation. Separation is normally considered as an escalation of, and complement to, a regime for regulating access (through sector regulation and/or competition law). But separation enables more decisive and durable intervention than the treadmill of access regulation alone. So, in jurisdictions where there is enduring dominance by the vertically integrated incumbent in the retail fixed broadband market, it is important that the government and its regulator consider the option of separation.

## What form should separation take?

Typically a regulator considering separation will face a starting position with their incumbent which includes:

- **accounting separation**, a well-recognised and broadly adopted remedy that addresses price discrimination, and bring transparency to the costs and charges of the regulated services of a vertically integrated business; and
- organisationally, a **separate wholesale division** to service the needs of access-seekers, while maintaining the existing internal vertically integrated supply chain to service the incumbent's own needs.

In order to ensure non-discrimination between the incumbent's self-supply and supply to its competitor wholesale customers, regulators will likely have imposed requirements for what is known as **equivalence of outcomes (EoO)**. This requires a demonstration, through KPIs and other measures, that the use of separate supply mechanisms to support the incumbent's own retail business and to meet the requirements of other operators does not result in outcomes which distort or disadvantage competition.

Many regulators have grown concerned that equivalence of outcomes and accounting separation alone only detect forms of discrimination for which objective measures can be found, and do not deal with other more subtle but nonetheless material forms of discrimination. Given that regulation is always an imperfect process, and that there is scope for regulatory error, a regime which relies on the detection of discrimination and then its address is intrinsically inferior to one in which discrimination is avoided in the first place.

## Equivalence of Inputs

A more robust form of ensuring non-discrimination is known as **equivalence of inputs (EoI)**. Under this model the incumbent's wholesale business can no longer use different services or supply chains to support external customers and the incumbent's own retail enterprises. The same services, supplied using the same systems and processes must be available to each.

This approach eliminates the risk of discrimination arising through the use of different products or different supply chain mechanisms. It is central to three distinct forms of separation that have variously been applied by regulators. Moving from the weakest to the strongest forms of separation are:

- **Functional separation** introduces enhanced organisational segregation of the incumbent's wholesale division to strengthen the equivalence of supply to both its own retail divisions and all its downstream customers to achieve EoI.

The wholesale and retail business remain within the vertically integrated single entity, though rules may be introduced requiring their separation, within the enterprise, and on measures to ensure access to information is controlled and compliance mechanisms

adopted. Functional separation reduces the ability to discriminate, but further steps are required to deal with the incentive.

- **Legal separation** builds on functional separation, requiring the incumbent to set up a legally distinct entity with an independent board to control the wholesale division. Board members may come, at least in part, from outside the incumbent and have a legal duty to ensure non-discrimination (and such a duty may be written into the constitutional documents of the legally separate entity). The board is still accountable to (and appointed by) the main board of the incumbent. This means the separated entity is likely to have to operate within financial and operational envelope set by the parent board. The incumbent remains the sole owner of the legally separate division.

Such a structure further strengthens control of the ability to discriminate and reduces but does not wholly eliminate the incentive on the incumbent group to do so.

- **Structural separation** is the strongest form of separation under which the wholesale division – with its own staff and assets – is not only legally separated but is separately owned from the rest of the incumbent. The board of the separated entity then reports directly to its owners and not to the main board for the incumbent. In this model both the ability and the incentive to discriminate are addressed.

### Does the evidence justify Eol, and which form of Eol is best?

There is good empirical evidence that separation based on equivalence of inputs for delivering wholesale products leads to stronger competition, higher levels of fixed broadband take-up and hence greater economic development. In Figure 2 below, broadband take-up (as a percentage of homes served) is plotted in the years following separation. Take-up is significantly higher in countries which have used Eol-based separation than those which have relied upon EoO.

These benefits are those that need to be weighed against the costs of achieving Eol, which can be expensive and disruptive to implement. A key question is whether the additional economic benefits of Eol-based separation outweigh the anticipated implementation costs. The bulk of the costs arise from moving the incumbent's retail services from an internal dedicated supply chain to the same systems and processes as those offered to competitors. These costs are common to all three separation forms. In summary:

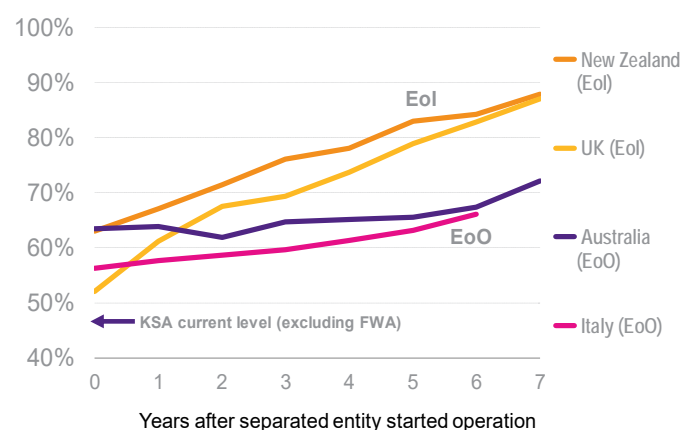
**Functional separation** with Eol reduces the ability to discriminate, but further steps are required to deal fully with incentives to discriminate.

**Legal separation** increases the likelihood of eliminating discrimination when compared with functional separation, by

using existing tools of company law and corporate governance to secure the regulatory objective (non-discrimination). The incremental costs largely depend on the ease with which legal separation of, for example, key legacy assets can be achieved.

**Structural separation** maximises the chance of eliminating discrimination. Not only does it make discrimination easier to detect, but it also minimises the incentives for the separated entity to discriminate in favour of the incumbent retail business because it is separately owned.

Figure 2: Broadband take-up following separation



### Where should the separation boundary lie?

The choice of separation boundary is important. Should the separated entity consist only of the final mile of the fixed access network; should it include backhaul to the core network as well; or should separation be between the retail and network businesses of the vertically integrated incumbent? There are strong empirical and theoretical arguments in favour of the second of these three options:

- Putting final mile access and middle mile backhaul into the separated entity is the solution chosen in almost all of the jurisdictions where separation has been implemented to date.
- Such a separation means that the separated entity contains non-replicable assets but not replicable assets. This enables infrastructure-based competition in the supply of fixed broadband to be maximised.

A number of operators have either chosen to voluntarily separate on a net-co / op-co basis or have been formed afresh as non-vertically integrated, neutral, wholesale-only, fixed-network access providers. In either case, where the separated wholesaler includes replicable assets – such as national core network – this is likely to invite specific regulation to ensure there is no undue bundling of replicable and non-replicable assets.

## How should separation be implemented?

The process for implementing a successful and effective separation might consist of the following steps:

1. The regulator consults with the telecommunications industry and other interested stakeholders on the case for separation and the principles on which it should be based.
2. If it decides to proceed with separation, the regulator then actively engages with the vertically integrated incumbent to develop an implementation plan for the separation.
3. The regulator and the incumbent discuss and agree on the key separation issues using the separation principles which emerge from the consultation (see below).
4. The regulator consults with access seekers on the technical details of the provisional plan such as the development of the separated entity's systems and procedures for equivalence of inputs. Access seekers will need to develop interfaces to these systems and procedures.
5. The incumbent develops a detailed implementation plan for modification and approval by the regulator.
6. The final implementation plan is then translated into legally binding commitments by the incumbent.

### Key separation issues:

- > The separation boundary.
- > The set of services offered by the separate entity.
- > Ownership of the assets involved.
- > Arrangements for the provision of legacy services like voice provided over the PSTN.
- > Accounting and reporting requirements.
- > EoI requirements.
- > Governance and staffing arrangements.
- > The future regulation of the separated entity.
- > The timetable for the implementation of separation.
- > The reporting arrangements for monitoring progress on implementation of the plan.

The incumbent may well start out by resisting this process – arguing that its profits and share price will be harmed by separation. Yet this is not the experience of most of the incumbents which have been separated – in New Zealand, Singapore and the UK, the incumbent's profits and share price did not fall in the years following separation

## Plum's capability

Plum has assembled a project team which has worked on separation projects in Mexico, New Zealand, the UK and, most recently, Saudi Arabia. The team has developed answers to the key separation questions for clients including regulators, the vertically integrated incumbent and access seekers. It has also developed case studies on why and how separation has been implemented in other countries such as Australia and Singapore.

### Grant Forsyth, project director and Partner at Plum

Grant was at BT Global Services following BT's functional separation and led its international regulatory team seeking access across 170 countries. He was involved in the recent legal separation of BT in the UK and led the Plum team advising on separation in Mexico and Saudi Arabia.

### Sam Wood, Senior Consultant at Plum

Sam specialises in the economic analysis of the telecoms, technology and media sectors, and the practical application of economic theory to issues in these sectors.

### David Lewin, founding director and now Associate at Plum

David has worked on separation projects for the regulators in Mexico and Saudi Arabia, and for incumbent operators in the UK, Mexico and Bahrain.

### Peter McCarthy-Ward, Associate at Plum

Peter was BT's project Director for the development and implementation of BT's 2005 separation. He has since worked on separation projects, and the development of wholesale businesses, in Australia, Costa Rica and Botswana and as part of the Plum team in Mexico and Saudi Arabia.

### David Stewart, Partner at Towerhouse LLP (working in association with Plum)

A specialist telecoms regulatory lawyer, David has been involved in functional, legal and structural separation projects in corporate life and in private practice. He spent 8 years in senior roles at Ofcom and has been a key adviser in separation processes in the UK, and in markets in central America, the Asia-Pacific region and the Middle East.

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